



Report

# BASELINE STUDY



Rural Empowerment  
& Institutional Development

Submitted to  
Project Management Unit (PMU) Khyber Pakhtunkhwa  
Rural Economic Transformation Project (KP-RETP)  
Prepared by REPID

[www.repid.org.pk](http://www.repid.org.pk)







## KEY MESSAGE

I am pleased to share with you the key findings of the Baseline Survey conducted under the Khyber Pakhtunkhwa Rural Economic Transformation Project (KP-RETP), a flagship initiative funded by IFAD. This baseline study provides critical insights into the challenges and opportunities affecting rural communities across KP and serves as a foundation for our future interventions.



The study highlights significant gender disparities, with limited access to education, decision-making, and labor market participation for women. It also reveals low awareness of development programs (54%), accessibility barriers to essential services (56.33%), and transportation as a major constraint (59.47%). Agriculture remains the dominant livelihood, yet 84.6% of households cite inadequate income opportunities, while 50.2% lack market awareness. The low adoption of climate-resilient farming techniques (62.2%) further exacerbates vulnerabilities to droughts and floods.

Key governance challenges include limited community participation (74.3%), poor institutional support (95.3% never attended capacity-building sessions), and exclusion from decision-making (81%). Additionally, food insecurity remains critical, with 51.6% consuming only two meals per day, and Chitral reporting the lowest dietary diversity. Despite 94.5% being unaware of food security programs, nutrition-sensitive value chains present an opportunity for intervention.

To address these issues, KP-RETP will focus on strengthening market linkages, promoting Public-Private-Producers Partnerships (4Ps), enhancing vocational skills, and integrating climate adaptation strategies. Policy reforms in market infrastructure, governance participation, and institutional coordination are essential to bridging agricultural resilience gaps and ensuring inclusive development.

We look forward to working closely with all relevant stakeholders to design or realign programmatic interventions based on these findings and drive transformative change in rural KP.

**Amjad Meraj**

**Project Director**

Khyber Pakhtunkhwa Rural Economic Transformation Project (KP-RETP)





## Executive Summary

This report presents the key findings and actions undertaken during the situational analysis survey for the Khyber Pakhtunkhwa Rural Economic Transformation Project (KP-RETP), a flagship initiative funded by the International Fund for Agricultural Development (IFAD). The KP-RETP seeks to address the core drivers of rural poverty and food insecurity across all districts of Khyber Pakhtunkhwa (KP). The project aims to contribute to poverty reduction, food and nutrition security, and resilience-building among rural households by promoting climate-resilient, high-value agriculture and diversified off-farm and non-farm employment opportunities. Designed to benefit approximately 785,000 households—especially youth, women, and marginalized groups—the project is set to run until 2029.

As part of this survey, GPS coordinates were meticulously recorded for each questionnaire, ensuring precise data collection and analysis. A major finding from the study highlights a significant gender gap across all intervention areas and sectors, primarily driven by limited access to education for women, restricted participation in decision-making, and minimal involvement in the labor market. The gender-wise variance and measuring minimum dietary diversity for women across regions and intervention areas was analyzed using SPSS (ANOVA), and CHI SQUARE analysis providing a deeper understanding of these disparities. The study highlights critical challenges and opportunities in community awareness, agribusiness, governance, food security and nutritional deficiencies in women of reproductive age across five targeted regions. Findings indicate that 54% of respondents are unaware of development programs, with gender disparities particularly evident in health (80.85% male vs. 19.15% female) and education (81.82% male vs. 18.18% female). While community meetings serve as the primary information source for 29.6% of respondents, only 30% believe information is effectively disseminated. Accessibility barriers persist, with 56.33% reporting that household members lacked service access in the past year, and 59.47% citing transportation as a primary obstacle.

Agriculture remains the dominant livelihood, with 51.7% relying on it as their main income source. However, 84.6% cite insufficient income opportunities, and 50.2% report a lack of market awareness as a major barrier. Professional Farmer Organizations (PFOs) struggle with sustainability due to financial constraints, low institutional support, and middlemen exploiting market prices. Strengthening Public-Private-Producers Partnerships (4Ps) is crucial for improving market linkages, but lack of trust (72.3%) and sustainability issues hinder effectiveness. Additionally, 62.2% of farmers do not use climate-resilient techniques, exacerbating vulnerabilities to drought (28%) and floods (10%).

Governance structures remain inaccessible to the majority, with 81% of respondents unaware of local decision-making processes, and 74.3% excluded from participation. Gender disparities persist, with male voices dominating community discussions (67.26%). Institutional support services remain underutilized, with 95.3% never attending capacity-building sessions and 86.53% unaware of collaborations with private sector actors.

Food security and nutrition remains a significant concern. Significant disparities exist in the consumption of nutrient-dense foods such as legumes, nuts, dairy, and leafy vegetables, particularly in Central, Southern, and Chitral regions. These areas face deficiencies in essential proteins, healthy fats, and micronutrients like Vitamin A and iron. 94.5% of the respondents are unaware of food security programs, nutrition-sensitive value chains present an opportunity for intervention. Strengthening skills development through vocational training and agribusiness incubation centers can enhance employment prospects, particularly in tailoring (29%) and digital skills (26%). Policy reforms must prioritize market infrastructure, institutional coordination, and inclusive capacity-building to bridge gaps in agricultural resilience, governance participation, and food security.

The baseline assessment reveals that 62.2% of farmers do not use climate-resilient farming techniques, and 53.3% lack awareness of climate risk management, with men (71.05%) being the majority among non-adopters. Limited access to climate-resilient services (68%) and risk management information (65%) remains a major challenge, alongside financial constraints (46%). Crop rotation (23.53%) is the most widely used adaptation method, while irrigation and flood protection measures are heavily concentrated in the Central region. Institutional support is severely lacking, as 81% of respondents receive no assistance, and 75.6% have never received training on climate change adaptation. Additionally, 88.5% are not part of farmer organizations, missing crucial benefits, while 68.1% struggle to access climate adaptation information, highlighting the urgent need for policy interventions.

## List of Abbreviations

<b>Acronym</b>	<b>Full Form</b>
<b>CBOs</b>	Community-Based Organizations
<b>IEC</b>	Information, Education, and Communication Material
<b>IFAD</b>	International Fund for Agricultural Development
<b>KP</b>	Khyber Pakhtunkhwa
<b>NGOs</b>	Non-Governmental Organizations
<b>RETP</b>	Rural Economic Transformation Project
<b>SPSS</b>	Statistical Package for Social Sciences
<b>SBCC</b>	Social Behavior Change Communication Strategy
<b>UCs</b>	Union Councils
<b>VCs</b>	Village Councils
<b>PFO</b>	Professional Farmer Organization
<b>GPS</b>	Global Positioning System
<b>4Ps</b>	Public Private Producer Partnership
<b>HH</b>	Household
<b>KII</b>	Key Informant Interviews
<b>REOI</b>	Request for Expression of Interest
<b>FSCs</b>	Farm Services Companies
<b>SME</b>	Small & Medium Enterprises
<b>CC</b>	Climate Change
<b>CCA</b>	Climate Change Adaptation
<b>FSC</b>	Food Supply Chain
<b>CSA</b>	Climate Smart Agriculture
<b>Std.</b>	Standard
<b>ER</b>	Emergency Relief
<b>DRR</b>	Disaster Risk Reduction



## Table of contents

<b>KEY MESSAGE</b>	i
<b>Executive Summary</b>	ii
<b>List of Abbreviations</b>	iv
<b>Background</b>	1
<b>Introduction</b>	2
Objectives of the Baseline Survey:	5
Scope	5
Design of the study	5
Sampling technique	6
Data analysis	6
<b>Section 1: Demographic detail</b>	6
1.1 Gender of the respondents	6
1.2 Educational status of the respondents	7
1.2.1 Gender wise education of the Central region	9
1.2.2 Gender wise education of the Chitral region	10
1.2.3 Gender wise education of the Eastern region	11
1.2.4 Gender wise education of the Northern region	12
1.2.5 Gender wise education of the southern region	13
<b>Section 2: Outreach Services (awareness, communication, utilization, barriers to access)</b>	14
ANOVA	23
ANOVA	33
ANOVA	36
ANOVA	39
ANOVA	42
<b>Section 3: Poverty Reduction and Income Improvement</b>	54
Results of ANOVA	55
ANOVA results	67
3.4.1 ANOVA results	69
ANOVA results	71
ANOVA result	83
<b>Section 4: Community Participation and Governance</b>	86
ANOVA results	105
ANOVA results	108
<b>Section 5: Food Security and Nutrition:</b>	111
<b>Table 1:</b> Proportion of WRA meeting the MDW requirements	114
<b>Table 2:</b> Proportion of WRA by food groups represented in diet	116

ANOVA results.....	128
<b>Section 6: Public-Private Producer Partnership:</b> .....	129
ANOVA results.....	130
<b>Section 7: Climate Change &amp; Environment:</b> .....	158
<b>Major Findings</b> .....	226
<b>Conclusion</b> .....	230
<b>Recommendations</b> .....	231
<b>Annexures</b> .....	234
Annexure A- REOI-for-BaselineStudies.....	234
Annexure B- RETP Logical Framework.....	237
Annexure C- Inception report of baseline study.....	239
Annexure D-Field HH Questionnaires.....	266
Annexure E- Key Informant Interview (KIIs) Questionnaire.....	277

## Background

This report outlines the baseline study framework for the Khyber Pakhtunkhwa – Rural Economic Transformation Project (KP-RETP), detailing its key objectives, scope, and expected deliverables. It further elaborates on the data collection methodology, including sampling techniques used to gather and analyze data from approximately 1,500 households within the project area. The consulting firm will be instrumental in assessing the project's impact and ensuring its alignment with the broader objectives of poverty alleviation and rural economic development in Khyber Pakhtunkhwa.

### Project Overview:

The Islamic Republic of Pakistan has secured financial assistance from the International Fund for Agricultural Development (IFAD) to implement KP-RETP, a transformative initiative designed to address the root causes of rural poverty and food insecurity across Khyber Pakhtunkhwa.

### Project Goal and Development Objective:

The KP-RETP aims to contribute to poverty reduction, food security, and resilience-building among rural communities. The project's core development objective is to enhance rural household incomes through climate-resilient, high-value agriculture and the promotion of off-farm and non-farm employment opportunities. The project is scheduled to run until 2029.

### Project Area and Target Group:

The KP-RETP will be implemented across all districts of Khyber Pakhtunkhwa, directly benefiting approximately 785,000 households. The initiative primarily targets:

- Smallholder farmers
- Households within the Benazir Income Support Program (BISP) - Poverty Score Card (PSC) category 0-34
- Food-insecure households
- Women and youth in rural communities

### Project Components

#### 1 Agribusiness Development

- Establishment of Professional Farmer Organizations (PFOs)
- Development of Public-Private-Producers Partnerships (4Ps)
- Promotion of Farm Service Companies
- Strengthening of institutional services to support agribusiness growth

#### 2 Skills and Employment Promotion

- Capacity building and skills training for agribusiness and self-employment
- Support for start-ups through seed capital and mentorship
- Public-private internship programs for young graduates
- Collaboration with KP Technical Education and Vocational Training Authority (KP-TEVTA) to enhance skills training

#### 3 Project Management and Policy Support

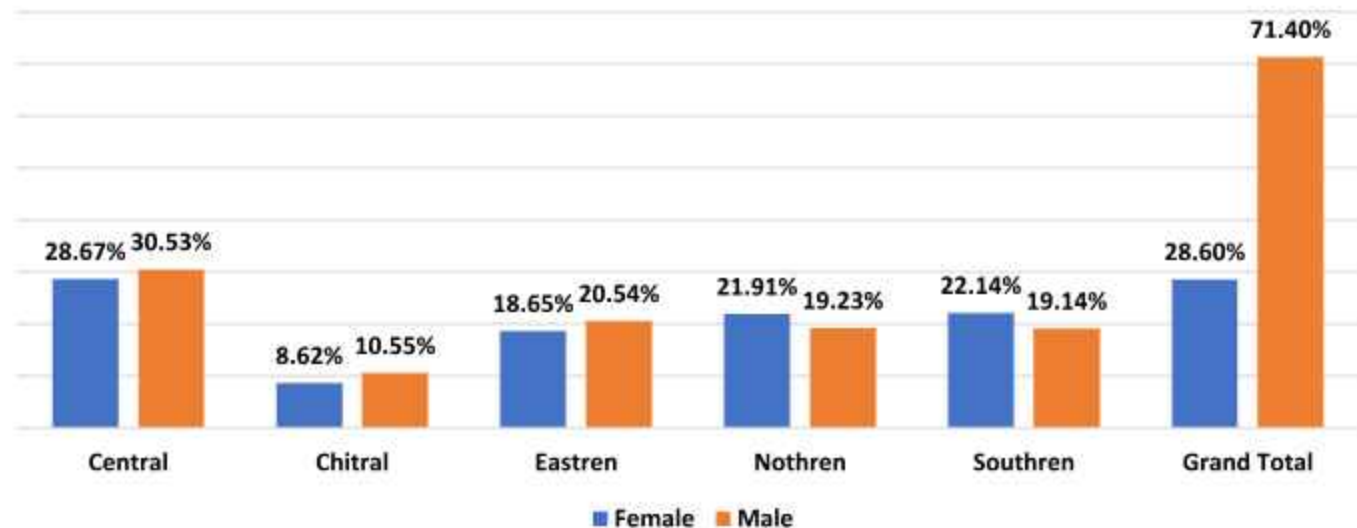
- Establishment of a Project Management Unit (PMU) to oversee implementation and coordination
- Policy supports to strengthen institutional frameworks
- Technical assistance and capacity building to improve governance and project execution



## Introduction

As per the ToR (copy attached as annexure A), and Inception report (copy attached as Annexure C), the survey was conducted across the five regions of Khyber Pakhtunkhwa: Central, Chitral, Southern, Northern, and Eastern. The Central Region (Charsadda, Khyber, Mardan, Mohmand, Nowshera, Peshawar, Swabi), Chitral Region (Lower Chitral, Upper Chitral), Eastern Region (Abbottabad, Battagram, Haripur, Lower Kohistan, Kolai Pallas, Mansehra, Torghar, Upper Kohistan), Northern Region (Bajaur, Lower Dir, Upper Dir, Shangla, Swat), and Southern Region (D.I. Khan, Hangu, Karak, Kohat, Kurram, North Waziristan, Orakzai, South Waziristan) each had designated districts where data was collected. The field survey commenced on February 25, 2025, and concluded on March 10, 2025, covering all five regions. To ensure accuracy and authenticity, proper GPS coordinates were recorded for each surveyed location.

### Region-wise representation of the gender



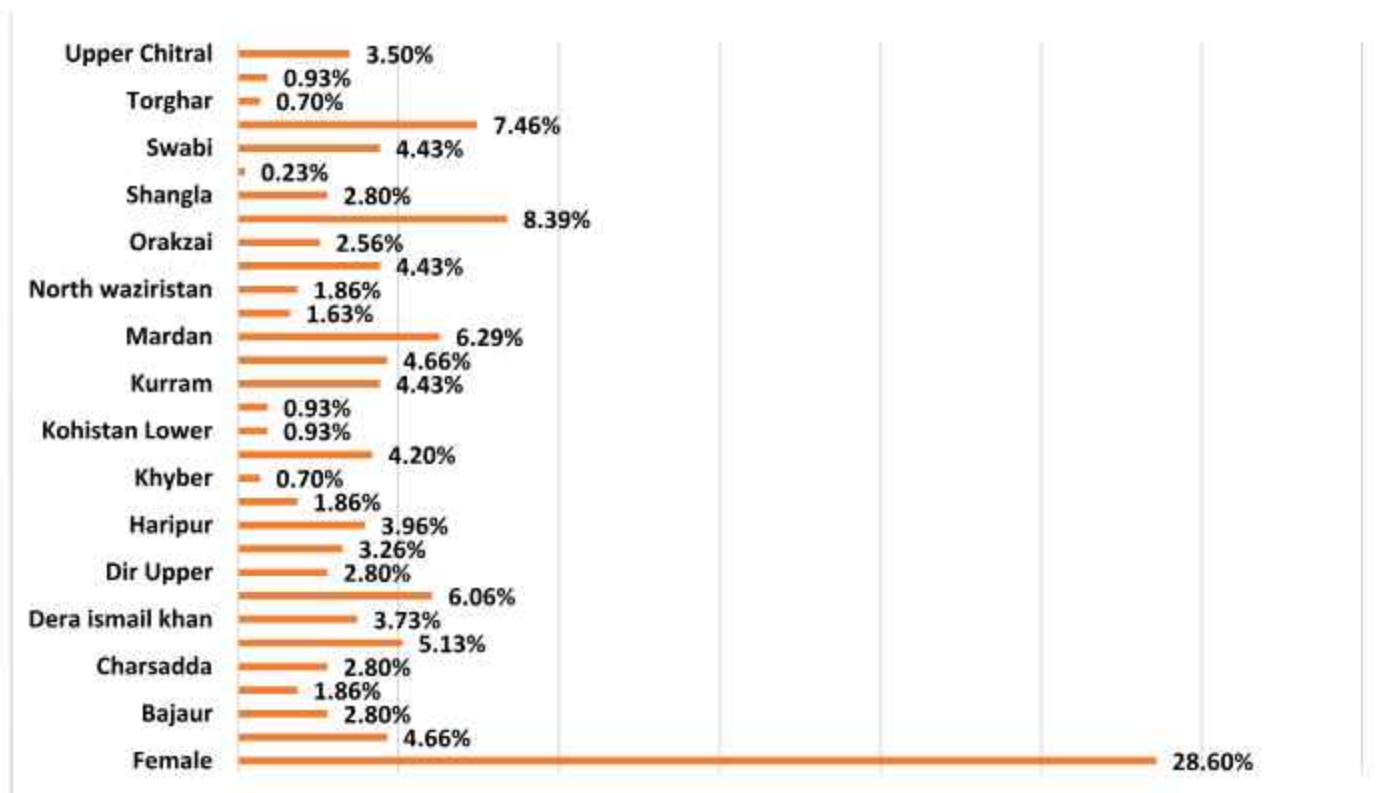
The data presents a clear picture of gender representation across different regions. Overall, males constitute 71.40% of the total representation, while females account for only 28.60%, highlighting a significant gender disparity. The baseline data analysis will provide a road map for addressing significant gender disparity, need for targeted interventions, potential focus and cultural/structural barriers.

Among the regions, the Central area exhibits the most balanced gender distribution, with males at 30.53% and females close behind at 28.67%. This suggests that Central is the closest to achieving gender parity. In contrast, Chitral has the lowest representation for both genders, with males at 10.55% and females at 8.62%, indicating that this region may have unique challenges impacting overall participation. The Eastern region follows a similar pattern, where male representation (20.54%) surpasses female representation (18.65%), though the gap remains relatively small. A slightly different trend appears in the Northern region, where female representation (21.91%) is higher than in many other regions but still remains below the male share (19.23%). Meanwhile, in the Southern region, the figures are more balanced, with females at 22.14% and males at 19.14%. This is the only region where female representation slightly surpasses that of males, though the difference is minimal.

In summary, while the Central region approaches gender balance, and the Southern region sees a slight female lead, overall gender representation remains skewed in favor of males. Chitral,



in particular, stands out for its low overall representation, indicating potential structural or cultural factors affecting participation.



### Women's Representation Across Districts

With women making up only 28.60% of the total representation, a significant gender imbalance is evident across districts. However, a deeper look into the numbers reveals a diverse and complex reality, where some regions are making strides toward inclusivity, while others continue to struggle with deeply rooted barriers.

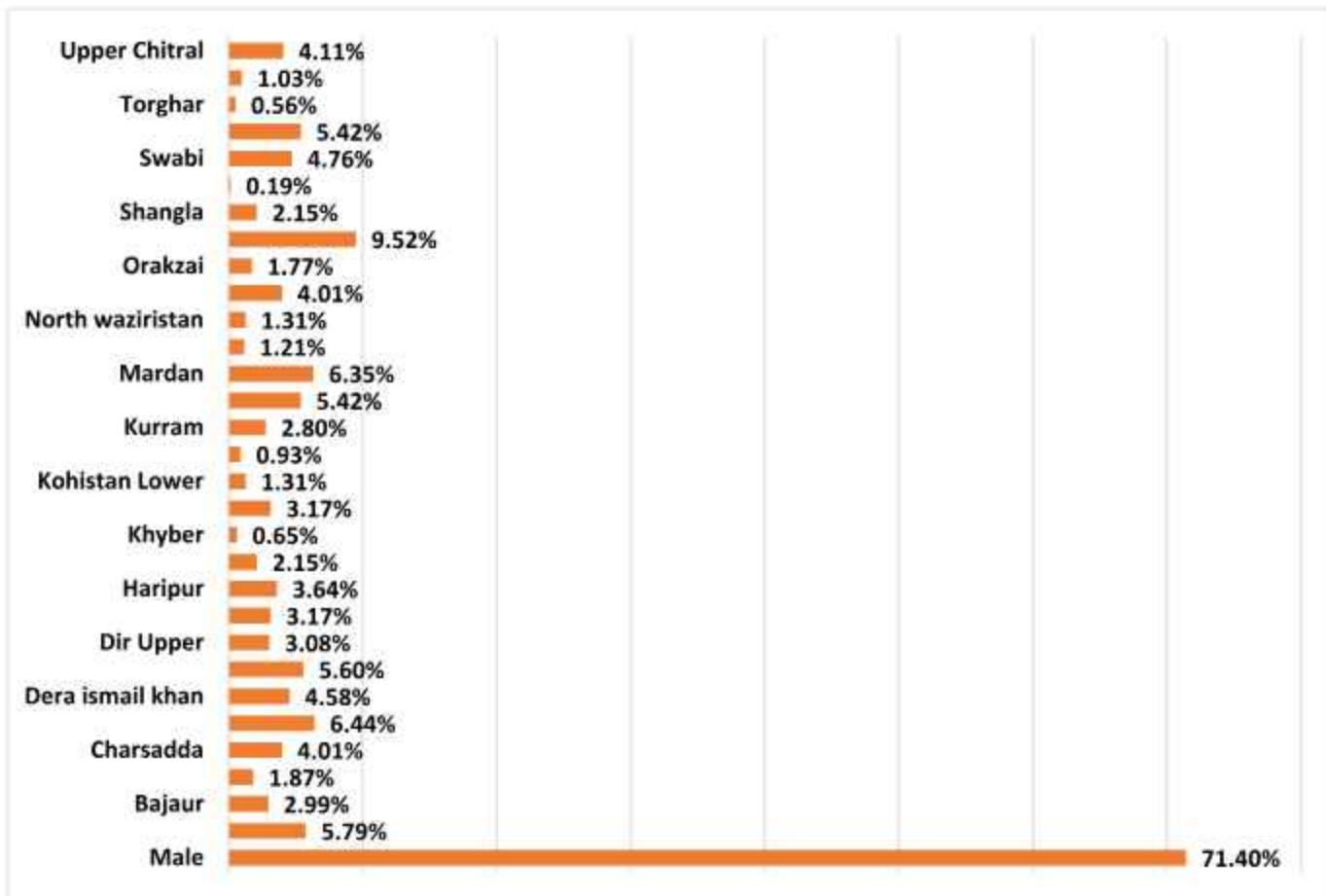
In Peshawar, Swat, and Mardan, women have managed to carve out a stronger presence. Peshawar, leading with 8.39% female representation, stands as a beacon of progress, likely driven by better educational facilities, employment opportunities, and evolving social norms. Close behind, Swat (7.46%) and Mardan (6.29%) showcase a growing space for women in public and professional life. Similarly, Dir Lower (6.06%) and Chitral Lower (5.13%) also present promising numbers, hinting at changing attitudes and increased support for female education and participation in these semi-urban areas.

A cluster of districts, including Abbottabad, Mansehra, Swabi, Kurram, and Nowshera, exhibit moderate levels of female representation, hovering around 4.43% to 4.66%. These areas seem to be on the path toward greater gender inclusivity, though progress is slow and uneven.

Other districts like Haripur (3.96%), Dera Ismail Khan (3.73%), and Upper Chitral (3.50%) maintain a similar trend, suggesting that while women are present, they are far from achieving parity with men.

In stark contrast, several districts paint a grim picture of gender representation. South Waziristan Upper (0.23%) stands out as the district with the lowest female participation—an indication of severe socio-cultural restrictions, security challenges, and lack of access to education.

Similarly, Khyber and Torghar (0.70%), Kohistan Lower and Kolai Pallas (0.93%), and Mohmand (1.63%) are also among the lowest, highlighting deep-rooted patriarchal structures and infrastructural deficiencies that continue to limit women's participation.



In analyzing male representation across various districts, a clear gender imbalance emerges, with males constituting 71.40% of the total population. This disparity is particularly evident in certain regions where male representation is significantly higher compared to others.

Among all districts, Peshawar stands out with the highest male representation at 9.52%. This suggests a strong concentration of males, likely due to better economic opportunities, urbanization, and educational facilities. Following closely are Chitral Lower (6.44%), Mardan (6.35%), and Abbottabad (5.79%), all of which exhibit relatively high male participation. Similarly, Dir Lower (5.60%) and Swat (5.42%) also show a significant male presence, making them some of the key regions with higher male representation.

In the mid-range category, districts such as Charsadda (4.01%), Dera Ismail Khan (4.58%), Dir Upper (3.08%), Kohat (3.17%), and Haripur (3.64%) maintain a balanced male presence. These areas neither exhibit extreme male dominance nor fall into the lowest representation brackets. Likewise, Upper Chitral (4.11%), Swabi (4.76%), and Mansehra (5.42%) contribute to a more evenly distributed male population. This moderate representation indicates a relatively balanced gender presence, suggesting a mix of social and economic factors at play.

On the other end of the spectrum, some districts exhibit significantly lower male representation. Khyber (0.65%), Torghar (0.56%), and South Waziristan Upper (0.19%) record some of the lowest male participation rates. Additionally, Kolai Pallas (0.93%), Mohmand (1.21%), Upper Kohistan (1.03%), and North Waziristan (1.31%) also fall within this category, reflecting a striking contrast to the more male-dominated regions. The lower male representation in these areas could be attributed to socio-economic challenges, migration patterns, or cultural influences limiting male engagement in certain sectors.



### Objectives of the Baseline Survey:

1. **Assess Awareness and Knowledge** – Evaluate the current level of community's awareness of public-private producers partnerships (4Ps), government programs, and climate change impacts on agriculture.
2. **Identify Agricultural and Livelihood Needs** – Determine key agricultural challenges, household income sources, and the need for government support in enhancing food security and nutrition.
3. **Analyze Climate Resilience Practices** – Examine existing climate-resilient farming techniques, barriers to adoption, and access to climate risk management strategies.
4. **Evaluate Institutional Support and Community Engagement** – Assess the availability and effectiveness of institutional support, farmer group participation, and access to government-led capacity-building initiatives.

### Scope

The baseline survey aims to collect community based information in the light of project log frame (LF) and to assess community awareness, gaps in key areas such as farmer organizations (FOs), public-private producer partnerships (4Ps), government programs on agriculture, and climate resilience. It identifies the existing knowledge and practices related to agribusiness, nutrition sensitive agriculture, climate change and its impact on agriculture. The survey evaluates access to institutional support, farmer group participation in agribusiness, and climate risk management systems. It also explores barriers in improving agribusiness practices and adopting climate-resilient, nutrition sensitive farming techniques. Additionally, it provides insights into the need for government interventions in agriculture to enhance food security and household income. The findings will guide future program planning and targeted interventions. This survey serves as a foundation for measuring progress and impact over time.

The Baseline Survey was a critical component of the project, requiring meticulous planning in both field and operational contexts. Following approval from the Rapid team, 64 surveyors (one male and one female per district) were recruited and trained. The selected candidates underwent a rigorous shortlisting process, including interviews, after which they were formally contracted and briefed on their roles and responsibilities.

A comprehensive four-day online training session was conducted for all surveyors, covering the survey manual, questionnaire, and script in detail. The training emphasized clear explanations and practical understanding to ensure consistency in data collection. Following the training, a pilot test was conducted to assess preparedness, and mentors were assigned to provide field support, addressing any challenges surveyors might encounter during the exercise.

The **Kobo Toolbox** played a vital role in ensuring data accuracy and integrity. This upgraded tool facilitated GPS location-based validation, maintaining an error rate of less than 3%, thereby enhancing the reliability of the collected data. The integration of this technology strengthened the survey's credibility and ensured high-quality, verifiable results.

This structured approach to training, mentorship, and technological support contributed to the successful implementation of the Baseline Survey, upholding the project's standards for precision and accountability.

### Design of the study

The survey utilized a mixed-methods approach, incorporating both quantitative and qualitative data collection techniques to ensure a comprehensive and well-rounded analysis. This approach



was essential for capturing diverse insights across a vast geographical area and addressing the complexities of multiple sectors. The use of quantitative methods allowed for statistical accuracy, trend identification, and objective measurement of key indicators, while qualitative methods provided deeper contextual understanding, capturing the experiences, perceptions, and challenges of local communities. The decision to employ a mixed-methods strategy was driven by the need to engage diverse stakeholders, ensure inclusive representation of various age groups and marginalized communities, and provide a holistic perspective that enhances the reliability and applicability of the findings.

#### Sampling technique

The survey sample was selected using a multi-stage sampling technique. In the first stage, districts were randomly selected, followed by the random selection of areas (UCs and VCs). In the second stage, respondents were purposively chosen, considering the baseline study's objectives. To ensure equal representation across regions and districts, a proportional allocation formula was applied. Given the socio-cultural sensitivities of the region, the gender ratio was set at 75% male and 25% female. Additionally, 50% of the surveyed respondents from both genders were youth, ensuring their perspectives were adequately represented.

#### Data analysis

Following data collection, rigorous data cleaning procedures were carried out to ensure accuracy and reliability. The quantitative data were then analyzed using Excel and **SPSS, with ANOVA tests applied** to assess variance across different regions, age groups, and gender. Further, for measurement of minimum dietary diversity for women (MDDW) of reproductive age, Chi square technique was used. This statistical analysis provided valuable insights into patterns and differences among various demographic segments.

To enhance the clarity and depth of the findings, the quantitative data were triangulated with qualitative data. This integration allowed for a more nuanced understanding of the survey results, uncovering contextual factors and underlying trends that may not be evident through numerical analysis alone. Based on the insights derived from both qualitative and quantitative data, localized and context-specific recommendations will be formulated to guide future interventions. This approach ensures that the proposed actions are tailored to the unique needs and realities of the surveyed regions.

## Section 1: Demographic detail

### 1.1 Gender of the respondents



The table shows the gender of the respondents in the surveyed population. Among the total (1500) surveyed population 71% of the respondents are male and 29% of the respondents are female.

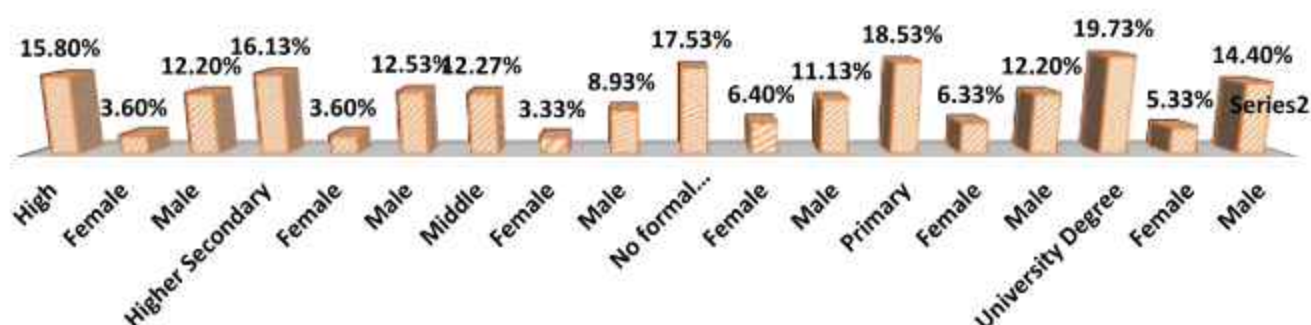
REPID recognizes that gender is not simply a binary distinction but a social construct that shapes roles, opportunities, and access to resources differently for men, women, and gender-diverse individuals. Our approach to baseline surveys is rooted in the belief that **gender-sensitive** data collection is essential for uncovering disparities, understanding diverse needs, and ensuring equitable program outcomes. By intentionally integrating gender perspectives—such as using localized examples, training mixed-gender survey teams, and disaggregating data—we ensure that our findings reflect the realities of all community members. REPID is committed to leveraging this data to inform inclusive, transformative interventions that address structural inequalities and promote sustainable development for everyone. The table below



shows age-wise and gender wise data of the five regions, each region has equal representation of the same gender and same age people.

The table clearly illustrates that across the five regions of KP, each region has the same proportional representation for different age and gender groups, including Youth Male (15-29), Youth Female (15-29), Male (30-45), Female (30-45), Male (46-60), and Female (46-60). This reflects an equal distribution of participants across age groups, ensuring fair representation. The data allocation was carried out using the proportional allocation method, which guarantees that each region is equitably represented in the analysis.

## 1.2 Educational status of the respondents



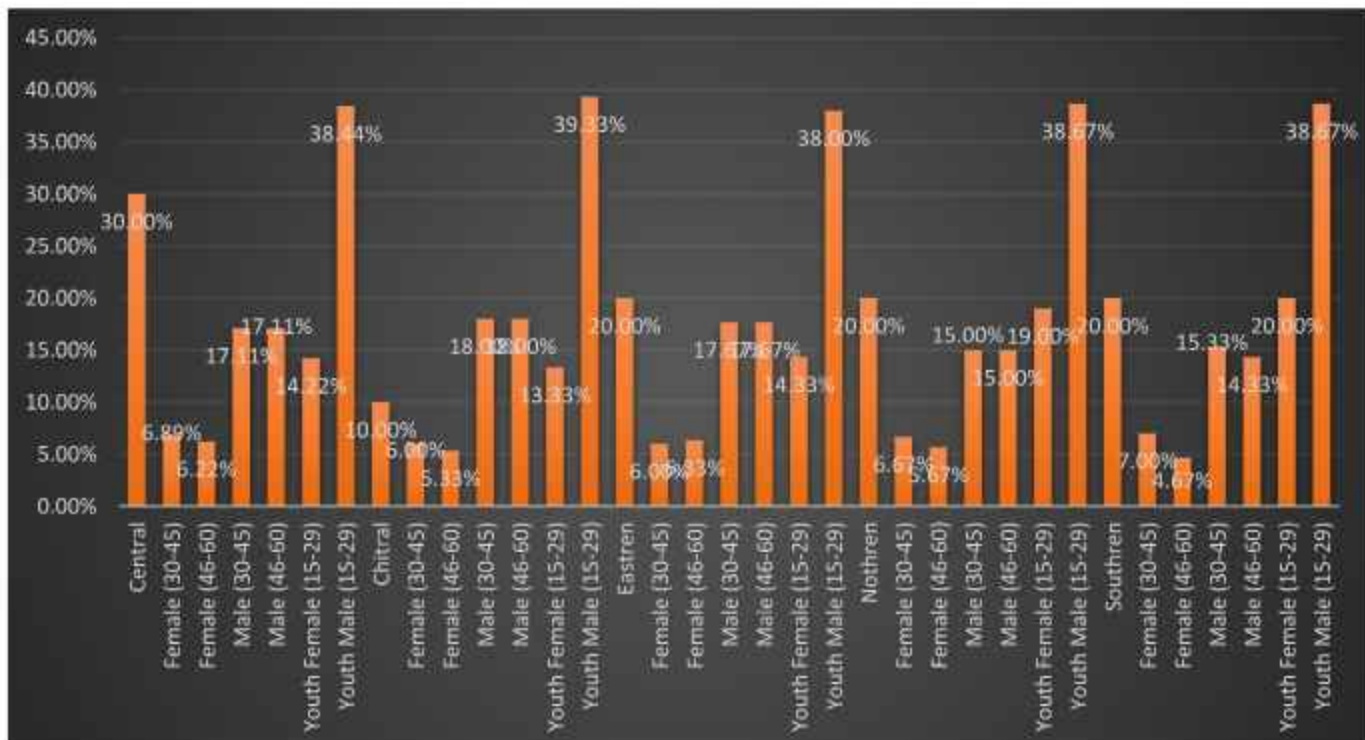
### (Gender wise)

The data provides a comprehensive insight into educational attainment across different levels, highlighting the gender representation at each stage, from no formal education to university degrees. A clear pattern emerges, showing disparities between male and female participation, with males consistently outnumbering females at all educational levels. One of the most striking observations is the significant gender gap in higher education. At both the High School and Higher Secondary levels, males constitute over 12%, whereas females account for only 3.60%. This suggests that fewer females progress to advanced studies, potentially due to socioeconomic barriers, cultural constraints, or lack of educational support.

Middle school education reflects the lowest participation rates, with 8.93% males and only 3.33% females, suggesting that many students either drop out or transition to vocational training at this stage. The lack of female participation at this level may indicate early dropout trends or limited access to secondary education for girls. A concerning finding is the high percentage of individuals with no formal education, standing at 17.53%. Within this group, 6.40% are females and 11.13% are males, emphasizing barriers to accessing education, particularly for females. These figures suggest a need for greater efforts in literacy programs, early childhood education, and retention strategies to ensure equal access to learning opportunities. Despite these disparities, primary education shows a strong participation rate of 18.53%, indicating that many children receive foundational education. However, the challenge lies in retaining students beyond this level, as the numbers begin to decline in later stages.

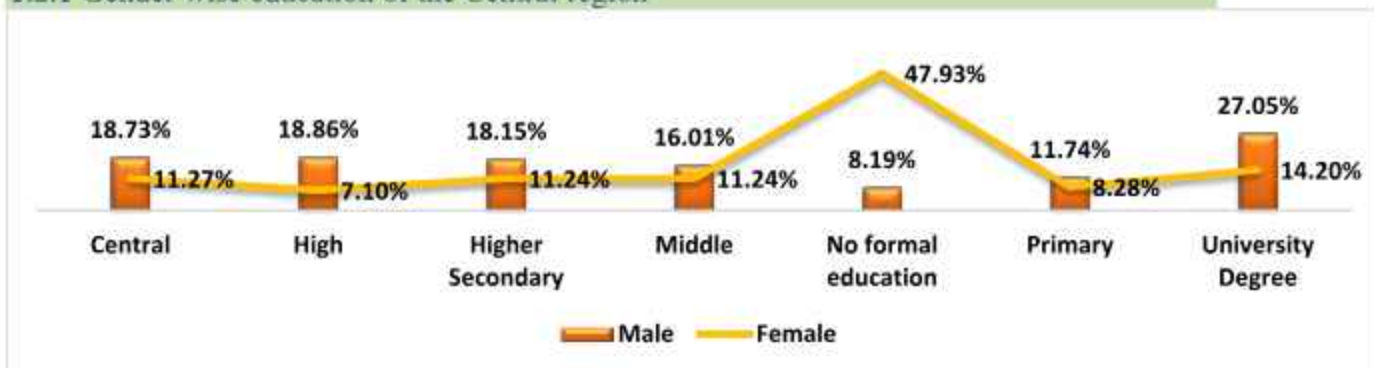
At the highest level of education, university degree participation reaches 19.73%, the highest among all categories. However, males (14.40%) still significantly outnumber females (5.33%), revealing a substantial gap in higher education completion. This indicates that while many individuals pursue university degrees, female participation remains disproportionately low, pointing toward the need for scholarships, awareness programs, and policy interventions to encourage female enrolment in higher education.

In conclusion, while educational opportunities exist, gender disparities remain a critical concern. The high proportion of individuals with no formal education, low female participation in secondary and higher education, and strong male dominance in advanced studies all underscore the need for targeted educational reforms. Addressing accessibility challenges, promoting gender equality in education, and ensuring better retention strategies can help bridge the gender gap and create a more inclusive educational landscape. The region-wise and gender wise education of the respondents is as under;





### 1.2.1 Gender wise education of the Central region



Education remains a critical determinant of social and economic progress, yet a significant gender disparity persists. The data reveal that males consistently achieve higher educational levels than females, highlighting structural and societal barriers that limit educational opportunities for women.

One of the most striking findings is the alarmingly high percentage of females with no formal education. Nearly half (47.93%) of females have never attended school, compared to only 8.19% of males. This stark contrast underscores the persistent challenges that hinder girls' access to education, including cultural norms, financial constraints, and the limited availability of educational infrastructure tailored to their needs.

As educational levels rise, the gender gap becomes even more evident. While 27.05% of males attain a university degree, only 14.20% of females reach this milestone. Despite the potential for academic success, many girls are unable to continue their education beyond a certain point, often due to societal expectations, early marriage, and a lack of career encouragement. The barriers preventing women from pursuing higher education contribute to the broader issue of gender inequality in professional and economic spheres.

At the middle and higher secondary levels, the gap between male and female enrollment, though still significant, is somewhat narrower. With 16.01% of males and 11.24% of females reaching middle school, and 18.15% of males compared to 11.24% of females completing higher secondary education, the data suggests that some girls are able to continue their studies. However, their ability to advance further remains limited by deeply ingrained social and economic factors.

Encouragingly, primary education shows a relatively smaller gender gap, with 11.74% of males and 8.28% of females receiving basic schooling. This suggests that efforts to improve early education enrollment for girls are having an impact. However, the real challenge lies in ensuring that these girls progress beyond primary education and do not drop out as they move to higher levels.

The data paints a clear picture of higher dropout rates among females as educational levels advance. Many young girls are forced to leave school due to early marriage, household responsibilities, financial struggles, or deeply rooted gender biases that prioritize boys' education over girls'. As a result, the cycle of limited opportunities continues, preventing women from achieving their full potential and contributing equally to society.

### 1.2.2 Gender wise education of the Chitral region



The educational landscape in Chitral reveals a notable gender disparity, with males generally attaining higher education levels compared to females. However, an interesting pattern emerges where females surpass males at the primary and university levels.

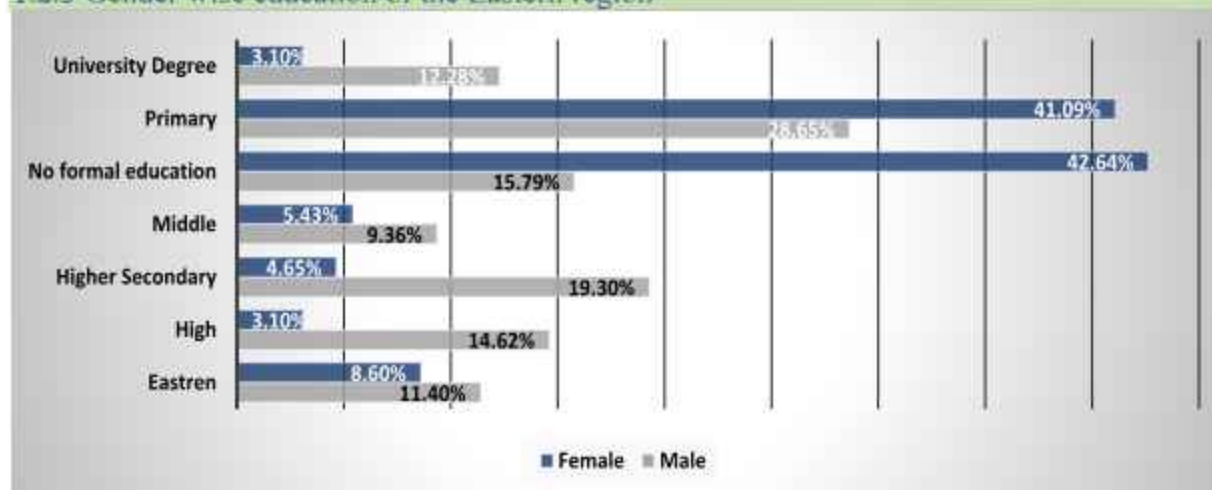
A significant proportion of males (27.43%) complete high school, whereas only 5.41% of females reach this stage, highlighting a substantial gender gap in secondary education. Similarly, at the higher secondary level, 20.35% of males progress, compared to just 10.81% of females. This trend suggests that many girls face challenges in continuing their education beyond the middle level, likely due to socio-cultural constraints, economic factors, or early marriage. Interestingly, at the middle school level, the gender gap is relatively smaller, with 15.04% of males and 16.22% of females attaining this level. This suggests that while many girls do receive some form of education, their academic journey often halts before secondary school.

The disparity becomes even more apparent when examining the proportion of individuals with no formal education. While 9.73% of males have never attended school, nearly double that percentage (18.92%) of females remain without formal education. This highlights a major barrier to access, possibly stemming from traditional gender roles, household responsibilities, or lack of educational facilities for girls.

However, an encouraging trend is observed at both the primary and university levels. More females (21.62%) than males (12.39%) receive primary education, indicating improved enrolment efforts and growing awareness about girls' education at an early stage. Moreover, at the university level, 27.03% of females attain degrees, compared to only 15.04% of males. This suggests that while fewer girls complete secondary education, those who do are more likely to pursue higher studies, possibly due to targeted scholarships, family support, or evolving societal attitudes toward women's higher education.



### 1.2.3 Gender wise education of the Eastern region

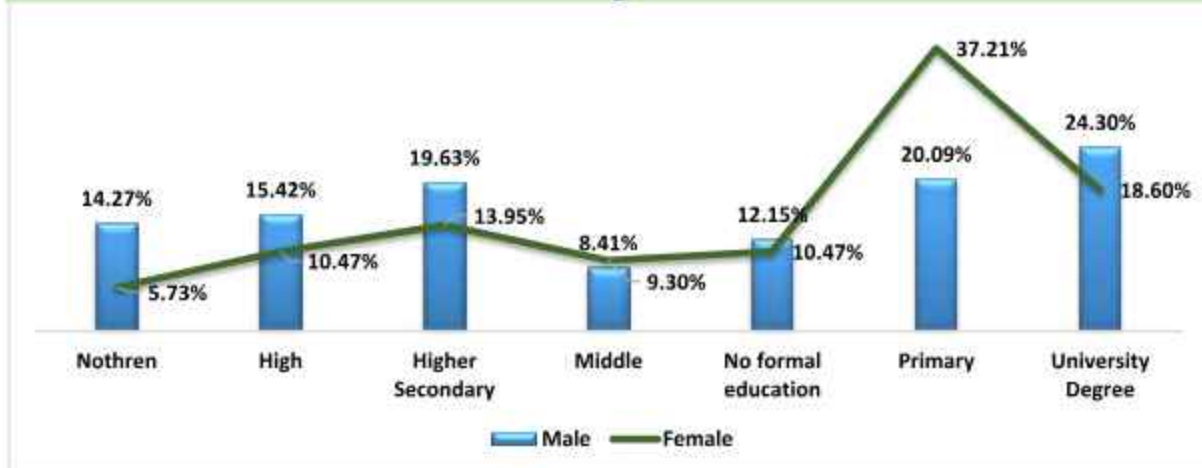


The educational landscape in the Eastern region exhibits a clear gender disparity, with males generally attaining higher levels of education compared to females. However, primary education shows a relatively smaller gap, suggesting some progress in early schooling for girls. A concerning aspect of the data is the high percentage of females (42.64%) with no formal education, compared to just 15.79% of males. This stark contrast highlights persistent barriers that limit girls' access to education, such as socio-cultural restrictions, financial constraints, and the lack of educational facilities for females.

At the high school level, only 3.10% of females complete their education, compared to 14.62% of males. Similarly, at the higher secondary level, 19.30% of males continue their studies, whereas only 4.65% of females reach this stage. These figures indicate that while a reasonable proportion of boys' progress beyond primary and middle school, most girls face challenges in advancing further. Contributing factors may include early marriage, household responsibilities, and societal expectations that prioritize boys' education over girls. In middle school education, the gender gap persists but is slightly less pronounced. With 9.36% of males and 5.43% of females completing this level, the data suggest that while some girls are able to continue their education beyond primary school, their progress remains significantly lower than that of their male counterparts.

Interestingly, primary education shows a smaller gender gap, with 28.65% of males and 41.09% of females receiving some level of schooling. This suggests that efforts to enroll girls in early education may be showing positive results. However, the challenge lies in ensuring their transition to higher levels of education. A particularly striking disparity is observed at the university level, where 12.28% of males attain degrees, compared to only 3.10% of females. This indicates that even among those girls who manage to continue their education, very few reach higher education, limiting their career prospects and economic independence. Overall, the data underscores the urgent need for targeted interventions to address gender disparities in education.

#### 1.2.4 Gender wise education of the Northern region



The educational trends in the Northern region indicate a relatively smaller gender disparity compared to other regions, particularly in higher education and literacy levels. However, notable differences remain in certain educational stages, reflecting ongoing challenges for female education. One of the most striking observations is the relatively low percentage of females (10.47%) with no formal education compared to males (12.15%). This is an unusual trend, as in many regions, the proportion of uneducated females is significantly higher. This suggests that efforts to provide basic education to girls may be more successful in the Northern region than elsewhere.

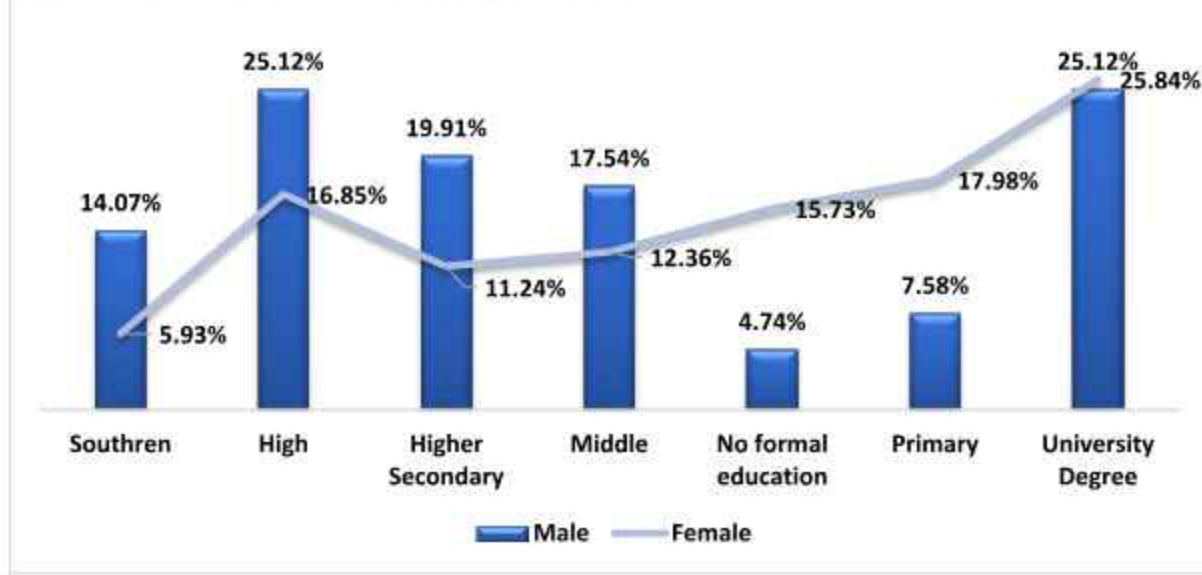
At the primary education level, a significantly higher proportion of females (37.21%) receive education compared to males (20.09%). This suggests that more girls are being enrolled in school at an early age, possibly due to targeted policies, awareness campaigns, or changing societal attitudes towards female education. However, the challenge lies in ensuring that they continue their education beyond the primary level. As students' progress to middle school, the gender gap narrows significantly, with 8.41% of males and 9.30% of females reaching this level. This indicates a positive trend where girls who begin their education are likely to continue at least until the middle level.

In secondary education, the gap remains, though it is not as pronounced as in other regions. At the high school level, 15.42% of males complete their education compared to 10.47% of females. Similarly, at the higher secondary level, 19.63% of males and 13.95% of females continue their studies. These figures suggest that while both genders experience a decline in participation as education levels increase, females are still more likely to drop out at this stage. Factors such as early marriage, household responsibilities, and financial constraints may contribute to this trend.

The most encouraging aspect of the data is the relatively high percentage of females (18.60%) attaining a university degree, compared to 24.30% of males. While a gap still exists, it is considerably smaller than in other regions, showing that a significant number of females who continue beyond secondary school are likely to complete higher education. This indicates improved opportunities for women in higher education and suggests that those who overcome initial barriers are increasingly able to pursue university degrees.



### 1.2.5 Gender wise education of the southern region



The education landscape in the Southern region presents an intriguing dynamic, reflecting both progress and persistent challenges in gender-based educational access. While disparities remain evident, an interesting trend emerges—females demonstrate significant representation in higher education, yet they face considerable barriers at the middle and secondary levels.

One of the most striking observations is the exceptionally low percentage of males with no formal education, standing at just 4.74%, one of the lowest across all regions. This suggests that educational access for boys is relatively widespread and well-supported. In contrast, 15.73% of females lack any formal education, highlighting the enduring impact of cultural norms, financial constraints, and inadequate educational facilities that hinder girls' access to learning opportunities.

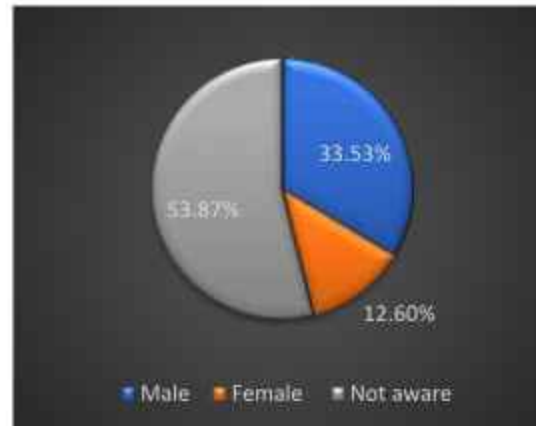
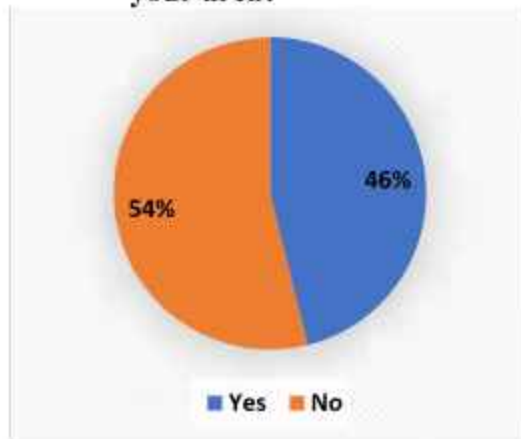
As students' progress through the educational system, the gender gap becomes more pronounced. Boys significantly outnumber girls at the secondary level, with 25.12% of males completing high school compared to 16.85% of females. Similarly, at the higher secondary level, 19.91% of males continue their education, whereas only 11.24% of females reach this stage. This sharp decline in female participation suggests that many girls drop out before completing their secondary education, likely due to socioeconomic pressures, early marriage, and domestic responsibilities.

At the middle and primary school levels, an interesting reversal occurs. While 17.98% of females complete primary education compared to only 7.58% of males, female participation drops again at the middle level, where 12.36% of girls continue compared to 17.54% of boys. This suggests that while early education initiatives for girls have been relatively successful, systemic barriers prevent many from continuing beyond the primary stage.

A particularly notable trend is seen in university education, where females slightly outnumber males—25.84% of women attain a university degree compared to 25.12% of men. This is a rare occurrence in many regions, where female university enrollment is typically lower. This finding suggests that while girls face considerable hurdles at the secondary level, those who manage to persist through these challenges often continue to pursue higher education. The increased representation of women at the university level could be attributed to factors such as growing awareness, scholarship opportunities, and family support for higher education once girls surpass the secondary stage.

## Section 2: Outreach - Services (awareness, communication, utilization, barriers to access).

### 1. Are you aware of any development programs or services currently available in your area?

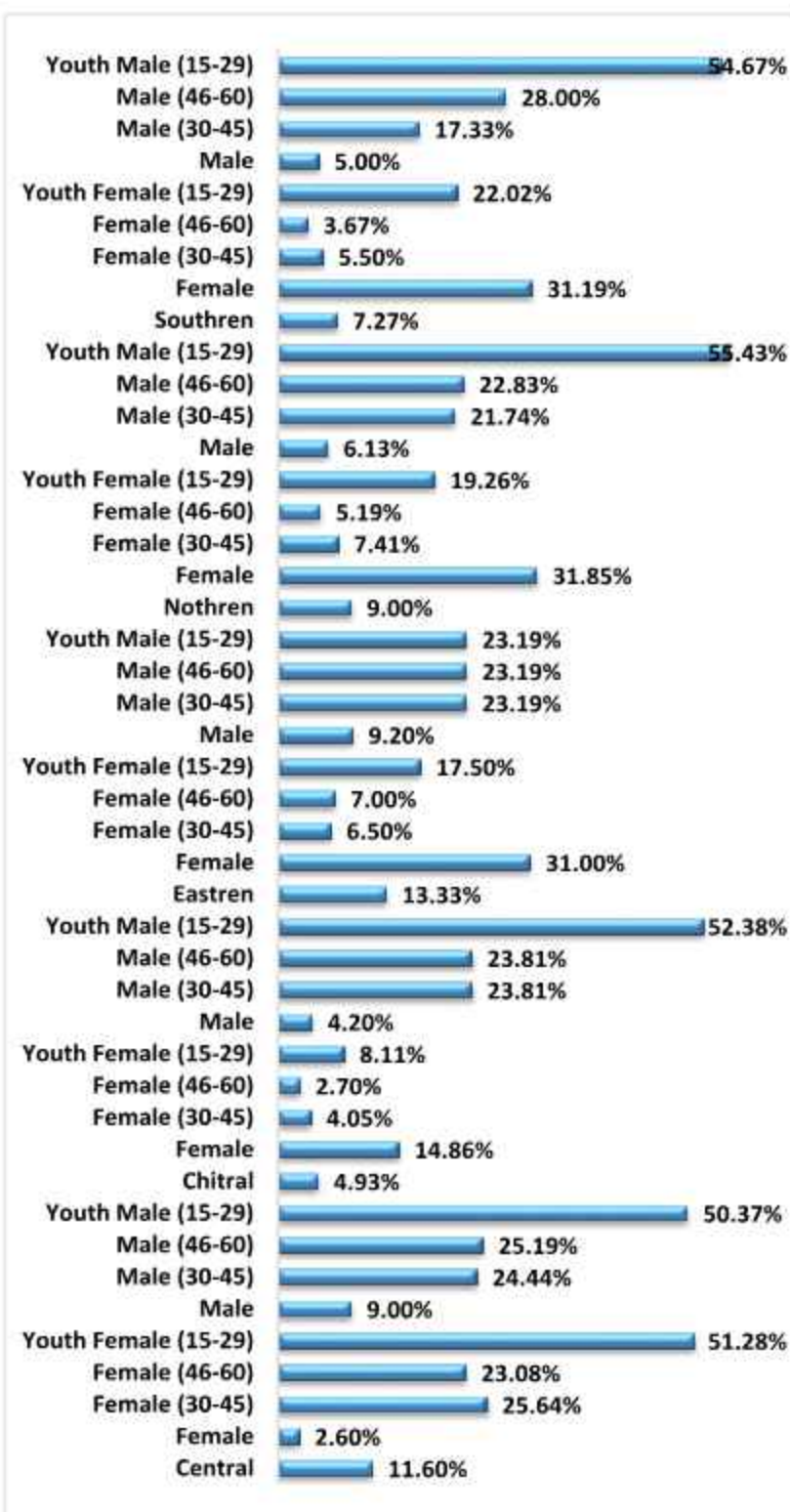


#### (Gender wise)

The data reveals that awareness of development programs is relatively low, with a majority of respondents (53.87%) stating they are unaware of any such initiatives. In contrast, only 46.13% reported having some level of awareness. When analyzing awareness by gender, a noticeable disparity emerges. Among those who are aware, 33.53% are male, while only 12.60% are female. This indicates that men are significantly more informed about development programs than women. The reason could be the socio culture of the KP and high illiteracy among females in the surveyed population. Additionally, the percentage of those unaware (53.87%) aligns with the total "No" responses, signifying that a substantial portion of both men and women lack knowledge about these initiatives. This trend underscores the need for enhanced outreach efforts, particularly targeting women, to bridge the awareness gap. A more inclusive approach—through community engagement, information dissemination, and gender-sensitive communication strategies—could help ensure that development programs reach and benefit a broader segment of the population.

Further, regarding awareness of the development program, gender wise, region-wise wise and age-wise are shown in the table below;





### Awareness Trends in Development Programs: A Regional and Gender-Based Analysis

Awareness of development programs varies across different regions and demographic groups, with some clear trends emerging from the data. One of the most striking patterns is the high level of awareness among youth (aged 15-29), both male and female, across all regions. This suggests that younger individuals are more engaged with development initiatives, likely due to better access to information and more active participation in community activities.

However, a consistent gender gap is evident, with male respondents generally exhibiting higher awareness levels compared to females in most regions. While young females show relatively higher awareness, this tends to decline with age. Older women, particularly those aged 46-60, appear to have the lowest awareness levels, highlighting a potential gap in outreach efforts that needs to be addressed.

### Regional Breakdown of Awareness

In the Central Region, awareness is relatively well-distributed, with youth being the most engaged. Young females (15-29) have the highest awareness level at 51.28%, closely followed by their male counterparts at 50.37%. Among older males, awareness remains

stable, with those aged 30-45 and 46-60 maintaining levels around 25%. However, female awareness declines with age, indicating that younger women are more receptive to information about development programs than older generations.

Chitral, on the other hand, shows the lowest overall awareness at just 4.93%. Here, the gender gap is particularly pronounced. While young males (15-29) demonstrate the highest awareness at 52.38%, awareness among young females is drastically lower at only 8.11%. The situation worsens for older women, with those aged 46-60 showing a mere 2.70% awareness. This highlights a significant challenge in engaging women in development programs in this region.

In the Eastern Region, female awareness is higher than in other regions, standing at 31%. However, youth awareness is unexpectedly lower here, with young females at 17.50% and young males at 23.19%. This differs from other regions, where youth awareness levels typically exceed 50%. Despite better female engagement overall, the lower youth awareness suggests a need for targeted efforts to improve outreach among younger age groups.

The Northern Region presents a similar trend to other areas, with youth males having the highest awareness at 55.43%. Female awareness is relatively strong at 31.85%, and young females show moderate engagement at 19.26%. However, awareness declines among older women, reinforcing the trend observed across regions. Male awareness follows the familiar pattern of peaking in youth and decreasing with age.

The Southern Region stands out with an unusual trend. Unlike other areas where youth males dominate awareness, this region sees the highest engagement among older males (46-60) at 28%. Still, youth males remain significantly aware at 54.67%. Female awareness remains within the usual range at 31.19%, but older women exhibit much lower awareness levels. The higher engagement of older men in this region suggests a different pattern of community involvement compared to other regions.

### **Key Insights**

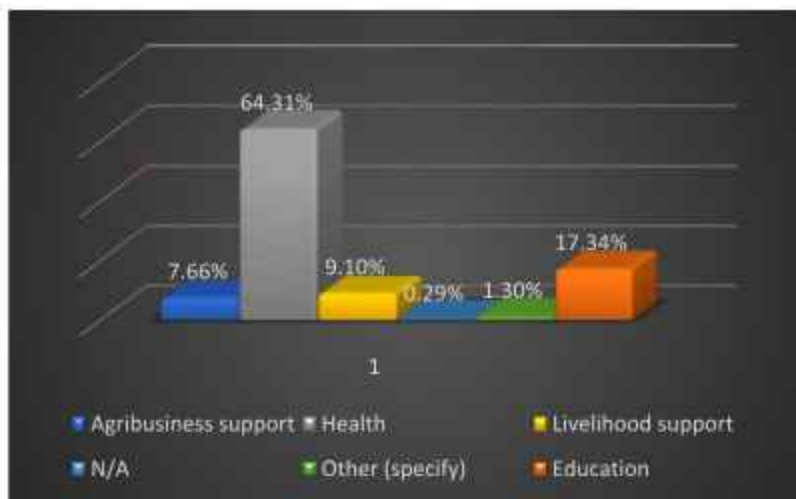
Across all regions, young males (15-29) consistently demonstrate the highest awareness levels. While female awareness is relatively stronger in the Eastern and Northern regions, it remains significantly lower than that of males. Older females (46-60) show the lowest awareness levels, indicating a critical need for targeted outreach. Chitral, in particular, stands out as the region with the lowest overall awareness and the widest gender disparity. Meanwhile, the Southern region deviates from the norm by having higher awareness among older males, highlighting a unique trend in community engagement.

### **Recommendations**

To address these disparities and enhance overall awareness of development programs, it is crucial to implement targeted strategies. Efforts should focus on engaging young people, particularly young women, to ensure sustained awareness in the long term. Gender-sensitive outreach campaigns should be developed to bridge the gap, particularly among older women who currently exhibit the lowest awareness levels. Special attention should be given to Chitral and the Southern regions, where female awareness is significantly lower. Innovative communication strategies should also be designed to reach older adults, ensuring that they remain informed and involved in development initiatives. By adopting these measures, it is possible to create a more inclusive approach to awareness-building and maximize the impact of development programs across all regions.

## **2. If yes, which services are you aware of in your community?**





### Analysis of Awareness of Development Services in the Community

When asked about which development services respondents are aware of in their community, health services emerged as the most recognized, with 64.31% of respondents reporting awareness. This suggests that health-related programs have a strong presence and outreach, possibly due to

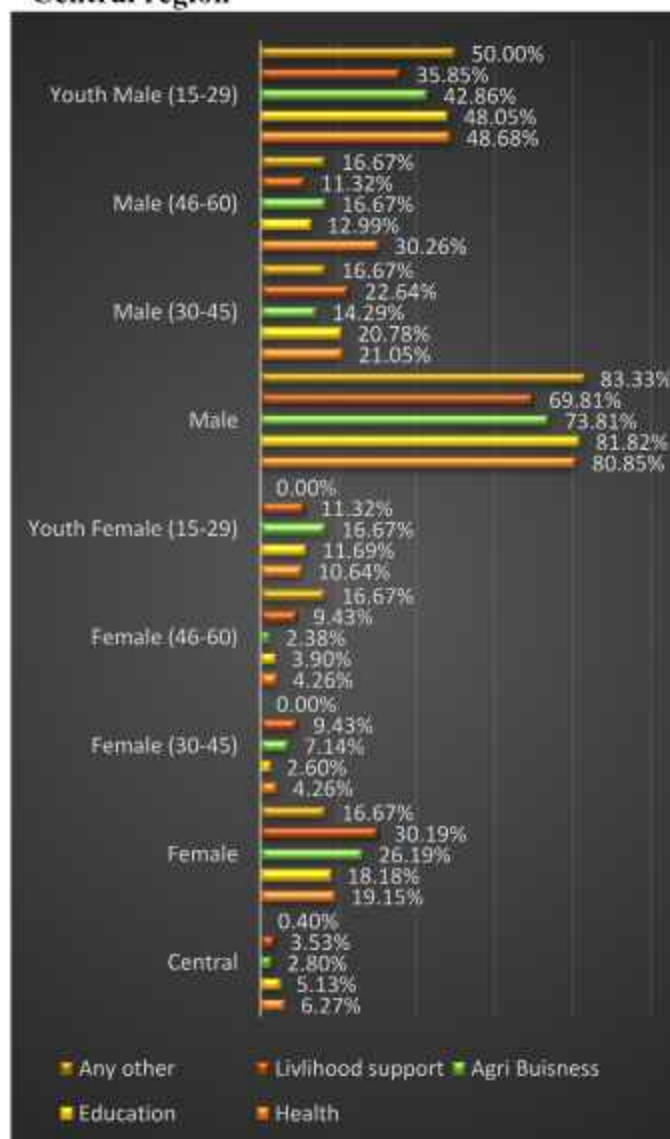
widespread public health initiatives, government interventions, and NGO support. Education services were the second most recognized, with 17.34% awareness. While this is a significant portion, it remains much lower than health services, indicating potential gaps in educational outreach or program visibility. This could suggest that while educational institutions exist, their impact or accessibility may not be as well communicated or prioritized as healthcare services. Livelihood support services, including job creation and vocational training, were recognized by 9.10% of respondents. This relatively low awareness highlights the need for improved promotion and community engagement in economic development programs. If these services are available but underutilized, it suggests a communication gap or a lack of accessibility for those who need them the most. Agribusiness support, which includes programs aimed at improving agricultural productivity and farmer livelihoods, was acknowledged by only 7.66% of respondents. Given that many communities rely on agriculture for their livelihood, this low awareness suggests that either these programs are limited in scope or that farmers are not well-informed about available support mechanisms. Strengthening outreach and engagement in agribusiness programs could enhance food security and economic resilience.

A small percentage (1.30%) of respondents mentioned awareness of "other" services, indicating that there may be additional but less common development programs in the community. Meanwhile, only 0.29% of respondents selected "N/A," suggesting that nearly all respondents were aware of at least one service, even if their knowledge was limited.

### Region-wise, gender wise and age-wise awareness of services



## Central region



In the Central region, awareness of available services remains relatively low across all categories. Among the various services, health (6.27%) and livelihood support (3.53%) are the most recognized, while education (5.13%) and agribusiness (2.80%) have even lower levels of awareness. The "any other" category sees minimal recognition, standing at just 0.40%.

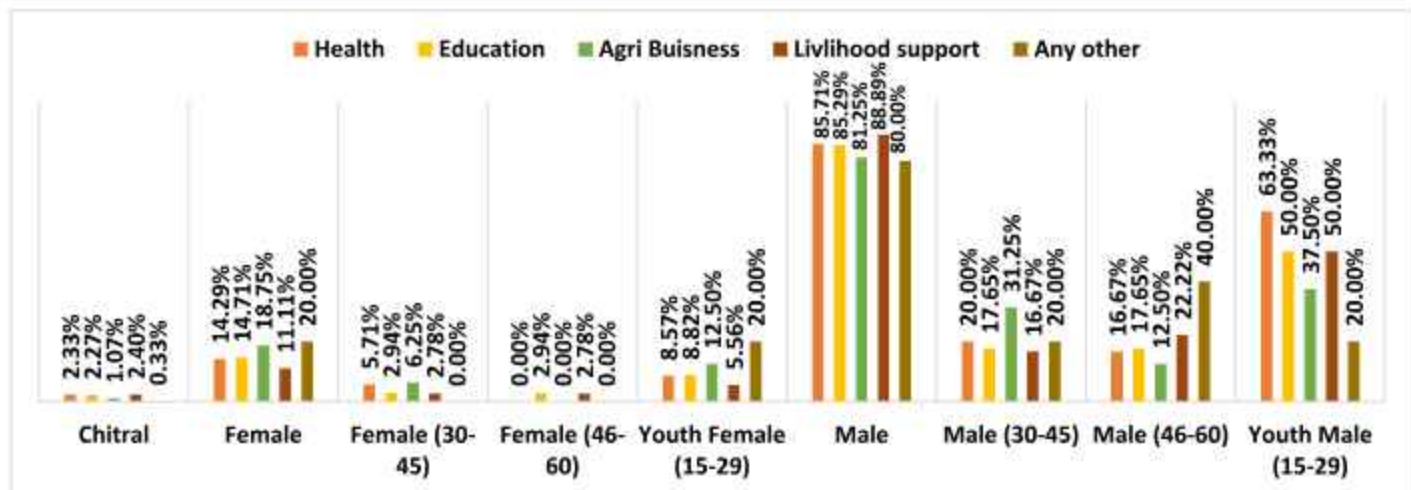
When examining awareness by gender, clear disparities emerge. Among women, livelihood support (30.19%) and agribusiness (26.19%) are the most acknowledged services, while health (19.15%) and education (18.18%) remain at moderate levels. However, older women—particularly those aged 30-45 and 46-60—exhibit significantly lower awareness across all services, with agribusiness awareness dropping to just 7.14% and 2.38%, respectively. Younger women (15-29) display relatively higher awareness, yet their levels remain considerably lower compared to their male counterparts.

Men, on the other hand, dominate in service awareness across all categories. Their recognition of health (80.85%), education (81.82%), and agribusiness (73.81%) is exceptionally high. Among

them, young males (15-29) exhibit the greatest engagement, with nearly half being aware of health (48.68%) and education (48.05%), while agribusiness (42.86%) and livelihood support (35.85%) also show strong recognition. However, as men age, their awareness of certain services begins to decline. Older males (46-60) display lower awareness in education (12.99%) and livelihood support (11.32%), although they maintain moderate familiarity with health (30.26%) and agribusiness (16.67%).

A stark gender gap is evident across all services, with men significantly more aware than women. The largest disparities exist in health (80.85% male vs. 19.15% female) and education (81.82% male vs. 18.18% female). Young males (15-29) emerge as the most informed group, whereas older women (46-60) show the lowest awareness across all categories. This highlights the need for targeted interventions to bridge the gender gap and enhance service accessibility for women, particularly in older age groups.

## Chitral region

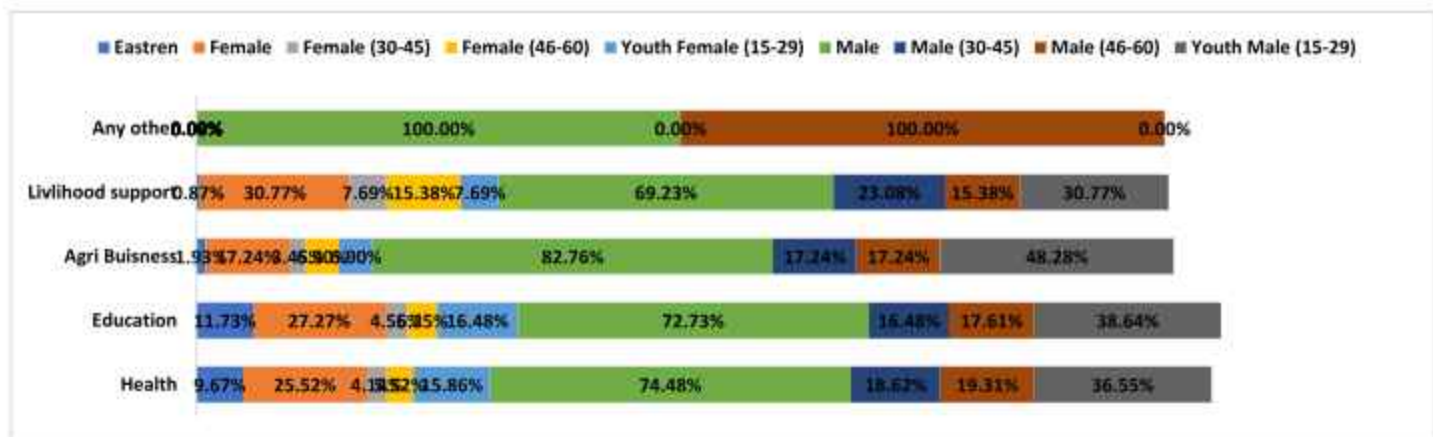


In Chitral, overall service awareness is even lower compared to the Central region, with health (2.33%), education (2.27%), and livelihood support (2.40%) being the most acknowledged services, followed by agribusiness (1.07%) and "any other" (0.33%).

Men show higher awareness levels than women across all services. Male awareness in Chitral is particularly strong in health (85.71%), education (85.29%), agribusiness (81.25%), and livelihood support (88.89%). Youth males (15-29) continue to be the most informed group, with significant recognition in health (63.33%), education (50.00%), and livelihood support (50.00%). Unlike in the Central region, older males (46-60) in Chitral show slightly higher awareness in livelihood support (22.22%) but lower engagement in agribusiness (12.50%) and education (17.65%).

Among women in Chitral, livelihood support (11.11%) and agribusiness (18.75%) are the most recognized services, though still much lower compared to male awareness. Older females (46-60) display almost no awareness of available services, with zero recognition of health and agribusiness. Younger women (15-29) show relatively higher awareness of agribusiness (12.50%) and education (8.82%), but the gap between male and female recognition remains substantial.

## Eastern region



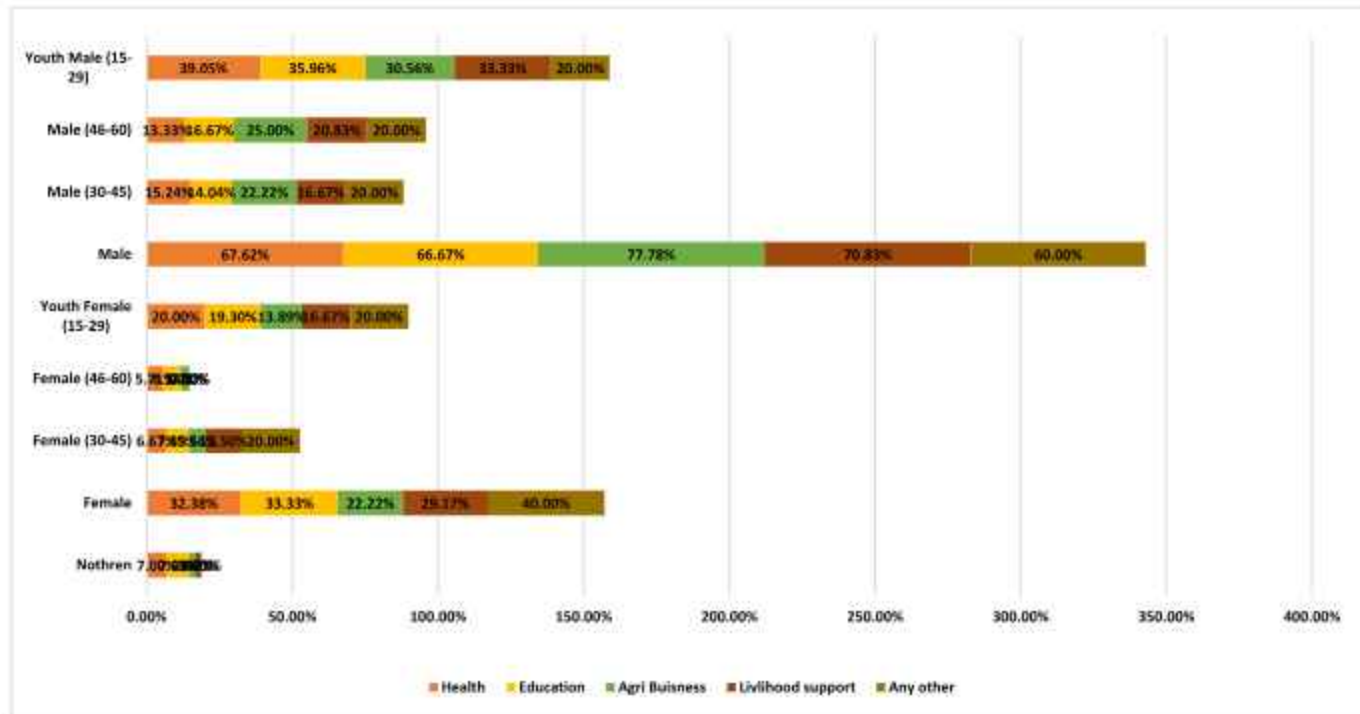
The Eastern region exhibits the highest overall engagement across key sectors, with Education (11.73%) and Health (9.67%) leading the way, followed by Agribusiness (1.93%), Livelihood Support (0.87%), and a minimal presence in other activities (0.07%).

Gender participation in the region highlights a notable trend: While men continue to dominate most sectors, women demonstrate a comparatively higher engagement than in other regions.



Females play a significant role in Health (25.52%), Education (27.27%), and Livelihood Support (30.77%), with the latter being the only sector where their participation surpasses that of men. This suggests that women in the Eastern region are increasingly contributing to income-generating activities and social development initiatives.

Age-wise participation further reveals distinct patterns. Young males (15-29 years) are the most active group, particularly in Agribusiness (48.28%) and Education (38.64%), indicating an inclination toward skill-based and knowledge-oriented professions. Meanwhile, young females (15-29 years) also show strong engagement in Health (15.86%) and Education (16.48%), underscoring their growing presence in essential service sectors. Middle-aged women (30-45 years) are primarily involved in Agribusiness (3.45%) and Livelihood Support (7.69%),



reflecting their role in economic stability. On the other hand, older women (46-60 years) maintain a moderate level of participation across all sectors, likely due to social and cultural factors influencing their workforce involvement.

These trends suggest a gradual shift in gender roles, with increasing female participation in economic and educational activities, while young males remain a driving force in agribusiness and education. The findings highlight a promising shift towards inclusive development, though disparities in male and female representation persist across sectors.

### Northern region

In the Northern region, men and women contribute to various sectors, including health, education, agribusiness, and livelihood support, with distinct patterns of engagement across different age groups. A closer look at these trends reveals opportunities for targeted interventions that can enhance inclusivity and economic resilience.

Women in the Northern region are actively involved in key sectors, particularly in education, health, and livelihood support. Their participation in education (33.33%) and health (32.38%) underscores their significant role in social services, while their engagement in livelihood support (29.17%) reflects a growing interest in economic opportunities. Notably, women also have a strong presence in alternative fields, with 40.00% participating in the "Any Other" category, hinting at their involvement in emerging or unconventional sectors.

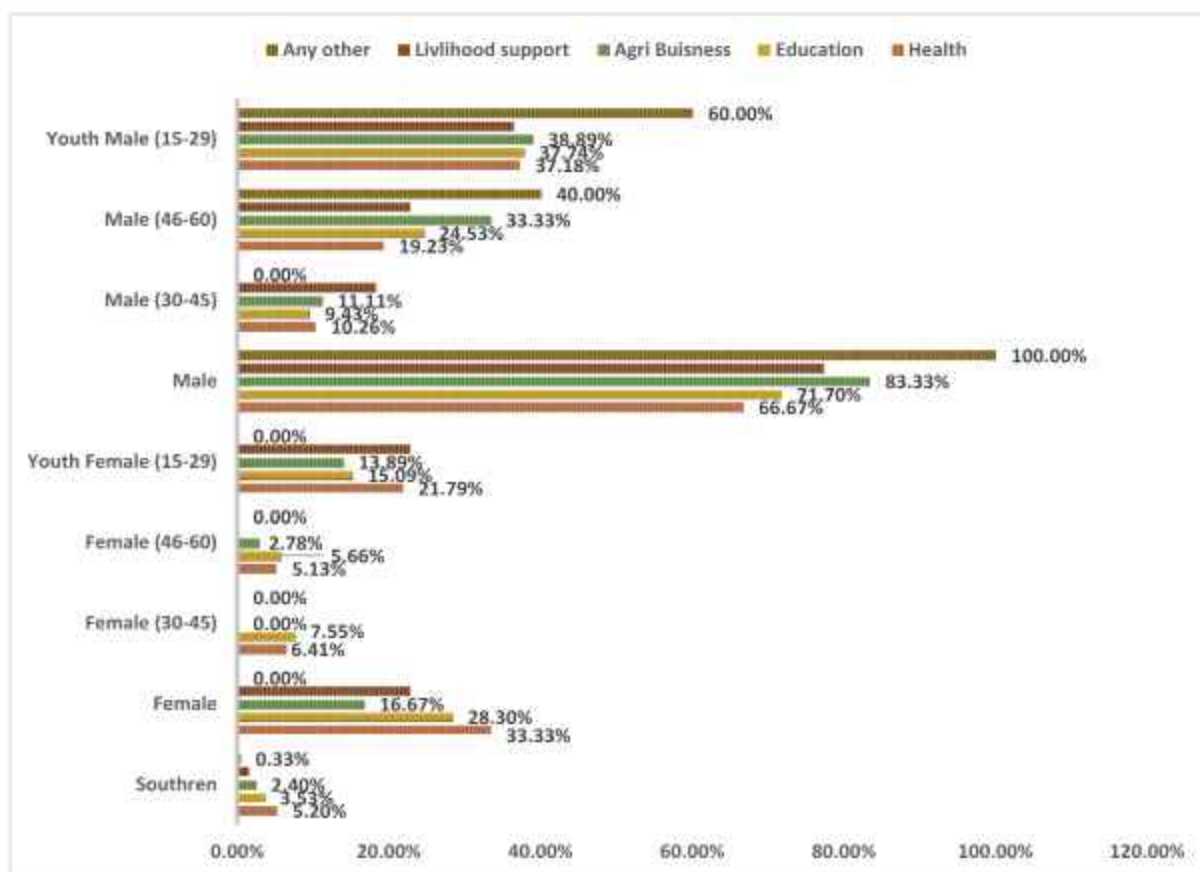


Despite the predominance of men in most sectors, the Northern region exhibits a more balanced gender distribution in education and health compared to other areas. While men still hold the majority share, their participation in education (66.67%) and health (67.62%) suggests a shift toward shared responsibilities in these fields. However, agribusiness remains heavily male-dominated, with 77.78% of men involved, highlighting their continued stronghold in agricultural activities.

A deeper dive into age group dynamics reveals further insights. Women aged 30-45 years are most engaged in education (7.89%) and livelihood support (12.50%), reflecting a focus on skill development and economic empowerment. However, participation among women aged 46-60 is relatively low across all sectors, with the highest engagement in education (6.14%) and health (5.71%). This indicates potential barriers—whether cultural or structural—limiting older women's involvement in economic activities like agribusiness and livelihood support. On the other hand, young women (15-29 years) display active participation in health (20.00%), education (19.30%), and livelihood support (16.67%), suggesting a keen interest in professional and social development opportunities.

Among men, youth (15-29 years) emerge as the most engaged demographic, particularly in health (39.05%) and education (35.96%), signaling a strong inclination toward social services. Meanwhile, men aged 30-45 years are notably active in agribusiness (22.22%) and livelihood support (16.67%), reinforcing their economic role. Older men (46-60 years) maintain a steady presence in agribusiness (25.00%) and livelihood support (20.83%), demonstrating their sustained contribution to economic activities.

These findings highlight several opportunities for intervention. The relatively balanced gender representation in education and livelihood support presents a foundation for further empowerment initiatives. Women's involvement in agribusiness, though notable at 22.22%, remains significantly lower than men's, indicating a need for targeted programs that encourage female participation in agricultural entrepreneurship. The strong engagement of youth in education and health suggests an opportunity to enhance vocational training and employment pathways. Meanwhile, the limited participation of older women across sectors calls for inclusive initiatives that address potential barriers and create community-driven roles tailored to their strengths.



In the Southern region, gender-based participation across various sectors reveals notable trends, shedding light on the opportunities and challenges different groups face in accessing economic and social activities.

Women in the region demonstrate significant involvement in social sectors, particularly health (33.33%) and education (28.30%). Their strong presence in these fields reflects their traditional roles in caregiving and community support. However, when it comes to economic activities, particularly agribusiness (16.67%) and livelihood support (22.73%), their participation remains relatively low. Notably, no women reported involvement in alternative fields, suggesting either a lack of opportunities or social constraints that limit their diversification into new areas.

Men, on the other hand, dominate participation across all sectors, especially in agribusiness (83.33%) and livelihood support (77.27%). While their representation in health (66.67%) and education (71.70%) are slightly lower, their overwhelming presence in economic sectors indicates structural barriers that continue to restrict women's access to financial independence and entrepreneurship. When analyzing participation by age, clear patterns emerge. Women between the ages of 30-45 are most active in education (7.55%) and health (6.41%) but have little to no engagement in agribusiness or livelihood support, suggesting a stronger orientation towards social services rather than economic activities. Older women (46-60 years) show moderate participation in health (5.13%) and education (5.66%), but their presence in income-generating sectors is almost negligible. This highlights potential mobility constraints or social expectations that limit their economic engagement.

In contrast, young women (15-29 years) have a relatively higher representation, particularly in livelihood support (22.73%), health (21.79%), and education (15.09%). Their emerging presence in economic activities signals a shift in gender dynamics, where younger generations are increasingly exploring financial opportunities.

For men, younger individuals (15-29 years) are actively involved across all sectors, with particularly strong participation in agribusiness (38.89%) and education (37.74%). This

suggests that younger males are actively contributing to both economic and social development. Men aged 30-45 show peak engagement in livelihood support (18.18%) and agribusiness (11.11%), reflecting economic stability in mid-life. Meanwhile, older men (46-60 years) continue to play a vital role in agribusiness (33.33%) and livelihood support (22.73%), indicating sustained economic engagement well into later life.

These insights highlight key opportunities for intervention. The high participation of women in health and education provides a strong foundation for targeted skill-building and vocational training programs to facilitate their entry into economic sectors. The low female engagement in agribusiness suggests a need for financial support, access to resources, and training initiatives tailored to their needs. Furthermore, young men's active role in agribusiness and young women's growing participation in livelihood support present opportunities for youth-focused economic programs that can enhance long-term resilience.

Additionally, the near absence of older women in economic sectors underscores the need for inclusive strategies, such as community-based enterprises or flexible employment opportunities, to ensure their participation in sustainable livelihoods. Overall, the gender dynamics in the Southern region highlight the need for well-designed, gender-sensitive interventions that empower women economically, support youth employment, and ensure sustained engagement for older demographics in economic activities.

#### ANOVA

Region

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	85.534	5	17.107	7.630	.000
Within Groups	3349.466	1494	2.242		
Total	3435.000	1499			

To further explore these findings, an analysis of variance (ANOVA) was conducted to assess whether awareness levels differed significantly across various service categories. The results indicated a statistically significant difference ( $F = 7.630$ ,  $p = 0.000$ ) in awareness across the different types of services. Since the p-value is below 0.05, it confirms that certain services are significantly more recognized than others and they have variances in different regions. This result aligns with the earlier observations that health services are more widely known, while other service categories lag in public awareness.

#### Descriptive Statistics and Key Insights of ANOVA

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Health	445	3.1034	1.33663	.06336	2.9788	3.2279	1.00	5.00
Education	120	2.8500	1.29414	.11814	2.6161	3.0839	1.00	5.00

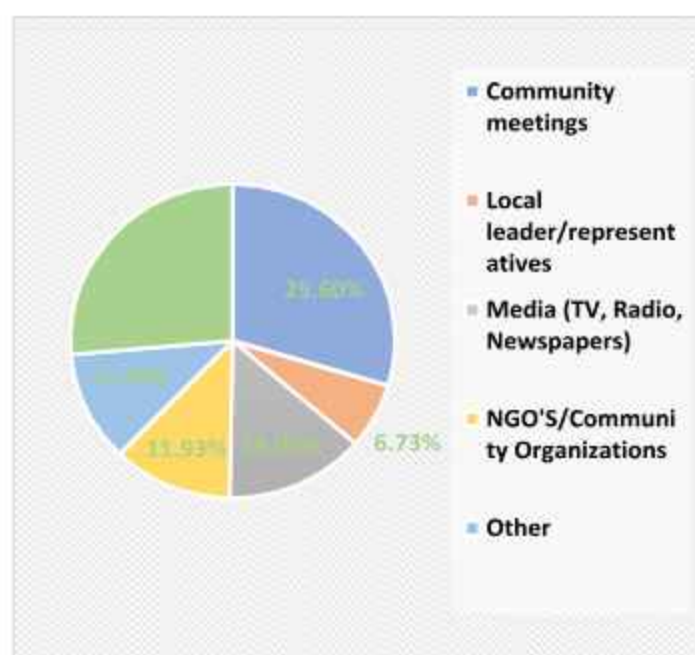


Agribusiness support	53	2.5472	1.61205	.22143	2.1028	2.9915	1.00	5.00
Livelihood support	63	2.0000	1.29515	.16317	1.6738	2.3262	1.00	5.00
Other (Specify)	9	1.8889	1.05409	.35136	1.0786	2.6991	1.00	4.00
N/A	810	2.9000	1.61456	.05673	2.7886	3.0114	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

A more detailed breakdown of the data through descriptive statistics provides additional insights into how awareness varies among different services. The mean awareness score for health services was the highest at 3.10, indicating that respondents had a relatively stronger familiarity with healthcare programs. Education services followed with a mean score of 2.85, suggesting moderate awareness.

In contrast, agribusiness support services (mean = 2.55) and livelihood support services (mean = 2.00) received lower mean scores, reinforcing the earlier finding that economic and agricultural development programs have weaker visibility in the community. Specialized or niche services categorized as "Other" had the lowest mean awareness score at 1.89, suggesting that these programs are the least recognized among the population.

The high standard deviation values (ranging from 1.05 to 1.61) indicate that there is considerable variation in awareness levels within each service category. This suggests that while some individuals may be highly informed about specific services, others remain completely unaware, leading to an uneven distribution of knowledge within the community.



### 3. How did you first learn about these services?

#### How Respondents First Learn About Services in the Surveyed Population

The survey results show that community meetings are the most common way people first learn about services, with 29.60% of respondents citing them as their primary source of information. This suggests that face-to-face engagement remains a highly effective communication method, allowing for direct interaction and community participation. Word of mouth follows closely, with 26.33% of respondents relying on personal networks such as family, friends, and

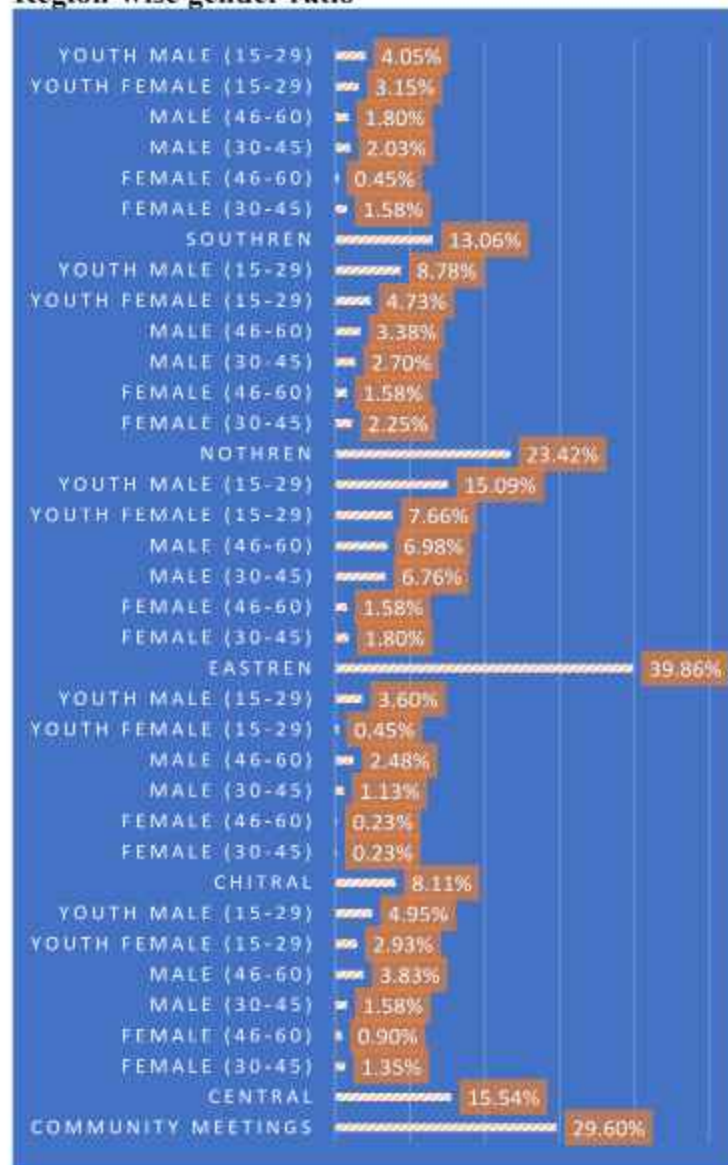
neighbors to receive information. This highlights the importance of informal communication, where trust and familiarity play a crucial role in spreading awareness.

Traditional media sources like TV, radio, and newspapers account for 14.00% of responses. While not as dominant as community meetings or word of mouth, media remains a valuable

tool, especially in areas with high media consumption. It provides a way to reach a broader audience and reinforce service-related messages. Non-governmental organizations (NGOs) and community organizations contribute to 11.93% of initial awareness. Their role in mobilizing communities is significant, but their reach is somewhat limited compared to more organic methods like community meetings and word of mouth. Strengthening engagement efforts could enhance their impact.

The "Other" category, making up 11.40%, includes various alternative sources such as social media, workplace interactions, and religious gatherings. While not the primary method for most people, these channels still play a role in spreading information, particularly among specific groups such as urban populations and younger individuals. Interestingly, local leaders and representatives are the least common source, with only 6.73% of respondents indicating that they learned about services from them. This suggests that leadership-driven communication is not as effective as other methods, possibly due to a lack of engagement from local leaders or lower trust in governance structures.

### Region-wise gender ratio



### Analysis of Community Meetings as an Information Source by Region and Demographics

Community meetings have emerged as a crucial source of information across the surveyed regions, with nearly 30% of respondents stating that they first learned about available services through these gatherings. However, the degree to which people rely on community meetings varies significantly depending on the region and demographic group.

#### Regional Insights: Who Relies on Community Meetings?

The Eastern region stands out as the most engaged, with nearly 40% of respondents reporting that they became aware of services through community meetings. This high participation is largely driven by youth males aged 15-29, who make up a significant 15.09% of those who turn to these gatherings for information. Young women in this region also play an active role, accounting for 7.66%, though their participation remains lower than that of their male counterparts. Meanwhile, older males continue to show a steady presence, while female participation beyond the age of 30 drops significantly. This



suggests that younger populations, particularly young men, are more active in attending community meetings, possibly due to their mobility, social networks, or involvement in community activities.

In contrast, the Northern region sees a lower but still substantial reliance on community meetings, with 23.42% of respondents indicating that this was their primary source of information. Again, young men dominate attendance, though the gap between male and female youth is slightly smaller than in the Eastern region. Here, cultural factors or greater community engagement initiatives may contribute to a more balanced participation. Older males continue to outnumber older females, reinforcing a trend observed across all regions.

The Central region shows a more moderate reliance on community meetings, with 15.54% of respondents attributing their awareness of services to this source. Youth engagement remains strong, particularly among young men, but interestingly, older men (46-60 years) participate more actively than middle-aged men (30-45 years). This could indicate that older individuals in this region may feel a greater sense of responsibility in community affairs. However, female participation remains minimal, suggesting persistent gender-related barriers.

In the Southern region, community meetings appear to play a lesser role, with only 13.06% of respondents relying on them for information. Young men continue to lead participation, while female engagement remains limited. The pattern here aligns with the broader trend—men, particularly younger ones, tend to dominate these spaces, while older women are notably absent.

The Chitral region presents the lowest engagement with community meetings, at just 8.11%. Young men still form the largest participant group, but their numbers are significantly lower compared to other regions. Older men also play a role, but female participation is almost negligible. This could be due to cultural or logistical challenges unique to Chitral, such as geographical barriers or social norms that restrict women's participation in public gatherings.

#### **Demographic Patterns: Who Attends and Who Stays Away?**

Across all regions, one demographic stands out: youth males aged 15-29 are the most engaged in community meetings. This is particularly evident in the Eastern (15.09%) and Northern (8.78%) regions, where young men consistently lead participation. Young women, while also present, show much lower levels of engagement, with the highest participation recorded in the Eastern (7.66%) and Northern (4.73%) regions.

Older men (30-60 years) continue to attend in all regions, but their numbers vary, with the highest engagement seen in the Eastern and Northern regions. Meanwhile, female participation beyond the age of 30 is consistently low everywhere, with the most striking gender gap observed in Chitral and the Southern region. This highlights significant disparities in access to community meetings, suggesting that cultural norms, household responsibilities, or mobility restrictions may prevent many women from attending.

#### **Key Observation**

The findings reveal that community meetings remain an effective way to share information, especially in the Eastern and Northern regions. However, their impact is uneven, with young men being the primary beneficiaries while older women are largely excluded.

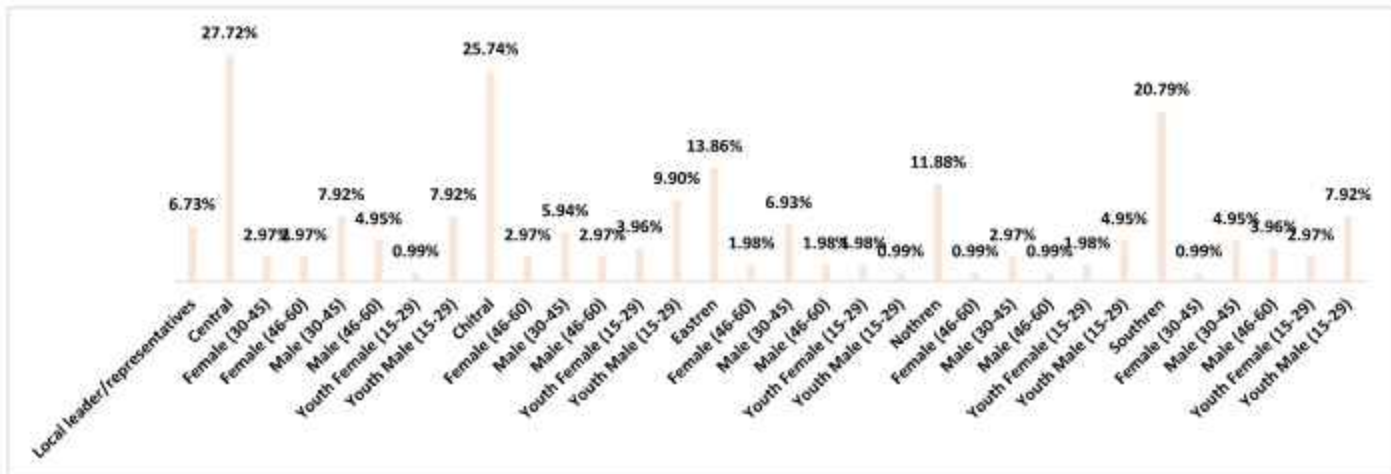
The low reliance on community meetings in Chitral suggests a need for alternative communication strategies, such as door-to-door outreach, radio broadcasts, or women-specific gatherings that align better with the cultural context.

More importantly, increasing female participation in community meetings is critical. This could be achieved by introducing women-only meetings, childcare support for attendees, or alternative communication channels that reach women more effectively.

By making community meetings more inclusive, organizations can ensure that crucial information reaches all members of society, ultimately fostering greater engagement, informed decision-making, and community development across all regions.



## The Role of Local Leaders and Representatives



Local leaders and representatives play a role in disseminating information within communities, but their overall influence remains relatively low, with only 6.73% of respondents relying on them as a primary source. Compared to other channels like community meetings, local leaders appear to have a more limited reach. However, their significance varies across different regions and demographic groups.

### Regional Differences in Reliance on Local Leaders

The Central region stands out as the most reliant on local leaders, with 27.72% of respondents indicating that they receive information from them. Within this region, men aged 30-45 years and youth males (15-29 years) show the highest engagement, each making up 7.92% of respondents. Meanwhile, older men and women across all age groups are significantly less likely to seek information from local leaders, with participation rates ranging from 2.97% to 4.95%. Notably, young women in this region appear to have minimal engagement, with only 0.99% relying on local leaders for information, highlighting a gender gap in access.

Similarly, the Chitral region also demonstrates a strong reliance on local leaders, with 25.74% of respondents turning to them for information. Here, youth males aged 15-29 years are the most engaged, with 9.90% seeking information through local leaders. Interestingly, young females in Chitral are somewhat more involved than in other regions, with 3.96% relying on local leaders—a slightly higher engagement rate compared to women elsewhere. Older men and women, however, remain less engaged, with participation at 2.97% each. This suggests that younger individuals in Chitral are more likely to connect with local leaders compared to their older counterparts.

In the Southern region, reliance on local leaders is moderate, with 20.79% of respondents using them as an information source. Youth males once again dominate, with 7.92% relying on local leaders, followed by men aged 30-45 years at 4.95%. However, women remain significantly underrepresented in this region, with only 0.99% of females aged 30-45 years engaging with local leaders.

Moving to the Eastern region, the reliance on local leaders drops to 13.86%. The most engaged group here is men aged 30-45 years, who make up 6.93% of those seeking information through this channel. However, participation from older men and young males is much lower, and women—both young and old—make up only 1.98% of respondents using local leaders for information. This trend suggests that gender-related barriers may limit women's access to information in this region.

Finally, the Northern region exhibits the lowest reliance on local leaders, with only 11.88% of respondents using them as a source of information. Here, youth males (15-29 years) (4.95%) and men aged 30-45 years (2.97%) form the primary groups engaging with local leaders. Older

men and women show the least engagement, with only 0.99% of respondents in these categories relying on local leaders. This indicates that in the Northern region, local leaders are not the preferred source of information for the majority of the population.

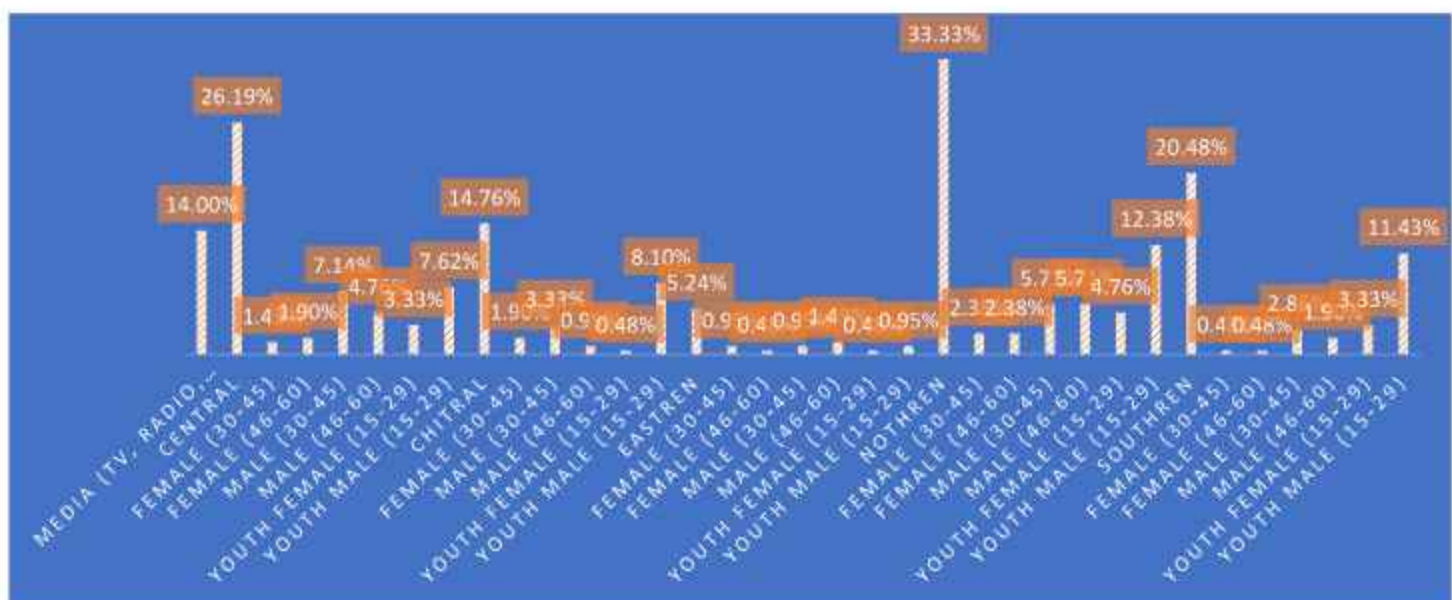
### Key Observation

Across all regions, men are significantly more likely than women to seek information from local leaders, particularly in Central and Chitral. Youth males (15-29 years) are the most engaged group, especially in Chitral (9.90%) and Central (7.92%), suggesting that younger men rely more on local leaders compared to other demographics.

Women, on the other hand, remain largely underrepresented. Their engagement is minimal in the Northern and Eastern regions, further indicating a gender gap in access to information through local leaders.

Geographically, the Central region demonstrates the highest reliance on local leaders (27.72%), whereas the Northern region has the lowest (11.88%).

### The Role of Media (TV, Radio, Newspapers) in Information Dissemination



Media, including television, radio, and newspapers, serve as an important source of information for 14.00% of respondents. However, its influence varies significantly across different regions and demographic groups.

### Regional Variations in Media Reliance

The Northern region emerges as the most media-dependent, with 33.33% of respondents relying on TV, radio, or newspapers for information. Young males (15-29 years) are the most engaged group, making up 12.38% of media consumers, followed by men aged 30-45 years (5.71%) and 46-60 years (5.71%). Women also show relatively higher engagement in this region, with 4.76% of young females (15-29 years) and 2.38% of older women (30-60 years) relying on media sources.

The Central region follows with 26.19% of respondents relying on media. Among them, youth males (15-29 years) are the most engaged (7.62%), followed closely by men aged 30-45 years (7.14%). Women, however, remain significantly underrepresented, with only 1.43% of females aged 30-45 and 1.90% of females aged 46-60 accessing information through media.

The Southern region also demonstrates a notable reliance on media, with 20.48% of respondents using these channels for information. Here, youth males again lead the engagement (11.43%), while women's participation is minimal (0.48% across both female age groups).



In contrast, the Chitral region shows 14.76% reliance on media. The trend remains consistent, with 8.10% of youth males (15-29 years) leading media consumption, whereas older men and women exhibit much lower engagement.

The Eastern region has the lowest reliance on media, with only 5.24% of respondents using these sources. Participation is relatively low across all demographics, with no group exceeding 1.43%. This suggests that alternative sources, such as community meetings or local leaders, might be more effective in disseminating information in this region.

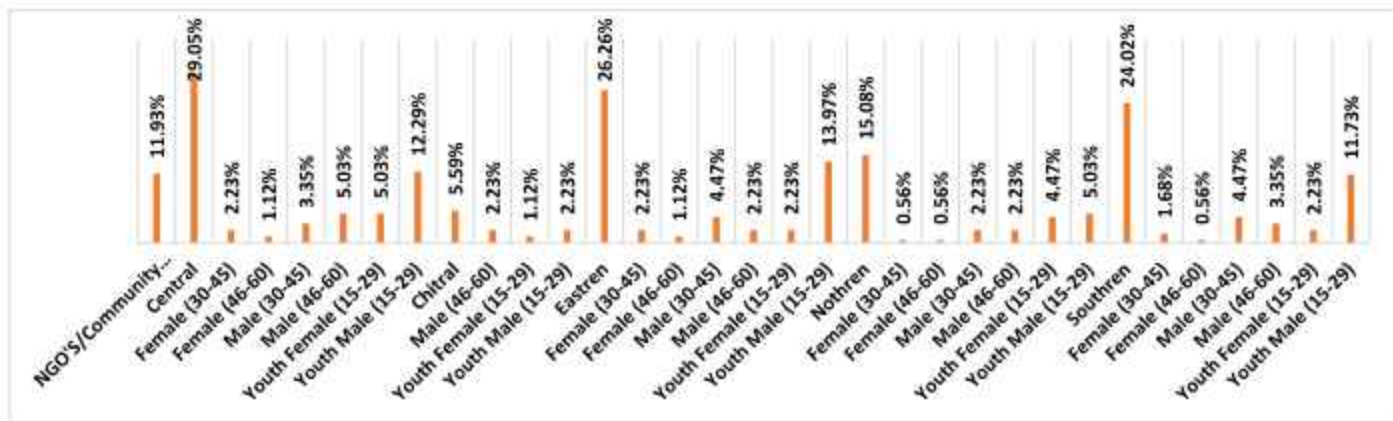
### Key Insights

Men, particularly young males (15-29 years), are the most engaged across all regions, with the highest participation in the Northern (12.38%) and Southern (11.43%) regions.

Women have significantly lower engagement with media, with the highest participation seen in the Northern region (4.76% for youth females and 2.38% for older women).

The Northern region has the highest media reliance (33.33%), while the Eastern region has the lowest (5.24%).

The Central and Southern regions also show moderate reliance on media (26.19% and 20.48%, respectively), with youth males driving the engagement.



### Role of NGOs and Community Organizations in Information Dissemination

NGOs and community organizations serve as vital sources of information and support for communities, with 11.93% of respondents relying on them for guidance. However, their influence is not uniform across different regions and demographic groups, with noticeable variations in engagement levels.

In the Central region, NGOs and community organizations play the most significant role, with nearly 29.05% of respondents depending on them for information. The most engaged group in this region is young males aged 15-29 years, who make up 12.29% of those relying on these organizations. Older males, particularly those aged 46-60 years, also demonstrate a notable level of involvement (5.03%). However, female participation remains relatively low, with only 2.23% of women aged 30-45 years and 1.12% of those aged 46-60 years seeking information from NGOs.

The Eastern region follows closely, with 26.26% of respondents engaging with NGOs for information. Here, young males once again make up the largest group, with 13.97% relying on these organizations. Male engagement across all age groups remains steady, while female participation continues to lag, with 2.23% of women aged 30-45 years and 1.12% of those aged 46-60 years seeking NGO support. In the Southern region, NGO engagement is slightly lower at 24.02%, but the pattern remains similar. Young males dominate in their reliance on NGOs (11.73%), followed by males aged 30-45 years (4.47%) and those aged 46-60 years (3.35%). Female engagement remains minimal, with only 1.68% of women aged 30-45 years and 0.56% of those aged 46-60 years depending on NGOs for information.



The Northern region sees a more uneven distribution of engagement, with 15.08% of respondents relying on NGOs. Young males (5.03%) and young females (4.47%) show some level of engagement, but older males (2.23%) and females (0.56% in both 30-45 and 46-60 age groups) display limited involvement. In Chitral, NGO engagement is the lowest, with only 5.59% of respondents turning to these organizations for information. Young males and older males each account for 2.23% of engagement, while young females contribute 1.12%.

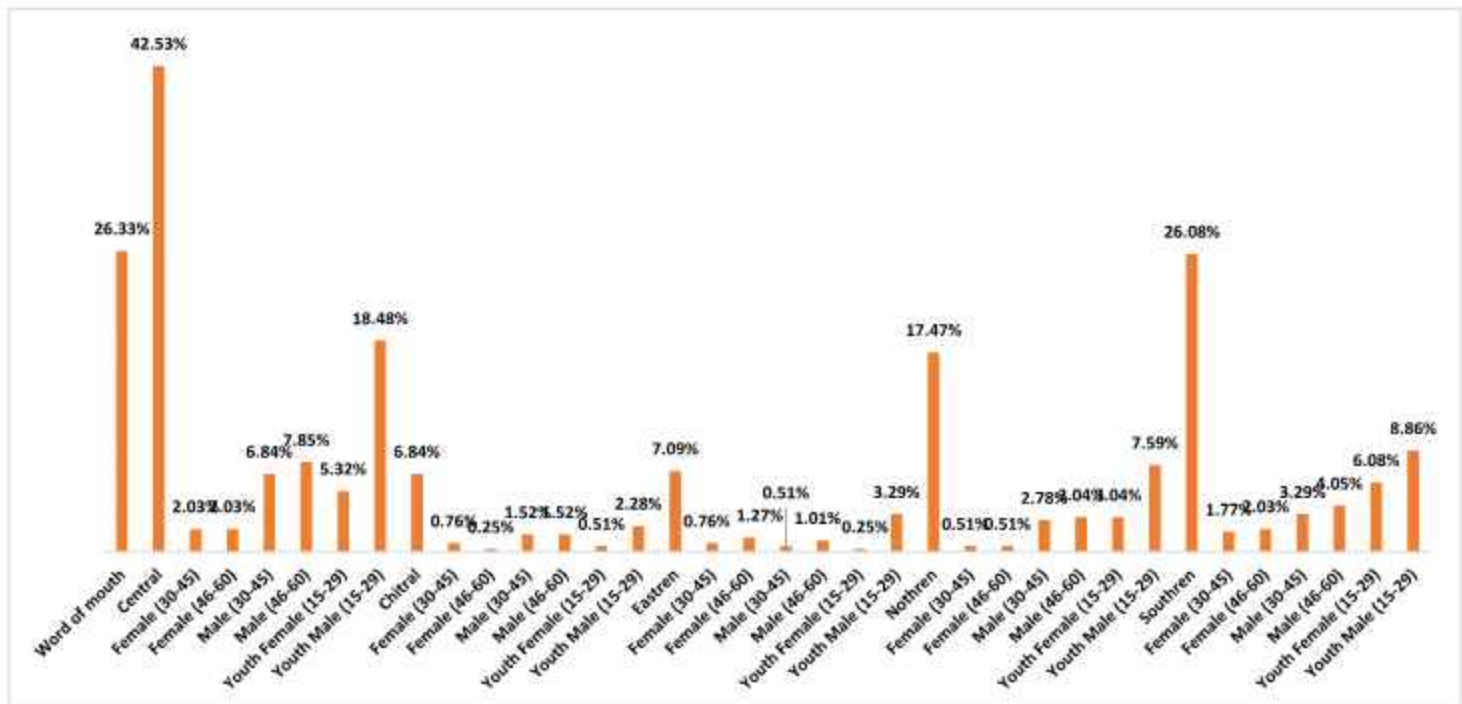
### Key Insights

Across all regions, young males aged 15-29 years are the most active in seeking information from NGOs. Their engagement is particularly high in the Eastern (13.97%), Central (12.29%), and Southern (11.73%) regions.

Female participation, especially among older women aged 46-60 years, remains significantly low. This suggests a gap in outreach efforts, indicating a need for more women-centered programs and initiatives.

While the Central region has the highest engagement with NGOs (29.05%), Chitral lags far behind, with only 5.59% of respondents seeking NGO support. The Eastern and Southern regions show similar trends, with strong engagement from young males but weaker female participation.

### Word-of-Mouth Information Dissemination



Word of mouth remains a powerful tool for spreading information, with more than a quarter (26.33%) of respondents relying on it. However, the extent of its influence varies across different regions and demographic groups, shaping how information flows within communities.

In the Central region, word-of-mouth communication plays the most significant role, with nearly 42.53% of respondents depending on it. Young males aged 15-29 years emerge as the most engaged group, making up 18.48% of those who rely on this method. Adult males also play a crucial role, particularly those aged 30-45 (6.84%) and 46-60 (7.85%). However, female participation in the region remains noticeably low, with only 2.03% of women in both the 30-45 and 46-60 age groups utilizing word-of-mouth communication.

Similarly, the Southern region also demonstrates a strong reliance on this method, with 26.08% of respondents using word of mouth to stay informed. As in the Central region, young males (15-29 years, 8.86%) are the most active, followed by young females (6.08%). Adult males contribute as well, though to a lesser extent (30-45 years: 3.29%, 46-60 years: 4.05%). Female engagement is somewhat higher than in other regions, but still lags behind male participation, with 1.77% of women aged 30-45 years and 2.03% of those aged 46-60 years using word of mouth for information-sharing.

In contrast, the Northern region exhibits a more moderate yet uneven reliance on word of mouth, with 17.47% of respondents depending on it. The youth segment is again at the forefront, particularly males aged 15-29 years (7.59%), followed by young females (3.04%). Adult males also contribute to word-of-mouth dissemination, but to a lesser degree (30-45 years: 2.78%, 46-60 years: 3.04%). Female participation remains remarkably low (0.51% for both the 30-45 and 46-60 age groups), further emphasizing the gender disparity in informal information networks.

The Eastern region exhibits the lowest reliance on word of mouth, with only 7.09% of respondents citing it as their primary information-sharing method. Young males (15-29 years, 3.29%) are the most engaged, but overall participation across all demographics is low. Adult males make up only a small fraction of the total reliance, with 0.51% in the 30-45 age group and 1.01% in the 46-60 group. Female engagement is similarly minimal, with 0.76% of women aged 30-45 years and 1.27% of those aged 46-60 years using word-of-mouth communication. At the lowest end of the spectrum, Chitral demonstrates the least reliance on word of mouth, with only 6.84% of respondents using it for information-sharing. Among them, young males (15-29 years, 2.28%) form the most significant group. Adult males contribute (30-45 years: 1.52%, 46-60 years: 1.52%), but their numbers are still minimal. Female participation is negligible, with only 0.76% of women aged 30-45 years and a mere 0.25% of those aged 46-60 years utilizing this method.

### **Key Observations**

The Central region leads in reliance on word of mouth, with youth males (15-29 years) driving engagement.

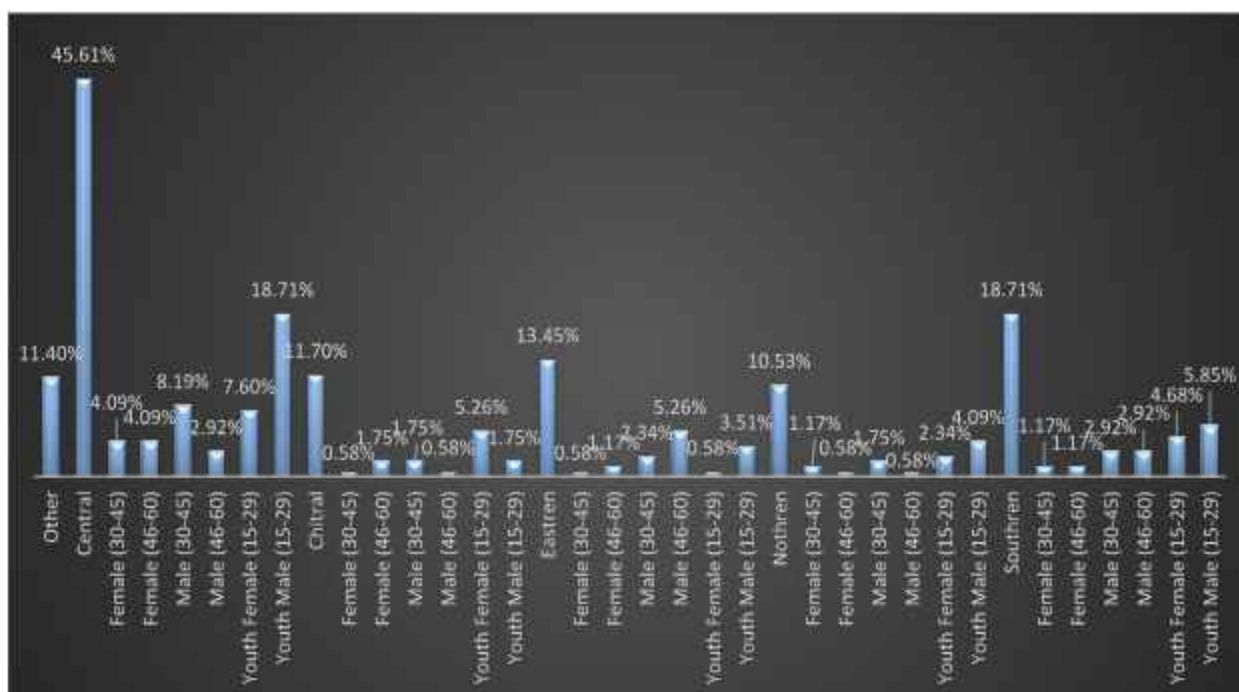
The Southern region also shows significant reliance, particularly among young people.

The Northern and Eastern regions have lower engagement, with the Eastern region showing the least reliance on word of mouth across all demographic groups.

Women across all regions participate significantly less than men, highlighting an existing gender gap in informal information-sharing networks.



## Role of other sources: Information Dissemination



The above table depicts data of other sources (social media, printed media, through announcements on loudspeakers and through IEC materials) in different regions. The level of engagement across different regions varies significantly, with the Central region demonstrating the highest involvement at 45.61%. This region shows strong participation from youth males (15-29 years) at 18.71%, followed by adult males (30-45 years) at 8.19%. Female engagement is lower but still notable, with 4.09% in both the 30-45 and 46-60 age groups. In Chitral (11.70%), engagement is much lower compared to the Central region. Youth females (15-29 years) form the most active group (5.26%), while youth males and adult males (30-45 years) each contribute 1.75%. Female participation remains minimal, with 0.58% in the 30-45 age group and 1.75% in the 46-60 age group.

The Eastern region (13.45%) also shows limited engagement. Older males (46-60 years) have the highest participation rate (5.26%), followed by youth males (15-29 years) at 3.51%. Female engagement is significantly low, with only 0.58% in the 30-45 age group and 1.17% in the 46-60 age group. The Northern region (10.53%) has a relatively balanced but low engagement rate. Youth males (15-29 years) form the largest group (4.09%), followed by youth females (2.34%) and adult males (1.75%). Female engagement remains limited, with 1.17% in the 30-45 age group and 0.58% in the 46-60 age group.

The Southern region (18.71%) has moderate engagement, with youth males (15-29 years) at 5.85% and youth females at 4.68% leading participation. Adult males (30-45 and 46-60 years) have equal participation at 2.92% each, while female engagement remains low at 1.17% in both the 30-45 and 46-60 age groups.

### Key Insights

The Central region has the highest engagement (45.61%), particularly among youth males (18.71%), but female participation is much lower.

Chitral (11.70%) and the Northern region (10.53%) have the lowest engagement rates, with limited participation from all demographic groups.

Older males (46-60 years) show significant engagement in the Eastern region (5.26%), whereas youth males dominate in most other regions.



Female participation remains consistently low across all regions, highlighting a gender gap in engagement.

#### Age

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6.868	5	1.374	.502	.775
Within Groups	4085.601	1494	2.735		
Total	4092.469	1499			

To determine whether age influences how respondents learn about development programs, an Analysis of Variance (ANOVA) was conducted. The results showed no statistically significant difference in the sources of information across different age groups ( $F = 0.502$ ,  $p = 0.775$ ). Since the p-value is greater than 0.05, it indicates that individuals of all age groups tend to rely on similar sources when learning about development programs. This means that awareness campaigns do not need to be tailored based on age but rather should focus on enhancing the overall effectiveness of communication channels.

#### Age

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Community meetings	444	2.7297	1.64280	.07796	2.5765	2.8830	1.00	6.00
Word of mouth	395	2.6810	1.71127	.08610	2.5117	2.8503	1.00	6.00
Media TV-Radio	210	2.5810	1.61797	.11165	2.3608	2.8011	1.00	6.00
Newspaper								
Local leaders	101	2.8218	1.57096	.15632	2.5117	3.1319	1.00	6.00
NGO/Community organization	179	2.6089	1.60866	.12024	2.3717	2.8462	1.00	6.00
Other	171	2.7544	1.68328	.12872	2.5003	3.0085	1.00	6.00
Total	1500	2.6907	1.65231	.04266	2.6070	2.7744	1.00	6.00

A closer examination of the data provides deeper insights into the effectiveness of various sources of information in raising awareness about development programs. The analysis of mean awareness scores highlights notable trends in the influence of different communication channels. Among these, local leaders emerged as the most influential source, with a mean awareness score of 2.82. Although fewer respondents reported receiving information through local leaders, their relatively higher mean score suggests that when they do share information, their influence carries significant weight.

Similarly, other sources of information, such as informal networks and alternative communication channels, also played a considerable role, with a mean score of 2.75.

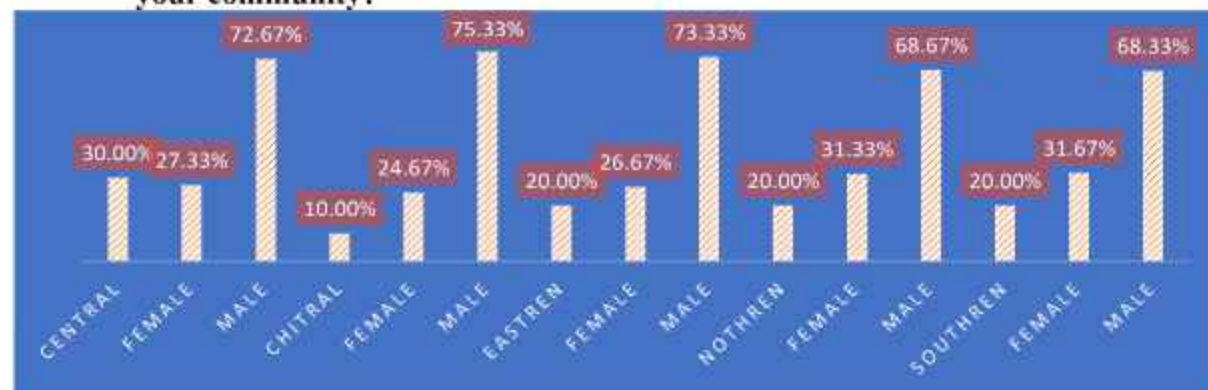
Community meetings followed closely, with an average score of 2.73, further reinforcing the importance of direct, face-to-face engagement in spreading awareness. Word of mouth, another interpersonal communication method, was also a common source, with a mean score of 2.68, emphasizing the role of social interactions in information dissemination.

NGOs and community organizations contributed significantly to outreach efforts, with a mean awareness score of 2.61. While their influence is high as most of their interventions are through CBOs, community meetings, involvement of local religious and political leaders, they played a vital role in ensuring information reached the intended audience.

On the other hand, media sources, including television, radio, and newspapers, had the lowest mean awareness score at 2.58. This suggests that while media can reach a broad audience, it may not be as effective as interpersonal and community-based methods in engaging people and ensuring retention of information. These findings indicate that development programs seeking to maximize their outreach should prioritize interpersonal communication, such as community meetings and engagement with local leaders, while also considering strategies to enhance the effectiveness of media in reaching the population.

Additionally, the high standard deviation values (ranging from 1.57 to 1.71) indicate significant variability in how respondents rely on these sources. This suggests that while some community members heavily depend on a particular information source, others may have very limited access to it.

#### 4. Do you feel that information about available services is shared adequately in your community?



#### Regional Dissemination Trends

Among all regions, the Central region stands out with the highest participation rate at 30%. This suggests that information is being effectively communicated here, reaching more people compared to other areas. In contrast, the Eastern, Northern, and Southern regions each account for 20% of participation, indicating a somewhat balanced but lower level of engagement. However, the most concerning case is Chitral, where participation drops to just 10%. This stark difference raises questions—Is information not reaching people in Chitral effectively, or are there barriers preventing them from engaging?

#### Gender Disparities and Their Impact

Beyond regional differences, an even more striking issue emerges: the gender gap in participation. Across all regions, men are far more engaged than women, signaling that many women might not be receiving or responding to information in the same way as men.

Take the Central region, for example. While overall participation is high, men make up an overwhelming 72.67% of that engagement, leaving women at just 27.33%. Despite this



region's strong reach, the gender gap remains wide. Chitral, already struggling with low overall participation, also has the highest gender disparity—75.33% of participants are men, while only 24.67% are women. This suggests that women in Chitral face particularly strong barriers to accessing information.

The pattern is similar in the Eastern region, where men account for 73.33% of participation, leaving women at just 26.67%. In the Northern and Southern regions, female engagement is slightly better at 31.33% and 31.67%, respectively, but men still dominate participation.

#### **Is Information Dissemination Adequate?**

Considering these trends, it is clear that information dissemination is not fully adequate. While some regions are more engaged than others, the disparities suggest gaps in how well information is reaching different groups.

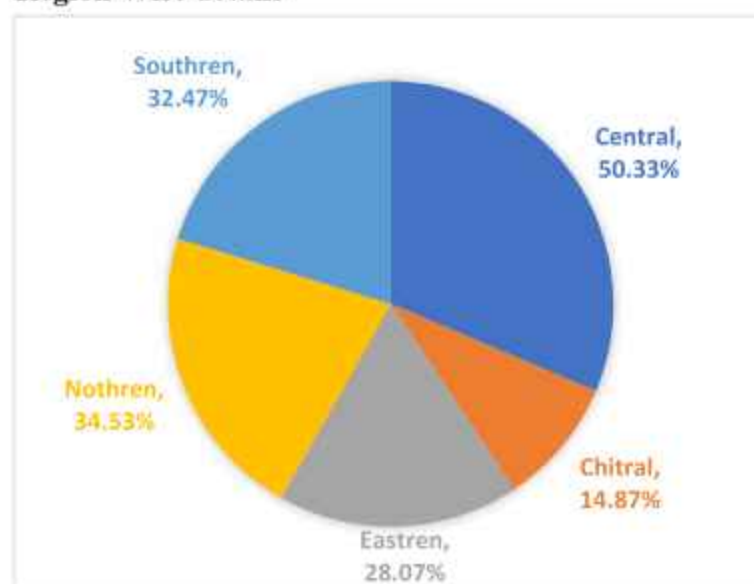
**Regional Inequality:** The Central region is well-covered, but places like Chitral remain underserved.

**Gender Barriers:** Across the board, men are more engaged than women, indicating that something is preventing women from fully accessing or responding to the information.

**Social and Structural Challenges:** The consistent trend of lower female engagement may reflect cultural norms, educational limitations, or mobility restrictions that make it harder for women to participate.

### **5. Have you ever participated in community meetings about available services?**

#### **Region Wise details**



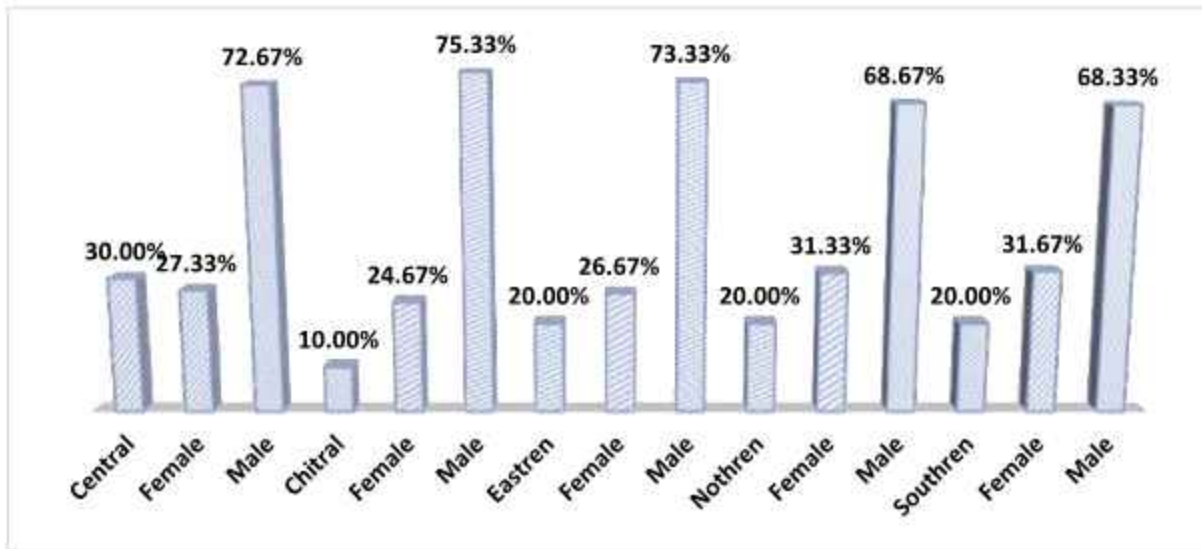
Among all regions, the Central region stands out with the highest participation rate at 50.33%. This suggests that community meetings are not only accessible but also widely attended, possibly due to stronger civic engagement, better awareness campaigns, or well-established infrastructure that facilitates participation.

In stark contrast, Chitral lags far behind with only 14.87% participation. This low turnout raises concerns—are people in Chitral unaware of these meetings, or are there deeper

barriers such as geographical constraints, cultural limitations, or a lack of effective communication about available services. The Eastern (28.07%), Northern (34.53%), and Southern (32.47%) regions show moderate participation levels. Among these, the Northern region exhibits the highest engagement, though still far behind Central. While these regions are not experiencing the extreme low engagement seen in Chitral, their participation levels indicate room for improvement.

### **6. Which communication channels do you prefer to receive information about services?**





### Regional Trends in Information Access

Participation levels in community discussions about services vary widely across regions. The Central region leads with 30% participation, suggesting that information is more effectively reaching its residents. Meanwhile, Chitral lags behind at just 10%, highlighting a concerning gap in access and engagement. The Eastern, Northern, and Southern regions each show a balanced participation of 20%, indicating a moderate level of reach but with room for improvement.

### ANOVA

#### Gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3.410	4	.852	4.531	.001
Within Groups	281.307	1495	.188		
Total	284.717	1499			

### The Gender Divide in Information Access

Across all regions, men are far more engaged than women in receiving and discussing information about services. The gender gap is particularly evident in Chitral, where 75.33% of participants are male, leaving women with a much lower engagement rate of 24.67%. A similar trend is seen in the Eastern region, where male participation stands at 73.33%, compared to just 26.67% for females. Even in regions with higher overall participation, the gap persists. In the Central region, for example, 72.67% of participants are male, while only 27.33% are female. The Northern and Southern regions show the highest female engagement, with women making up 31.33% and 31.67% of participants, respectively. However, men still dominate, accounting for nearly 68% of engagement in both regions.

### Key Insights

**Men Receive More Information Than Women** – Across all regions, men are the primary recipients of information about services, suggesting that women face barriers in accessing or engaging with community discussions.

**Chitral Faces the Most Significant Barriers** – With the lowest overall participation (10%) and the widest gender gap (only 24.67% female participation), Chitral appears to have the greatest challenges in information dissemination.

**Northern and Southern Regions Show Slightly Better Female Engagement** – While still male-dominated, these regions have the highest proportion of female participation, indicating some progress in bridging the gender gap.

**Central Region Has the Strongest Overall Reach** – With 30% participation, the Central region appears to have better communication channels in place, though gender disparities remain a concern.

To further analyze differences in communication preferences, an ANOVA test was conducted, revealing a statistically significant variation based on gender ( $F = 4.531$ ,  $p = 0.001$ ). This indicates that men and women have different preferences when it comes to receiving information about services. Understanding these differences is crucial for designing gender-sensitive communication strategies that effectively reach all members of the community.

### **Descriptive statistics and key findings of ANOVA**

#### **Descriptives**

Gender

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Community meetings	604	1.2616	.43986	.01790	1.2264	1.2967	1.00	2.00
Word of mouth	485	1.2309	.42186	.01916	1.1933	1.2686	1.00	2.00
Media TV-Radio	304	1.2401	.42787	.02454	1.1918	1.2884	1.00	2.00
Newspaper								
Flyers or poster	70	1.2714	.44791	.05354	1.1646	1.3782	1.00	2.00
Other	37	1.5405	.50523	.08306	1.3721	1.7090	1.00	2.00
Total	1500	1.2547	.43582	.01125	1.2326	1.2767	1.00	2.00

Detailed descriptive statistics of communication preferences provided deeper insights into how community members prefer to receive information. The analysis revealed that interpersonal communication remains the dominant choice, with word of mouth and community meetings emerging as the most trusted and widely used channels.

Among the various options, word of mouth had the lowest mean score (1.23), making it the most preferred communication channel. This suggests that informal discussions among family members, friends, and neighbors play a critical role in information sharing. Similarly, community meetings followed closely behind (Mean = 1.26), reinforcing the value of direct engagement where individuals can receive information in a structured yet interactive manner. While interpersonal methods dominated, media sources such as television, radio, and newspapers (Mean = 1.24) also played a significant role in information dissemination. Although slightly less preferred than face-to-face interactions, media platforms still hold influence, making them valuable secondary channels for reaching the community.

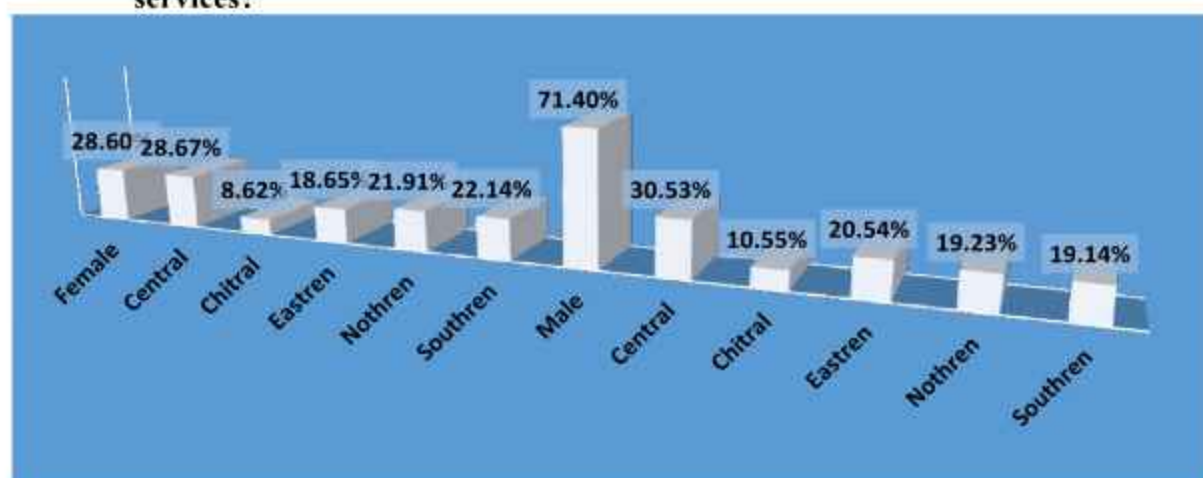
On the other hand, the least preferred communication method was the "Other" category, with the highest mean score of 1.54. This suggests that individuals who relied on alternative methods—such as mobile messages or social media—had distinct preferences that differed



from the majority of respondents. The lower reliance on these channels indicates that digital platforms have not yet gained widespread acceptance in this particular community. Additionally, flyers and posters (Mean = 1.27) were moderately preferred, suggesting that while printed materials contribute to outreach efforts, they are not as effective as interpersonal communication. These materials may serve as useful supplementary tools but are unlikely to be as impactful as standalone methods.

A notable aspect of the analysis was the consistency in communication preferences across respondents, as indicated by the relatively small standard deviation. This uniformity reinforces the finding that direct, interpersonal communication methods are overwhelmingly favored over formal media channels or printed outreach materials. These insights highlight the need to prioritize face-to-face engagement while integrating other channels strategically to ensure broader community reach.

#### 7. How would you rate the effectiveness of these channels in informing you about services?



#### Regional Trends in Service Effectiveness

In terms of overall ratings, the Central region stands out with the highest effectiveness score at 30.53%. This suggests that services here are not only more accessible but also better received by the population. The region's strong engagement in community meetings and information dissemination efforts likely contributes to this positive perception.

On the opposite end of the spectrum, Chitral reports the lowest effectiveness rating at just 10.55%. This raises concerns about whether services are failing to reach the people who need them most or if they are simply perceived as inadequate. Given Chitral's historically low participation in community discussions, this could point to underlying communication gaps or barriers in service delivery.

Meanwhile, the Eastern (20.54%), Northern (19.23%), and Southern (19.14%) regions fall somewhere in the middle. While these figures suggest that services are somewhat effective, they also highlight opportunities for improvement in making them more impactful for residents.

#### The Gender Divide in Service Perception

Beyond regional differences, gender plays a significant role in how service effectiveness is perceived.

Men account for 71.40% of service effectiveness ratings, which suggests that they have greater access to these services or are more actively engaged in evaluating them. Women, on the other hand, contribute only 28.60% to these ratings, a much lower figure that raises questions about potential barriers preventing them from accessing and benefiting from services equally.

Looking deeper into female engagement, the Central region shows the highest female participation in service ratings at 28.67%. However, in Chitral, female engagement plummets

to just 8.62%, reinforcing concerns that women in this region may be facing significant obstacles—whether cultural, logistical, or informational—that prevent them from fully utilizing available services. Among men, the pattern remains similar to overall regional trends, with the Central region leading at 30.53%, while other regions, including Chitral at 10.55%, show lower ratings.

#### ANOVA

##### Gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.827	2	.414	2.181	.113
Within Groups	283.890	1497	.190		
Total	284.717	1499			

To determine whether perceptions of communication effectiveness varied by gender, an ANOVA test was conducted. The results showed an F-statistic of 2.181 and a p-value of 0.113, indicating that there was no statistically significant difference in how men and women rated the effectiveness of communication channels ( $p > 0.05$ ). This suggests that gender does not play a crucial role in determining whether individuals find communication methods very effective, somewhat effective, or not effective.

#### Descriptive statistics and key findings of ANOVA

##### Descriptives

##### Region

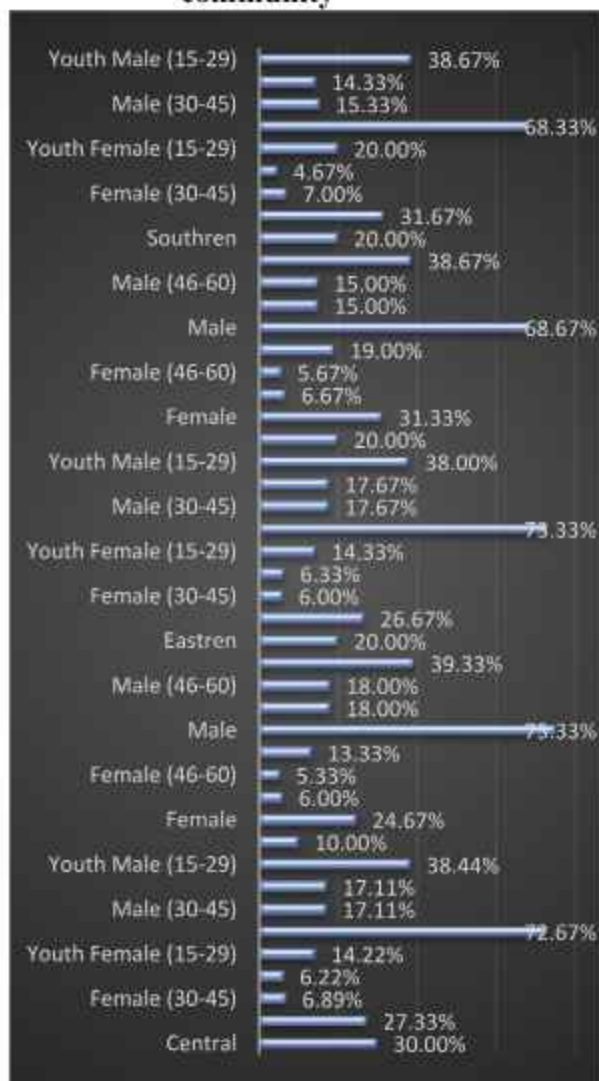
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Very effective	690	3.0319	1.48885	.05668	2.9206	3.1432	1.00	5.00
somewhat effective	697	2.7489	1.50242	.05691	2.6372	2.8607	1.00	5.00
Not effective	113	3.0265	1.65540	.15573	2.7180	3.3351	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

Descriptive statistics provide further insights into these variations. The mean effectiveness rating for respondents who found the channels "Very Effective" was 3.03 (SD = 1.49), while those who rated them as "Somewhat Effective" had a slightly lower mean of 2.75 (SD = 1.50). Interestingly, even among respondents who considered the channels "Not Effective," the mean score was 3.02 (SD = 1.65), suggesting that dissatisfaction may be influenced by specific factors rather than a complete rejection of communication efforts.

Overall, these findings emphasize the importance of enhancing outreach methods to improve accessibility and clarity, particularly in regions where effectiveness is perceived differently. While gender does not significantly impact perceptions, regional disparities highlight the need for tailored communication strategies that address the unique needs of different communities.



## 8. Are there any communication channels that you believe are missing in your community



### Regional disparities

The Central Region leads in communication engagement, with 30% overall participation, largely driven by men (72.67%) and youth. However, women—especially those aged 46-60 (6.22%)—struggle to engage, indicating barriers in accessibility or cultural norms.

At the other extreme, Chitral faces the most significant communication gap, with only 10% participation. Men (75.33%) are more engaged than women (24.67%), but even their numbers are low, suggesting that weak infrastructure or cultural restrictions limit information flow.

In the Eastern Region (20% participation), the gender gap remains wide, with men at 73.33% and women at 26.67%. While digital communication works well for youth (38% young men), older adults remain disengaged.

The Northern and Southern Regions (both 20% participation) show slightly better gender inclusion, with women engaging at around 31%. Youth participation is strong, particularly through social media, but older adults—especially women (as low as 4.67%)—continue to be left out.

### Gender disparities

#### Men Take the Lead in Communication

Across all regions, men remain the primary participants in communication networks, with engagement rates ranging from 68% to 75%. This suggests that existing channels—whether digital,

community meetings, or public forums—are more accessible to men. Women, on the other hand, may face challenges that make it harder for them to engage, whether due to structural barriers, societal norms, or a lack of women-focused communication strategies.

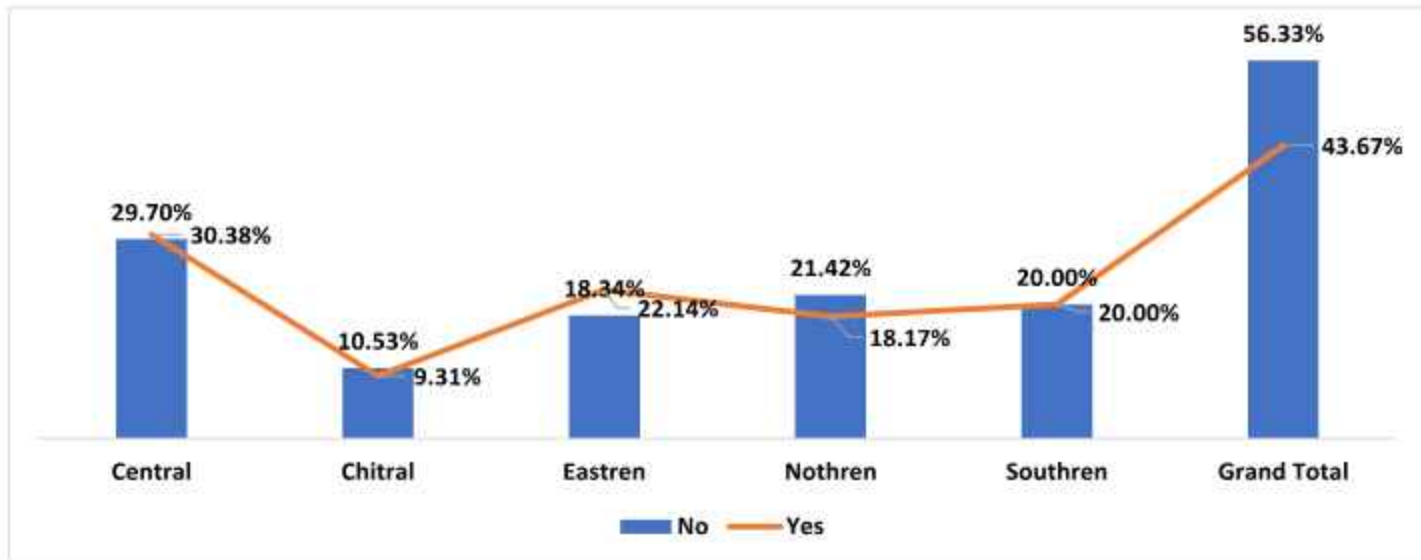
#### Older Women: The Most Disconnected Group

No demographic is more excluded from communication networks than women aged 46-60. In some regions, their participation is as low as 4.67%, indicating significant barriers to access. Several factors contribute to this exclusion:

#### Youth: The Most Engaged Group

While older women remain the least connected, youth—particularly young men (15-29)—are the most active participants, reaching engagement levels of nearly 40%. Young women also engage more than older women, though they still lag behind their male counterparts. This trend suggests that digital platforms and social media are effective in reaching younger populations. However, the increasing reliance on online communication creates a new concern—those without access to technology, particularly older adults, risk being left behind in community discussions and decision-making.

## 9. Has anyone in your household accessed any services in the past year?



### Region wise

In the Central region, access to services appears relatively balanced, with nearly equal numbers of households reporting access (30.38%) and those without (29.70%). This suggests that while service delivery is well-developed, it is not yet universal. Some residents still face challenges in reaching or utilizing these resources, making it essential to strengthen outreach and inclusivity efforts.

The situation in Chitral, however, is starkly different. With only 9.31% of respondents reporting access—the lowest among all regions—it is clear that a significant portion of the population remains disconnected. Even more concerning is that 10.53% explicitly stated they had no access at all. This points to deep-rooted infrastructural challenges, geographical barriers, and a lack of effective outreach. Households in this region are struggling to connect with essential services, reinforcing the urgency for targeted development efforts that cater to its unique needs.

A slightly better picture emerges in the Eastern region, where 22.14% of households had access to services, compared to 18.34% who did not. While these figures indicate progress, they also highlight persistent challenges. Barriers such as affordability, awareness, and logistical difficulties continue to prevent full accessibility. Without addressing these issues, a significant portion of the population will remain underserved. The Northern region presents an even more concerning trend. Here, 21.42% of respondents reported no access to services, exceeding the 18.17% who had access. This suggests that more households are being left behind, raising serious concerns about service distribution. The data highlights an urgent need for interventions that prioritize equitable access, ensuring that no segment of the population is disproportionately excluded.

Meanwhile, in the Southern region, the response was evenly split—20% of households reported access, while another 20% did not. This stable yet limited access indicates that while services exist, they are not reaching enough people. Without strategic improvements to expand their reach, a significant portion of the population will continue to face barriers to essential resources. Looking at the overall trend, the data paints a stark reality—56.33% of households reported no access to services in the past year, compared to just 43.67% who did. This means that more than half of all households remain disconnected, facing obstacles that prevent them from benefiting from essential services.

The findings make it clear that addressing these disparities requires region-specific strategies. While some areas, such as the Central region, may benefit from better outreach programs,



others—particularly Chitral and the Northern region—need major infrastructural investments and policy interventions. Only through targeted, regionally tailored efforts can we bridge the gap and ensure that every household, regardless of location, has access to the services they need.

#### ANOVA

##### Gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.278	4	.070	.365	.833
Within Groups	284.439	1495	.190		
Total	284.717	1499			

The ANOVA analysis was conducted to assess whether there were significant differences in the utilization of specific services over the past year based on gender. The results indicated that gender did not play a significant role in determining which services individuals or households accessed. With an F-statistic of 0.365 and a p-value of 0.833, the findings suggest no statistically significant difference in service utilization between different gender groups.

#### Descriptive statistics and key Findings (Gender wise) ANOVA

##### Descriptives

##### Gender

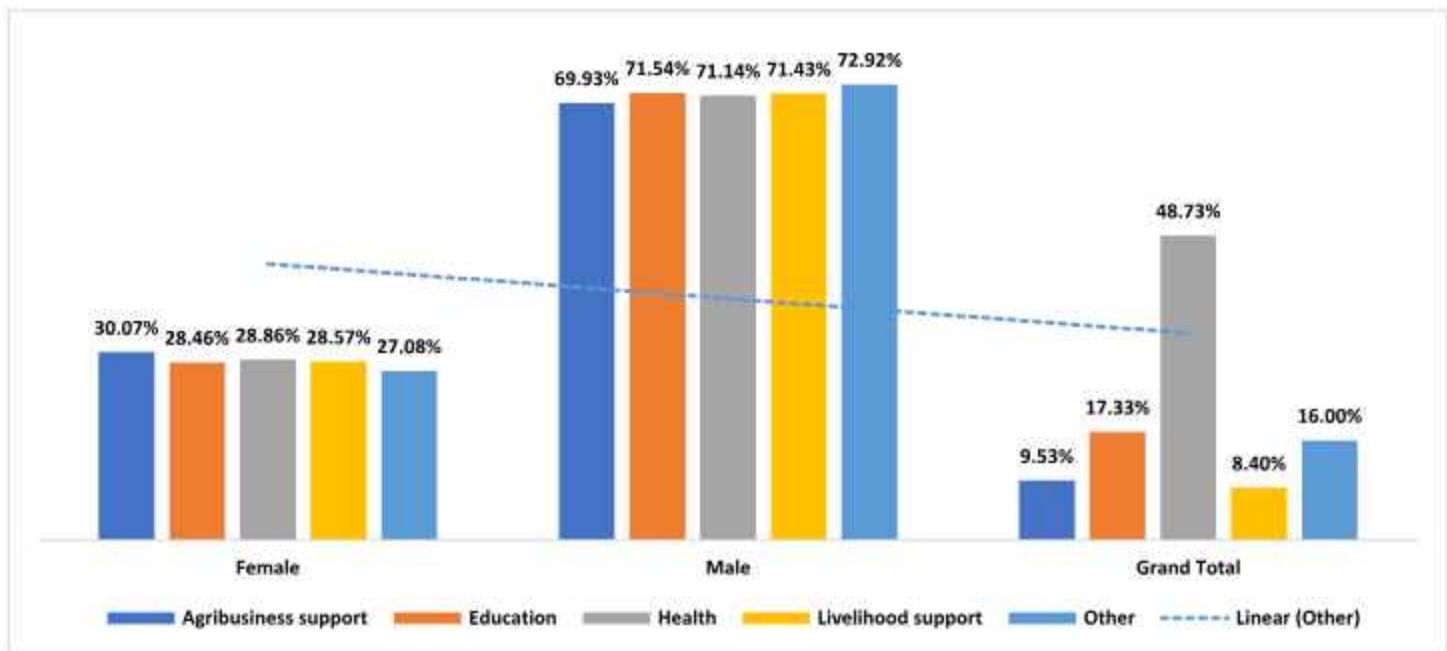
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Health	731	1.2599	.43889	.01623	1.2280	1.2918	1.00	2.00
Education	260	1.2538	.43605	.02704	1.2006	1.3071	1.00	2.00
Agribusiness support	143	1.2657	.44328	.03707	1.1925	1.3390	1.00	2.00
Livelihood support	126	1.2698	.44565	.03970	1.1913	1.3484	1.00	2.00
Other (Specify)	240	1.2250	.41846	.02701	1.1718	1.2782	1.00	2.00
Total	1500	1.2547	.43582	.01125	1.2326	1.2767	1.00	2.00

The descriptive statistics further support this conclusion, as the mean values across various service categories remained relatively consistent. Both men and women accessed services at similar rates, with health services (Mean = 1.2599), education services (Mean = 1.2538), agribusiness support (Mean = 1.2657), livelihood support (Mean = 1.2698), and other services (Mean = 1.2250) showing minimal variation. This uniformity suggests that access to essential services is relatively balanced between genders.

The findings imply that barriers to service utilization, if present, are likely influenced by factors other than gender. Regional disparities, socioeconomic conditions, and the availability of information about services may play a more significant role in determining access. While ensuring gender inclusivity remains a priority, efforts to enhance service delivery should focus

on increasing awareness, improving accessibility, and ensuring the quality of services for all community members, regardless of gender.

#### 10. Which specific services did you or your household use in the last year



#### Gender wise

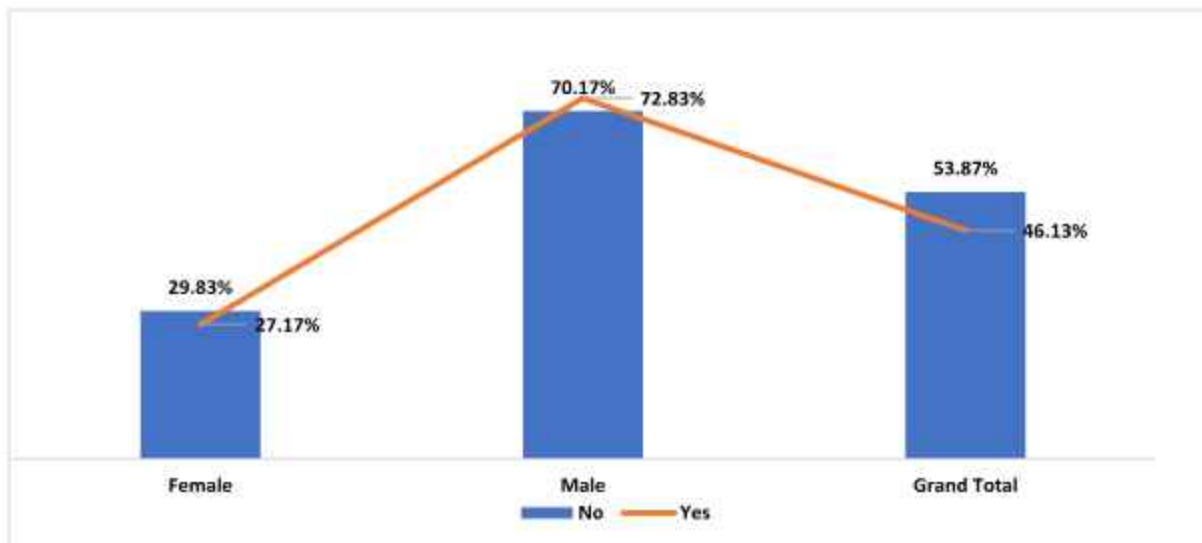
Access to essential services remains uneven, with men consistently benefiting more than women across all categories. While health services are the most widely used, education, economic support, and other essential programs continue to show significant gender gaps. Nearly half (48.73%) of respondents accessed health services, making it the most utilized service. However, men accounted for 71.14% of users, while only 28.86% were women. This suggests that barriers such as limited healthcare access, financial constraints, or cultural restrictions may prevent women from seeking medical care when needed.

A similar pattern is seen in education, where 17.33% of respondents accessed services, but men made up 71.54% of beneficiaries. Women's lower participation (28.46%) highlights persistent challenges, including societal expectations, affordability issues, and a lack of female-focused educational opportunities. These disparities limit women's chances for professional and personal growth, reinforcing inequality in learning and skills development. Economic empowerment programs, such as agribusiness support (9.53%) and livelihood assistance (8.40%), remain largely male-dominated, with around 70% of participants being men. Women's lower participation (30.07% in agribusiness, 28.57% in livelihood support) points to obstacles such as restricted financial access, land ownership challenges, and fewer training opportunities. Without targeted support, women will continue to be excluded from key economic growth initiatives.

Other services reflect the same pattern of inequality, with 16.00% of respondents reporting access, yet men accounted for 72.92% of users. The consistent underrepresentation of women (27.08%) across service categories highlights broader structural barriers that limit their participation.

#### 11. Were there any barriers that prevented you from accessing these services?





#### Gender wise

##### Barriers to Accessing Services: A Gendered Perspective

Access to essential services is not just about availability—it's also about overcoming barriers that prevent individuals from utilizing them. The data reveals that 46.13% of respondents acknowledged facing barriers to accessing services, while 53.87% did not report such difficulties. However, the gender breakdown highlights a striking disparity in how these barriers impact men and women differently.

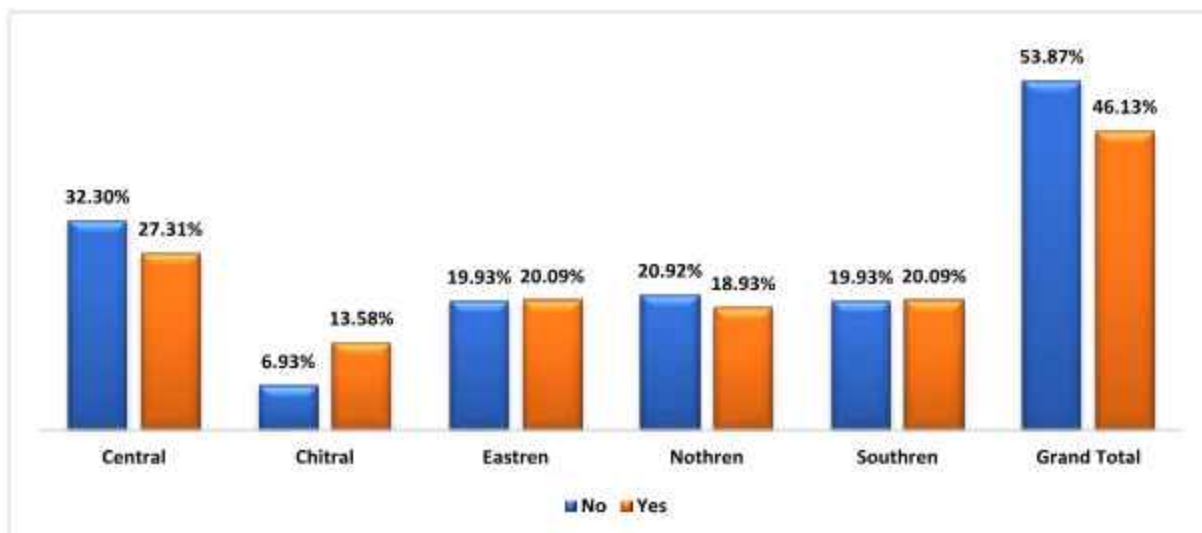
##### Men Report More Barriers Than Women

Among those who reported facing obstacles, 72.83% were men, while only 27.17% were women. This suggests that although men appear to have greater overall access to services, they may also be more likely to recognize or report specific barriers hindering their full utilization.

##### Women Face Barriers, But in Different Ways

Conversely, 29.83% of women stated they did not face barriers, compared to 27.17% who did. While this might suggest fewer reported obstacles, it does not necessarily mean women experience fewer challenges. Instead, societal norms, lack of awareness, or cultural restrictions might prevent them from identifying or openly discussing the barriers they face.

#### Region-wise barriers



Access to essential services remains a challenge across various regions, with some areas facing more difficulties than others. In the Central region, a significant portion of people can access services, but challenges still exist. While 32.30% reported no barriers, 27.31% still face

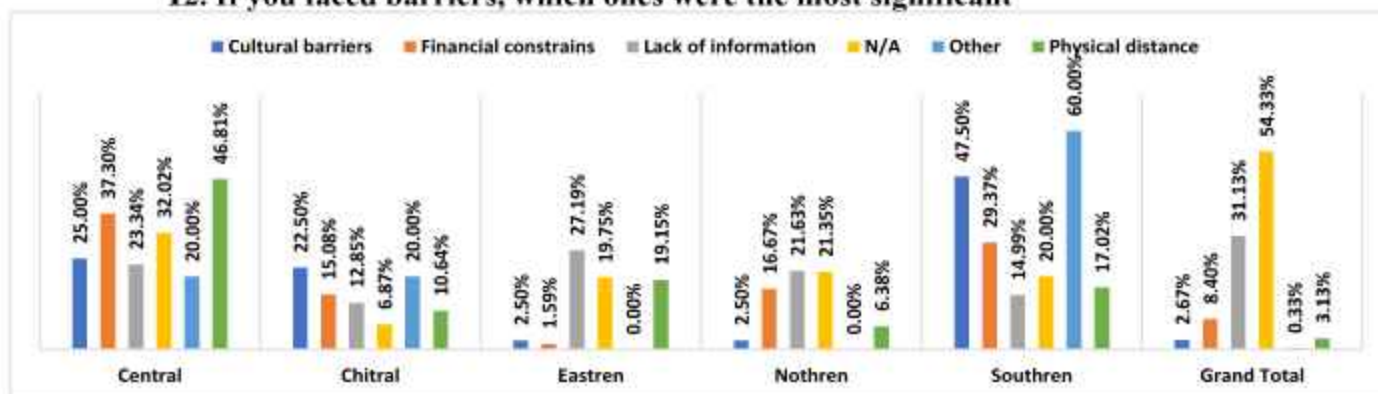
difficulties, likely due to issues related to affordability, lack of awareness, or logistical constraints.

Chitral emerges as the most disconnected region, where access to services is extremely limited. Only 6.93% of respondents reported no barriers, while 13.58% struggled to access services. This suggests that geographical isolation, poor infrastructure, and limited-service availability continue to create significant challenges for the people in this area. In the Eastern region, the situation is nearly balanced, with 19.93% of people reporting no barriers and 20.09% experiencing difficulties. While services may be available, obstacles such as cost, accessibility, or lack of awareness prevent a substantial number of people from benefiting from them.

The Northern region follows a similar pattern, with 18.93% of people reporting challenges in accessing services, slightly fewer than the 20.92% who did not face barriers. This indicates that service distribution and accessibility remain significant concerns, requiring attention to bridge the gap. In the Southern region, access is also nearly evenly split, with 20.09% facing barriers and 19.93% reporting no difficulties. Despite the availability of services, a large segment of the population continues to struggle, highlighting the need for improvements in outreach and accessibility.

Looking at the overall trend, 46.13% of people across all regions still face significant obstacles in accessing essential services, while only 53.87% report no barriers. This highlights a persistent issue, particularly in regions like Chitral and the North, where the challenges are most severe. Addressing these disparities through targeted interventions, improved infrastructure, and better service distribution is crucial to ensuring that every individual has equal access to the resources they need.

## 12. If you faced barriers, which ones were the most significant



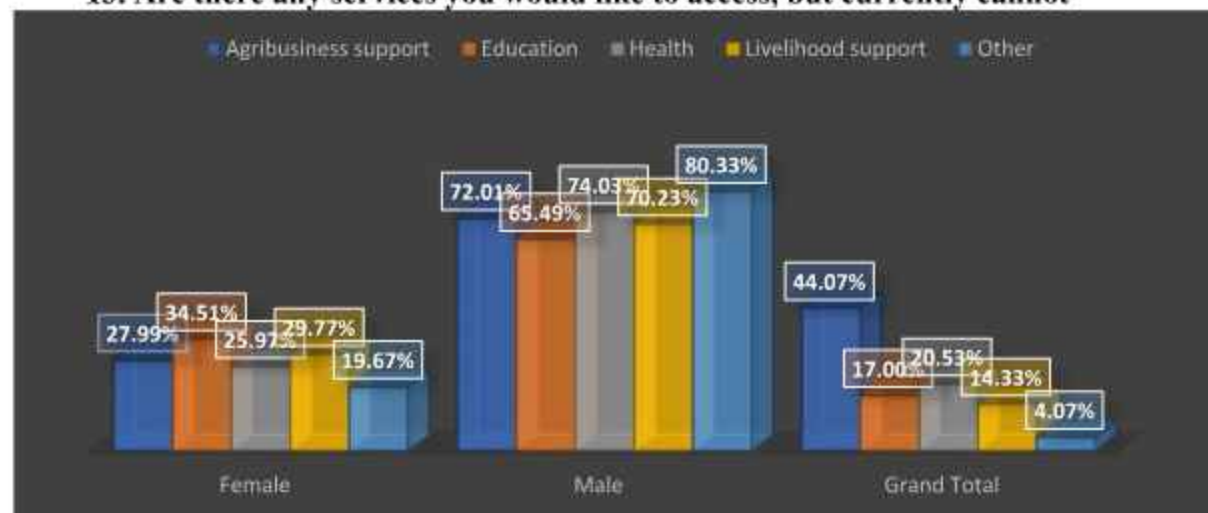
### Region wise

Access to services across different regions is influenced by various barriers, ranging from cultural restrictions to financial constraints and physical distance. In the Central region, physical distance is a major issue, with 46.81% of respondents highlighting it as a challenge. Additionally, financial constraints (37.30%) and a lack of information (23.34%) further limit access to essential services. Cultural barriers also play a role, affecting 25% of the population. Chitral faces fewer challenges in terms of physical distance (10.64%) but still struggles with financial constraints (15.08%) and a lack of information (12.85%). Cultural barriers (22.50%) are also a significant factor, limiting people's ability to seek and access services. In the Eastern region, the primary barrier appears to be a lack of information, affecting 27.19% of respondents. Financial constraints (1.59%) and cultural barriers (2.50%) are less pronounced compared to other regions. The Northern region also sees a strong impact from a lack of information (21.63%), while financial constraints (16.67%) remain a significant challenge. However, cultural barriers (2.50%) and physical distance (6.38%) seem to be less of a concern. The Southern region presents a unique situation where cultural barriers (47.50%) are the most significant challenge, followed by financial constraints (29.37%). The lack of information



(14.99%) and physical distance (17.02%) are also notable barriers, though less dominant. Overall, financial constraints and a lack of information are some of the most common barriers affecting service access across multiple regions. Physical distance is a particular concern in the Central region, while cultural barriers are especially prevalent in the Southern region. Addressing these challenges requires targeted interventions that focus on improving infrastructure, increasing awareness, and ensuring affordability to create more equitable access to essential services.

### 13. Are there any services you would like to access, but currently cannot



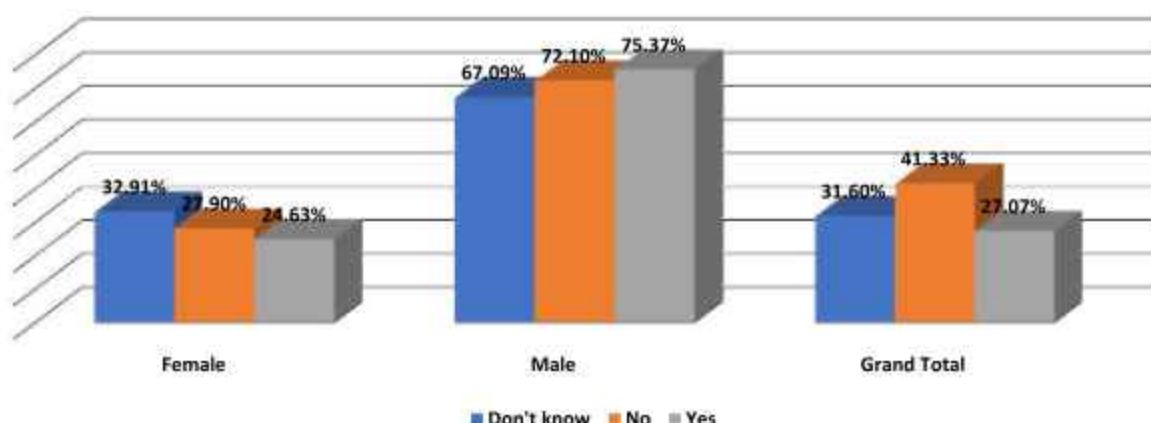
#### Gender wise

The data reveals a significant gender disparity in access to various services, with men having greater access across all categories compared to women. Agribusiness support is one of the most male-dominated services, with 72.01% of men reporting an interest in accessing it, compared to only 27.99% of women. Similarly, education services show a stark difference, with 65.49% of men expressing a need for access, while only 34.51% of women reported the same.

Health services, which are critical for both men and women, also exhibit a disparity. While 74.03% of men indicated they would like to access health services but currently cannot, only 25.97% of women reported the same challenge. This suggests that although health services are in demand, women may face additional barriers preventing them from accessing care. Livelihood support follows a similar pattern, with 70.23% of men expressing a need for these services, compared to just 29.77% of women. This could indicate systemic obstacles such as limited employment opportunities, training programs, or financial resources for women.

The "Other" category, which includes additional services beyond the main categories, is overwhelmingly dominated by men at 80.33%, whereas only 19.67% of women expressed a desire for access. This indicates that women might have fewer opportunities or awareness of certain services that men are more readily able to seek. Overall, the findings highlight a substantial gender gap in access to services, with men consistently having greater opportunities across all areas. Women appear to face structural and societal barriers that prevent them from utilizing essential services, particularly in economic and livelihood-related sectors. Addressing these disparities requires targeted interventions that focus on improving inclusivity and removing barriers that limit women's access to critical resources.

### 14. Do you feel that the services in your community are equally accessible to both men and women



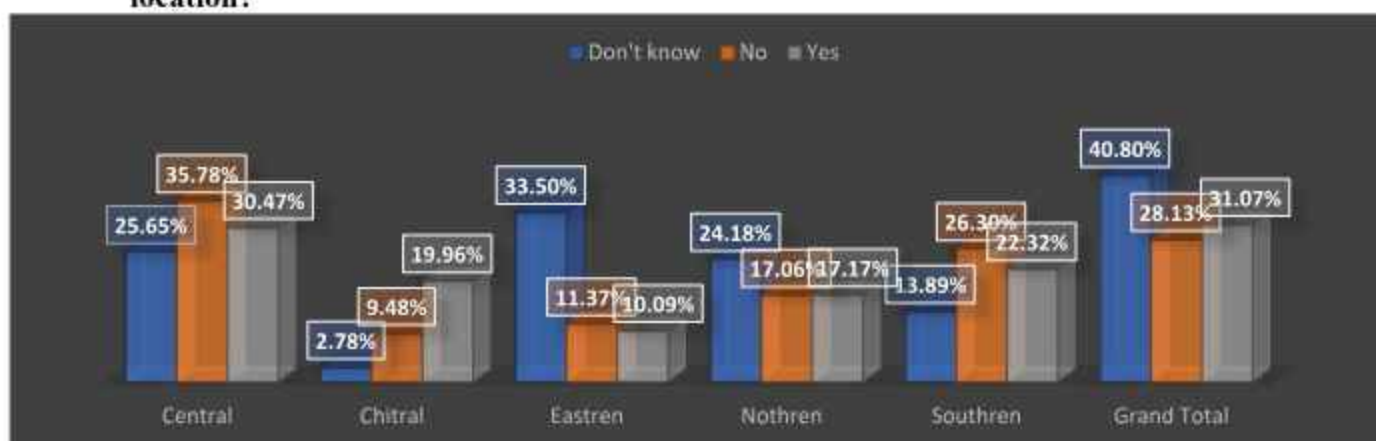
### Gender wise

The data highlights a significant gender difference in awareness and willingness to access certain services. Among females, 32.91% indicated that they "Don't Know" about the availability of services, showing a potential gap in information dissemination. Additionally, 27.90% of women reported that they would not access the services, while only 24.63% stated that they would. This suggests that either the services do not meet their needs or there are existing barriers preventing them from utilizing them.

For males, the situation is markedly different. A substantial 75.37% responded positively, indicating a strong interest in accessing these services, while only 72.10% stated they were aware of them. This suggests that men are both more informed and more inclined to utilize the services available to them. Only 67.09% of men responded with "Don't Know," which is significantly lower than the percentage for women, indicating that information gaps are more prevalent among females.

At the overall level, 31.60% of respondents reported that they "Don't Know" about the services, while 41.33% stated they would not access them. Only 27.07% of the total respondents expressed an interest in using the services, highlighting a broader issue of limited awareness and engagement. The data suggests that addressing awareness gaps, particularly among women, and ensuring that services align with their needs could help increase participation rates.

### 15. Are there any services that are not available to you due to your geographical location?



### Region wise

The data reveals a significant regional variation in the awareness and availability of services, likely influenced by geographical constraints. A substantial 40.80% of respondents at the national level indicated that they "Don't Know" whether services are available, highlighting a widespread issue of information gaps. This lack of awareness is particularly high in the Eastern

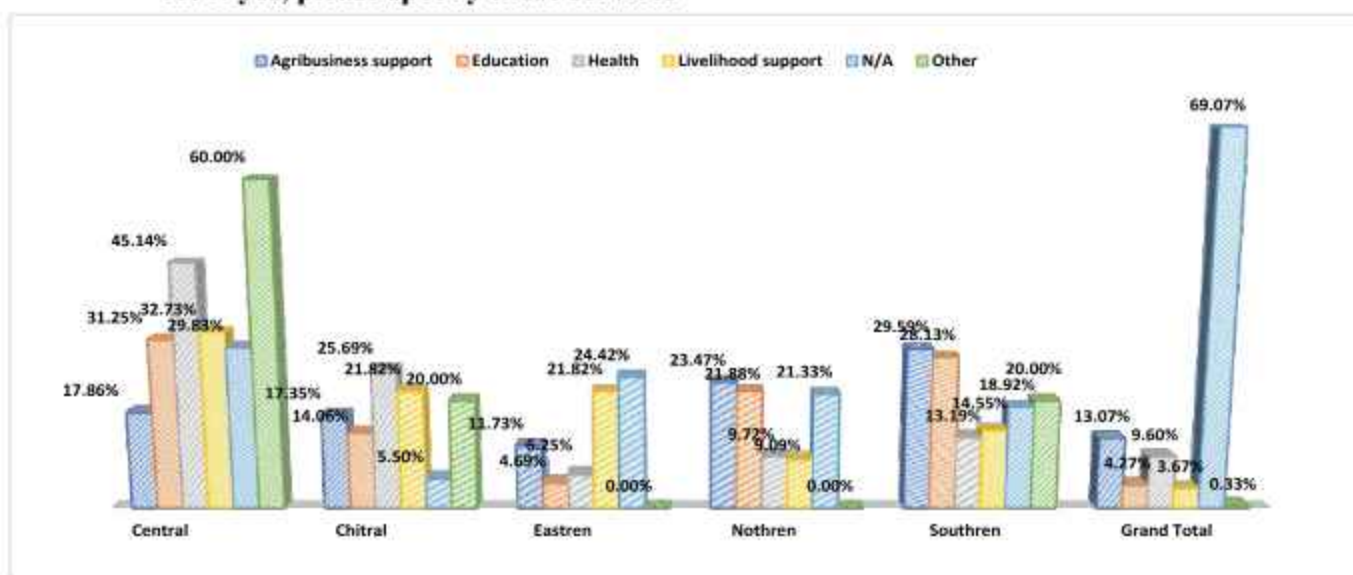


region (33.50%) and Northern region (24.18%), suggesting that these areas may have limited communication channels or outreach programs.

The percentage of respondents who explicitly stated that services are not available is highest in the Central region (35.78%) and the Southern region (26.30%), indicating that even though these regions might have better infrastructure, accessibility remains a concern. On the other hand, Chitral has the lowest percentage of people who reported service unavailability (9.48%), which could either mean that services are better provided or that expectations are already low. The willingness to access services if available is relatively high in Chitral (19.96%) and the Central region (30.47%), suggesting that demand exists in these areas. However, the Eastern region has the lowest percentage (10.09%) of people who would access services, possibly due to extreme remoteness or limited-service relevance.

Overall, the data indicate that geographical barriers significantly impact service awareness and accessibility. Remote areas such as Chitral, the Northern, and Eastern regions may lack proper infrastructure, making service provision difficult. Meanwhile, regions with better connectivity, such as Central and Southern areas, still face issues related to service availability rather than geographical inaccessibility alone. Addressing both awareness and accessibility, particularly in geographically isolated regions, could help improve service utilization.

#### 16. If yes, please specify those services



#### Region wise

Service availability across different regions varies significantly, highlighting gaps in critical sectors such as agribusiness, education, health, and livelihood support. In the Eastern region, the complete absence of "Other" services (0.00%) suggests that unique local needs are not being met. Additionally, the low availability of agribusiness support (11.73%) points to a lack of agricultural assistance, while education services (6.25%) are also minimal, indicating limited access to learning opportunities. Similarly, the Northern region faces considerable service gaps, with "Other" services entirely absent (0.00%). Health services are among the lowest across all regions at just 7.79%, raising concerns about inadequate medical facilities. Additionally, livelihood support (9.74%) is significantly lower than in other areas, further limiting opportunities for economic growth and stability.

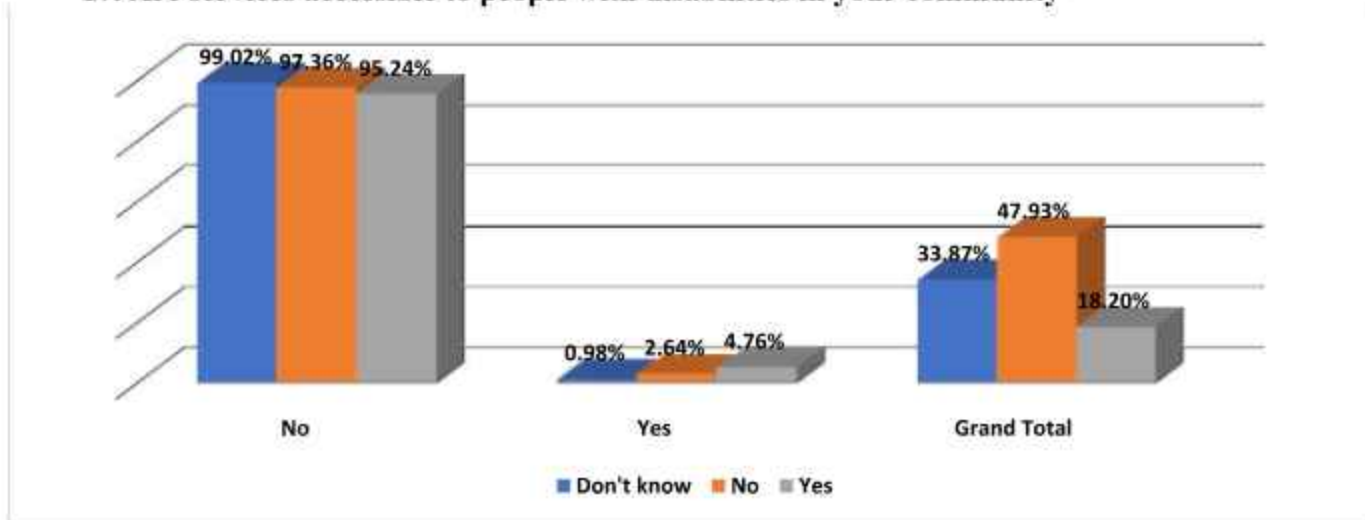
In Chitral, a strikingly low "N/A" response (5.50%) suggests that most people are aware of the lack of available services. Agribusiness support (17.35%) is among the lowest across all regions, hinting at difficulties in agricultural development. Similarly, education services (11.06%) show limited availability, restricting learning opportunities for residents. The Southern region also reveals notable deficiencies. While some "Other" services are present

(20.00%), the demand for undefined services remains high. Additionally, healthcare support (13.16%) is relatively low, particularly when compared to regions such as Central and Chitral, raising concerns about access to medical care.

In contrast, the Central region shows a different pattern. With "Other" services reaching 60.00%, it becomes evident that a substantial portion of the population perceives significant service gaps beyond the predefined categories. Agribusiness support remains relatively low at 17.85%, but education (31.25%) and health services (45.14%) are better supported compared to other regions. Looking at the overall trend, a strikingly high percentage of "N/A" responses (69.07%) suggests that many respondents either lack awareness of available services or face challenges in accessing them. Meanwhile, "Other" services account for only 0.33% on a broader scale, indicating that most regional concerns align with the predefined categories.

These findings highlight the need for targeted interventions to address service deficiencies in specific regions. Improving agricultural assistance in Chitral and Eastern areas, expanding healthcare in the Northern and Southern regions, and addressing unique service gaps in Central could significantly enhance overall development and well-being across these geographic areas.

#### 17. Are services accessible to people with disabilities in your community



#### Disability Services

The bar chart presents responses across three categories: "No," "Yes," and "Don't Know," indicating the extent to which individuals acknowledge a particular issue or barrier. The majority of respondents fall under the "No" category, with 99.02%, 97.36%, and 95.24% across different groups, suggesting a widespread perception that the issue in question is not a significant problem.

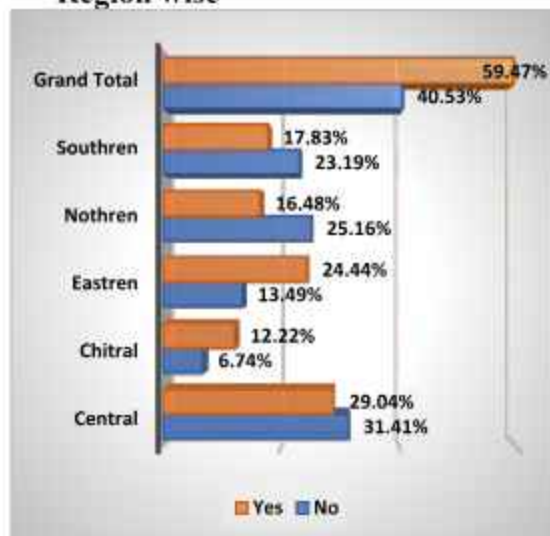
A smaller percentage, ranging from 0.98% to 4.76%, reported "Yes," acknowledging the presence of the issue. The relatively low percentage here indicates that only a minor portion of respondents experience or recognize the challenge. The "Grand Total" segment shows a broader perspective, with 33.87% responding "Don't Know," 47.93% selecting "No," and 18.20% choosing "Yes." The high proportion of "Don't Know" responses suggests uncertainty or a lack of awareness among many respondents, which may indicate the need for more information or discussions around the topic.

Overall, the data suggests that while most individuals do not perceive the issue as a problem, a notable minority acknowledges its presence. The significant percentage of uncertain responses highlights the importance of further exploration and awareness-building to ensure a clearer understanding among all group

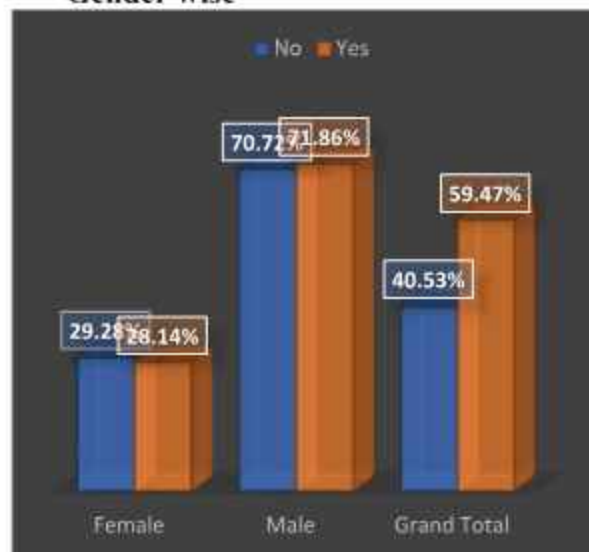
#### 18. Is transportation a barrier to accessing services for you



**Region wise**



**Gender wise**



### Regional Insights

In the Central region, transportation barriers are reported by 29.04% of the population, the highest among all regions. This suggests that a significant number of people struggle with transportation issues, making it a critical concern for service accessibility. In contrast, the Eastern region also shows a considerable challenge, with 24.44% of respondents acknowledging transportation as a barrier. This indicates that nearly a quarter of the population encounters difficulties in reaching essential services. The Southern region follows a similar trend, where 17.83% of respondents face transportation issues. Though not as high as in Central and Eastern regions, the presence of these challenges suggests room for improvement in infrastructure or mobility solutions.

In the Northern region, transportation is perceived as less of a barrier, with only 16.48% of respondents reporting difficulties. Additionally, 25.16% stated that they do not face transportation constraints, indicating relatively better accessibility in this region. Chitral has the lowest percentage of individuals reporting transportation challenges (12.22%), suggesting either a lower reliance on transportation or a smaller population affected by such issues. Despite this, the presence of any barriers still indicates potential areas for improvement. Overall, 59.47% of people across all regions report transportation as a barrier to accessing services, making it a widespread concern that needs attention.

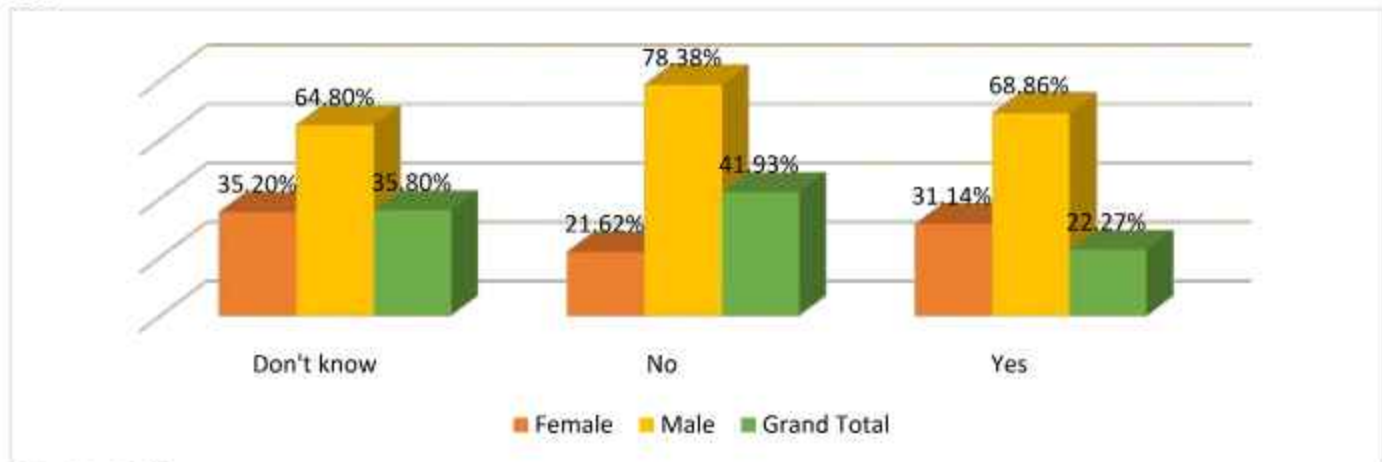
### Gender-Based Insights

When analyzing transportation barriers from a gender perspective, men appear to be more affected than women. Among those who struggle with transportation, 71.86% are male, while 28.14% are female. Similarly, among those who do not experience transportation barriers, 70.72% are male, and 29.28% are female. This indicates that men are more likely to face transportation challenges, potentially due to their higher mobility needs for work, education, or other activities that require frequent travel. Women, on the other hand, might experience fewer transportation difficulties due to different lifestyle patterns, alternative commuting methods, or localized service availability.

Transportation barriers remain a significant challenge for a majority of the population, particularly in the Central and Eastern regions. While the Northern and Chitral regions report fewer difficulties, transportation remains a concern across all areas. Additionally, men appear to be more impacted than women, possibly due to greater mobility needs.

### 19. Do you think there are cultural or social barriers that prevent people from accessing services

20.



### Gender Wise



### Regional Insights

In the Central region, opinions are fairly balanced—31.14% of respondents acknowledge social and cultural barriers, while a slightly higher 31.32% do not perceive such challenges. However, a significant 27.75% remain uncertain, suggesting that many individuals either lack awareness of these barriers or have mixed experiences.

In Chitral, only 13.47% identify social and cultural obstacles, while 10.33% believe these barriers do not exist. Notably, 7.45% express uncertainty, which may indicate lower awareness or a perception that such challenges are not as prevalent in the region. The Eastern region presents a more divided response—20.66% recognize barriers, whereas 19.40% disagree. A considerable 20.30% are unsure, hinting at varying perspectives across different social groups, possibly influenced by localized cultural norms.

A similar trend is seen in the Northern region, where 16.47% acknowledge barriers, 15.42% do not, and a substantial 27.56% remain uncertain. The high rate of uncertainty may point to differing experiences among individuals, making it difficult to draw a clear conclusion. In the Southern region, 18.26% report experiencing social and cultural restrictions, while 23.53% say they do not. Meanwhile, 16.95% are unsure, indicating a mixture of perspectives within the region. When looking at the overall picture, 22.27% of respondents across all regions recognize social and cultural barriers, while 41.93% dismiss them, and 35.80% remain uncertain. This suggests that while these barriers do exist, many individuals may not explicitly recognize them, or their impact may vary based on individual circumstances.



### Gender-Based Perspectives

Analyzing the data by gender reveals that men and women experience social and cultural constraints differently. Among men, 68.86% report facing social and cultural barriers, while a larger portion, 78.38%, believe these barriers do not affect them. Interestingly, 64.80% remain uncertain, which may suggest that while many do not perceive barriers, those who do might be encountering them in specific settings, such as workplace environments or societal expectations related to mobility and responsibilities. Among women, the responses are more varied. 31.14% acknowledge barriers, while 21.62% believe they do not face such challenges. However, a significant 35.20% are uncertain, which may indicate hesitation in expressing such issues due to social pressures or a lack of awareness about how these constraints manifest in daily life.

The data reveals a clear distinction between how men and women experience social and cultural barriers when accessing services. Cultural norms play a significant role in shaping these challenges, with 31.25% of women reporting cultural restrictions, compared to 68.75% of men. While women often face limitations due to traditional gender roles, men appear to feel even more constrained, possibly due to expectations around work, mobility, and their societal roles. Distance and transportation also emerge as notable obstacles. While 26.83% of women report difficulties in accessing services due to distance, a much larger 73.17% of men cite the same issue. This suggests that men may need to travel longer distances for employment or other responsibilities, whereas women's mobility could be influenced by safety concerns or social expectations.

Economic challenges present a more balanced picture, with 47.06% of women and 52.94% of men struggling with financial constraints. While both genders face economic difficulties, women may experience additional hurdles due to limited financial independence or restricted employment opportunities. Family responsibilities also shape access to services, affecting both men and women, though in slightly different ways. Around 45.15% of women report family obligations as a barrier, compared to 54.85% of men. This indicates that while women are often responsible for caregiving, men may feel the pressure of being primary earners or decision-makers within their families.

Religious restrictions also influence accessibility, with 37.50% of women and 62.50% of men experiencing barriers related to religious expectations. While women may face restrictions on dress codes, public participation, or social interactions, men may encounter religious expectations concerning leadership, work, and conduct. Social pressures further complicate access to services, with 26.67% of women and 73.33% of men highlighting these as barriers. The higher percentage among men suggests that societal norms, expectations, and public roles may impact them more significantly, while women's challenges may stem from gender-based discrimination or safety concerns. Interestingly, a significant portion of respondents—79.87%—did not specify a particular barrier. Within this group, 27.80% were women and 72.20% were men.

### ANOVA

Gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	7.390	2	3.695	19.946	.000
Within Groups	277.327	1497	.185		
Total	284.717	1499			

The ANOVA analysis revealed a statistically significant difference among gender groups in the dependent variable. The between-group variation, represented by a sum of squares of 7.390 with 2 degrees of freedom, indicates notable differences in the means across gender categories. The mean square for this variation is 3.695, suggesting a meaningful disparity among groups. In contrast, the within-group variation, which captures differences within each gender category, has a sum of squares of 277.327 with 1497 degrees of freedom. The mean square for within-group variation is 0.185, indicating relatively small fluctuations within each group. The F-statistic, calculated at 19.946, represents the ratio of between-group variance to within-group variance. A higher F-value such as this signifies a considerable distinction among the groups. Furthermore, the significance level ( $p = .000$ ) confirms that these differences are statistically significant, as it falls well below the conventional 0.05 threshold. The analyzed data show that there is a variance across the genders in term of socio-cultural barriers and each gender needs a localized and contextualized strategy for intervention.

#### **Descriptive statistics and key points of ANOVA**

##### **Descriptives**

Gender

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Yes	334	1.2934	.45601	.02495	1.2443	1.3425	1.00	2.00
No	629	1.1733	.37880	.01510	1.1436	1.2030	1.00	2.00
Don't know	537	1.3259	.46914	.02024	1.2861	1.3657	1.00	2.00
Total	1500	1.2547	.43582	.01125	1.2326	1.2767	1.00	2.00

The descriptive analysis provides a deeper understanding of the differences observed across gender groups, reinforcing the findings from the ANOVA test. The mean values indicate variations in responses, with the "Yes" group having an average of 1.2934 ( $\pm 0.45601$ ), the "No" group showing a lower mean of 1.1733 ( $\pm 0.37880$ ), and the "Don't Know" group having the highest mean at 1.3259 ( $\pm 0.46914$ ). The overall mean for the total sample stands at 1.2547.

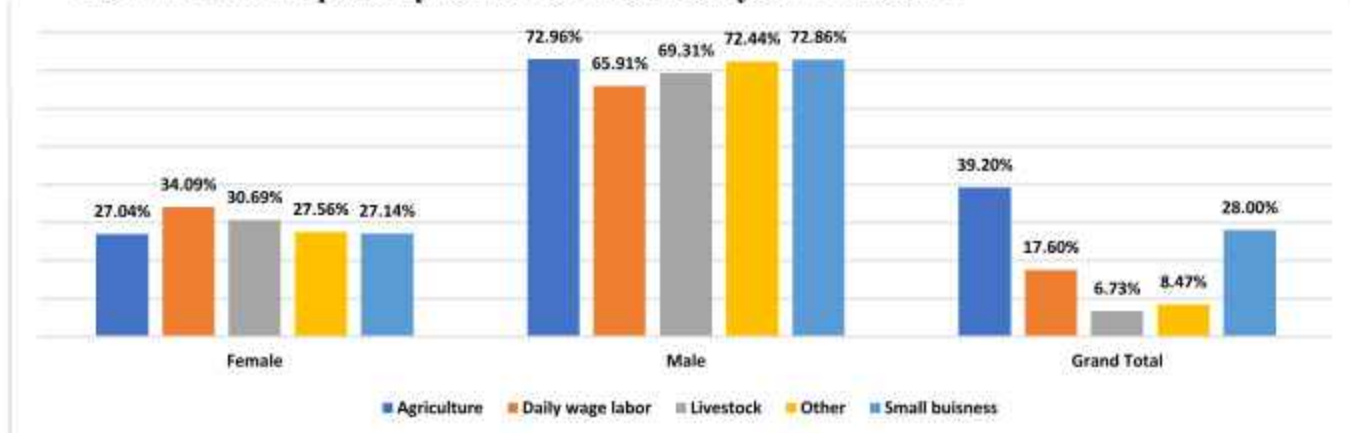
These variations suggest that the "No" group consistently reports lower values compared to the other two groups. Given that the ANOVA results indicate a statistically significant difference ( $F = 19.946$ ,  $p = .000$ ), it is evident that gender plays a role in shaping responses. The descriptive statistics not only highlight where these differences exist and need gender focused interventions.

This high level of uncertainty suggests that many individuals may either be unaware of these barriers or reluctant to acknowledge them, possibly due to social stigma, normalization of these constraints, or lack of awareness. The data highlights that men and women face distinct yet overlapping challenges in accessing services. While cultural, financial, and family-related constraints weigh heavily on women, men report greater difficulties related to social expectations, distance, and religious obligations.



### Section 3: Poverty Reduction and Income Improvement

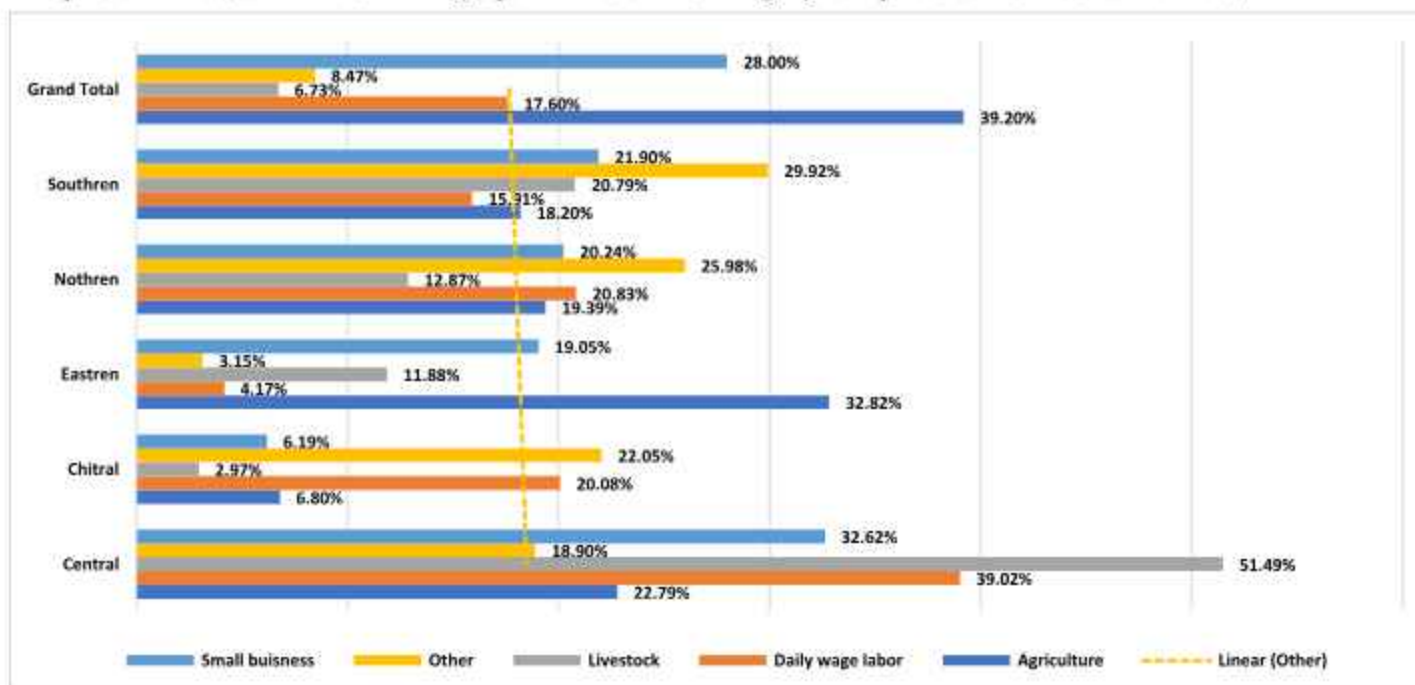
#### 21. What are the primary sources of income for your household?



#### (Gender wise)

The data highlights the primary sources of income for households, with clear gender disparities in certain categories. For households relying on agriculture as their main income source, males represent a significantly larger proportion, with 72.96% compared to 27.04% for females. This suggests that agricultural income is predominantly controlled or generated by males in the sampled households, representing 39.20% of the total. For daily wage labor, females make up a larger share at 34.09%, compared to 65.91% for males, accounting for 17.60% of the total income sources. This indicates that a higher proportion of females are involved in daily wage labor, which is reflected in its overall share of the population.

When it comes to livestock, the male proportion is notably higher at 69.31%, while females account for 30.69%. This source of income contributes 6.73% to the total. Similarly, for small businesses, males dominate again, with 72.86% compared to 27.14% of females, representing 28.00% of the overall income sources. Other income sources also show a higher male representation, with males making up 72.44% of this category compared to 27.56% for females,



contributing 8.47% to the total. This pattern suggests that men are more likely to generate income from a variety of sources, including less common or irregular income streams. Overall,

males tend to dominate most of the primary income sources, especially in agriculture, livestock, and small businesses, while females appear to have a larger presence in daily wage labor.

#### (Region-wise)

In the Central region, agriculture (22.79%) and small businesses (32.62%) are primary income sources, with a notable reliance on daily wage labor (39.02%) and livestock (51.49%). Chitral relies more on daily wage labor (20.08%) and other sources (22.05%), with agriculture and small businesses contributing less. The eastern region depends heavily on agriculture (32.82%) and small businesses (19.05%), with minimal reliance on daily wage labor (4.17%) and moderate contributions from livestock (11.88%). In the Northern region, daily wage labor (20.83%) and small businesses (20.24%) are significant, alongside other sources (25.98%), with agriculture (19.39%) and livestock (12.87%) contributing moderately. The Southern region's income comes primarily from other sources (29.92%) and small businesses (21.90%), with a strong contribution from livestock (20.79%) and a lesser role from agriculture (18.20%). Across all regions, agriculture is the largest income source (39.20%), followed by small businesses (28.00%) and daily wage labor (17.60%), with smaller contributions from livestock (6.73%) and other sources (8.47%).

#### Results of ANOVA

##### ANOVA

Region

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	77.861	4	19.465	8.668	.000
Within Groups	3357.139	1495	2.246		
Total	3435.000	1499			

The ANOVA results reveal significant regional differences in the analyzed variable. The between-groups variance (77.861) suggests notable disparities across regions, while the within-groups variance (3357.139) reflects individual variations. With an F-statistic of 8.668 and a p-value of .000, the findings confirm that at least one region differs significantly from the others. This highlights the impact of regional factors on the observed outcomes, warranting further exploration to identify specific areas of variation and their implications.

Further, the descriptive statistics and mean-wise variation are shown in the table below;

#### Descriptives

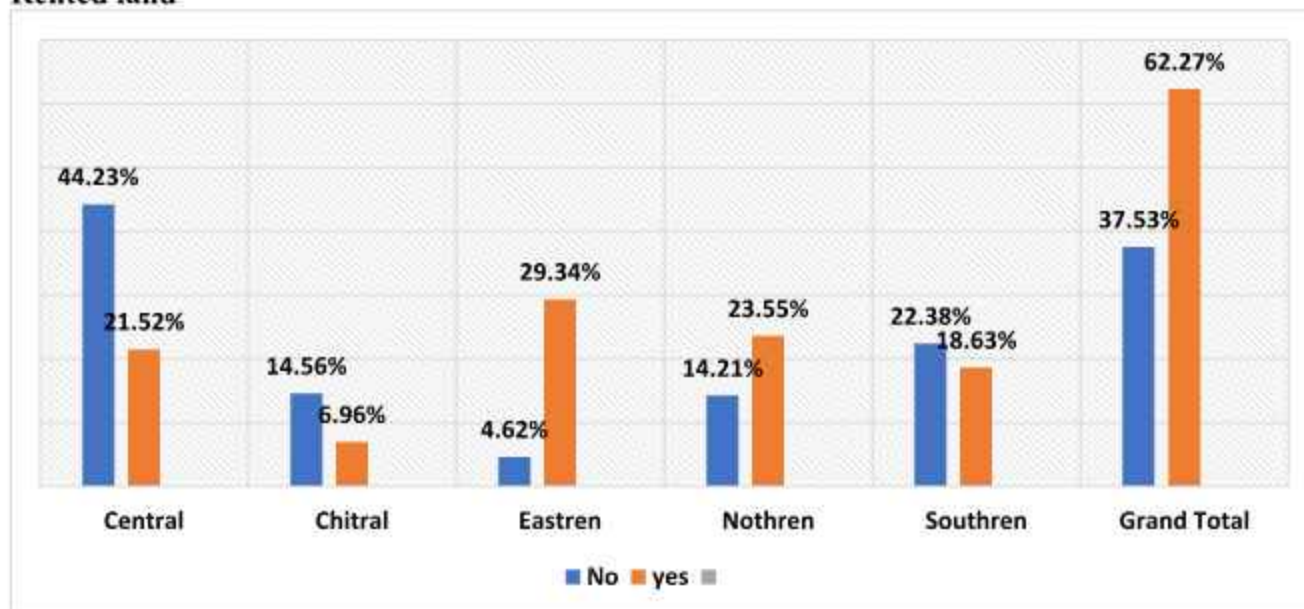
Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Agriculture	588	3.0340	1.37965	.05690	2.9223	3.1458	1.00	5.00
Livestock	101	2.4851	1.67698	.16687	2.1541	2.8162	1.00	5.00
Small business	420	2.9262	1.56385	.07631	2.7762	3.0762	1.00	5.00
Daily wage labor	264	2.5455	1.55196	.09552	2.3574	2.7335	1.00	5.00
Other	127	3.2598	1.54413	.13702	2.9887	3.5310	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00



## 22. If agriculture, How much land you own? (Response is in Kanal)

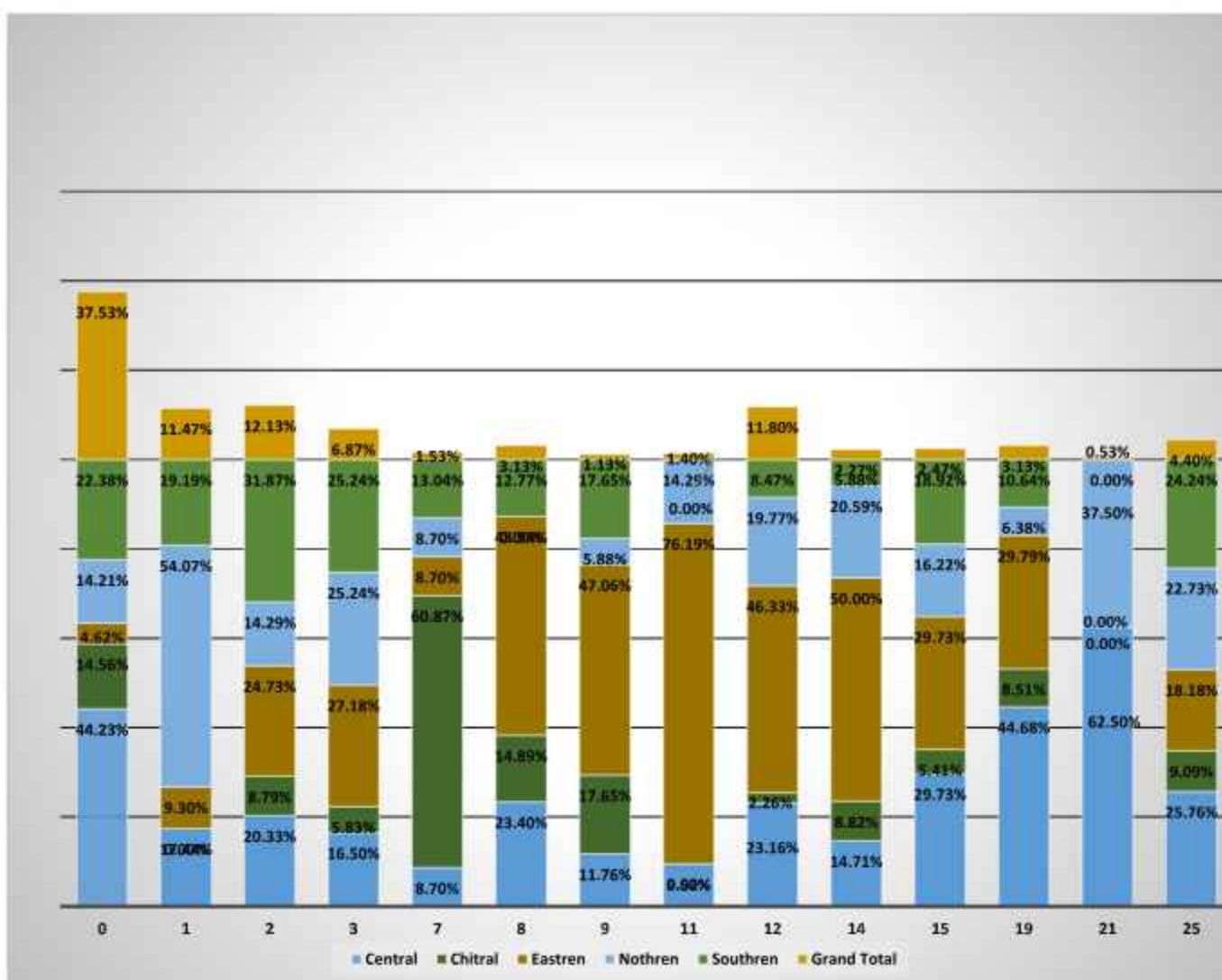
### Rented land



### (Region-wise rented land)

In the Central region, a significant 44.23% of households do not rent agricultural land, whereas 21.52% do. This suggests that renting agricultural land is less common in this region, with many households relying on their own land. In Chitral, a smaller proportion of households do not rent land (14.56%), and 6.96% rent it, indicating a lower level of land rental activity compared to the Central region. In the Eastern region, a very small percentage (4.62%) of households do not rent agricultural land, while 29.34% rent it, showing a higher dependence on rented land for agricultural purposes. The Northern region has 14.21% of households not renting agricultural land, and 23.55% do rent it, indicating a relatively moderate engagement with land rental. In the Southern region, 22.38% of households do not rent agricultural land, while 18.63% rent it, showing a somewhat balanced participation in land rental. Overall, across all regions, 37.53% of households do not rent agricultural land, while 62.27% do, suggesting that renting agricultural land is more common than not across these regions, with the Eastern region having the highest percentage of households renting land.

### Agriculture land Own



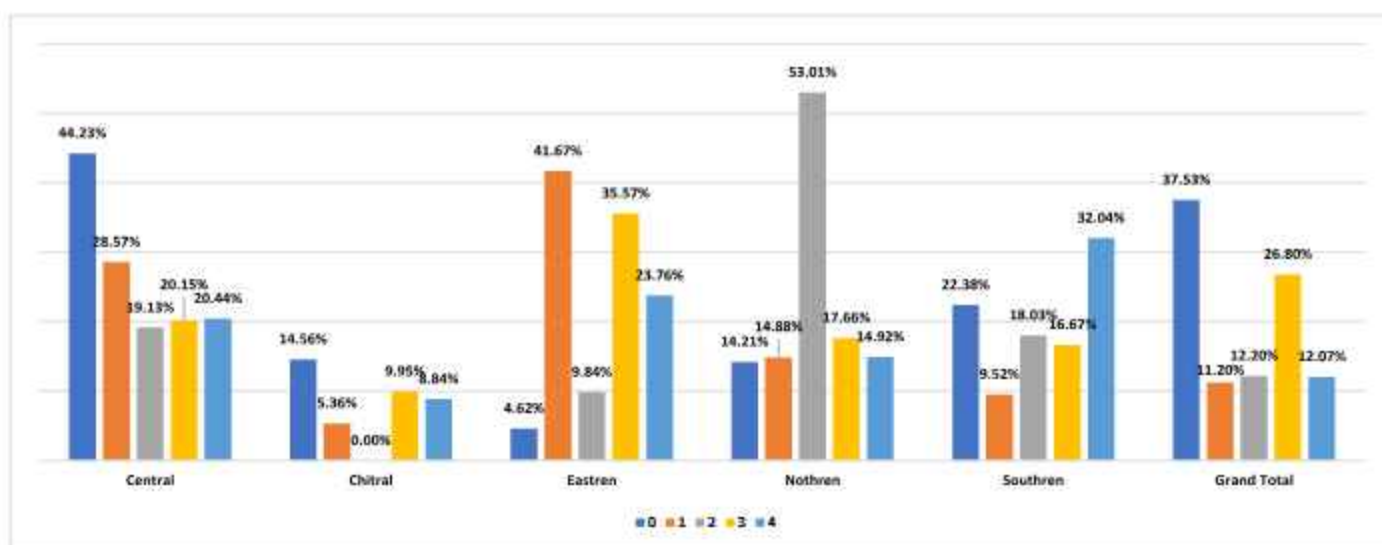
### (Region-wise own land)

In the Central region, 44.23% of households do not own agricultural land, while ownership is distributed among different land sizes, with the highest share at 62.50% for 21 units of land and 44.68% for 19 units. In Chitral, 14.56% of households do not own land, and most land ownership is concentrated in small percentages, with the highest at 60.87% for 7 units. The Eastern region has a very small proportion of households (4.62%) without land, while the highest ownership is seen at 76.19% for 11 units, followed by 50.00% for 14 units and 48.94% for 8 units.

In the Northern region, 14.21% of households do not own land, and the highest ownership is for 1 unit (54.07%), followed by 37.50% for 21 units. The Southern region has 22.38% of households without land, and the highest ownership is at 31.87% for 2 units, followed by 25.24% for 3 units. Overall, 37.53% of households across all regions do not own agricultural land, while ownership is spread across different land sizes, with the highest at 12.13% for 2 units, 11.80% for 12 units, and 11.47% for 1 unit.

### Uncultivated rented

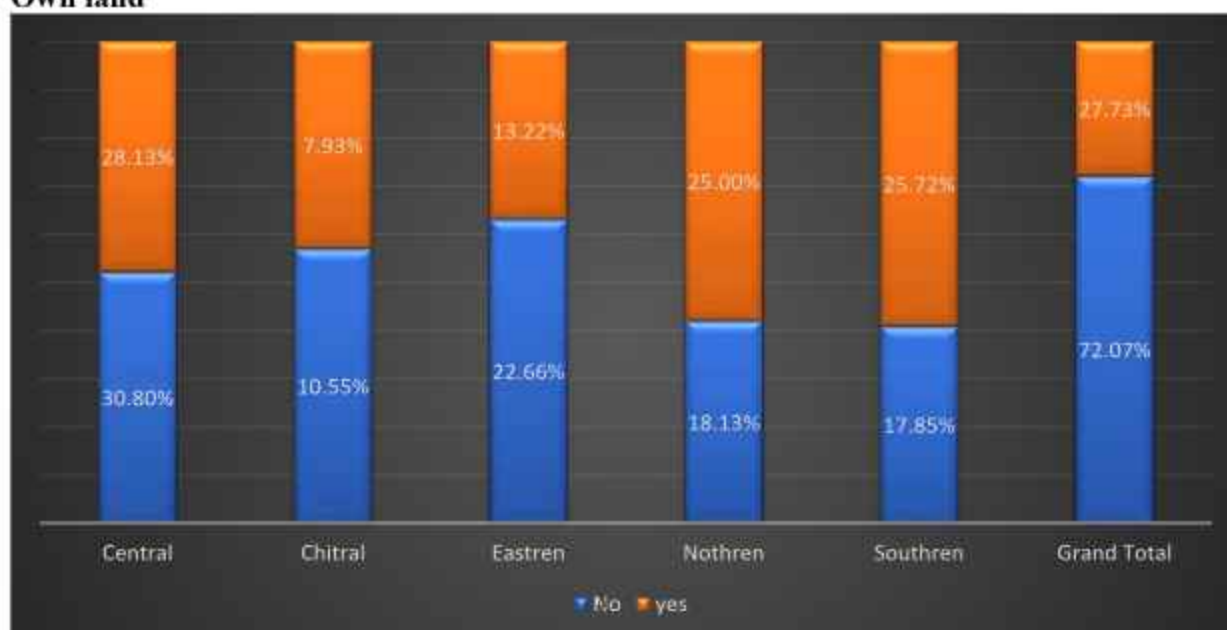




#### (Region-wise uncultivated rented)

In the Central region, 44.23% of households do not have uncultivated rented agricultural land, while 28.57% have 1 unit of such land. Ownership decreases for larger land sizes, with 19.13% for 2 units, 20.15% for 3 units, and 20.44% for 4 units. In Chitral, 14.56% of households do not have uncultivated rented land, and the highest ownership is 9.95% for 3 units, followed by 8.84% for 4 units and 5.36% for 1 unit. In the Eastern region, only 4.62% of households do not have uncultivated rented land, while the highest percentage, 41.67%, have 1 unit, followed by 35.57% with 3 units and 23.76% with 4 units. The Northern region has 14.21% of households without uncultivated rented land, and the highest ownership is 53.01% for 2 units, followed by 17.66% for 3 units. The Southern region has 22.38% of households without such land, with the highest ownership at 32.04% for 4 units, followed by 18.03% for 2 units and 16.67% for 3 units. Overall, 37.53% of households across all regions do not have uncultivated rented agricultural land, while the highest ownership is 26.80% for 3 units, followed by 12.20% for 2 units, 12.07% for 4 units, and 11.20% for 1 unit.

#### Own land

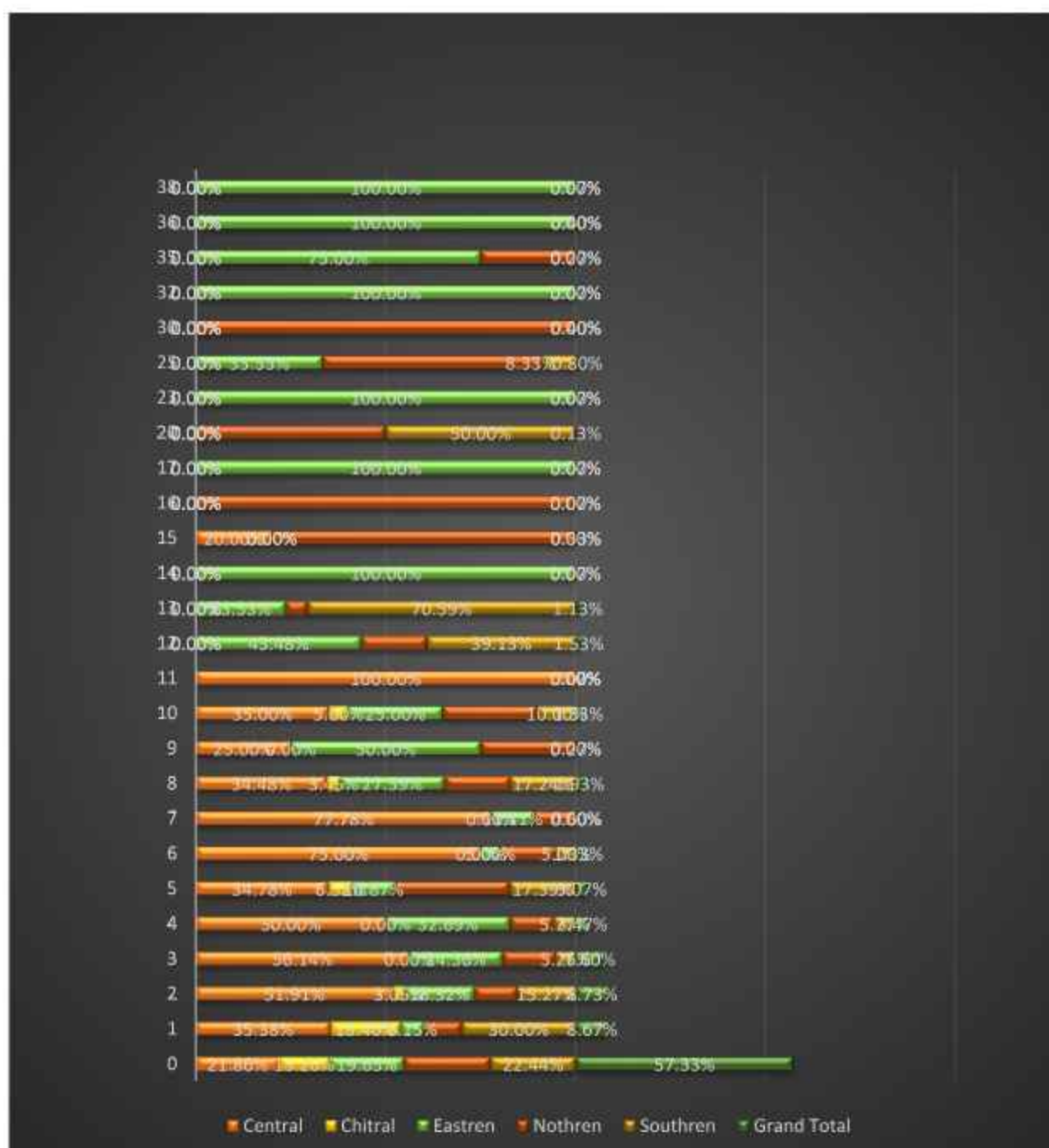


#### (Region-wise own agriculture land)

In the Central region, 30.80% of households do not own agricultural land, while 28.13% do, indicating a nearly balanced distribution. In Chitral, 10.55% of households do not own

agricultural land, and 7.93% own it, showing a lower proportion of land ownership compared to other regions. The Eastern region has 22.66% of households without agricultural land and 13.22% with owned land, suggesting that a significant portion relies on other means for agricultural activities. In the Northern region, 18.13% of households do not own land, while 25.00% do, showing a relatively higher ownership rate. The Southern region has 17.85% of households without agricultural land, and 25.72% own land, making it the region with the highest ownership proportion. Overall, 72.07% of households across all regions do not own agricultural land, while 27.73% do, suggesting that land ownership is relatively low, with a higher dependence on rented or other forms of land access.

#### Agri cultivable land (Own)

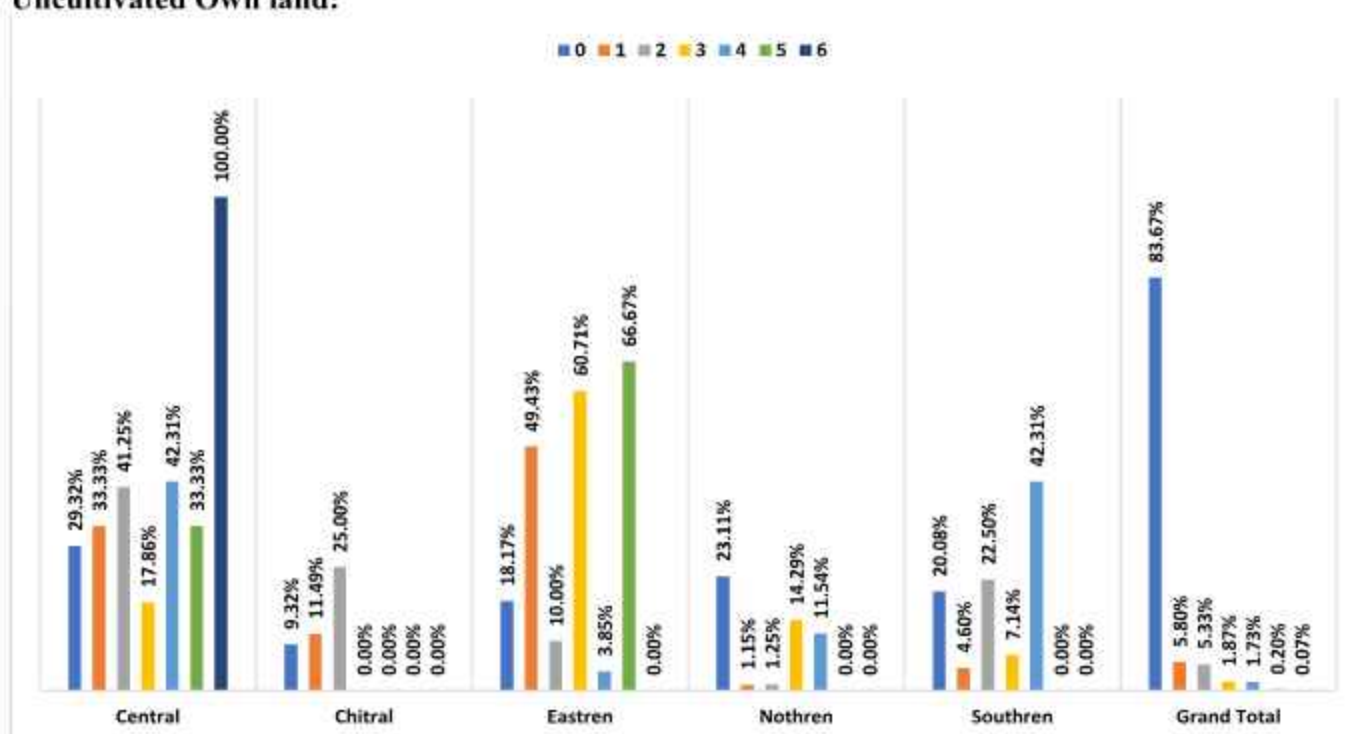




### (Region-wise own agriculture land)

In the Central region, 21.86% of households have no cultivable land, while the highest ownership is seen at 56.14% for 3 units, followed by 51.91% for 2 units and 50.00% for 4 units. Chitral has 13.26% of households without cultivable land, with the highest ownership at 18.46% for 1 unit and significantly lower ownership across other land sizes. The Eastern region has 19.65% of households without cultivable land, with the highest ownership at 43.48% for 12 units, 50.00% for 9 units, and 35.57% for 3 units. In the Northern region, 22.79% of households have no cultivable land, and the highest ownership is for 58.33% with 25 units, 30.43% for 5 units, and 25.00% for 10 units. The Southern region has 22.44% of households without cultivable land, with the highest ownership at 70.59% for 13 units, followed by 50.00% for 20 units. Overall, 57.33% of households across all regions have no cultivable land, while the highest ownership is observed for 3 units at 7.60%, 2 units at 8.73%, and 12 units at 1.53%. This suggests that a significant proportion of households do not have cultivable land, while those that do tend to own small to moderate land sizes.

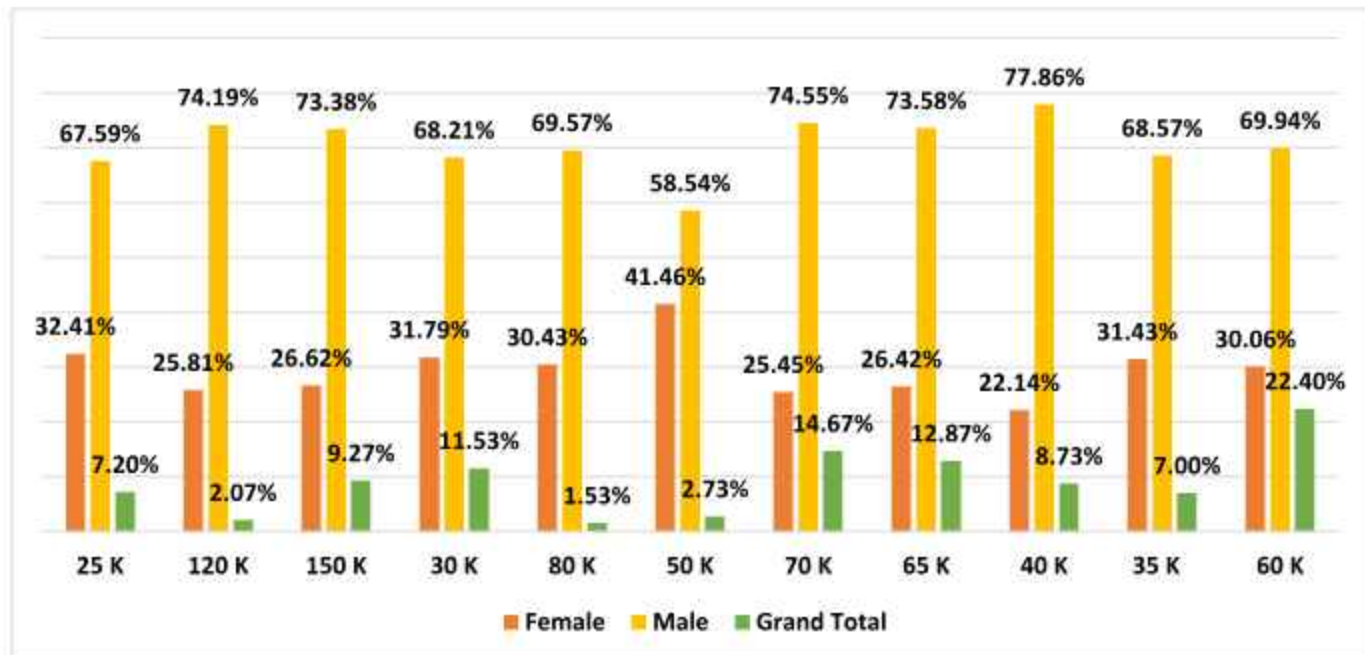
### Uncultivated Own land:



### (Region-wise own uncultivated land)

In the Central region, 29.32% of households do not have uncultivable land, while the highest ownership is 41.25% for 2 units, followed by 42.31% for 4 units. In Chitral, 9.32% of households have no uncultivable land, with the highest ownership at 25.00% for 2 units and lower ownership across other land sizes. In the Eastern region, 18.17% of households do not have uncultivable land, while the highest ownership is 66.67% for 5 units, followed by 60.71% for 3 units and 49.43% for 1 unit. In the Northern region, 23.11% of households do not have uncultivable land, with the highest ownership at 14.29% for 3 units and 11.54% for 4 units. The Southern region has 20.08% of households without uncultivable land, with the highest ownership at 42.31% for 4 units and 22.50% for 2 units. Overall, 83.67% of households do not have uncultivable land, while the highest ownership is observed for 1 unit at 5.80%, followed by 2 units at 5.33% and 3 units at 1.87%. This suggests that most households either do not have or have minimal uncultivable land, with a few regions having slightly higher proportions of such land.

### 23. What is the monthly/annual income of your household?

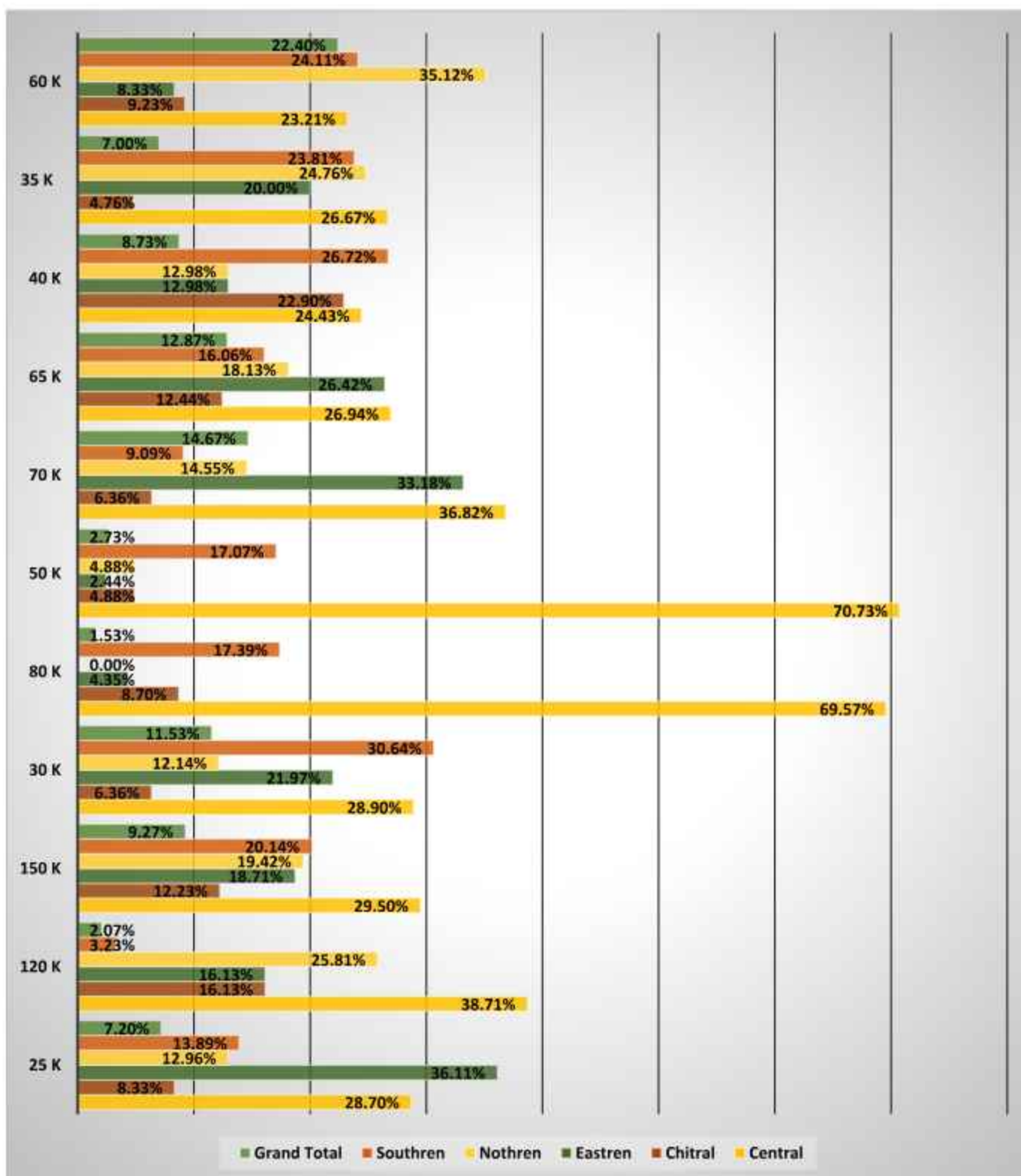


#### (Gender wise income)

Households with an income of 60K make up the largest proportion at 22.40%, with 30.06% female and 69.94% male respondents. The second-largest group, earning 70K, constitutes 14.67%, with 25.45% female and 74.55% male respondents. Households earning 65K account for 12.87%, with 26.42% female and 73.58% male respondents. Those with a 30K income make up 11.53%, with 31.79% female and 68.21% male respondents. Households earning 150K represent 9.27%, with 26.62% female and 73.38% male respondents. The 40K income group comprises 8.73%, with 22.14% female and 77.86% male respondents. The 25K and 35K income groups make up 7.20% and 7.00%, respectively, with a slightly higher female proportion in the 25K category at 32.41%.

Smaller proportions are seen for households earning 50K at 2.73%, 120K at 2.07%, and 80K at 1.53%. The highest female proportion is in the 50K group at 41.46%, while the lowest is in the 40K group at 22.14%. Male respondents consistently outnumber female respondents across all income levels, indicating a higher male representation in household income data.





#### (Regional-wise income)

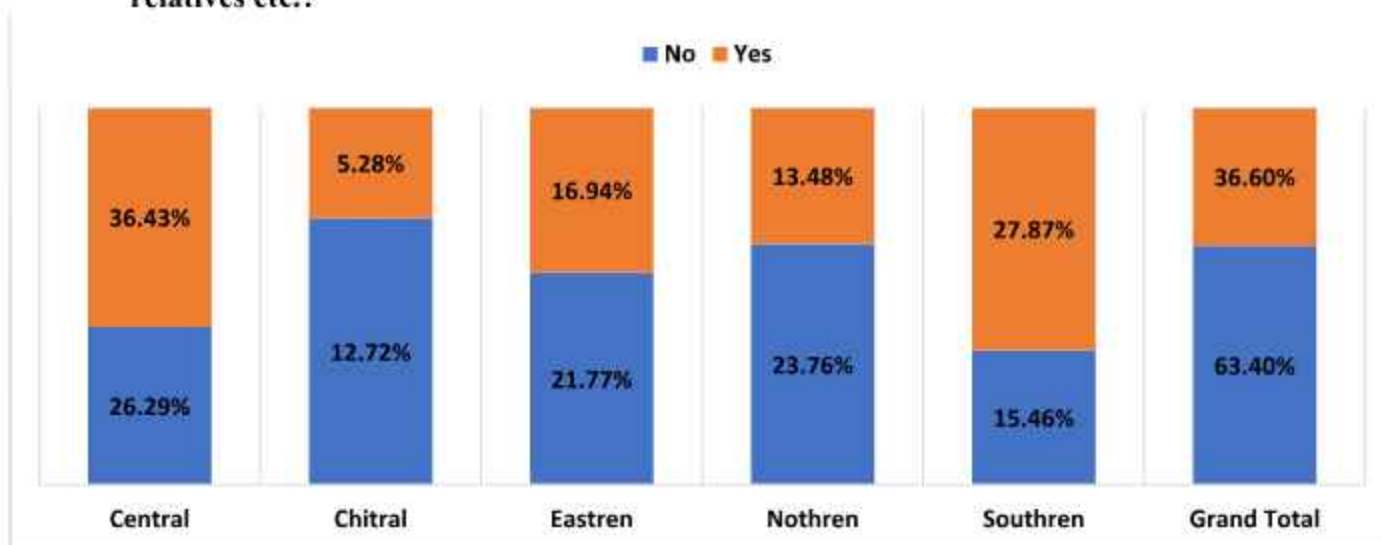
Households with an income of 60K form the largest proportion at 22.40%, with the highest representation in the Northern region at 35.12%, followed by the Southern region at 24.11%. The second-largest group, earning 70K, accounts for 14.67%, with Central at 36.82% and Eastern at 33.18% having the most respondents. Households with an income of 65K make up 12.87%, with the highest share in Eastern at 26.42%, followed by Northern at 18.13%.

The 30K income category comprises 11.53%, with the highest proportion in the Southern region at 30.64%, while Central and Eastern account for 28.90% and 21.97%, respectively. Those earning 150K represent 9.27%, with a fairly even distribution across regions, the highest being in the Southern region at 20.14%. The 40K income group makes up 8.73%, with the highest share in the Southern region at 26.72%.

Households earning 25K make up 7.20%, with the highest representation in the Eastern region at 36.11%, while Central follows at 28.70%. The 35K category accounts for 7.00%, with a relatively balanced spread, Northern being the highest at 24.76%. The 50K income group is 2.73%, with a dominant presence in Central at 70.73%. The 120K category makes up 2.07%, with Central and Northern having the highest shares at 38.71% and 25.81%, respectively. The 80K group, the smallest at 1.53%, has the highest concentration in Central at 69.57%.

Income distribution varies significantly across regions, with Central showing strong representation in multiple categories, while the Northern and Southern regions display varied distributions across mid-range income levels.

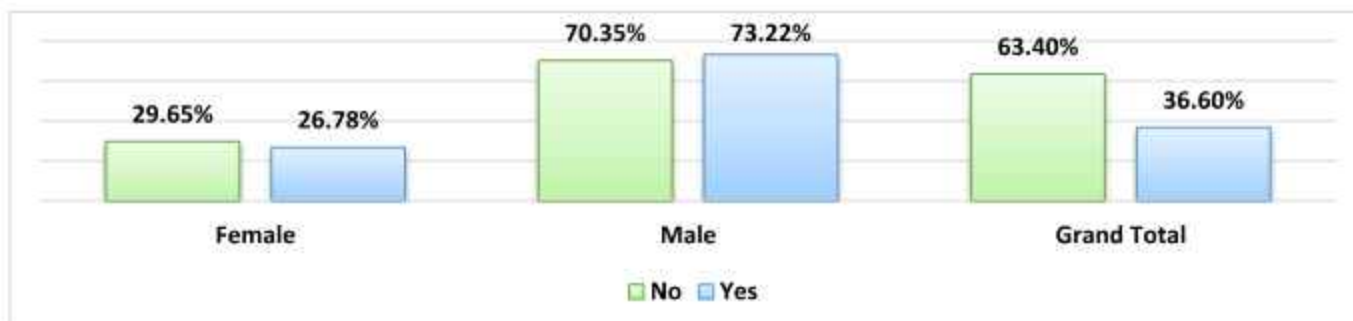
**24. Are there other sources of income, such as remittances, jobs or support from relatives etc.?**



**(Regional-wise additional income)**

The majority of households, 63.40%, report having no additional sources of income, while 36.60% indicate that they receive income from sources like remittances, jobs, or support from relatives. Among those without additional income, the largest share is in the Northern region at 23.76%, followed by the Eastern region at 21.77% and the Central at 26.29%. The Southern region represents 15.46%, and Chitral has the smallest share at 12.72%. For households that do have additional sources of income, the highest proportion is in the Southern region at 27.87%, followed by Central at 36.43%. The Eastern and Northern regions account for 16.94% and 13.48%, respectively, while Chitral has the smallest share at 5.28%. This indicates that alternative income sources are more common in Central and Southern regions, while Chitral has the least reliance on these sources.



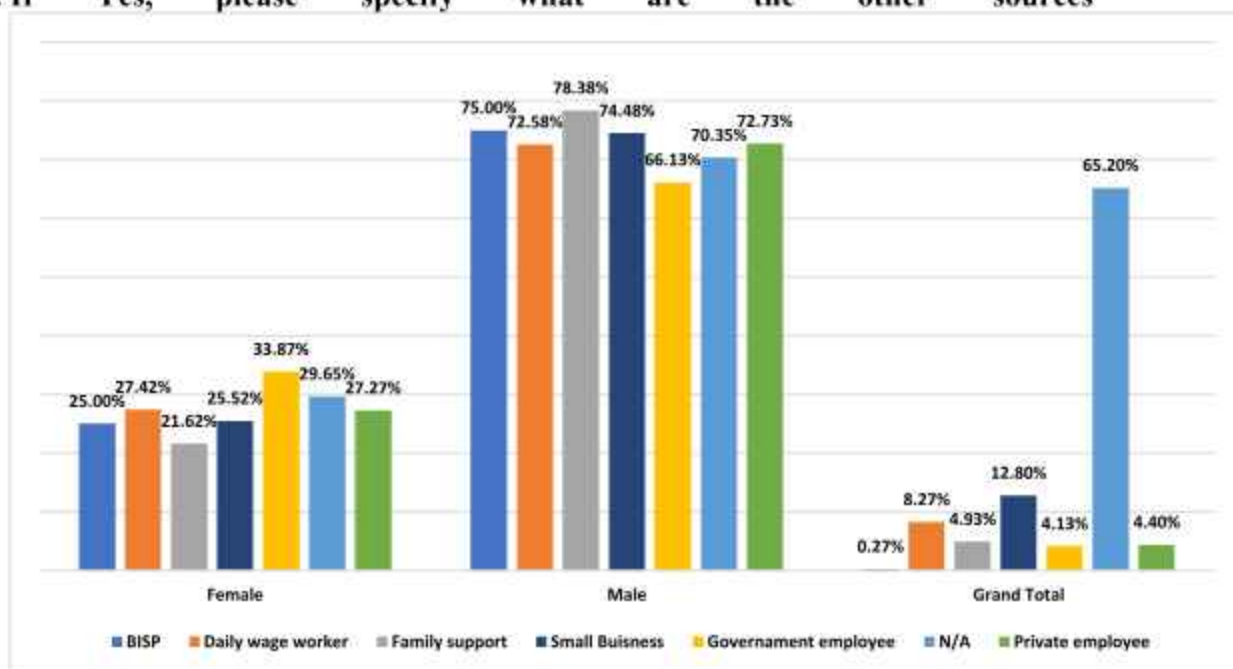


#### (Gender wise additional income)

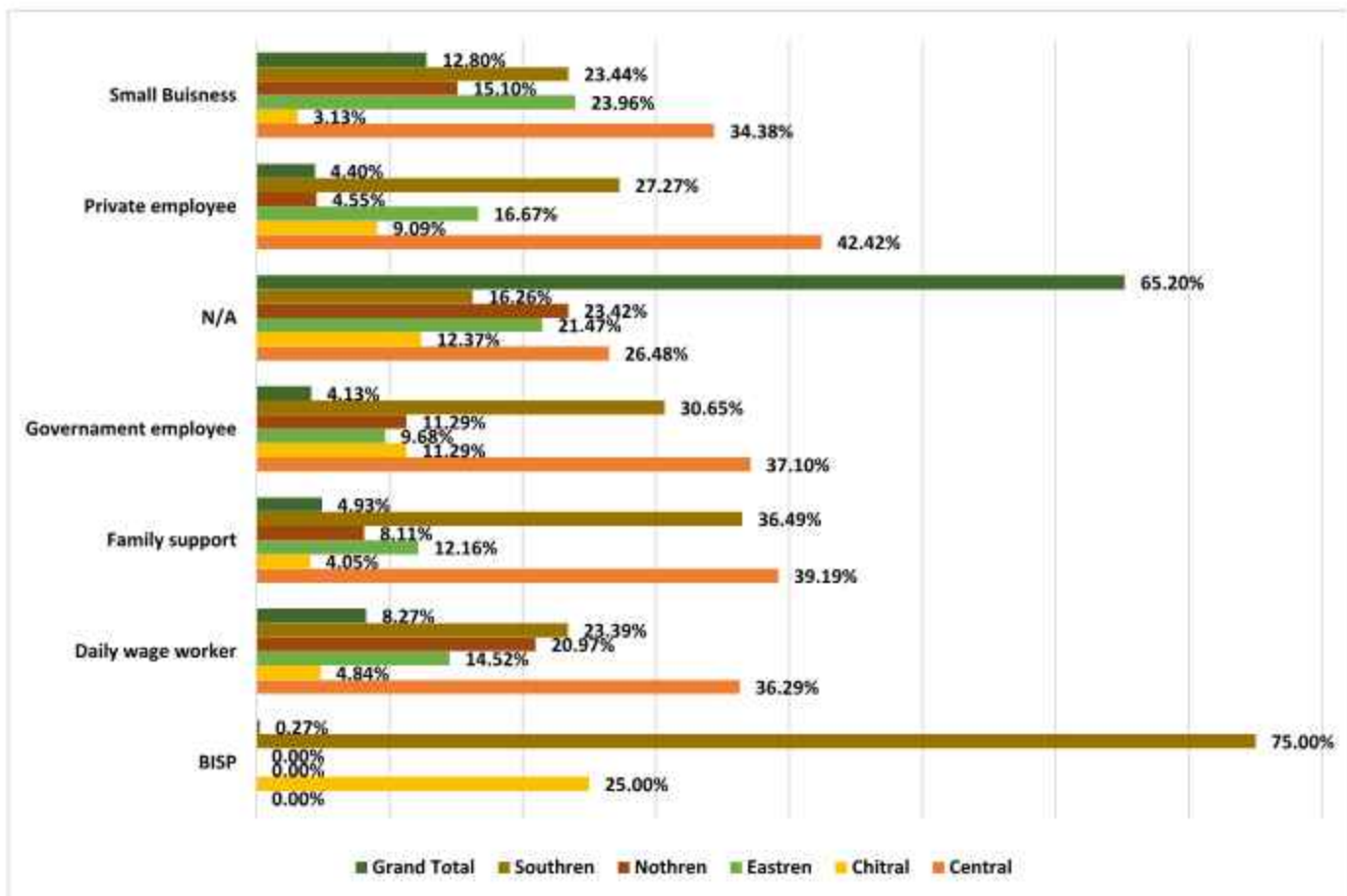
The majority of households, 63.40%, do not have additional sources of income, while 36.60% report receiving income from remittances, jobs, or support from relatives. Among those without additional income, 70.35% are male respondents, and 29.65% are female respondents.

For households with additional income sources, 73.22% are male respondents, while 26.78% are female respondents. This indicates that men are more likely to report or manage alternative income sources, and overall, they represent a larger share in both categories. The distribution suggests that external financial support or secondary income sources are relatively less common but are still a significant contributor for over a third of households.

#### 25. If Yes, please specify what are the other sources



The majority of households, 65.20%, do not have additional sources of income. Among those who do, the most common alternative source is small business, making up 12.80%, with 74.48% of respondents being male and 25.52% female. Daily wage work accounts for 8.27%, with 72.58% male and 27.42% female participation. Family support contributes to 4.93% of households, with a higher male share at 78.38% compared to 21.62% female. Government employment represents 4.13%, with 66.13% male and 33.87% female respondents. Private employment accounts for 4.40%, with a male majority of 72.73% and 27.27% female respondents. BISP (Benazir Income Support Programme) is the least common source, making up only 0.27%, with 75.00% male and 25.00% female respondents. The data indicate that small businesses and daily wage work are the most prevalent alternative income sources, while formal employment and financial assistance programs contribute to a smaller portion of households.

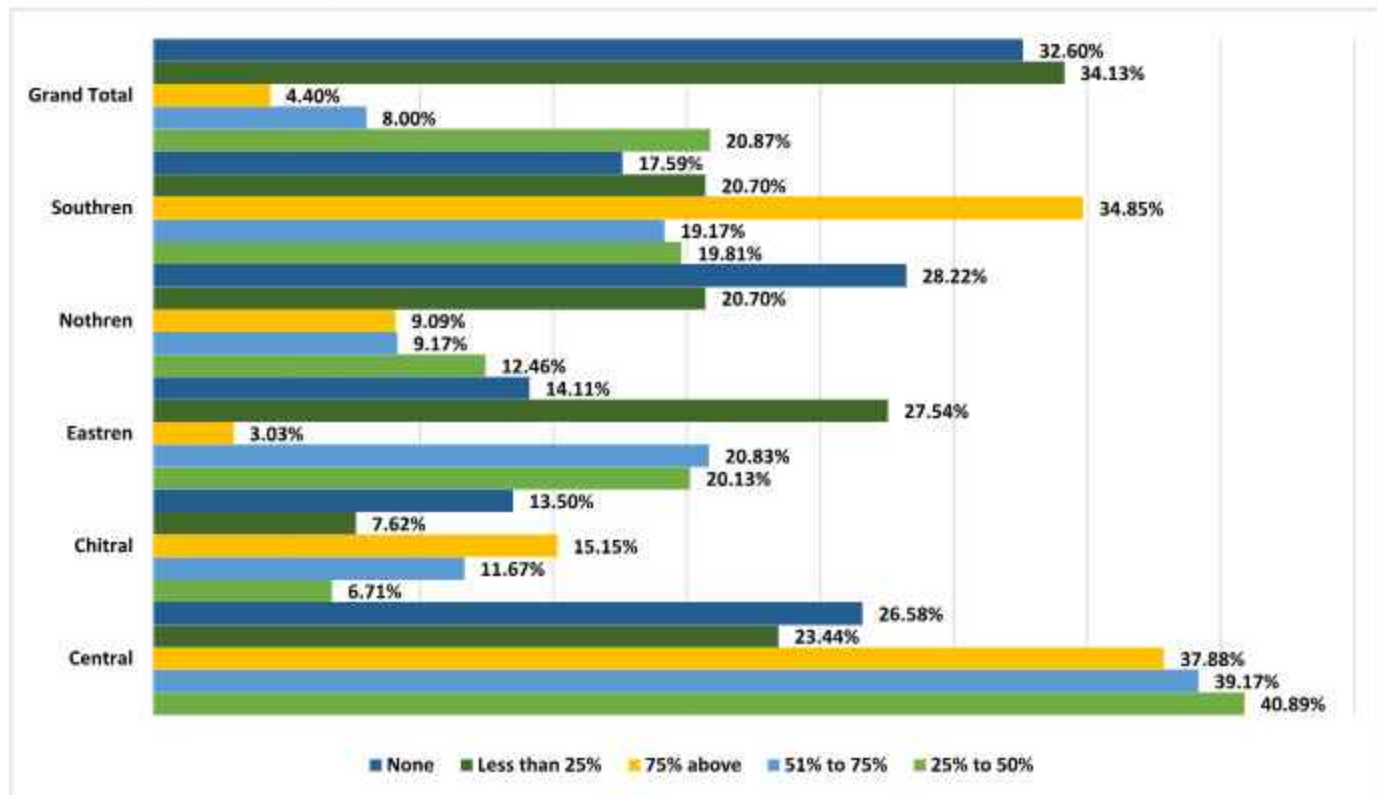


#### (Region-wise additional source)

The data reveals the distribution of various income sources across five regions, showing significant regional variations. For BISP, the Southern region has the highest percentage at 75%, while other regions show minimal representation, leading to a total of 0.27%. Daily wage workers are most common in Central (36.29%) and Southern (23.39%), with smaller portions in Northern (20.97%) and Eastern (14.52%), summing to 8.27%. Family support is predominantly from Central (39.19%) and Southern (36.49%), with Eastern (12.16%) and Northern (8.11%) regions contributing less, totaling 4.93%. Government employees are largely from Central (37.10%) and Southern (30.65%), with lower percentages in other regions, leading to a total of 4.13%. N/A represents unspecified or unknown sources, with Central (26.48%), Northern (23.42%), and Eastern (21.47%) having the highest values, and Southern contributing the least at 16.26%, resulting in a total of 65.20%. Private employees are mostly in Central (42.42%) and Southern (27.27%), with other regions contributing less, totaling 4.40%. Small businesses are mainly found in Central (34.38%) and Eastern (23.96%), with smaller portions in Northern (15.10%) and Southern (23.44%), summing up to 12.80%. The data highlights the diversity of income sources in some regions, particularly Central and Southern, while other regions show less variation. The high "N/A" percentage suggests a lack of clarity or unspecified sources for some individuals.

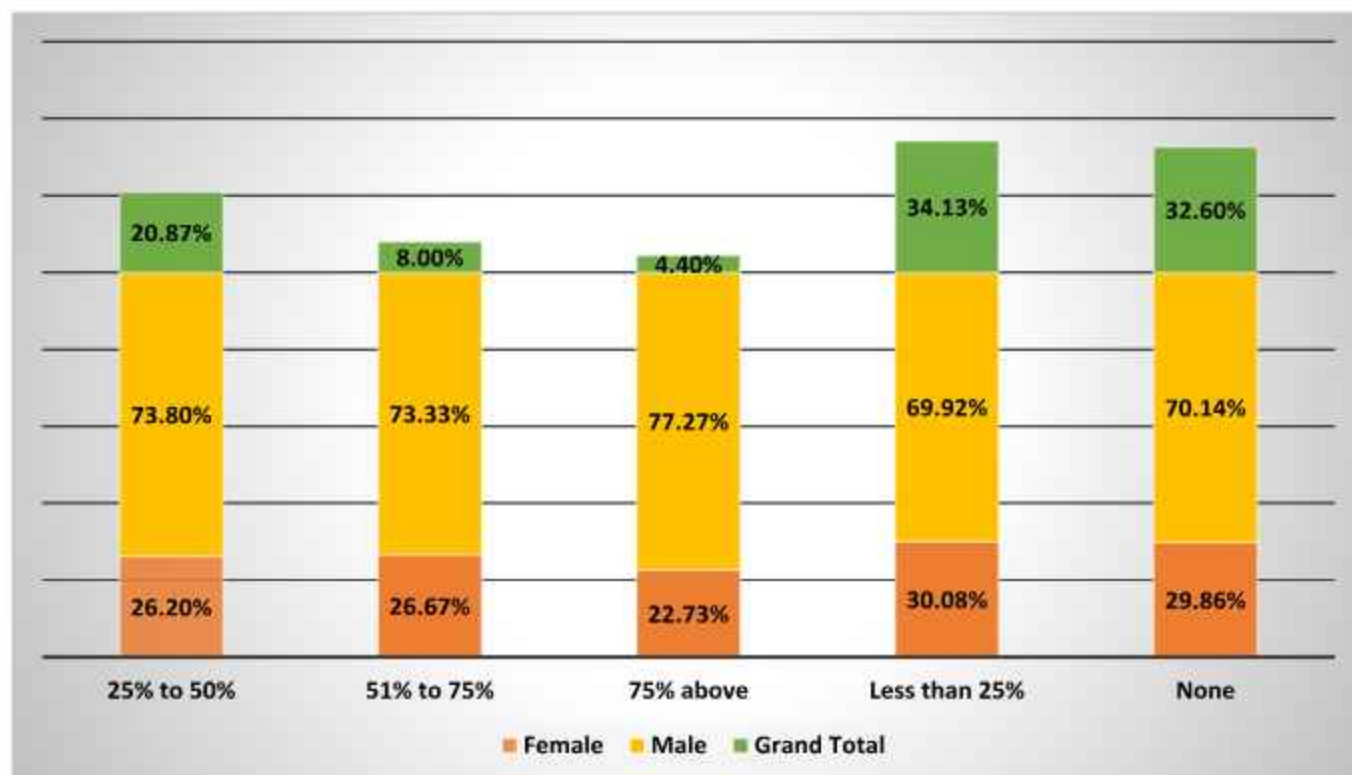


## 26. What proportion of your household's income came from other sources?



### (Region wise other percentage of additional income)

The data reveals varying proportions of household income from other sources across different regions. In the 25% to 50% category, the Central region leads with 40.89%, followed by Southern at 19.81%, Eastern at 20.13%, Northern at 12.46%, and Chitral at 6.71%, totaling 20.87%. For the 51% to 75% range, Central has 39.17%, Chitral 11.67%, Eastern 20.83%, Northern 9.17%, and Southern 19.17%, adding up to 8.00%. In the 75% above category, Southern stands out at 34.85%, with Central at 37.88%, Chitral at 15.15%, Northern at 9.09%, and Eastern at 3.03%, totaling 4.40%. In the less than 25% range, Central is the highest at 23.44%, followed by Eastern at 27.54%, Northern and Southern both at 20.70%, and Chitral at 7.62%, making up 34.13%. Lastly, in the none category, Northern has the highest percentage at 28.22%, with Central at 26.58%, Chitral at 13.50%, Eastern at 14.11%, and Southern at 17.59%, resulting in 32.60% overall. This analysis highlights regional differences in reliance on external financial support, with Central and Southern regions depending more on such sources, while others, especially Northern, show less external support.



#### (Gender wise proportion of additional income)

The data shows the distribution of household income from other sources based on gender. In the 25% to 50% category, females receive 26.20% of the income from other sources, while males receive 73.80%, totaling 20.87%. For the 51% to 75% range, females account for 26.67%, and males for 73.33%, with a total of 8.00%. In the 75% above category, females contribute 22.73%, and males contribute 77.27%, resulting in 4.40%. In the less than 25% category, females receive 30.08%, while males receive 69.92%, making up 34.13% in total. Lastly, in the none category, females account for 29.86%, and males for 70.14%, totaling 32.60%. This analysis highlights that, in all categories, males generally receive a higher proportion of income from other sources compared to females. However, females, particularly in the less than 25% category, still represent a significant portion of the income from external sources, which may point to a reliance on external financial support for women-headed households. The data suggests that while males tend to benefit more from other sources of income, women also play a crucial role, particularly in households with lower external support.

#### ANOVA results

##### ANOVA

Age

	Sum Squares	of Df	Mean Square	F	Sig.
Between Groups	42.965	4	10.741	3.965	.003
Within Groups	4049.505	1495	2.709		
Total	4092.469	1499			

The ANOVA analysis reveals significant differences in the analyzed variable across various age groups. The between-groups variance of 42.965 indicates that differences exist among the age categories, while the within-groups variance of 4049.505 reflects individual variations within each group. The mean square values (10.741 for between-groups and 2.709 for within-groups) further highlight these variations. With an F-statistic of 3.965, the analysis confirms that the differences between age groups are notable. The p-value of 0.003, being well below 0.05, establishes that these



differences are statistically significant, suggesting that age plays a crucial role in influencing the variable under study.

Age wise descriptive statistics are shown in the table below;

### Descriptives

Age

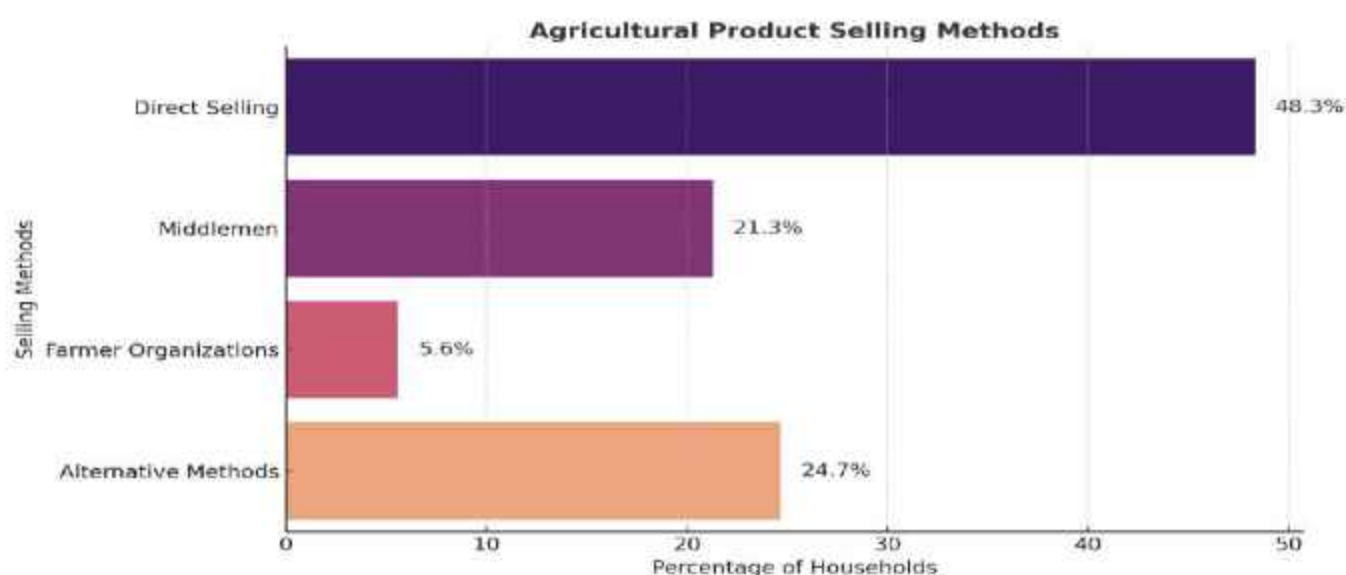
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
None	489	2.4663	1.50661	.06813	2.3324	2.6001	1.00	6.00
Less than 25%	512	2.7207	1.64873	.07286	2.5776	2.8639	1.00	6.00
25% to 50%	313	2.8786	1.74806	.09881	2.6842	3.0730	1.00	6.00
51% to 75%	120	2.8917	1.86879	.17060	2.5539	3.2295	1.00	6.00
75% above	66	2.8636	1.68145	.20697	2.4503	3.2770	1.00	6.00
Total	1500	2.6907	1.65231	.04266	2.6070	2.7744	1.00	6.00

### 27. How do you sell your agricultural products

The data reveals diverse pathways through which households sell their agricultural products, reflecting both opportunities and challenges within the local market system.

For nearly half of the households (48.3%), direct selling to consumers or markets is the preferred method. By eliminating intermediaries, farmers can maximize their earnings and retain full control over pricing. However, this approach also comes with challenges, requiring farmers to have access to transportation, market knowledge, and negotiation skills to secure fair prices. On the other hand, 21.3% of households rely on middlemen to sell their produce. This method provides convenience, as middlemen handle the logistics and distribution. However, it often results in lower profits for farmers, as they receive only a fraction of the final market price. This reliance on intermediaries highlights the need for better market linkages and support systems that enable farmers to engage directly with buyers.

A smaller proportion of households (5.6%) sell their produce through farmer organizations or cooperatives. While this model has the potential to improve farmers' bargaining power and ensure fair pricing, its low adoption suggests limited access to cooperative networks or a lack of awareness about their benefits. Strengthening such organizations could enhance income stability and create collective marketing opportunities. Meanwhile, 24.7% of households use alternative selling methods, including barter trade, contract farming, and online sales. These methods may be influenced by local traditions, technological advancements, or emerging market trends. Understanding these alternative channels further could provide insights into how farmers adapt to market dynamics and how interventions can support them in securing better incomes.



### 3.4.1 ANOVA results

#### ANOVA

Region

	Sum Squares	Df	Mean Square	F	Sig.
Between Groups	181.098	3	60.366	27.754	.000
Within Groups	3253.902	1496	2.175		
Total	3435.000	1499			

The ANOVA results highlight significant regional differences in the analyzed variable. The between-groups variance of 181.098 suggests notable variations among the different regions, while the within-groups variance of 3253.902 reflects individual differences within each region. The mean square values (60.366 for between-groups and 2.175 for within-groups) further emphasize this disparity. With an F-statistic of 27.754, the analysis confirms that regional differences are substantial. The p-value of 0.000, being well below 0.05, indicates that these differences are statistically significant, demonstrating that the variable under study is influenced by regional factors.

The region-wise variances are shown in the descriptive table below;

#### Descriptives

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Directly	725	3.2193	1.32451	.04919	3.1227	3.3159	1.00	5.00
Middle Man	320	2.8500	1.59820	.08934	2.6742	3.0258	1.00	5.00
Farmer organization	84	2.6310	1.72004	.18767	2.2577	3.0042	1.00	5.00
Other	371	2.3801	1.57978	.08202	2.2188	2.5413	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

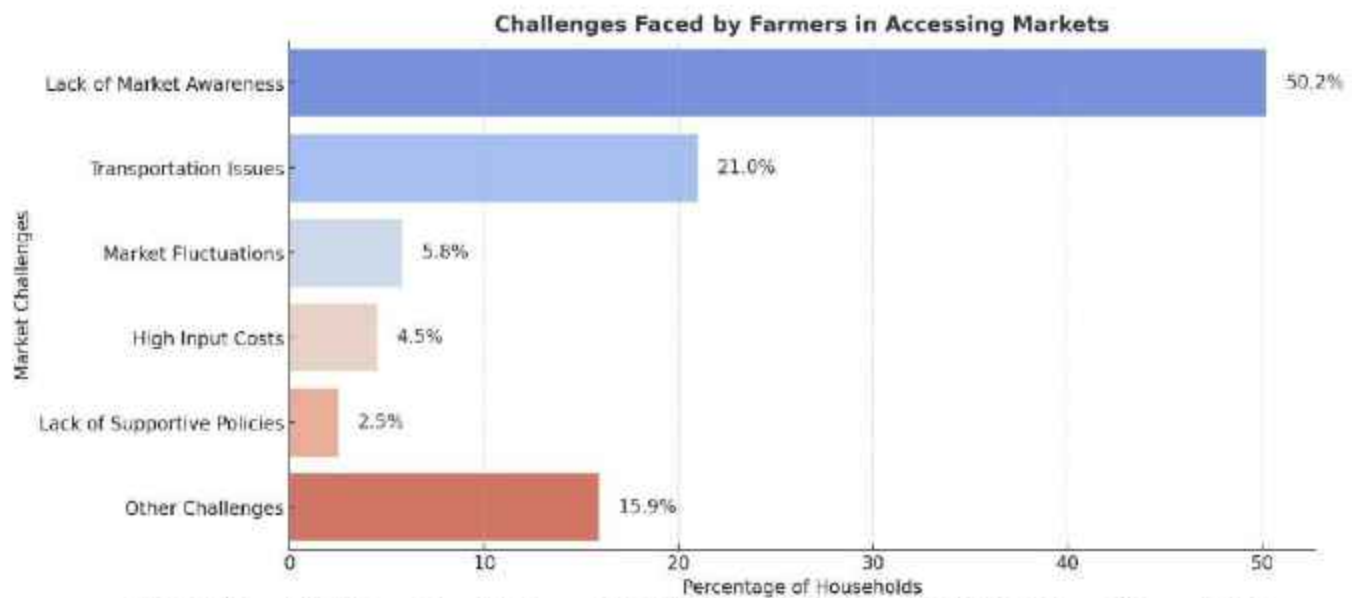


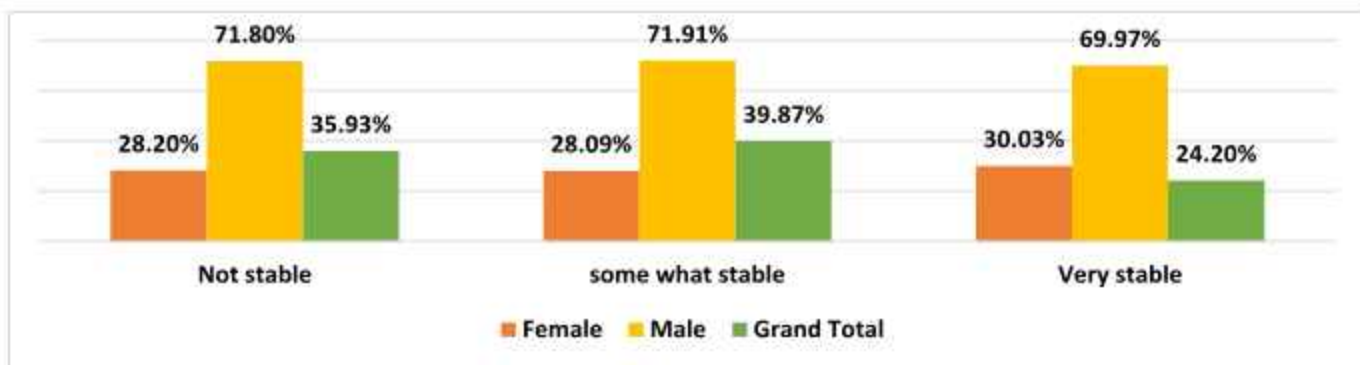
## 28. What are the barriers in selling your products?

The analysed data depicts that one of the most pressing challenges is the lack of market awareness, affecting nearly half of the surveyed households (50.2%). Many farmers struggle to understand pricing trends, consumer demands, and effective selling strategies. With limited access to reliable market information, they often rely on middlemen who dictate prices, ultimately reducing their profit margins. Bridging this gap through market education, training programs, and digital platforms could empower farmers with the knowledge needed to make informed selling decisions.

Another significant barrier is transportation, with 21.0% of respondents identifying difficulties in reaching markets. Poor road conditions, high transportation costs, and long distances to marketplaces hinder farmers from selling their produce directly to consumers. Without reliable and affordable transport options, many are forced to sell at lower prices to intermediaries. Investments in rural road networks, subsidized transport services, and local collection points could help farmers gain better access to markets, improving their earnings.

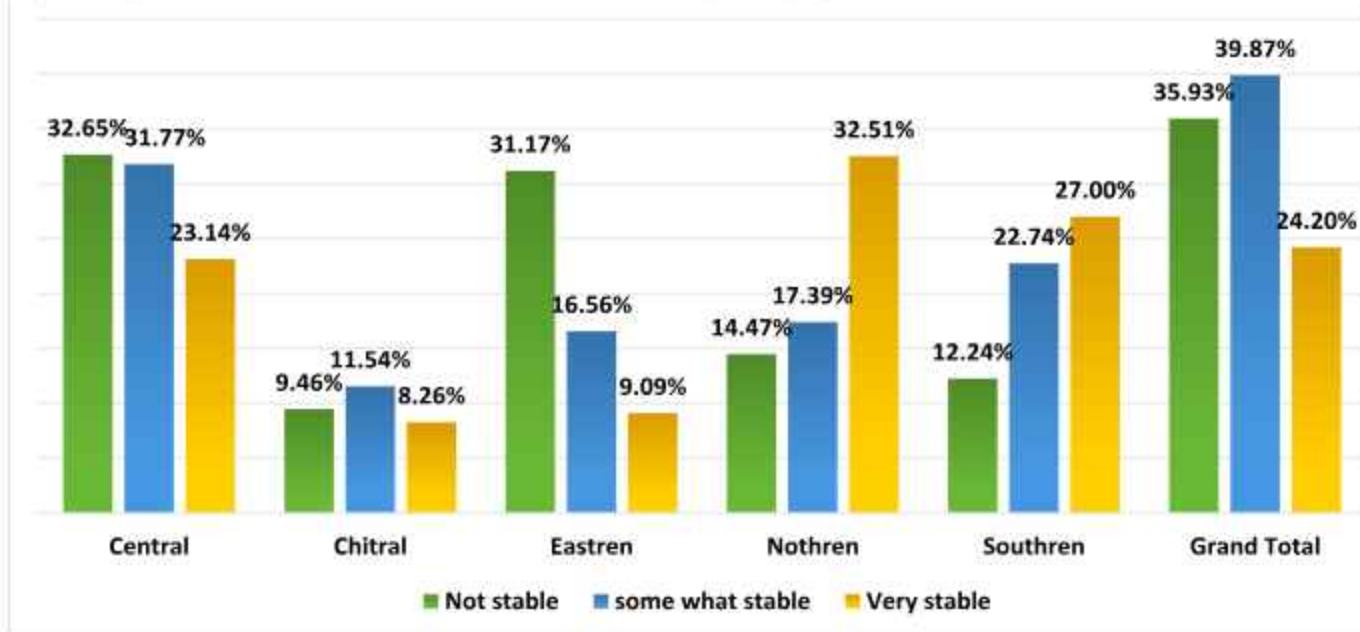
The unpredictability of market fluctuations poses yet another challenge, affecting 5.8% of farmers. Sudden price drops or spikes in demand can make it difficult for farmers to plan their production and income, leaving them vulnerable to financial instability. Policies that support contract farming, price stabilization mechanisms, and financial safety nets could help mitigate these risks and provide farmers with greater security. Additionally, high input costs remain a burden for many farmers, with 4.5% reporting difficulties in affording essential agricultural supplies such as seeds, fertilizers, and pesticides. Rising costs reduce profit margins and limit expansion opportunities for small-scale farmers. Access to subsidies, bulk purchasing programs, and affordable credit facilities could alleviate this financial strain and encourage increased agricultural productivity.





#### (Gender wise)

For households with income that is not stable, females represent 28.20% and males 71.80%, totaling 35.93%. In the somewhat stable category, females account for 28.09% and males 71.91%, contributing to 39.87%. In the very stable category, females make up 30.03% and males 69.97%, totaling 24.20%. This shows that males generally report higher percentages regarding the stability of household income, with the somewhat stable category having the highest representation. Males dominate in each stability category.



Central has 32.65%, Eastern 31.17%, Northern 14.47%, Southern 12.24%, and Chitral 9.46% in the not stable category, totaling 35.93%. For somewhat stable income, Central leads with 31.77%, followed by Southern at 22.74%, Northern at 17.39%, Eastern at 16.56%, and Chitral at 11.54%, making up 39.87%. In the very stable category, Northern has the highest at 32.51%, followed by Southern at 27.00%, Central at 23.14%, Eastern at 9.09%, and Chitral at 8.26%, totaling 24.20%.

This shows that Central and Eastern regions report higher instability in income, while Northern and Southern regions tend to report more stable income. Central has the highest percentage for not stable income, while Northern leads in very stable income.

#### ANOVA results

The ANOVA results reveal significant regional differences in the analyzed variable. The between-groups sum of squares (100.088) indicates noticeable variation among the regions, while the within-groups sum of squares (3334.912) represents individual differences within



each region. The mean square values (50.044 for between-groups and 2.228 for within-groups) further highlight this contrast. The F-statistic (22.464) suggests a strong disparity among regions, and the p-value (0.000) confirms statistical significance. This indicates that regional factors significantly influence the variable under study.

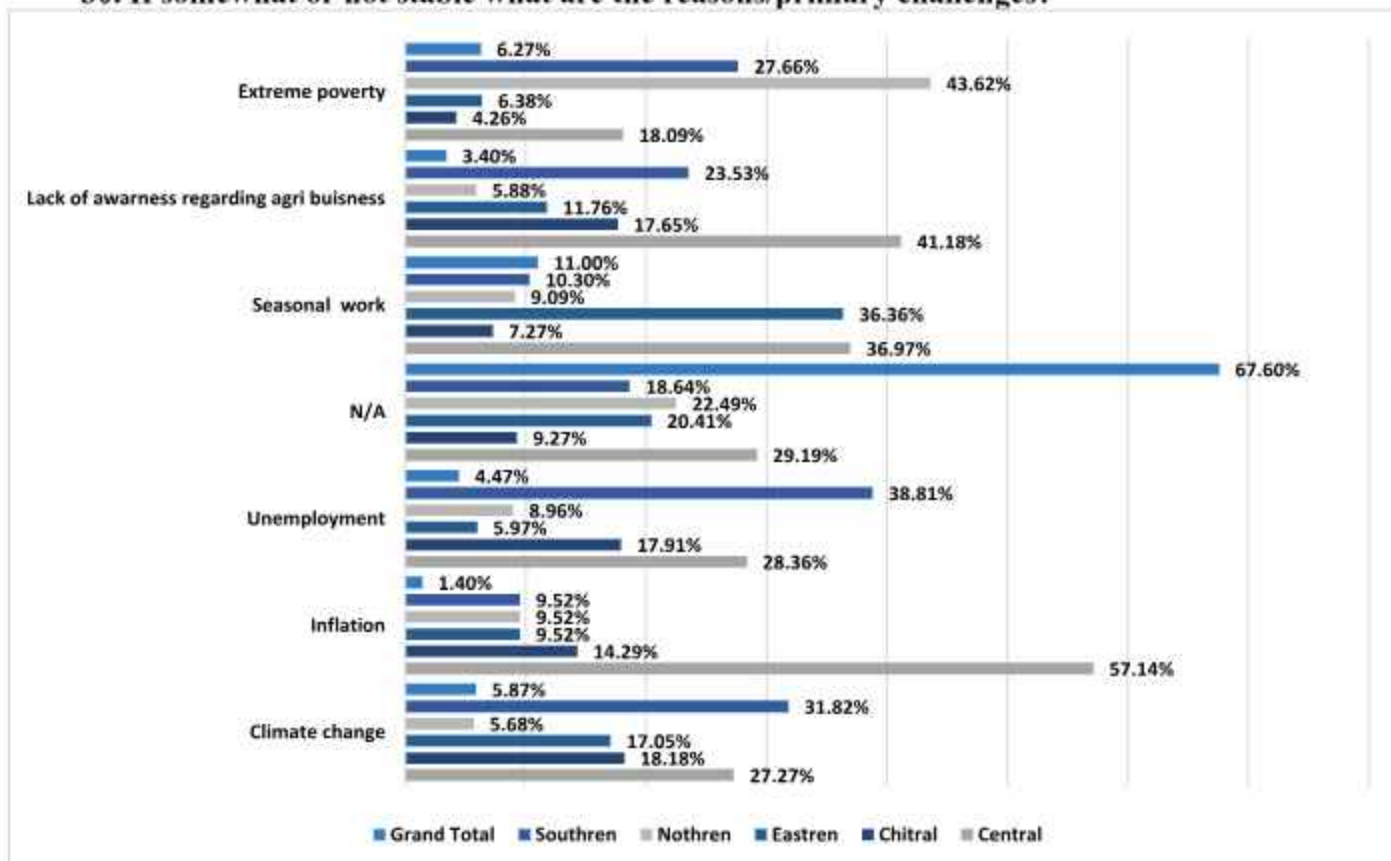
Region-wise variance is mentioned in the table below;

### Descriptives

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Very stable	363	3.3196	1.52233	.07990	3.1624	3.4767	1.00	5.00
somewhat stable	598	2.8779	1.56815	.06413	2.7520	3.0039	1.00	5.00
Not stable	539	2.6419	1.38224	.05954	2.5250	2.7589	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

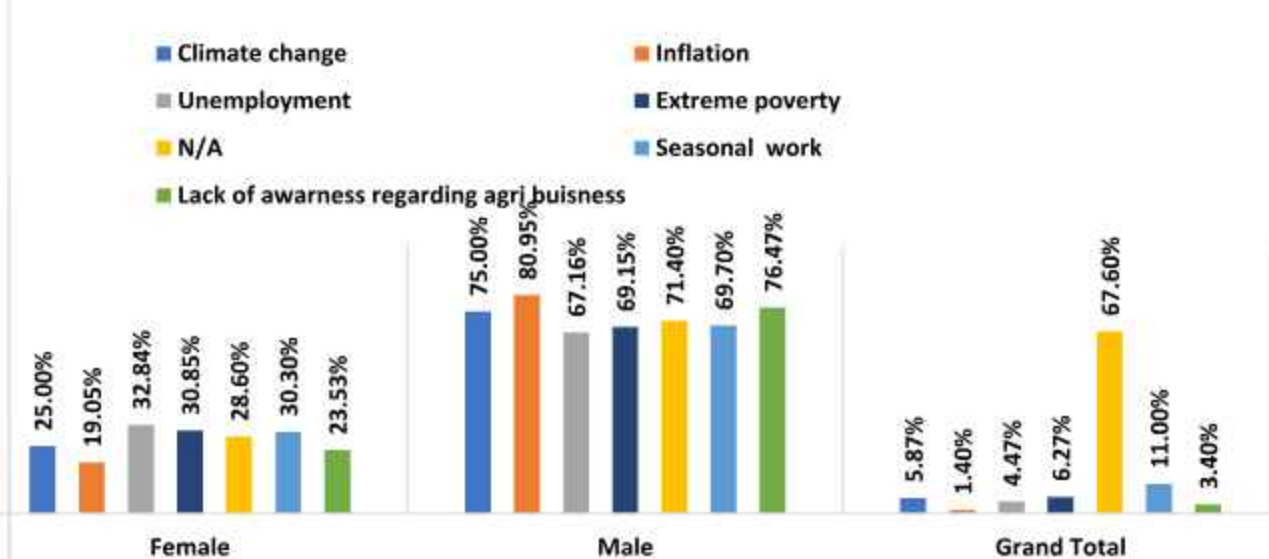
### 30. If somewhat or not stable what are the reasons/primary challenges?



The responses regarding the primary challenges or reasons for instability reveal a variety of concerns across regions. Climate change is considered a significant issue in the Central and Southern regions, with 27.27% and 31.82% of respondents, respectively, highlighting it as a primary challenge. The Eastern and Northern regions show lower percentages, 17.05% and

5.68%, respectively, while Chitral has 18.18%, which is also relatively low. Inflation is seen as a major concern in the Central region, with 57.14% of respondents identifying it as a key issue. In contrast, other regions like Chitral, Eastern, Northern, and Southern report significantly lower percentages, ranging from 9.52% to 14.29%, making it a less prominent issue in those areas. Unemployment is a major concern in the Southern region, with 38.81% of respondents indicating it as a challenge, while other regions, like Central and Eastern, report 28.36% and 17.91%, respectively. The Northern and Chitral regions show lower percentages, with unemployment being less of a concern there. The N/A category, which represents those who did not select a reason, is notably high across all regions, with 67.60% of the total responses falling into this category. This indicates that many respondents either did not consider any factors or were unsure about the reasons for instability.

Seasonal work is a key challenge in the Central and Eastern regions, with 36.97% and 36.36% of respondents highlighting it. However, this issue is less pronounced in the Southern and Northern regions, with only 10.30% and 9.09%, respectively, indicating it as a primary concern. The lack of awareness regarding agribusiness is seen as a challenge, especially in the Central region, with 41.18% of respondents mentioning it. Other regions, such as Chitral and Southern, also report concerns about this issue, though at lower percentages. Finally, extreme poverty is a significant challenge in the Northern region, with 43.62% of respondents identifying it as a primary issue. The Southern region also reports a substantial 27.66%, while the Central and Chitral regions are less affected, showing only 18.09% and 4.26%, respectively. Overall, the responses suggest that economic instability is driven by various factors, with inflation, unemployment, and climate change being key concerns in certain regions, while others face challenges like seasonal work, lack of awareness regarding agribusiness, and extreme poverty. The high percentage of N/A responses indicates that many individuals may either not be aware of or unable to identify specific challenges.



The responses to the primary challenges or reasons for instability highlight various concerns, with notable gender differences in how these challenges are perceived. For climate change, 25.00% of females and 75.00% of males identified it as a primary challenge, though it only accounts for a small portion (5.87%) of the total responses. This suggests that while climate change is recognized as an issue, it may not be as pressing compared to other factors, particularly for females. Inflation is seen as a challenge by 19.05% of females and 80.95% of males, representing just 1.40% of the total responses. The much higher percentage of males indicating inflation as a key issue suggests that economic concerns like rising costs are more



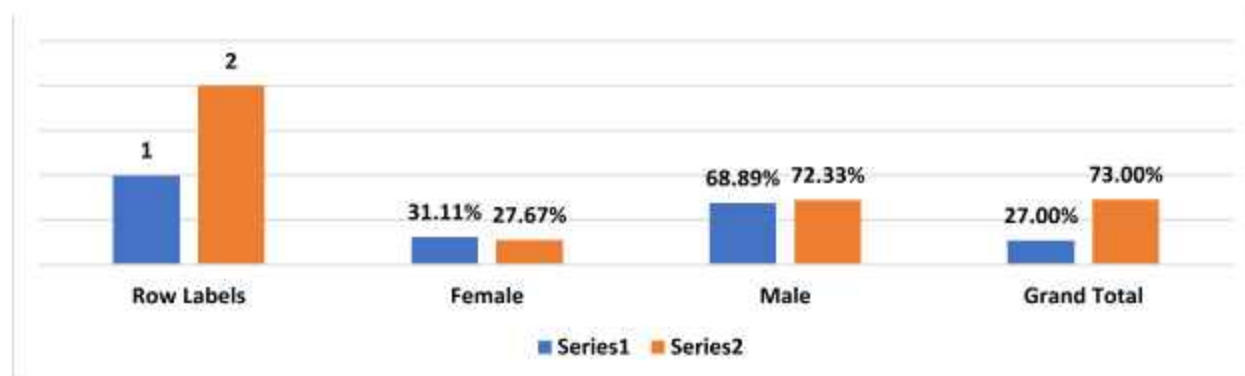
prominent among them, though the overall weight of inflation is relatively low in the broader context of instability.

Unemployment is another concern, with 32.84% of females and 67.16% of males identifying it as a major issue, accounting for 4.47% of the total responses. This indicates that unemployment is considered a significant challenge, especially for females. The gender difference may reflect a perception that unemployment disproportionately affects women, or it could point to a higher awareness of job insecurity among female respondents. A large portion of respondents, 28.60% of females and 71.40% of males, selected the N/A option, which constitutes 67.60% of the total responses. This high percentage suggests that many respondents either did not feel confident identifying specific challenges or were unsure about the reasons behind instability in their region.

Seasonal work is noted as a challenge by 30.30% of females and 69.70% of males, representing 11.00% of the total responses. This indicates that seasonal employment is seen as an important factor contributing to instability, particularly in regions where agriculture or labor-intensive work dominates. The gendered difference suggests that seasonal work might impact males more significantly, possibly due to higher male participation in certain types of manual labor. The lack of awareness regarding agribusiness is seen as an issue by 23.53% of females and 76.47% of males, making up 3.40% of the total responses. This indicates that many respondents, particularly males, feel that greater awareness and knowledge of agribusiness could be a key factor in improving stability and addressing economic challenges.

Extreme poverty is recognized as a challenge by 30.85% of females and 69.15% of males, representing 6.27% of the total responses. This suggests that poverty remains a critical issue, particularly in rural areas, and is perceived as a significant contributor to instability. The slightly higher percentage of females pointing to extreme poverty may reflect a greater awareness of the hardships faced by families or communities in more impoverished regions. In conclusion, the data highlights a mix of economic and environmental challenges contributing to instability, with the highest number of responses in the N/A category indicating uncertainty or a lack of clarity about specific causes. Males tend to identify issues like inflation, seasonal work, and agribusiness awareness more frequently, while females highlight unemployment and extreme poverty as key concerns. However, the overall trends suggest that economic hardship and lack of opportunities are the central challenges contributing to instability in the region.

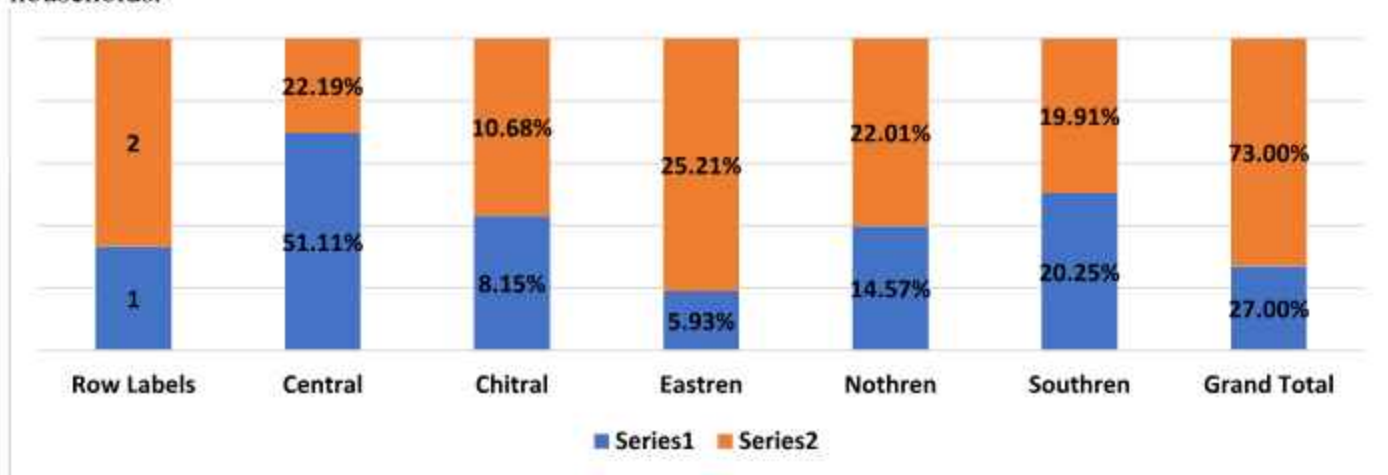
### 31. Do you rely on external sources of income (e.g., loans, support from relatives)?



The responses regarding the reliance on external sources of income reveal an interesting pattern between genders. Of the total responses, 31.11% of females rely on external sources such as loans or financial support from relatives, while 68.89% of males report the same. This disparity indicates that a larger proportion of males rely on external financial assistance compared to females. However, when looking at the overall picture, it's clear that a significant portion of

both genders seek outside sources of income, but the gap in reliance is more pronounced among males.

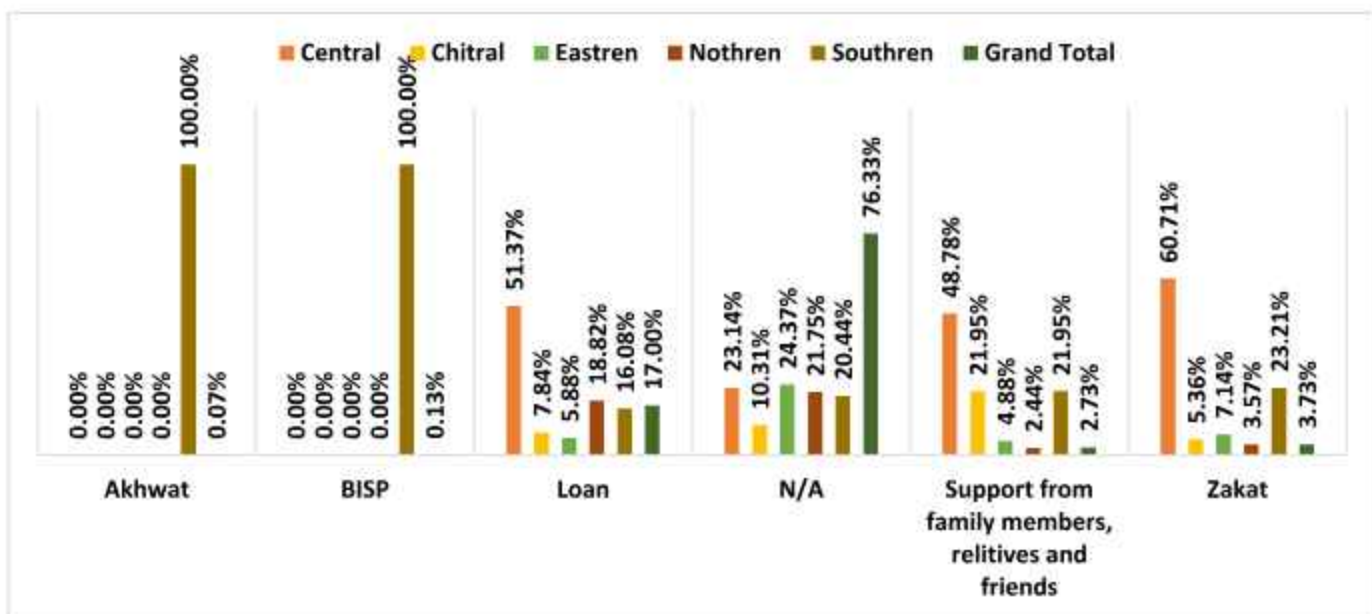
On the other hand, for those who do not rely on external income, the numbers reflect a notable difference. 27.67% of females and 72.33% of males do not depend on external financial help, contributing to 73.00% of the total responses. This suggests that the majority of respondents, especially males, have found ways to manage their financial needs without turning to outside sources. This could point to a higher level of financial independence among these respondents, particularly for males. In essence, the data shows a pattern where males, in general, tend to rely more on external sources of income compared to females. However, a majority of respondents, especially males, report not needing external income sources, which might indicate a reliance on other forms of income generation or possibly greater financial self-sufficiency. The overall trend suggests that the reliance on external support is not overwhelmingly high, but the gender differences might point to varying financial dynamics and access to resources within households.



51.11% of respondents in the first group come from one region, making up the majority of this smaller 27.00% category. Other regions contribute significantly less, with 8.15%, 5.93%, 14.57%, and 20.25%, indicating that external income sources (or lack thereof) are concentrated in specific areas. In contrast, the second and much larger group, comprising 73.00% of respondents, is more evenly distributed. The highest representation comes from one region at 25.21%, while others range between 10.68% and 22.19%. This suggests that external income sources—or their absence—are more common across multiple regions, with no single area dominating the category. Overall, the data highlights regional disparities in external income, with one region having a significantly higher percentage in the first group while the second group shows a more balanced spread. This could indicate differences in economic opportunities, employment trends, or regional financial conditions.

### 32. If yes, what are these external sources of income?

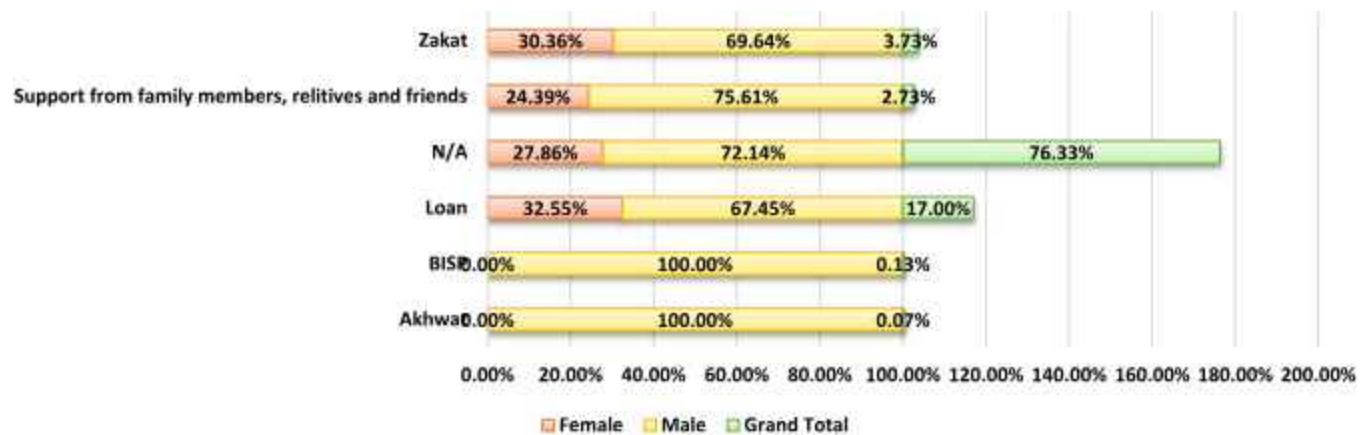




0.00% of respondents from most regions rely on Akhwat and BISP as external sources of income, with 100.00% coming from one region. Akhwat contributes to only 0.07% of total responses, while BISP accounts for 0.13%, indicating that these sources are rare and regionally concentrated. Loans are a more common external income source, with 51.37% of recipients from one region, 7.84% from another, 5.88% from another, 18.82% from another, and 16.08% from another. This makes up 17.00% of the total responses, suggesting that loans are a notable but not dominant source of external income.

A majority of respondents, 76.33%, fall under the "N/A" category, indicating they do not rely on external income. Within this group, 23.14% come from one region, 10.31% from another, 24.37% from another, 21.75% from another, and 20.44% from another, showing a relatively balanced distribution across regions. Support from family, relatives, and friends accounts for 2.73% of total responses. Within this category, 48.78% rely on it from one region, 21.95% from another, 4.88% from another, 2.44% from another, and 21.95% from another. This suggests that family support is significant in specific regions but not widespread. Zakat is reported as an external income source by 3.73% of respondents, with 60.71% from one region, 5.36% from another, 7.14% from another, 3.57% from another, and 23.21% from another. The high concentration in certain regions suggests a localized dependence on religious charity.

Overall, the data indicates that external income sources vary significantly by region, with loans and family support being more widespread, while Zakat, Akhwat, and BISP are concentrated in specific areas. A majority of respondents do not rely on external income sources at all.

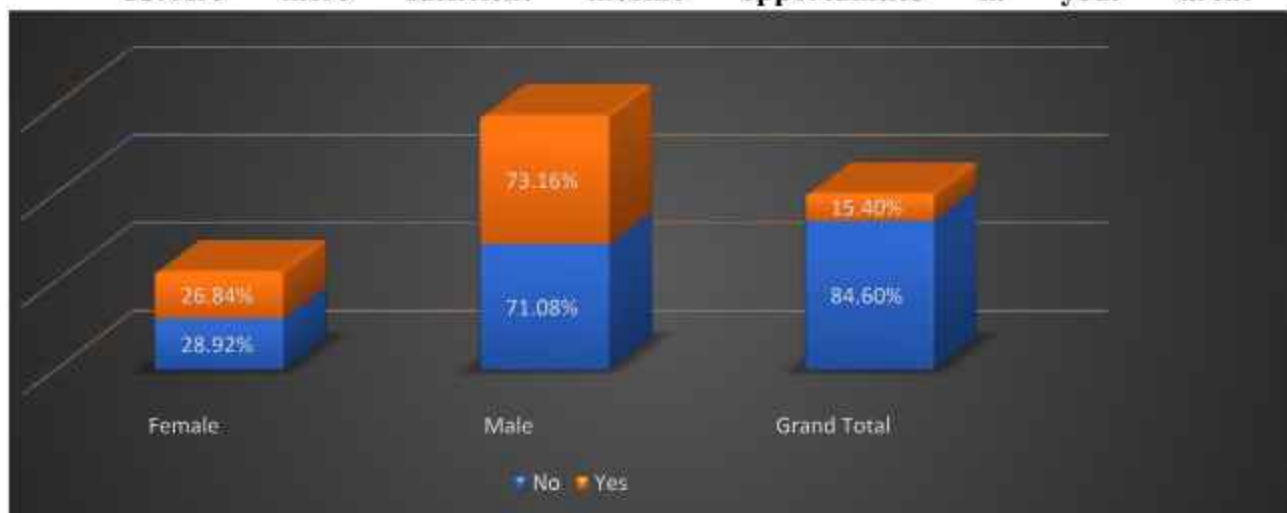


0.00% of females and 100.00% of males rely on Akhwat and BISP as external sources of income. Akhwat accounts for only 0.07% of total responses, while BISP makes up 0.13%, indicating that both sources are rare and exclusively used by males. Loans are a more common source of external income, with 32.55% of recipients being female and 67.45% male. This makes up 17.00% of the total responses, showing that males are more likely to rely on loans than females.

A majority of respondents, 76.33%, fall under the "N/A" category, meaning they do not rely on external income sources. Within this group, 27.86% are female and 72.14% are male, suggesting that external income dependence is more common among males. Support from family members, relatives, and friends accounts for 2.73% of total responses. Of these, 24.39% are female and 75.61% are male, indicating that family-based financial support is more frequently received by males. Zakat is an external income source for 3.73% of respondents, with 30.36% being female and 69.64% male. This suggests that while Zakat is not a major source of income, it is used more by males than females.

Overall, external income sources are more commonly accessed by males, with loans and family support being the most significant. Akhwat and BISP are exclusively used by males, while females have a lower representation in every category. Most respondents, especially females, do not rely on external income sources.

### 33. Are there sufficient income opportunities in your area?



#### (Gender wise)

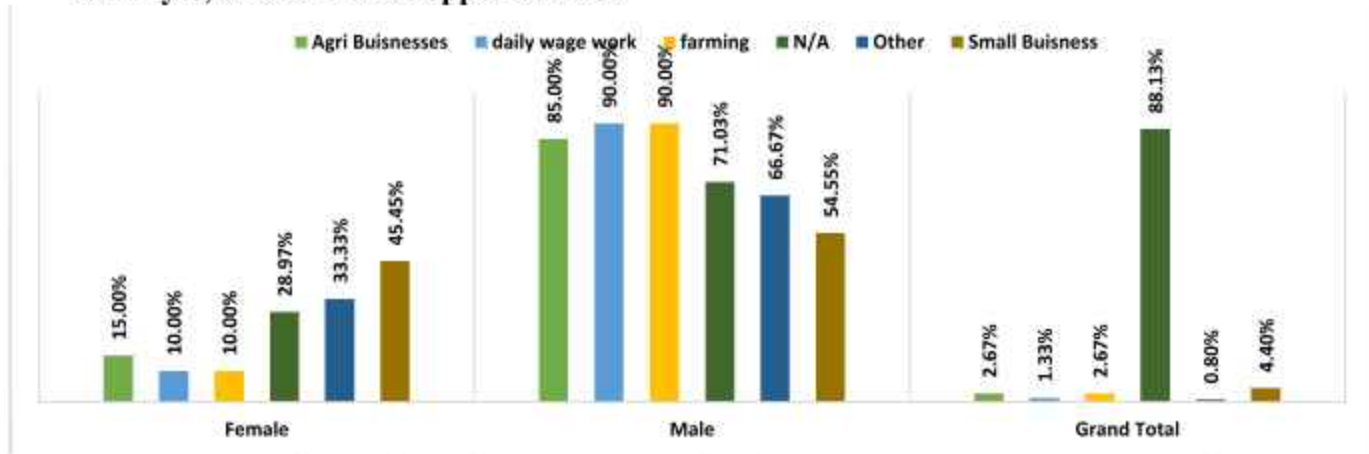
The responses indicate that a large majority of both females and males perceive the income opportunities in their area to be insufficient. Specifically, 28.92% of females and 71.08% of males believe that there are not enough income opportunities, which collectively account for



84.60% of the total responses. This highlights a widespread concern about economic opportunities, with a greater sense of dissatisfaction among males compared to females. This could suggest that the local economy, job market, or access to resources may not be meeting the needs of the population, especially in certain regions where there may be limited industries or economic activities available.

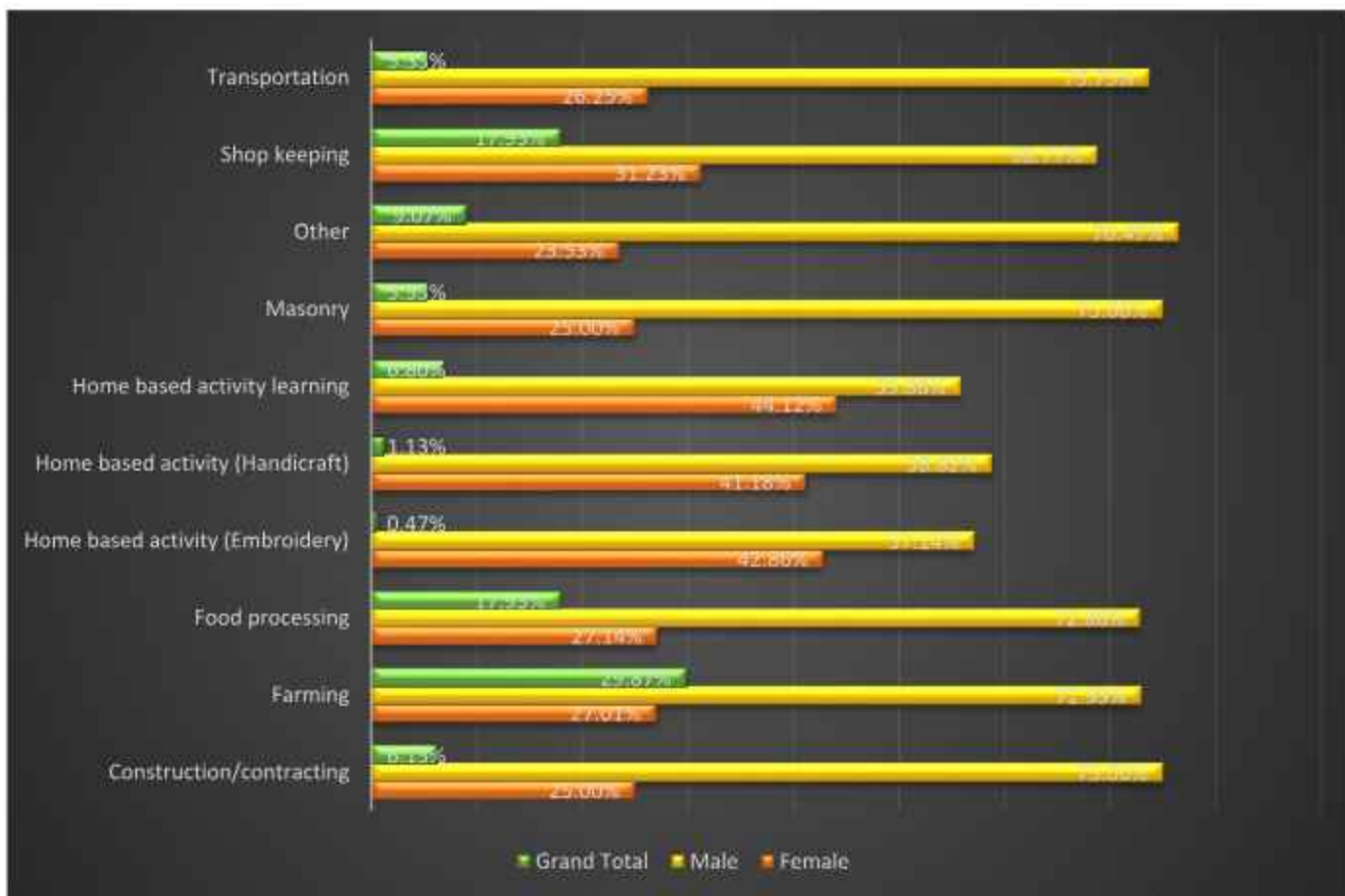
On the flip side, a smaller percentage of respondents, 26.84% of females and 73.16% of males, feel that sufficient income opportunities exist in their area, representing just 15.40% of the total responses. While this group is much smaller, it still reflects a belief, whether based on personal experience or optimism, that there are opportunities to earn a livelihood. This could be due to specific industries, local businesses, or employment programs that some individuals are aware of or are benefiting from, even if these opportunities are not universally available or accessible to everyone in the area. Overall, while the majority view seems to be that income opportunities are lacking, there is still a portion of the population that holds a more positive view. The significant difference in perception between males and females might suggest that there are gendered aspects to how opportunities are perceived or accessed. Males, in particular, may feel a greater sense of frustration or limitation when it comes to finding work or earning a stable income.

#### 34. If yes, what are these opportunities?



The responses regarding available income opportunities in the area reveal that 15.00% of females and 85.00% of males identified agribusinesses, which accounted for 2.67% of the total responses. For daily wage work, 10.00% of females and 90.00% of males mentioned this, representing 1.33% of the total responses. Similarly, 10.00% of females and 90.00% of males indicated farming as an opportunity, which also accounted for 2.67% of the total responses. A significant portion of respondents, 28.97% of females and 71.03% of males, chose "N/A," meaning they did not identify any specific opportunities. This category made up 88.13% of the total responses. In the "Other" category, 33.33% of females and 66.67% of males noted additional opportunities, though it represented just 0.80% of the total responses. Lastly, 45.45% of females and 54.55% of males pointed to small businesses as an opportunity, comprising 4.40% of the total responses. Overall, while agribusinesses, daily wage work, farming, and small businesses are mentioned as opportunities, the majority of respondents did not specify any particular income opportunities in the area.

#### 35. What skills do men or women of your household possess?



The responses regarding the skills possessed by men and women in the household show that 25.00% of females and 75.00% of males reported possessing skills in construction/contracting, which accounted for 6.13% of the total responses. Farming was the most commonly mentioned skill, with 27.01% of females and 72.99% of males indicating proficiency, representing 29.87% of the total responses. Food processing was reported by 27.14% of females and 72.86% of males, making up 17.93% of the total responses. In home-based activities, 42.86% of females and 57.14% of males reported skills in embroidery, which represented only 0.47% of the total responses, while 41.18% of females and 58.82% of males mentioned handicrafts, accounting for 1.13% of the total responses. In the category of home-based activity learning, 44.12% of females and 55.88% of males were involved, comprising 6.80% of the total responses. Masonry skills were reported by 25.00% of females and 75.00% of males, accounting for 5.33% of the total responses. For other skills, 23.53% of females and 76.47% of males indicated proficiency, representing 9.07% of the total responses. Shopkeeping was mentioned by 31.23% of females and 68.77% of males, which made up 17.93% of the total responses, while transportation was noted by 26.25% of females and 73.75% of males, accounting for 5.33% of the total responses. Overall, the responses indicate a wide range of skills among both men and women, with males typically more skilled in farming, construction, masonry, and transportation, while females are more involved in home-based activities like embroidery and handicrafts.

ANOVA results



## ANOVA

Gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	5.322	9	.591	3.153	.001
Within Groups	279.396	1490	.188		
Total	284.717	1499			

The ANOVA analysis reveals significant differences in the analyzed variable based on gender. The Between-Groups Sum of Squares (5.322) indicates that there is noticeable variation among different gender categories. In contrast, the Within-Groups Sum of Squares (279.396) captures the variability that exists within each gender group, accounting for individual differences. The Mean Squares for between-group and within-group variations are 0.591 and 0.188, respectively. The F-statistic (3.153) highlights the ratio of variance between groups compared to the variance within groups, further supporting the presence of measurable differences. With a p-value of 0.001, which is well below the 0.05 threshold, the results confirm that these differences are statistically significant.

## Descriptive table

Gender

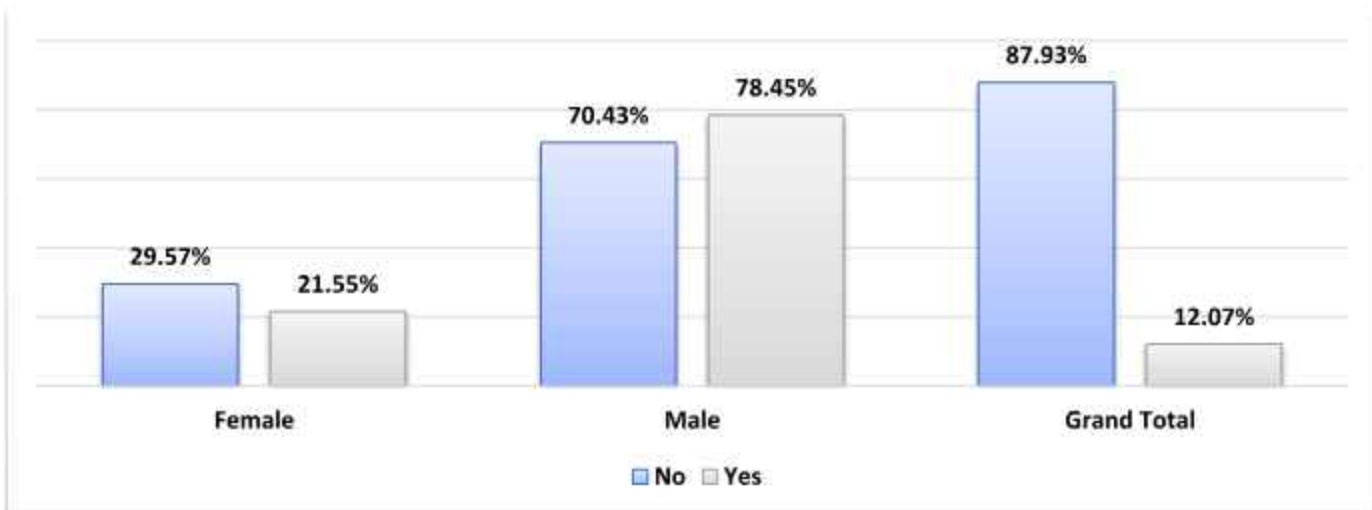
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Farming	448	1.2299	.42125	.01990	1.1908	1.2690	1.00	2.00
Food processing	269	1.2268	.41952	.02558	1.1764	1.2771	1.00	2.00
Masonry	80	1.2500	.43574	.04872	1.1530	1.3470	1.00	2.00
Shop keeping	269	1.2900	.45459	.02772	1.2354	1.3445	1.00	2.00
Construction/contracting	92	1.1848	.39025	.04069	1.1040	1.2656	1.00	2.00
Transportation	80	1.2500	.43574	.04872	1.1530	1.3470	1.00	2.00
Home based activity learning	102	1.4314	.49771	.04928	1.3336	1.5291	1.00	2.00
Home based activity (Handicraft)	17	1.4118	.50730	.12304	1.1509	1.6726	1.00	2.00
Home based activity (Embroidery)	7	1.4286	.53452	.20203	.9342	1.9229	1.00	2.00
Other	136	1.2132	.41111	.03525	1.1435	1.2830	1.00	2.00
Total	1500	1.2547	.43582	.01125	1.2326	1.2767	1.00	2.00

**36. Are you able to use these skills to generate income gender**



The responses to whether individuals are able to use their skills to generate income show that 53.40% of females and 73.60% of males reported being unable to use their skills for income generation, which accounts for 53.60% of the total responses. On the other hand, 46.60% of females and 26.40% of males indicated that they are able to use their skills to generate income, making up 46.40% of the total responses. This suggests that a significant portion of respondents, especially females, are able to use their skills for income generation. However, a substantial number of males still report that they are unable to do so, indicating a gap in the ability to turn skills into income opportunities.

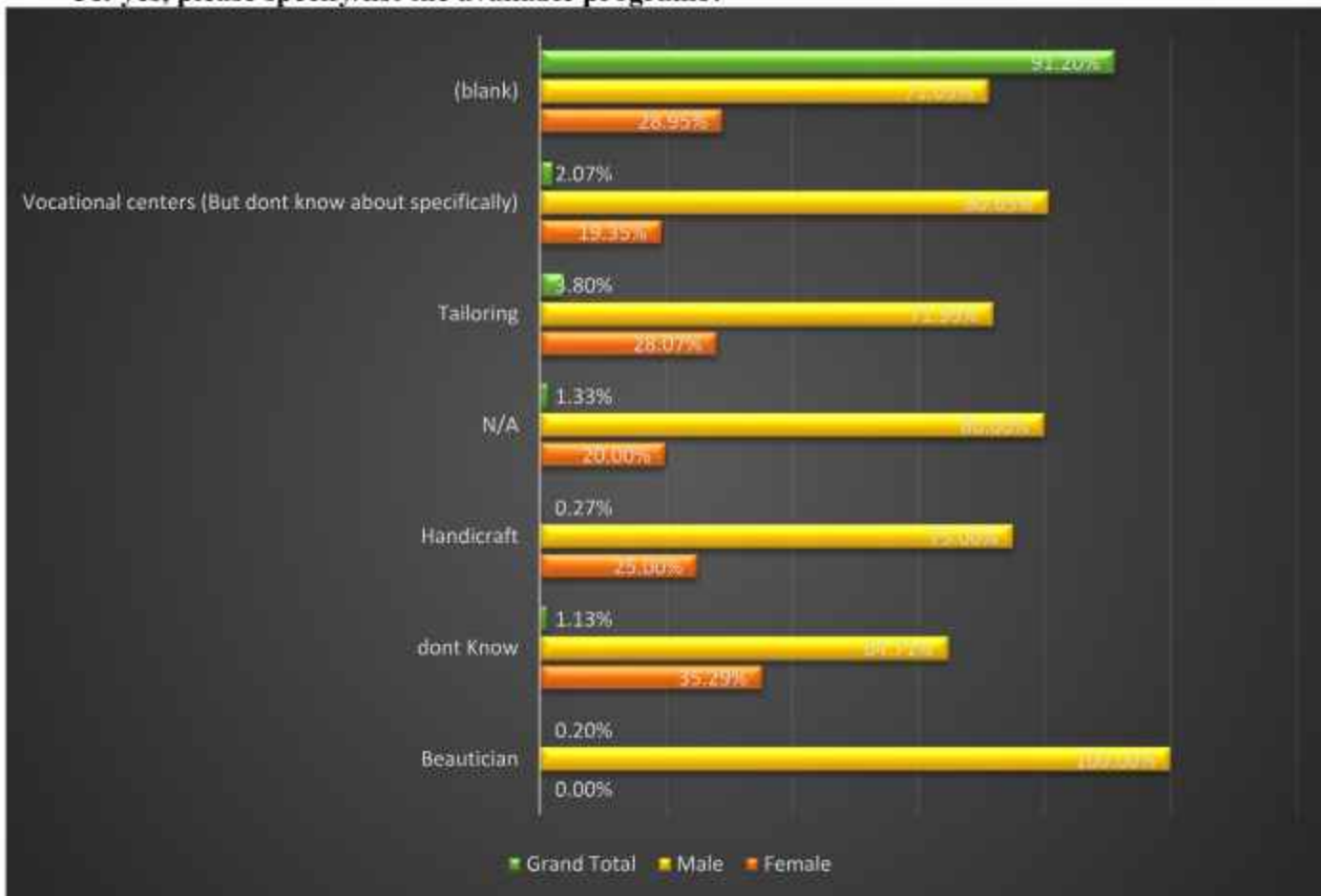
**37. Are there any vocational training programs available in your area?**



The responses to the question about the availability of vocational training programs in the area show that 29.57% of females and 70.43% of males reported that there are no vocational training programs, which accounts for 87.93% of the total responses. In contrast, 21.55% of females and 78.45% of males indicated that there are vocational training programs available, representing 12.07% of the total responses. This data suggests that a large majority of respondents believe there are no vocational training opportunities in their area, with males showing a higher percentage of this belief. However, a small portion of respondents, particularly males, reported the availability of such programs.



### 38. yes, please specify/list the available programs?

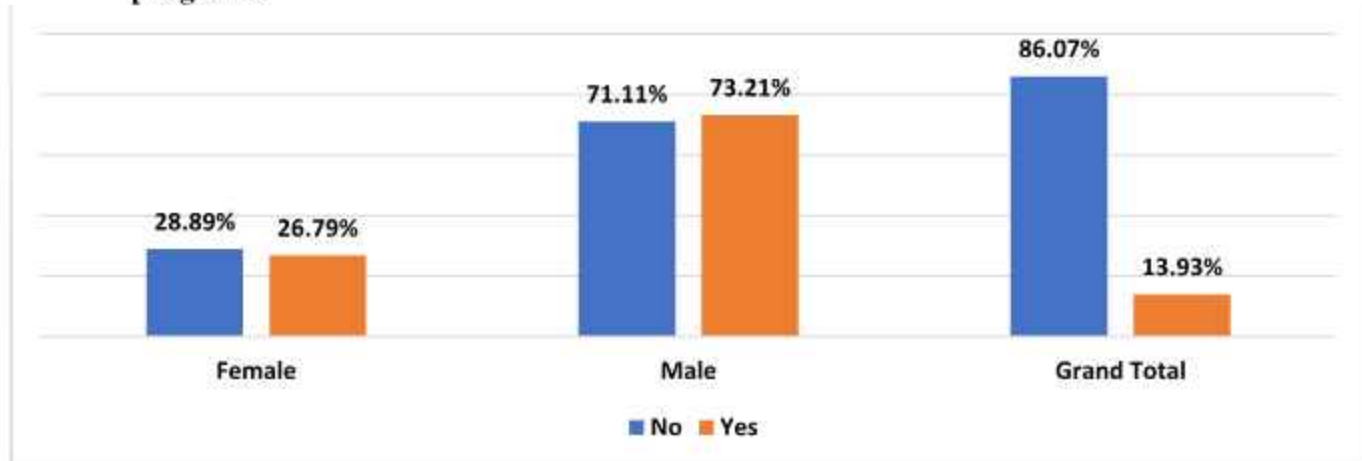


The responses to the question about available vocational training programs reveal that 0.00% of females and 100.00% of males mentioned beautician programs, which account for 0.20% of the total responses. For those who indicated they don't know, 35.29% of females and 64.71% of males provided this response, making up 1.13% of the total. Handicraft programs were mentioned by 25.00% of females and 75.00% of males, representing 0.27% of the total responses. In the N/A category, 20.00% of females and 80.00% of males responded, accounting for 1.33% of the total responses. Tailoring programs were identified by 28.07% of females and 71.93% of males, making up 3.80% of the total responses. For vocational centers (but not known specifically), 19.35% of females and 80.65% of males mentioned this, representing 2.07% of the total responses.

A large portion of the responses, 28.95% of females and 71.05% of males, chose the blank option, which accounts for 91.20% of the total responses, suggesting that most respondents were unaware of or did not specify available vocational programs.

This indicates that while a few specific programs like tailoring, handicraft, and beauty services are mentioned, the majority of respondents either don't know or didn't identify any vocational training programs available in their area.

**39. Have you or anyone in your household ever attended a vocational training program?**



The responses to whether anyone in the household has ever attended a vocational training program show that 28.89% of females and 71.11% of males reported that no one in their household has attended a vocational training program, which accounts for 86.07% of the total responses. On the other hand, 26.79% of females and 73.21% of males indicated that someone in their household has attended a vocational training program, representing 13.93% of the total responses. This suggests that a large majority of respondents have not had anyone in their household attend a vocational training program, with males again showing a higher percentage in this regard. However, a smaller proportion of respondents, particularly males, reported that someone in their household has participated in such a program.

**ANOVA result**

**ANOVA**

**Gender**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.919	1	.919	4.851	.028
Within Groups	283.798	1498	.189		
Total	284.717	1499			

The ANOVA analysis indicates a statistically significant difference in the analyzed variable based on gender. The Between-Groups Sum of Squares (0.919) suggests some variation between gender categories, while the Within-Groups Sum of Squares (283.798) reflects individual differences within each group. The Mean Squares are 0.919 for between-groups and 0.189 for within-groups, highlighting the extent of variation. The F-statistic (4.851) represents the ratio of variance between groups to variance within groups. With a p-value of 0.028, which is below the 0.05 threshold, the results confirm that the difference observed between gender groups is statistically significant.

The descriptive statistic table is mentioned as under;

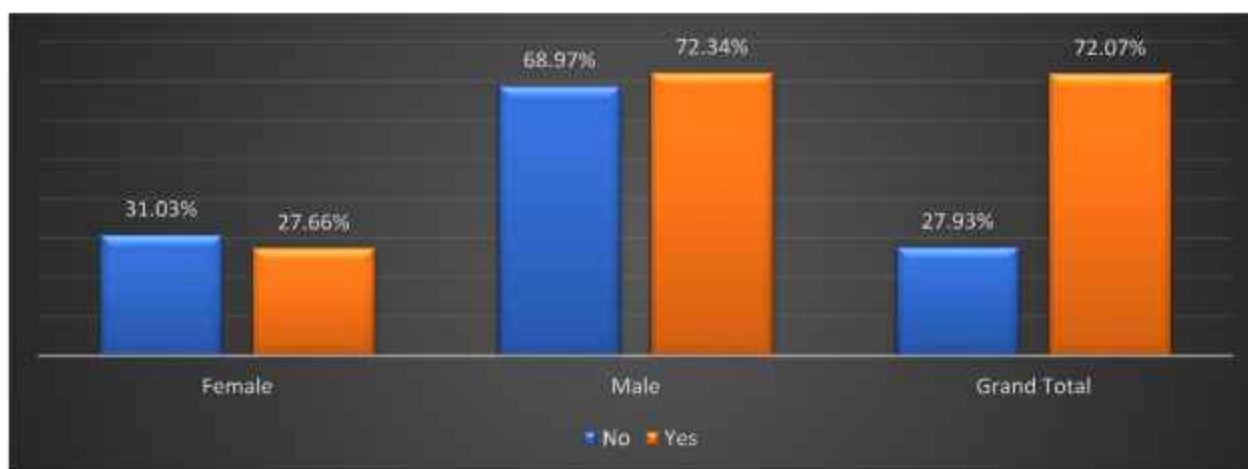
**Descriptives**



#### Gender

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Yes	181	1.1878	.39167	.02911	1.1304	1.2453	1.00	2.00
No	1319	1.2638	.44088	.01214	1.2400	1.2877	1.00	2.00
Total	1500	1.2547	.43582	.01125	1.2326	1.2767	1.00	2.00

#### 40. Do you think vocational training programs are useful for improving your household's income?



The responses to whether vocational training programs are useful for improving the household's income show that 31.03% of females and 68.97% of males believe vocational training programs are not useful, accounting for 27.93% of the total responses. On the other hand, 27.66% of females and 72.34% of males feel that vocational training programs are useful for improving household income, representing 72.07% of the total responses. This suggests that a significant majority of respondents, especially males, believe vocational training programs can contribute positively to improving income, while a smaller portion of respondents, particularly females, do not share this view.

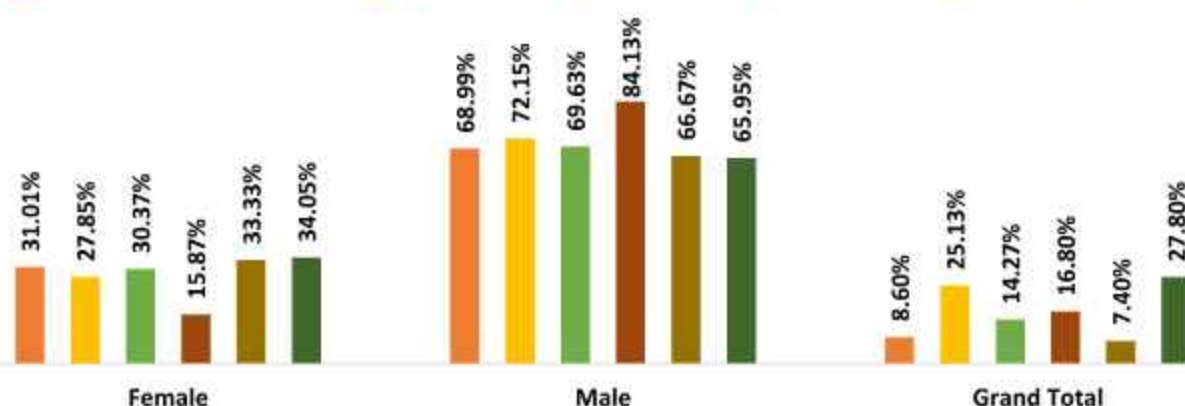


The responses to whether vocational training programs are useful for improving household income show varying opinions across regions. In the Central region, 29.12% believe these programs are not useful, while 30.34% think they are, representing 27.93% of the total responses. In Chitral, a small percentage, 3.58%, feel the programs are not useful, while 12.49% consider them useful, making up 27.93% of the total responses. In the Eastern region, 18.85% believe the programs are not useful, compared to 20.44% who think they are, which represents 27.93% of the total responses. In the Northern region, 25.06% of respondents find

them not useful, while 18.04% see them as useful, accounting for 27.93% of the total responses. Lastly, in the Southern region, 23.39% believe the programs are not useful, while 18.69% think they are, contributing to 27.93% of the total responses. This analysis indicates that while the majority of respondents across all regions believe vocational training programs can help improve household income, there are notable regional variations in how strongly this view is held. The Central and Chitral regions show a somewhat balanced view, while the Eastern, Northern, and Southern regions lean towards seeing these programs as useful for income improvement.

#### 41. What types of vocational training would be most beneficial to you?

Auto works (Cycle, bike, car) Digital skills Embroidery Mobile repair Other Tailoring



The responses to the question about the most beneficial types of vocational training show that 31.01% of females and 68.99% of males believe training in auto works (cycle, bike, car) would be beneficial, accounting for 8.60% of the total responses. For digital skills, 27.85% of females and 72.15% of males consider this training most beneficial, representing 25.13% of the total responses. In embroidery, 30.37% of females and 69.63% of males found this type of training beneficial, which makes up 14.27% of the total responses. Mobile repair training was considered beneficial by 15.87% of females and 84.13% of males, accounting for 16.80% of the total responses. For other types of training, 33.33% of females and 66.67% of males identified various skills as beneficial, which represents 7.40% of the total responses. Lastly, tailoring was seen as the most beneficial training by 34.05% of females and 65.95% of males, making up 27.80% of the total responses. Overall, digital skills and tailoring are seen as the most beneficial vocational training types across both genders, with males leaning more towards training in mobile repair and auto works, while females are more inclined toward embroidery and tailoring.

#### Qualitative insights

##### Agribusiness Development: Challenges and Opportunities

##### Professional Farmer Organizations (PFOs): A Struggle for Sustainability

The formation and sustainability of Professional Farmer Organizations (PFOs) are hindered by multiple challenges. Farmers face financial constraints, a lack of education, and an overall shortage of resources needed to establish and maintain these organizations. Climate change adds further instability to agricultural production, making it difficult for smallholder farmers to sustain profitable enterprises. Additionally, the presence of middlemen in the market creates a significant barrier, as they often manipulate prices and reduce farmers' bargaining power.

Despite these challenges, PFOs have proven to be valuable in enhancing market access for smallholder farmers. They provide platforms for collective bargaining, reducing transaction costs, and enabling better access to markets. By organizing themselves into PFOs, farmers can negotiate better prices for their produce and gain improved access to agricultural inputs. However, to fully realize their potential, these organizations require institutional and financial



support. Subsidies, access to market information, and training programs on market trends and strategies are necessary to strengthen their operations. Capacity-building initiatives focusing on financial literacy, technology adoption, and market linkages would further help in making these organizations more resilient and impactful.

#### **Farm Services Companies (FSCs): Bridging the Gap for Small Farmers**

Farm Services Companies (FSCs) are designed to provide smallholder farmers with access to high-quality agricultural inputs, mechanization services, and technological advancements. However, many small-scale farmers still struggle to benefit from these services due to multiple barriers. High costs, bureaucratic procedures, and a lack of awareness about available services prevent many farmers from accessing the support they need.

Moreover, the limited reach of FSCs in rural areas means that many farmers remain excluded from their benefits. Language and education barriers further add to the problem, making it difficult for farmers to engage with the services provided.

To improve accessibility, there is a need to expand FSC outreach in rural communities and create awareness about available services. Strengthening farmer cooperatives and introducing cost-effective procedures will also ensure that more farmers can benefit from these services. Governments and private sector actors should collaborate to offer subsidized services and training programs that help farmers make the most of available resources.

#### **Institutional Support Services: A Pillar for Agribusiness Growth**

Institutional support services play a critical role in the success of PFOs, 4Ps, and FSCs. These services provide networking opportunities, access to financial resources, and policy frameworks that facilitate market participation. However, the effectiveness of these services is often undermined by bureaucratic inefficiencies and a lack of coordination among stakeholders.

To better meet market demands, institutional support services need to focus on strengthening farmer cooperatives and associations, enhancing market infrastructure, and improving agricultural research and extension services. Increased access to finance, training programs, and policy reforms aimed at promoting rural entrepreneurship can significantly improve the overall agribusiness environment.

#### **Skills Development and Vocational Training: Bridging the Knowledge Gap**

The agribusiness sector demands a skilled workforce, yet existing vocational training programs are not adequately aligned with industry needs. Many of these programs lack a strong connection with agribusiness trends, leaving trainees ill-prepared for real-world challenges.

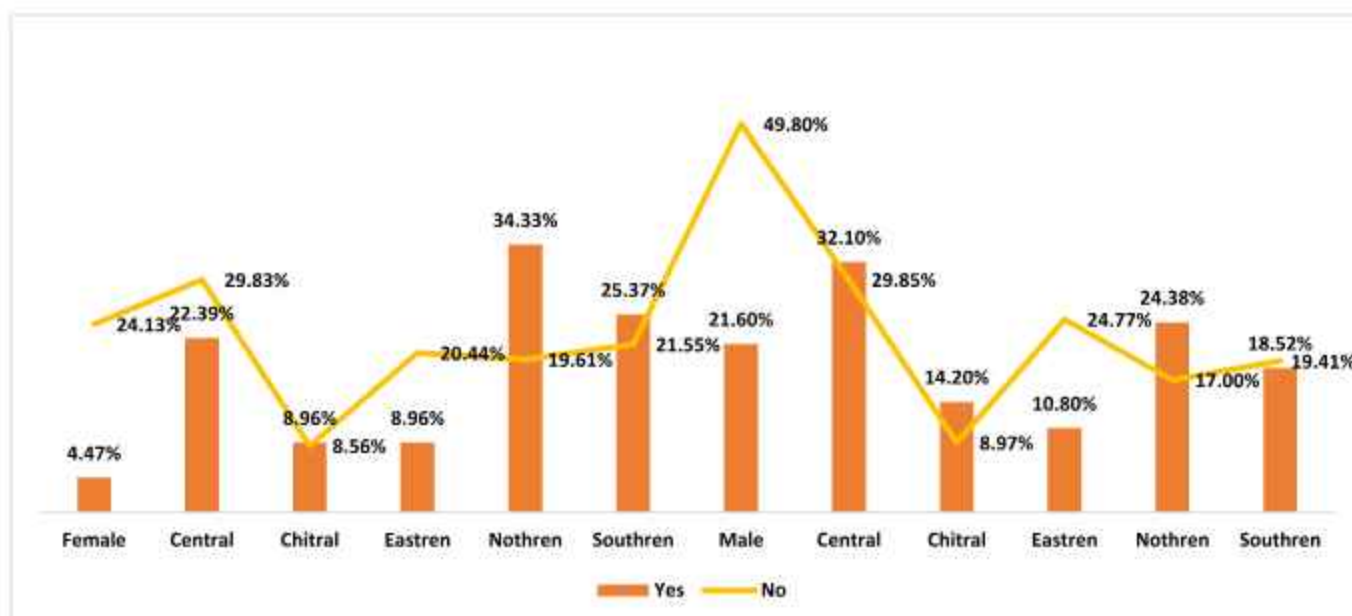
A major gap in vocational training is the weak linkage between industry and academia. There is limited focus on agribusiness and value addition, while entrepreneurial and business management training remains scarce. This disconnect leaves young graduates struggling to find meaningful employment in the sector.

To address these shortcomings, training institutions need to develop market-oriented curricula that incorporate modern agricultural practices, agribusiness management, and technological integration. Establishing internship and apprenticeship programs, along with agribusiness incubation centers, would provide young professionals with hands-on experience and practical exposure to the industry.

## **Section 4: Community Participation and Governance**

### **42. Are you involved in any community or local decision-making processes?**

Gender wise



## Gender-Wise Analysis

### Female Participation Trends

Women face considerable challenges in engaging with community decision-making processes. The overall female participation rate stands at a mere 4.47%, highlighting a stark gender gap. Despite this, there are significant differences across regions. In the Northern (34.33%) and Southern (25.37%) regions, female participation is relatively higher, suggesting that women in these areas may have greater access to leadership opportunities or supportive social structures that encourage their involvement. These figures indicate that cultural norms, local governance policies, or specific community-driven initiatives may be playing a role in facilitating female participation.

In contrast, the Chitral (8.96%) and Eastern (8.96%) regions show alarmingly low female engagement, suggesting that women in these areas may be facing substantial cultural, social, or infrastructural barriers. The lack of representation in these regions may be due to traditional gender roles, limited access to decision-making forums, or the absence of policies aimed at encouraging female involvement. Moreover, a high percentage of women in the Central (29.83%) and Eastern (20.44%) regions responded negatively when asked about their participation. This highlights not only a lack of engagement but also possible systemic issues that hinder female involvement in leadership and decision-making.

### Male Participation Trends

Male participation is significantly higher compared to females, with an overall engagement rate of 21.60%. However, regional variations still play a major role in shaping their level of involvement. The Central region (32.10%) reports the highest male participation, followed closely by the Northern (24.38%) and Southern (18.52%) regions. This suggests that men in these areas may have more opportunities, greater access to decision-making bodies, and possibly a stronger presence in local governance structures. However, participation levels drop significantly in the Chitral (14.20%) and Eastern (10.80%) regions, reflecting similar trends seen among females. The low engagement rates indicate that beyond gender, certain regions may face broader socio-economic challenges that limit civic participation for all residents. Additionally, the highest proportion of "No" responses among men comes from the Eastern (24.77%) and Central (29.85%) regions, indicating that even though male participation is generally higher, many still remain uninvolved. This may be due to lack of awareness, limited interest in local governance, or structural barriers that discourage broader community participation.



### **Region-wise detail**

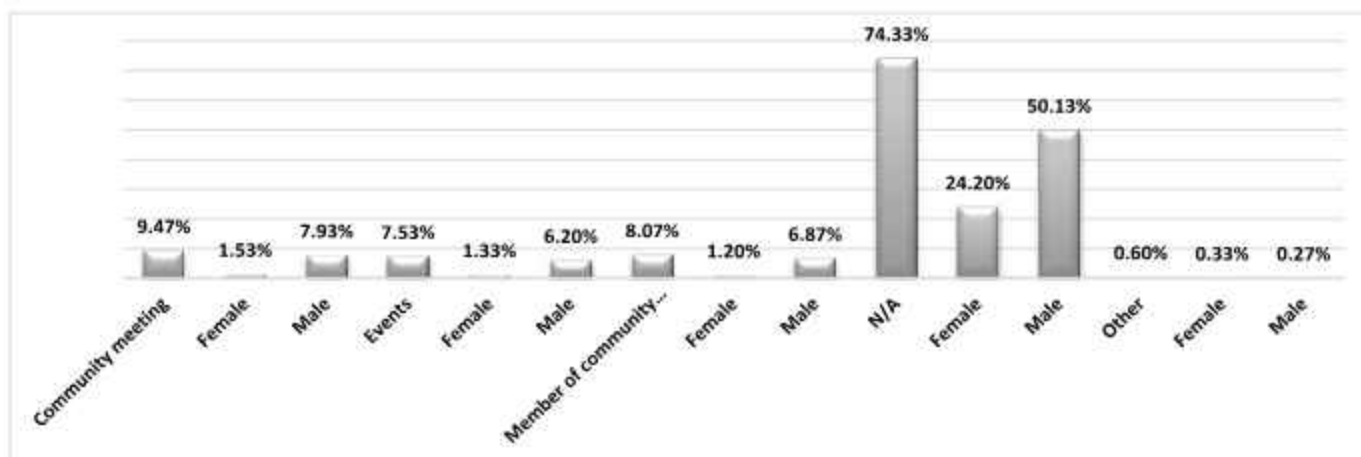
The level of community engagement varies across different regions, with some areas demonstrating stronger participation than others. The Northern region stands out as a leader in inclusivity, while Eastern and Chitral regions show concerning low levels of involvement. In the Northern region, community decision-making is marked by a high level of participation. Women report a relatively high engagement rate of 34.33%, suggesting that they have better access to decision-making processes. Male involvement is also strong at 24.38%, reflecting a community culture that encourages participation from both genders. This balanced engagement may indicate the presence of well-established community structures that promote inclusivity. Understanding the factors contributing to this success could help replicate similar strategies in less engaged regions.

Further southern, participation remains moderate. Female engagement is recorded at 25.37%, higher than in many other regions, indicating a more inclusive environment. Male involvement, at 18.52%, while notable, is slightly lower compared to the Northern and Central regions. Although the Southern region provides relatively better opportunities for women, there is still room for improvement in overall participation. Identifying and scaling successful community engagement strategies from this region could help elevate participation in other areas facing challenges. In the Central region, gender disparity in participation becomes evident. Male engagement is relatively high at 32.10%, whereas female participation lags behind at 22.39%. A significant proportion of both men (29.85%) and women (29.83%) report non-involvement, highlighting potential cultural or structural barriers limiting women's access to decision-making roles. Addressing these barriers through targeted policies, leadership programs, and awareness campaigns could help close the gap and encourage more balanced participation.

The Eastern region presents the lowest participation rates among all areas. Female engagement is alarmingly low at 8.96%, with a high number of women (20.44%) reporting non-involvement. Male participation is also at its lowest, at 10.80%, with a substantial 24.77% responding negatively. These figures suggest that systemic challenges—such as socio-economic constraints, lack of awareness, or cultural restrictions—may be preventing individuals from participating in decision-making processes. Addressing these barriers through education, community outreach, and policy changes could help improve engagement levels. Chitral emerges as one of the least engaged regions overall. Female participation stands at 8.96%, with a relatively low “No” response of 8.56%, indicating that many women may not even consider participation as an option. Male involvement, at 14.20%, is slightly higher but still lags behind other regions. The low levels of engagement suggest that community decision-making structures may not be easily accessible or appealing to a significant portion of the population. Encouraging grassroots initiatives, ensuring equal access to decision-making platforms, and raising awareness about the importance of civic participation could help improve engagement rates. The findings highlight a pronounced gender disparity in community decision-making, with males consistently reporting higher engagement than females. However, even among men, regional differences indicate that factors such as socio-economic conditions, cultural norms, and accessibility to leadership opportunities influence participation rates.

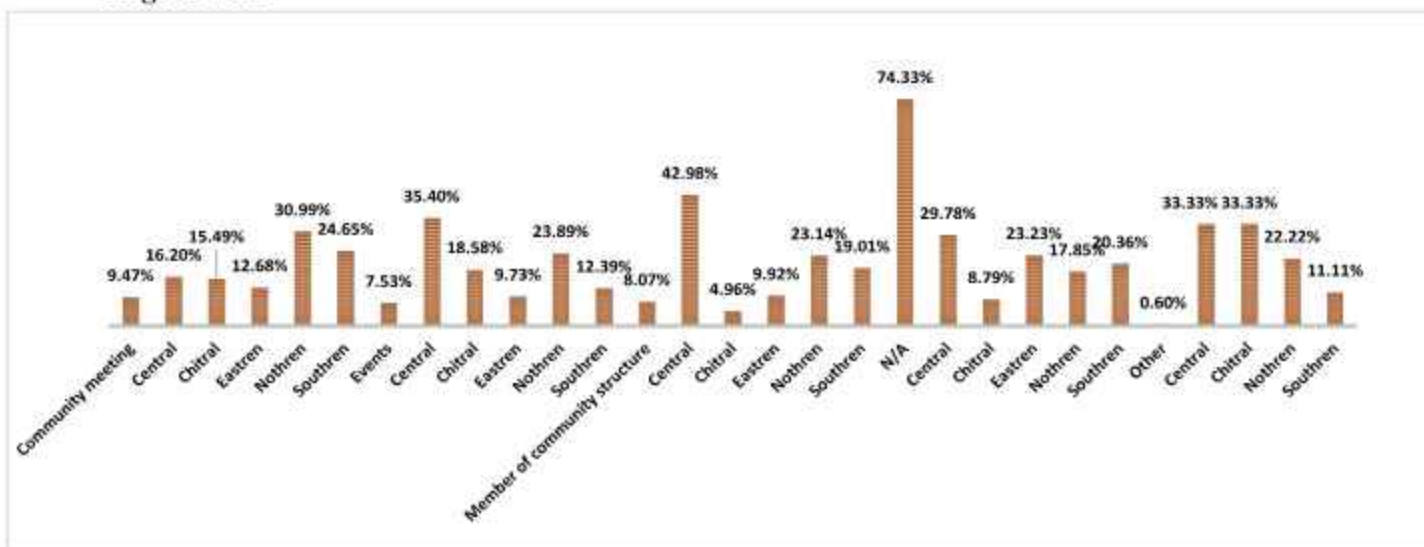
### **43. If yes, how are you engaged?**

#### **Gender wise**



The latest data on gender-wise engagement in community decision-making presents a revised yet consistent trend—male participation continues to outpace female involvement across all major categories. Despite the lower absolute percentages, the underlying gender disparity remains evident. Men dominate participation in community meetings, accounting for 7.93% of engagement, whereas women contribute only 1.53%. A similar trend is observed in event participation, where 6.20% of attendees are male, compared to a mere 1.33% female representation. Likewise, in membership within community structures, men hold a 6.87% share, while women lag behind at 1.20%. These figures highlight an ongoing imbalance, with men taking the lead in decision-making spaces while women's voices remain underrepresented. One striking aspect of the data is the N/A category, which stands out with the highest engagement level at 74.33%. Within this category, 50.13% of participants are male, while 24.20% are female. On the other hand, engagement in the "Other" category is minimal, accounting for just 0.60% of total participation, with 0.33% female and 0.27% male involvement. This suggests that alternative forms of participation outside traditional decision-making structures remain highly limited.

#### Region wise



#### Community Engagement in Decision-Making – A Regional Perspective

Across different regions, community participation in decision-making varies significantly, reflecting distinct engagement patterns. In the Central region, community members show a strong inclination towards involvement, particularly in events and structured decision-making. With 35.40% participation in events—the highest among all regions—this area demonstrates



an active civic culture. Additionally, 42.98% of the community takes part in formal structures, reinforcing the Central region's leadership in community governance. Moderate participation in community meetings (16.20%) and other forms of engagement (29.78%) further highlights a well-rounded commitment to decision-making processes.

On the other hand, the Chitral region exhibits relatively low engagement across most categories. With only 9.44% participation in community meetings, 7.53% in events, and 4.96% in structured memberships, the region shows limited direct involvement. However, a 33.33% participation rate in alternative forms of engagement suggests that while traditional mechanisms may not be widely embraced, other avenues are being explored by the community. Similarly, the Eastern region follows a comparable pattern, with slightly higher engagement than Chitral. Here, 12.68% of the community attends meetings, while 18.58% participates in events. Formal engagement in community structures remains low at 9.92%, but with 23.23% taking part in other forms of decision-making, there is potential for more structured involvement in the future.

In contrast, the Northern region exhibits a unique engagement style. Community meetings attract significant participation (30.99%), indicating a preference for direct discussions. However, event participation is relatively low (9.73%), while involvement in structured decision-making remains moderate (23.14%). Other forms of participation (17.85%) suggest a balanced yet slightly passive approach to engagement. The Southern region maintains a middle ground, with 24.65% attending community meetings and 12.39% engaging in events. Membership in structured decision-making processes sits at 19.01%, while alternative participation is relatively low at 8.36%. While the region shows a steady presence in discussions, a stronger push towards formal involvement could enhance decision-making influence. A notable outlier in the analysis is the N/A category, which shows a notable percentage of 74.33% among five regions, and this segment is not included in any kind of decision-making in the community.

The Central region emerges as the most proactive in structured decision-making, leading in event participation and formal memberships. Northern and Southern regions show moderate engagement, relying more on meetings than events. Chitral and Eastern regions, however, lag behind in structured involvement, though other forms of participation are evident. The N/A category's exceptionally high meeting participation raises questions about data categorization or an unaccounted-for demographic trend. This regional breakdown highlights the varying degrees of community engagement, emphasizing the need for tailored strategies to enhance participation across all regions.

#### ANOVA

Region

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	42.771	4	10.693	4.712	.001
Within Groups	3392.229	1495	2.269		
Total	3435.000	1499			

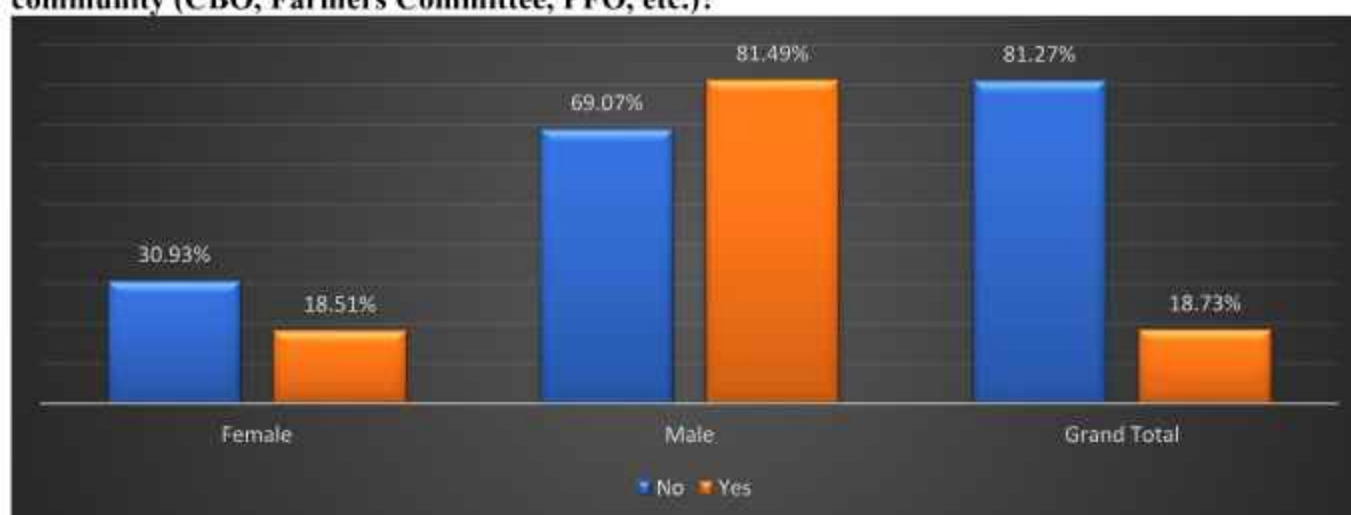
The ANOVA results reveal significant regional differences in community participation in governance. With a p-value of 0.001, the analysis confirms that participation levels vary across regions rather than occurring by chance. The F-statistic (4.712) indicates notable disparities between regions, while the high within-group variability suggests inconsistent participation within each region. This highlights the need for region-specific strategies to enhance community engagement and address disparities in governance involvement. Region-wise engagement variance is mentioned in the table below;

## Descriptives

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Community meeting	142	3.3239	1.41697	.11891	3.0889	3.5590	1.00	5.00
Member of community structure	121	2.7025	1.64136	.14921	2.4070	2.9979	1.00	5.00
Events	113	2.5929	1.47985	.13921	2.3171	2.8688	1.00	5.00
Other	9	2.4444	1.50923	.50308	1.2843	3.6045	1.00	5.00
N/A	1115	2.9022	1.50473	.04506	2.8138	2.9907	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

**Q 47: Are you aware of any formal community structures that exist in your community (CBO, Farmers Committee, PFO, etc.)?**



### Gender wise

The above table depicts that formal community structures—such as Community-Based Organizations (CBOs), Farmers Committees, and Producer Farmer Organizations (PFOs)—are essential for effective participation in local governance and decision-making. However, the data reveals a significant gap in awareness among the population, raising concerns about inclusivity and engagement in community development. The majority of respondents (81.27%) are unaware of these structures, highlighting a widespread lack of information and outreach. Only 18.73% of individuals reported knowing about the existence of such organizations, indicating that efforts to disseminate information about community governance remain insufficient.

### Gender Disparities in Awareness

A closer look at the data reveals stark gender differences in awareness levels. Among those who lack knowledge of community structures, 69.07% are male, and 30.93% are female. This suggests that, despite men's broader participation in community activities, a substantial number



remain uninformed about the formal mechanisms that shape local governance. However, the disparity becomes even more pronounced among those who are aware of these structures. Within the 18.73% of respondents who do have knowledge, an overwhelming 81.49% are male, while only 18.51% are female. This significant gap suggests that women face considerable barriers to accessing information about these community institutions. Whether due to cultural norms, restricted access to meetings, or limited involvement in leadership roles, women appear to be disproportionately excluded from crucial governance knowledge.

#### Key Observation

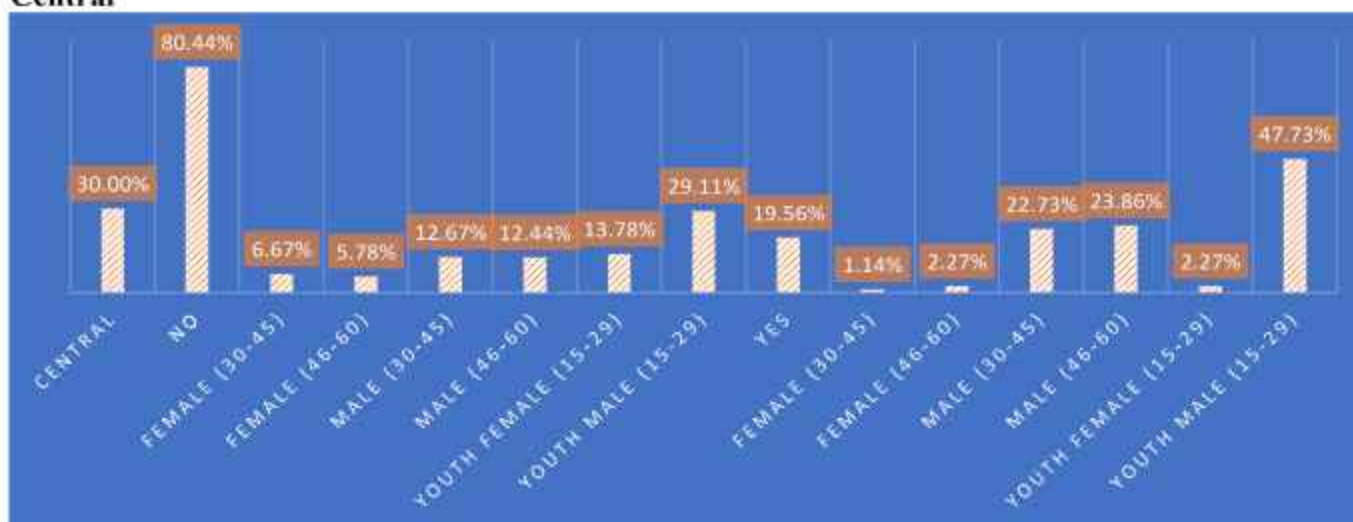
**Limited Overall Awareness** – The fact that over four-fifths of the population remains uninformed about formal community structures points to serious shortcomings in outreach and education efforts.

**Gender Imbalance** – While both men and women lack awareness, the disparity is most visible among those who are informed, where men far outnumber women.

**Barriers to Female Participation** – The low level of awareness among women suggests challenges such as restricted access to information, minimal involvement in governance activities, and potential societal constraints that limit their engagement.

**Below are the region-wise and gender wise details of the data aware from the formal community structure;**

#### Central



#### Gender-Wise Analysis

The data reveal a stark contrast in awareness of formal community structures between men and women. Among those who are unaware (80.44% of respondents), men form a significant proportion, with 12.67% of males aged 30-45 and 12.44% of males aged 46-60 lacking awareness. Similarly, a large percentage of youth males (29.11%) remain uninformed, indicating a need for better outreach to young men. Women also show a lack of awareness, but at a comparatively lower rate, with 6.67% of those aged 30-45, 5.78% of those aged 46-60, and 13.78% of young females (15-29) unaware of these structures.

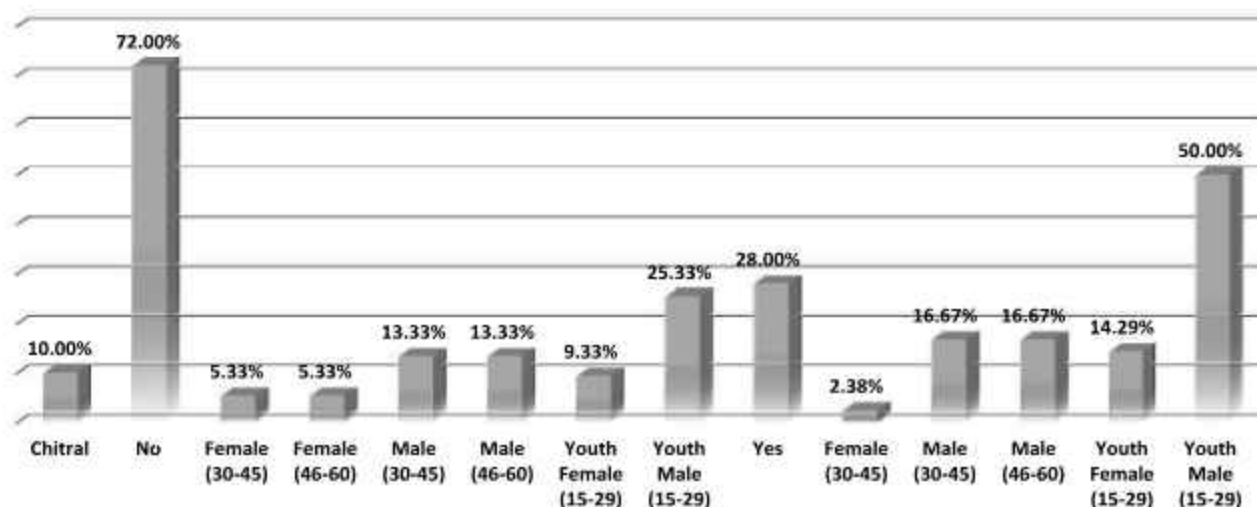
On the other hand, awareness levels (19.56%) show a strong male dominance. Among those who are informed, youth males (47.73%) and older men (30-45: 22.73%, 46-60: 23.86%) lead in knowledge. Women, however, have much lower awareness levels, with only 1.14% of those aged 30-45 and 2.27% of those aged 46-60 and 15-29 aware of formal community structures. This highlights a gendered gap in information access, with men—especially young men—being more informed than women across all age groups.

#### Region-Wise Analysis

Focusing on the Central region, the data highlights a low overall awareness level, with only 30.00% of respondents aware of formal community structures. The majority (80.44%) remain uninformed, pointing to a significant gap in information dissemination within the region. Among those unaware, youth males (15-29) form the largest group (29.11%), followed by youth females (13.78%) and men aged 30-45 (12.67%). Older men (46-60: 12.44%) and women (30-45: 6.67%, 46-60: 5.78%) also show considerable levels of unawareness. Among those who are aware (19.56%), youth males again lead (47.73%), followed by older men (46-60: 23.86%, 30-45: 22.73%). Female awareness remains minimal, with only 1.14% of those aged 30-45 and 2.27% of older women and youth females aware. This suggests that while younger men in the Central region have better access to information about community structures, outreach efforts remain insufficient for women and older populations.

The findings highlight a gendered and regional gap in awareness, with young males being the most informed and women across all age groups being the least informed. The Central region, despite some engagement, still shows an overwhelming lack of awareness (80.44%), calling for targeted interventions to bridge the knowledge gap—particularly for women and older community members.

#### Chitral



#### Awareness Gap in Community Structures: A Gender and Age Perspective

The data reveal a stark disparity in awareness of formal community structures across gender and age groups in the Central region. With only 19.56% of respondents aware of organizations such as Community-Based Organizations (CBOs), Farmers Committees, and Producer Farmer Organizations (PFOs), the findings point to limited engagement and outreach challenges in community governance. Women, across all age groups, show significantly lower awareness levels, highlighting a persistent gender gap in access to community-related information. Among those who are unaware (80.44% of respondents), a small fraction comprises women aged 30-45 (6.67%) and 46-60 (5.78%), indicating limited exposure to community structures. Even among the aware group (19.56%), female representation remains marginal, with only 1.14% of women aged 30-45 and 2.27% of women aged 46-60 and young females (15-29) showing knowledge of these institutions. These figures suggest that social barriers, restricted participation in decision-making, and ineffective communication strategies are limiting women's engagement in formal governance structures.

Men, while exhibiting higher awareness levels compared to women, also face gaps in knowledge. Among the unaware respondents (80.44%), 12.67% of males aged 30-45 and 12.44% of males aged 46-60 indicate a substantial portion of men still lack awareness despite their general involvement in community activities. However, among those who are aware

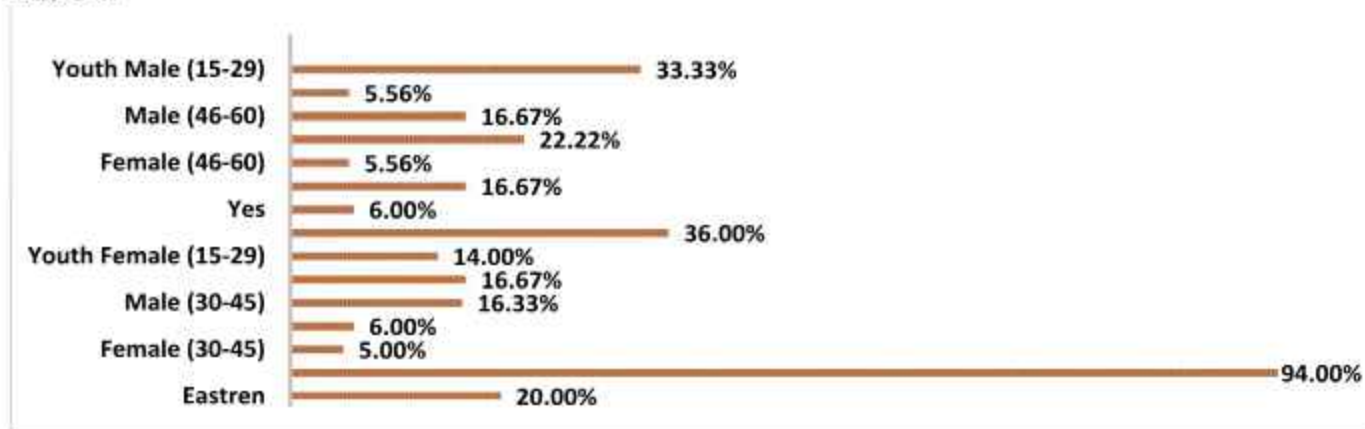


(19.56%), men dominate the figures, particularly in the 30-45 (22.73%) and 46-60 (23.86%) age groups. This trend suggests that male engagement in formal community structures increases with age, but the awareness gap remains particularly among younger adult men. The youth demographic presents an interesting trend, with young males (15-29) emerging as the most informed group. They make up 47.73% of those who are aware, likely benefiting from better access to education, digital platforms, and social networks. In contrast, youth females (15-29) show significantly lower awareness (2.27%), reinforcing the gender divide in access to information and community participation opportunities. The data suggests that while awareness campaigns have successfully reached young men, they have largely failed to engage young women.

From a regional perspective, the Central region displays an overall low awareness level, with 80.44% of respondents lacking knowledge of formal community structures. Despite being a key area, the data indicates weak community engagement strategies or ineffective communication efforts. The highest awareness levels are concentrated among young men (15-29), who account for 47.73% of the informed population, while older men aged 30-45 (22.73%) and 46-60 (23.86%) also show higher awareness than women. Conversely, young females and older women remain the least informed, signaling that current outreach programs are not sufficiently inclusive.

The data highlights a significant gender and age disparity in awareness of formal community structures within the Central region. Young men (15-29) are the most informed, while women—especially young females—remain the least aware. This imbalance necessitates targeted engagement strategies, gender-inclusive awareness initiatives, and a reinforced focus on youth participation to build an informed, inclusive, and participatory community. Addressing these gaps will be key in fostering greater community ownership, decision-making inclusion, and active civic participation for a more empowered society.

#### Eastern



#### Awareness of Community Structures in the Eastern Region

In the Eastern region, awareness of formal community structures such as Community-Based Organizations (CBOs), Farmers Committees, and Producer Farmer Organizations (PFOs) remains strikingly low. The data reveals that a staggering 94% of respondents are unaware of these structures, signaling a major gap in communication, outreach, and engagement efforts. With only 6% of individuals acknowledging awareness, the Eastern region emerges as one of the least informed, raising concerns about the effectiveness of community-based initiatives in this area.

#### Gender Disparities in Awareness

##### Women Struggle with Access to Information

Women, across all age groups, appear to be particularly disadvantaged when it comes to awareness of community structures. Among those who reported having no knowledge (94% of the population), women in the 30-45 age group accounted for just 5%, while those in the 46-

60 age range made up 6%. This suggests that women are largely excluded from formal community engagement, either due to social barriers, limited participation in decision-making, or a lack of targeted outreach efforts. Interestingly, when looking at the small percentage (6%) of individuals who were aware, there is a slight improvement in women's representation, with 16.67% of females aged 30-45 and 5.56% of females aged 46-60 demonstrating awareness. However, these figures remain alarmingly low, indicating that women are still significantly underrepresented in community engagement efforts. This trend highlights deep-rooted barriers preventing women from accessing crucial information about community governance, possibly due to cultural norms, lack of education, or exclusion from public discussions.

#### **Men Show Higher Awareness but Still Face Gaps**

While men exhibit slightly better awareness levels compared to women, a significant proportion remains uninformed. Among those who lack awareness (94%), 16.33% of males aged 30-45 and 16.67% of males aged 46-60 reported being unaware of formal community structures. This suggests that, despite having better access to information, many men still remain disconnected from formal governance structures. However, within the small group of respondents who are aware (6%), men dominate, with 22.22% of those aged 30-45 and 16.67% of those aged 46-60 reporting knowledge of community structures. This suggests that men, particularly older males, are more likely to engage with formal governance structures, though a substantial number still remain uninformed. This gap indicates that community outreach efforts may not be effectively reaching all male demographics, particularly younger or less socially engaged men.

#### **Youth Engagement**

One of the most notable trends observed in the data is the disparity between young men and young women in terms of awareness. Among those who lack awareness (94%), youth males (15-29) make up the largest proportion (36%), followed by youth females (14%). However, within the aware category (6%), youth males stand out, making up 33.33% of those who are aware, while youth females represent just 5.56%. This highlights a significant gender gap in youth engagement. While young men appear to have better access to information—possibly due to greater participation in education, employment, or digital platforms—young women continue to struggle with awareness, likely due to societal restrictions, lack of digital literacy, or exclusion from formal discussions.

#### **Key Regional Insights and Challenges**

**Extremely Low Overall Awareness** – With only 6% of respondents aware of community structures, the Eastern region has one of the lowest engagement rates, suggesting ineffective outreach efforts.

**Women Are the Least Informed** – Despite a slight presence in the aware category, most women remain uninformed, reinforcing the notion that they are systematically excluded from community engagement opportunities.

**Young Men Lead in Awareness** – Youth males (15-29) make up the highest proportion (33.33%) of those aware, indicating that young men are significantly more engaged than any other demographic group.

**Adult Men Have Moderate Awareness** – Older men (30-45 and 46-60) show a relatively better awareness level compared to women, but still face substantial knowledge gaps.

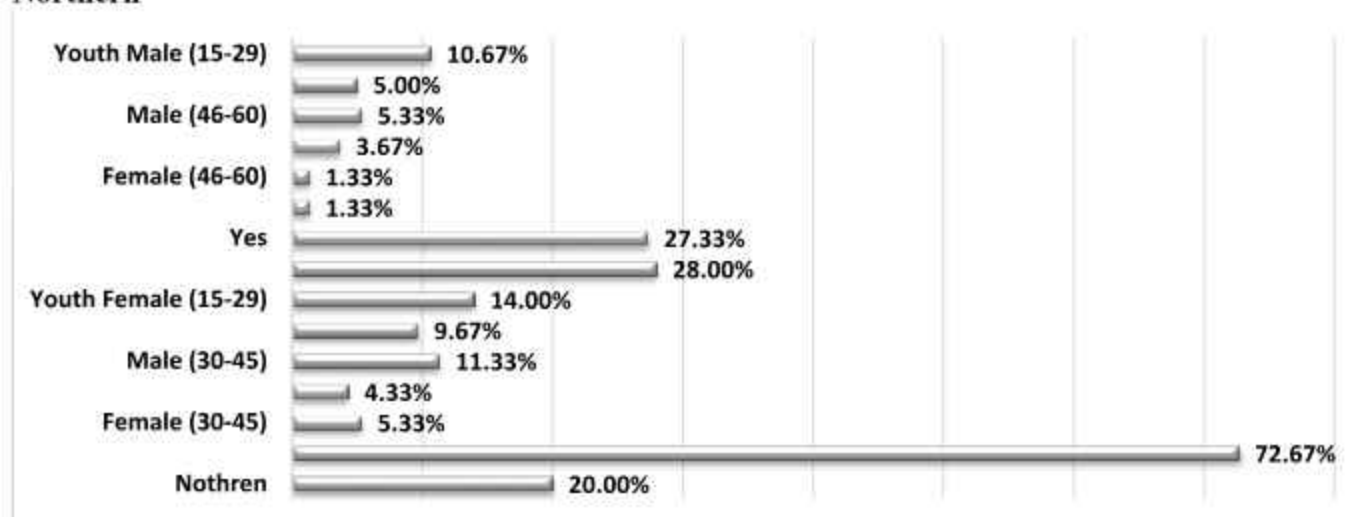
**Youth Females and Older Women Are the Most Disconnected** – Young women (15-29) and older women (46-60) report some of the lowest awareness levels, suggesting a lack of targeted outreach efforts for these groups.

The Eastern region faces a serious challenge in terms of community engagement, with only 6% of respondents aware of formal governance structures. The vast majority (94%) remain uninformed, with women, particularly young females, facing the greatest barriers to awareness. While young men (15-29) lead in awareness, older men show moderate engagement, and women across all age groups remain largely disconnected from community structures. This



imbalance highlights deep-rooted gender disparities and systemic barriers that prevent women from participating in governance. To create a more informed and engaged community, stronger gender-inclusive awareness campaigns, youth participation programs, and improved communication strategies must be implemented. By prioritizing women's involvement, leveraging digital and community networks, and ensuring equal access to information, it will be possible to bridge the awareness gap and foster greater participation in formal community structures across the Eastern region.

#### Northern



#### Awareness of Community Structures in the Northern Region

In the Northern region, awareness about formal community structures like Community-Based Organizations (CBOs), Farmers Committees, and Producer Farmer Organizations (PFOs) remains limited. While 27.33% of people know about these structures, a large majority—72.67%—are still unaware. This highlights serious gaps in outreach and communication.

#### Gender and Age Differences in Awareness

##### Women Struggle the Most

Women in this region face significant barriers in learning about community structures. Among those unaware, 5.33% are women aged 30-45, and 4.33% are women aged 46-60. Even among those who are aware, only 1.33% of women in each age group know about these organizations. This suggests that cultural norms, limited access to information, and inadequate outreach efforts prevent women from participating.

##### Men Have Slightly Better Awareness, but Gaps Remain

Men in the Northern region is generally more informed than women, but many still lack knowledge. Among those unaware, 11.33% are men aged 30-45, while 9.67% are men aged 46-60. In the aware group, only 3.67% of men aged 30-45 and 5.33% of men aged 46-60 have knowledge of these structures. This shows that while men have better access to information, efforts to reach them are still not fully effective.

##### Young Males Are the Most Aware, While Young Females Lag Behind

A key trend in the data is the difference in awareness between young men and women. Among those unaware, 28% are young males (15-29), and 14% are young females. However, in the aware group, 10.67% of young men know about community structures, compared to just 5% of young women. This suggests that young men benefit more from education and digital resources, while young women may face restrictions that limit their access to information and engagement opportunities.

#### Key Takeaways

**More Awareness Than Some Regions, But Still Low** – With 27.33% aware, the Northern region is better than some others, but 72.67% still lack knowledge.

**Women Are the Least Informed** – Women’s participation is very low, especially among those aged 30-60.

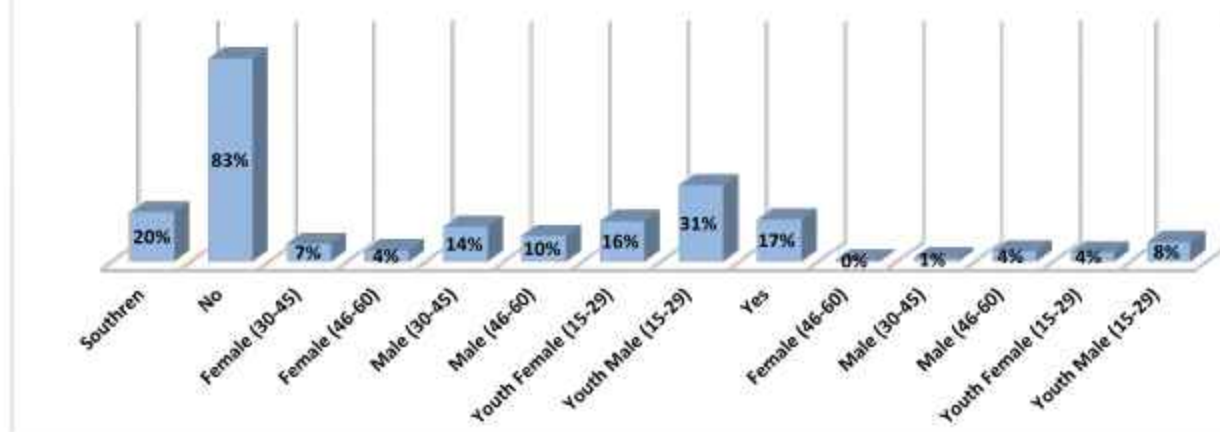
**Young Men Lead in Awareness** – Youth males (15-29) have the highest awareness (10.67%), showing that outreach to young men has been somewhat successful.

**Young Women and Older Women Are at the Greatest Disadvantage** – Women, particularly young females, struggle the most with awareness.

#### Final Thoughts

The Northern region shows better awareness than some areas (27.33%), but a large majority (72.67%) still don’t know about community structures. Women—especially young and older females—are the least informed, while young men are the most aware. Bridging this gap requires gender-focused outreach, youth engagement programs, and better communication strategies. By focusing on women, young people, and community-driven awareness efforts, the region can increase participation and ensure that more people are informed and engaged in community governance.

#### Southern



#### Awareness of Community Structures in the Southern Region

In the Southern region, community-based organizations (CBOs), farmers’ committees, and producer farmer organizations (PFOs) remain largely unknown to the majority of the population. A staggering 83% of people have no awareness of these structures, leaving only 17% informed. This lack of awareness limits community engagement and access to essential resources, highlighting a significant gap in information dissemination.

#### Women Struggle the Most

Women, especially older ones, are the least informed about community structures. Among those unaware, 7% are women aged 30-45, while 4% are women aged 46-60. More concerning, not a single woman (0%) aged 46-60 is aware of these organizations. This suggests that older women face barriers such as limited outreach, cultural norms, or restricted access to information, making them the most disadvantaged group.

#### Men Have Slightly Higher Awareness, but Gaps Remain

Men fare slightly better in awareness but still lack sufficient knowledge. Among those unaware, 14% are men aged 30-45, and 10% are men aged 46-60. Even among those who are informed, the numbers remain low, with only 1% of men aged 30-45 and 4% of men aged 46-60 aware of these structures. This indicates that even among men, there is a lack of engagement in community initiatives.

#### Young Males Lead in Awareness, While Young Females Lag Behind

Among all groups, young males (15-29) have the highest awareness levels—but even they remain largely uninformed. A significant 31% of young males are unaware, while only 8% are aware—the highest awareness percentage among all groups. On the other hand, young females struggle the most in comparison to their male counterparts. While 16% of young females



remain unaware, only 4% have knowledge of these structures. This gap suggests that young women lack the same educational or social opportunities as young men, potentially due to cultural and systemic barriers.

The Southern region faces a serious awareness deficit, with only 17% of people informed about community structures. Women, particularly older females and young girls, are the least aware, while young males are slightly ahead. Even adult men show gaps in knowledge, proving that current outreach strategies are insufficient. To address this challenge, focused efforts should target women, youth, and marginalized groups. By leveraging digital tools, community engagement programs, and inclusive initiatives, more people can be informed and actively participate in strengthening community governance.

#### ANOVA

Region

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.553	4	3.888	1.700	.147
Within Groups	3419.447	1495	2.287		
Total	3435.000	1499			

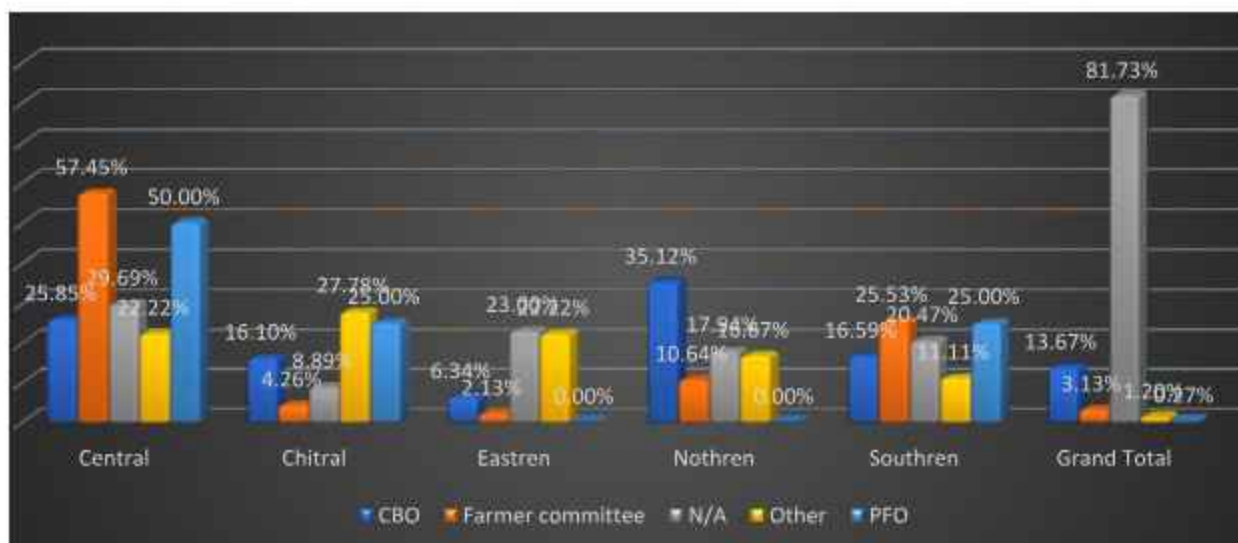
The ANOVA analysis reveals an F-statistic of 1.700 with a p-value of 0.147, which is greater than the standard significance level of 0.05. This suggests that the differences in awareness levels of formal community structures (CBOs, Farmer Committees, PFOs, and Others) across regions are not statistically significant. In other words, there is no strong evidence to conclude that awareness levels vary meaningfully between these groups. This finding indicates that the lack of awareness is a widespread issue rather than being region-specific, highlighting the need for a broader, more uniform outreach strategy to improve community engagement with governance structures.

**Region-wise descriptive table is as under;**

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
CBO	205	3.0049	1.49016	.10408	2.7997	3.2101	1.00	5.00
Farmer committee	47	2.4255	1.79061	.26119	1.8998	2.9513	1.00	5.00
PFO	4	2.2500	1.89297	.94648	-.7621	5.2621	1.00	5.00
Other	18	2.6667	1.32842	.31311	2.0061	3.3273	1.00	5.00
N/A	1226	2.9062	1.50596	.04301	2.8218	2.9906	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

**44. If yes, please specify what type of community structure exists?**



### Community Structures Across Regions: A Comparative Overview

Community structures vary significantly across regions, reflecting different levels of organization and engagement. The Central Region stands out with strong agricultural and professional networks, as seen in the high presence of Farmer Committees (57.45%) and PFOs (50%). While this indicates a well-structured approach, moderate CBO participation (25.85%) and a significant N/A percentage (29.69%) highlight areas where engagement could be improved.

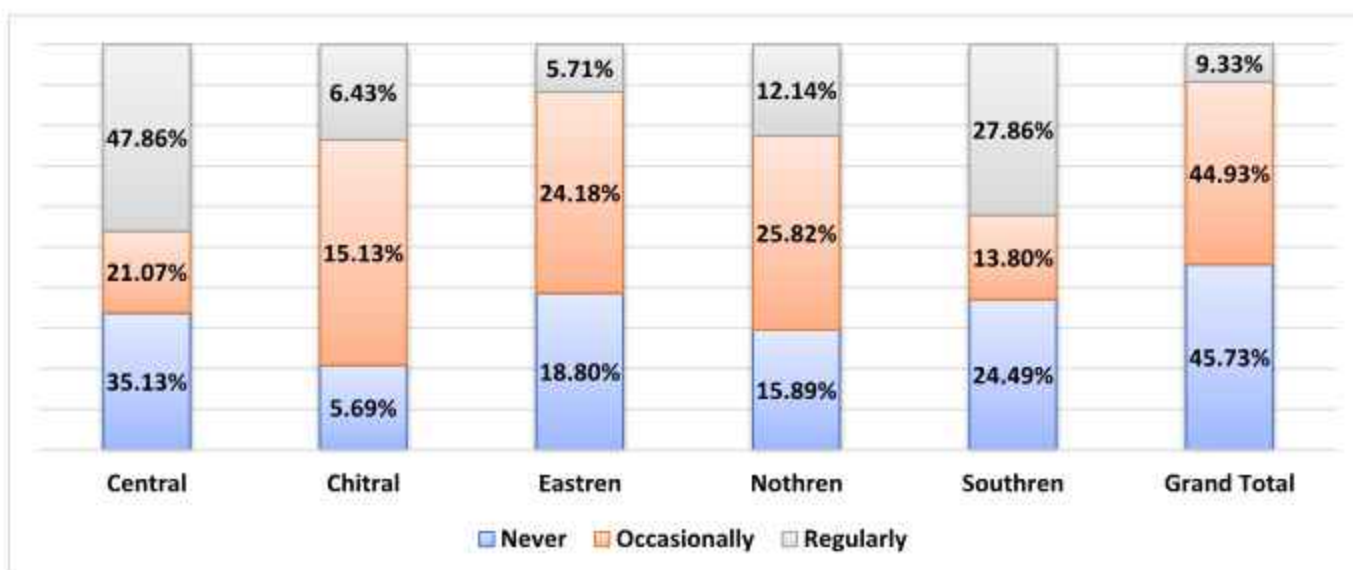
In contrast, the Chitral Region has a mix of formal and informal structures. While CBOs (16.10%) and alternative structures (27.78%) provide some level of organization, the presence of Farmer Committees is minimal (4.26%), indicating weak agricultural cooperatives. A relatively high N/A percentage (8.89%) suggests that many communities lack structured representation. However, PFOs (25%) indicate some professional networks exist. The Eastern Region shows the weakest engagement, with minimal CBOs (6.34%) and Farmer Committees (2.13%). A significant portion (23%) falls under N/A, indicating a lack of formal organizations. The reliance on alternative structures (22.22%) suggests that communities are self-organizing in informal ways, but the complete absence of PFOs (0%) further weakens professional representation.

The Northern Region presents a more structured landscape, with CBOs (35.12%) playing a strong role. However, with only 10.64% Farmer Committees, agricultural organizations remain underdeveloped. A moderate N/A percentage (17.94%) suggests that while many communities are engaged, some still lack structured governance. Notably, PFOs are absent (0%), indicating gaps in professional associations. In the Southern Region, community engagement appears more balanced, with moderate representation of Farmer Committees (25.53%) and CBOs (16.59%). However, a high N/A percentage (20.47%) highlights areas where structured organizations are lacking. While alternative structures (11.11%) exist, they are less prominent than in other regions. The presence of PFOs (25%) suggests some professional networks are active.

The Central and Northern regions have the strongest community structures, with well-established CBOs and Farmer Committees. In contrast, the Eastern and Chitral regions show weaker engagement, relying more on informal structures. The Southern region sits in the middle, with a balanced but incomplete structure. PFOs are mostly absent across regions except in Central, Chitral, and Southern, pointing to a need for stronger professional networks. Strengthening community participation and governance in underrepresented regions could improve overall social and economic resilience.

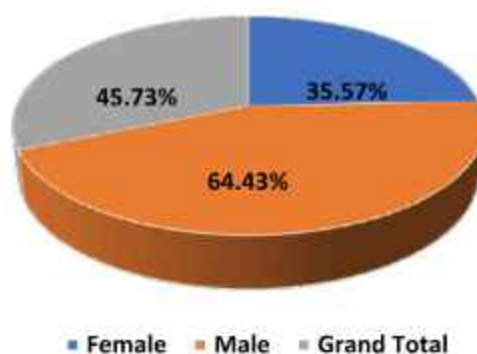
#### 45. How often do you participate in community meetings or discussions?





### Region wise

Participation in community meetings or discussions varies significantly across regions. 45.73% of respondents never participate, indicating a lack of engagement. The highest percentage of non-participants is in the Central region (35.13%), followed by Southern (24.49%) and Northern (15.89%). Chitral has the lowest percentage of those who never participate (5.69%), suggesting a relatively higher level of involvement in that area. 44.93% participate occasionally, showing that while many are engaged, participation is not consistent. The highest occasional participation is in the Northern region (25.82%), followed by Eastern (24.18%). Chitral (15.13%) and Southern (13.80%) have lower occasional engagement levels. Only 9.33% participate regularly, highlighting a small but dedicated group of active community members. The highest regular participation is seen in Central (47.86%) and Southern (27.86%), suggesting stronger engagement in these areas. Chitral (6.43%) and Eastern (5.71%) have the lowest regular attendance. Overall, most respondents either never participate (45.73%) or do so occasionally (44.93%), with only a small portion (9.33%) engaging regularly. This suggests a need for strategies to boost consistent participation, particularly in regions where engagement is low, such as Eastern and Chitral.



### Participation in community meetings or discussions varies significantly by Gender.

45.73% of respondents never participate, with 64.43% being male and 35.57% female. This indicates that a higher proportion of men avoid community discussions, though a substantial number of women also refrain from engagement. 44.93% participate occasionally, showing a nearly equal split between those who engage sporadically and those who do not. Among them, 76.41% are male and 23.59% are female, suggesting that men are more likely to take part in discussions on an irregular basis. Only 9.33% participate regularly, with 81.43% being male

and 18.57% female. This indicates that consistent engagement in community discussions is largely dominated by men, while women have significantly lower participation rates.

Overall, while occasional participation is common (44.93%), a large percentage (45.73%) never engage in discussions, and only a small fraction (9.33%) take part regularly. The data suggest that men are more likely to participate in meetings compared to women, but both genders have low levels of regular engagement, highlighting a need for improved inclusivity and motivation for consistent involvement.

#### ANOVA

Gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4.649	2	2.325	12.425	.000
Within Groups	280.068	1497	.187		
Total	284.717	1499			

The ANOVA analysis indicates a statistically significant difference in community participation frequency, as reflected by the F-statistic of 12.425 and a p-value of 0.000. Since the p-value is below the 0.05 threshold, we can confidently conclude that participation levels—whether regular, occasional, or never—vary significantly across different groups. This finding suggests that certain factors, such as demographic differences, socio-economic conditions, or access to community structures, may influence participation rates. Understanding these variations can help in designing targeted interventions to increase engagement, particularly among those who never participate in community activities. Gender wise variance is mentioned in the table below;

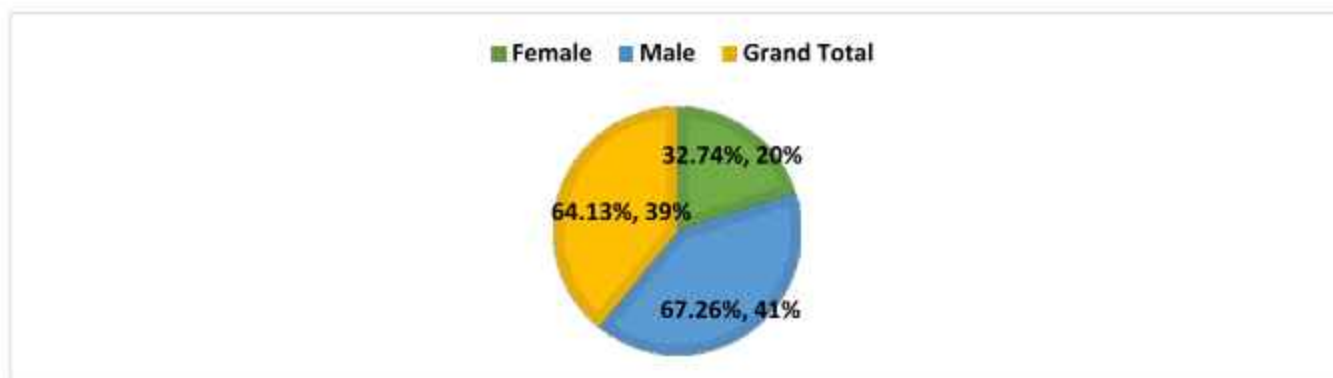
#### Descriptives

Gender

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Regularly	140	1.1429	.35118	.02968	1.0842	1.2015	1.00	2.00
Occasionally	674	1.2211	.41527	.01600	1.1897	1.2525	1.00	2.00
Never	686	1.3105	.46303	.01768	1.2758	1.3452	1.00	2.00
Total	1500	1.2547	.43582	.01125	1.2326	1.2767	1.00	2.00

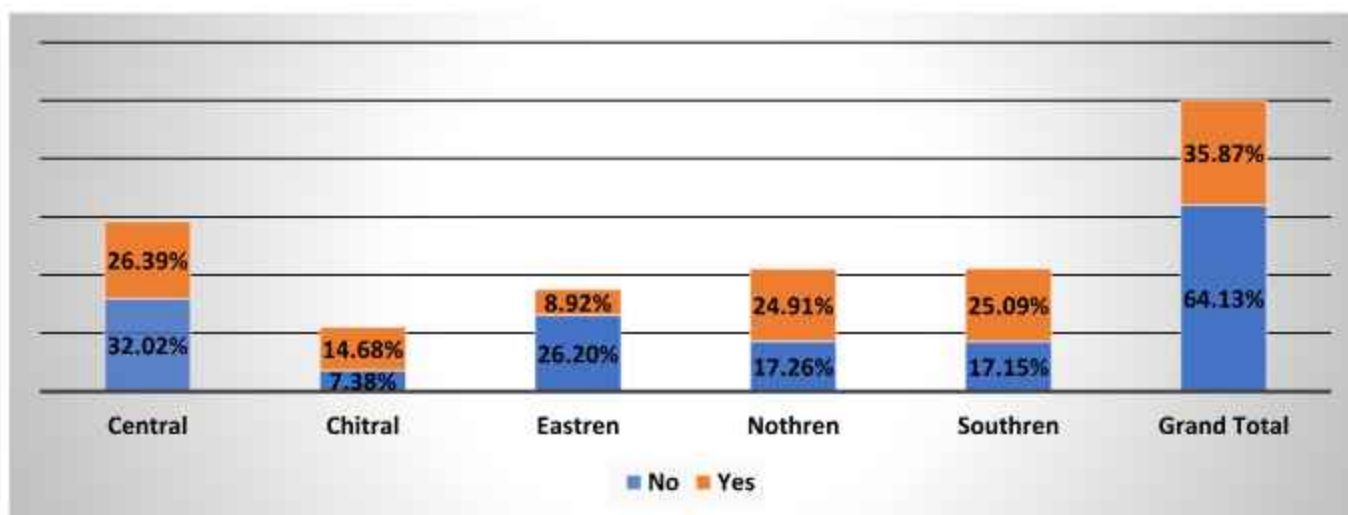
46. Do you feel that your voice is heard in community decision-making?





#### **Gender wise**

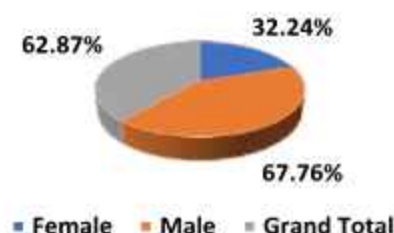
The data indicates that a significant portion of the respondents feel that their voices are not heard in community decision-making, with 64.13% stating "No." Among them, 67.26% are male, while 32.74% are female, suggesting that both genders experience challenges in having their voices recognized, though men report it slightly more. On the other hand, only 35.87% feel that their voices are heard, with a strong gender disparity—78.81% of them being male and only 21.19% female. This suggests that while community decision-making is already limited in inclusivity, women are even less likely to feel represented compared to men. Overall, the data highlights a need for greater inclusivity and participatory decision-making processes, especially for women, to ensure broader community representation.



#### **Region wise**

The data reveals that a majority of respondents (64.13%) do not feel their voices are heard in community decision-making. Among them, the highest percentage comes from the Central region (32.02%), followed by Eastern (26.20%) and Northern (17.26%), indicating that lack of representation is a widespread issue. Chitral (7.38%) and Southern (17.15%) also report dissatisfaction, though at slightly lower levels. On the other hand, only 35.87% feel that their voices are heard. Among these, Northern (24.91%) and Southern (25.09%) show the highest positive responses, suggesting relatively better engagement in those regions. Chitral (14.68%) also shows a notable percentage, whereas Central (26.39%) and Eastern (8.92%) report lower satisfaction. Overall, the data highlights a significant gap in community participation and decision-making representation, with Central and Eastern regions feeling the least heard. Efforts to enhance engagement and inclusivity, particularly in these areas, could help address this disparity.

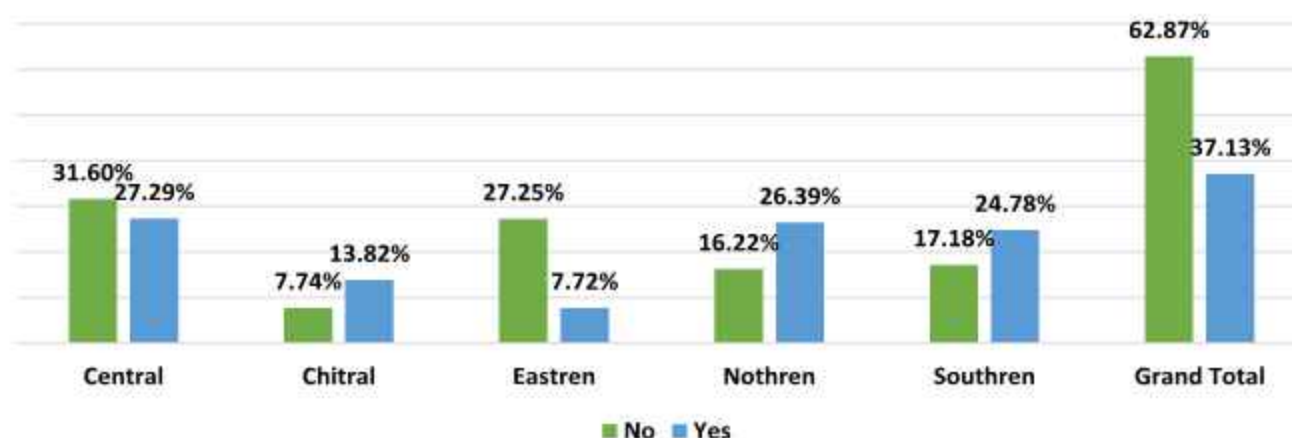
**47. Do you think community leaders or local authorities consider your needs in decision-making processes?**



**Gender wise**

The data indicates that a majority of the respondents, 62.87%, are not satisfied with the level of participation allowed in local decision-making processes. Among those who are dissatisfied, 67.76% are male, while 32.24% are female. This suggests that men experience a greater sense of exclusion compared to women, or they may be more vocal about their dissatisfaction. On the other hand, only 37.13% of respondents feel satisfied with their level of participation. Within this group, men again represent a larger share, making up 77.56%, while women account for 22.44%. This highlights a significant gender disparity in perceptions of participation, with men feeling more engaged when compared to women, yet still representing a minority overall. The findings suggest that there is a widespread concern regarding limited participation in decision-making. The higher dissatisfaction among men might be due to their more active involvement in community matters, leading to stronger opinions about exclusion. Meanwhile, the relatively lower participation of women in both positive and negative responses could indicate barriers that limit their involvement in decision-making altogether. Addressing these concerns by promoting inclusivity, increasing transparency, and ensuring equitable opportunities for engagement could improve overall satisfaction levels within the community.

**Region wise**

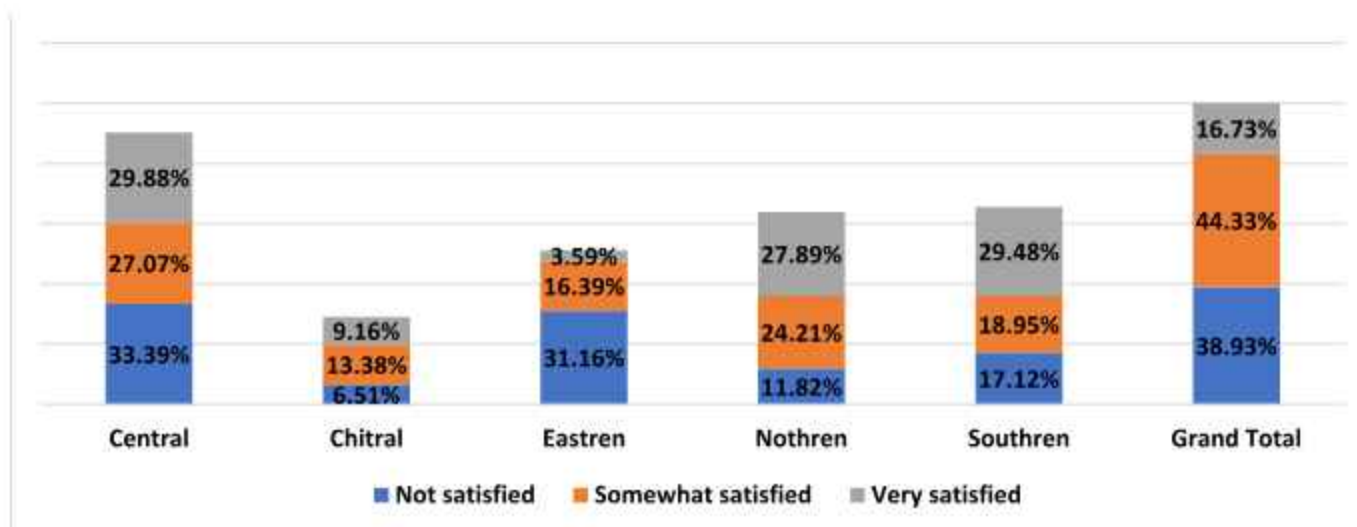


The data reveals that a significant portion of respondents, 62.87%, are not satisfied with the level of participation allowed in local decision-making processes. Among those dissatisfied, the highest percentage comes from the Central region (31.60%), followed by the Eastern region (27.25%), Northern region (16.22%), Southern region (17.18%), and Chitral (7.74%). The notable dissatisfaction in the Central and Eastern regions suggests that these areas may experience greater challenges in accessing decision-making platforms or feel more excluded from governance processes. Conversely, only 37.13% of respondents express satisfaction with their participation in decision-making. Among this group, the highest percentage is from the Northern region (26.39%), followed closely by the Southern region (24.78%), Chitral (13.82%), Central region (27.29%), and Eastern region (7.72%). The relatively higher



satisfaction in the Northern and Southern regions may indicate better local governance structures, stronger community engagement mechanisms, or more opportunities for public involvement in these areas. Overall, the findings suggest that dissatisfaction with participation in decision-making is widespread, particularly in the Central and Eastern regions. Enhancing participatory governance by ensuring more inclusive decision-making platforms and addressing regional disparities could help improve overall community satisfaction.

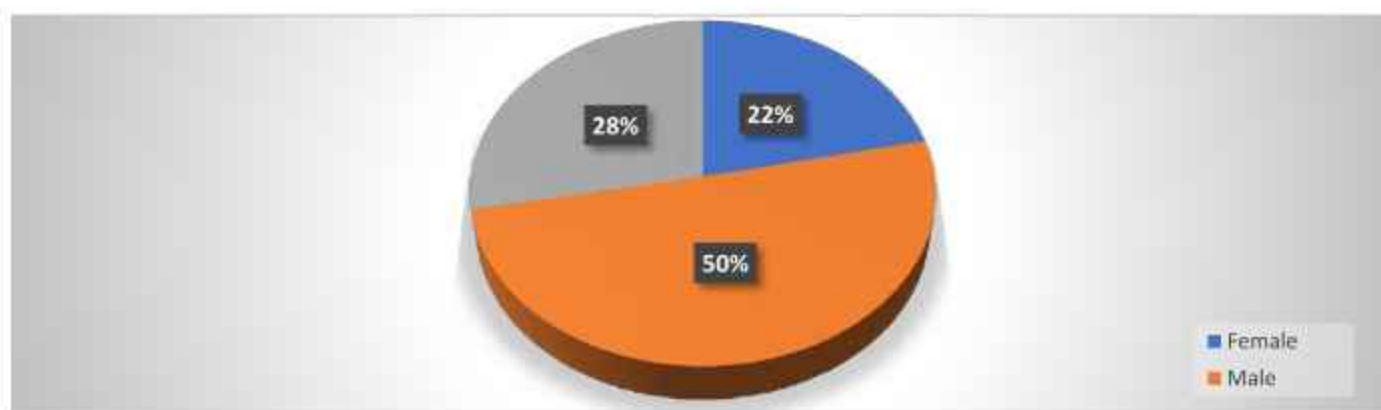
**48. How satisfied are you with the level of participation allowed in local decision-making processes?**



**Region wise**

The data indicate varying levels of satisfaction regarding participation in local decision-making processes. A significant portion of respondents, 38.93%, are not satisfied. Among them, dissatisfaction is highest in the Central region (33.39%) and the Eastern region (31.16%), suggesting that people in these areas feel more excluded from governance processes. The Southern region follows with 17.12%, while dissatisfaction is lower in the Northern region (11.82%) and Chitral (6.51%).

Meanwhile, 44.33% of respondents are somewhat satisfied. This group is more evenly distributed across regions, with the highest percentages in the Northern region (24.21%), followed by the Southern region (18.95%), Central region (27.07%), Eastern region (16.39%), and Chitral (13.38%). The mixed responses in this category suggest that while there is some level of involvement, it may not be consistent or meaningful enough to create full satisfaction. Only 16.73% of respondents are very satisfied with their participation in decision-making. This sentiment is strongest in the Southern region (29.48%) and Northern region (27.89%), indicating that people in these areas may have better access to decision-making platforms or more inclusive governance practices. In contrast, satisfaction is notably lower in the Eastern region (3.59%), hinting at possible barriers to participation in that area. Overall, the data suggest that while some communities feel engaged in local decision-making, a large portion, particularly in Central and Eastern regions, remain dissatisfied. Strengthening participatory governance mechanisms and ensuring equitable representation across all regions could improve overall satisfaction.



#### Gender wise

The data shows a clear gender disparity in the levels of satisfaction with the participation allowed in local decision-making processes. Among the respondents, a larger percentage of males (70.03%) expressed dissatisfaction, compared to 29.97% of females. This suggests that males are more likely to feel that the level of participation is inadequate. On the other hand, a larger proportion of males (70.83%) reported being somewhat satisfied with the participation, while only 29.17% of females shared this view. This indicates that more males feel the level of involvement is acceptable but not ideal. The most striking difference appears in the group that reported being very satisfied with participation: 76.10% of males were very satisfied, compared to just 23.90% of females. This suggests that males are more likely to feel that their voices are heard and valued in the decision-making processes. In contrast, a smaller portion of females felt the same level of satisfaction. Overall, the findings point to a general trend where males tend to be more satisfied with the level of participation in local decision-making, while females tend to report more dissatisfaction, particularly when it comes to feeling fully satisfied with the process.

#### ANOVA results

##### ANOVA

##### Gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1.902	2	.951	5.035	.007
Within Groups	282.815	1497	.189		
Total	284.717	1499			

The ANOVA analysis indicates a statistically significant difference in satisfaction levels among respondents, with an F-statistic of 5.035 and a p-value of 0.007. This suggests that satisfaction with community participation and governance is not uniform across different groups. The variations may be influenced by factors such as access to decision-making processes, transparency, or the effectiveness of community structures. Gender wise variance of the descriptive statistics is as under;

#### Descriptives

##### Gender

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Very satisfied	251	1.1753	.38098	.02405	1.1279	1.2227	1.00	2.00

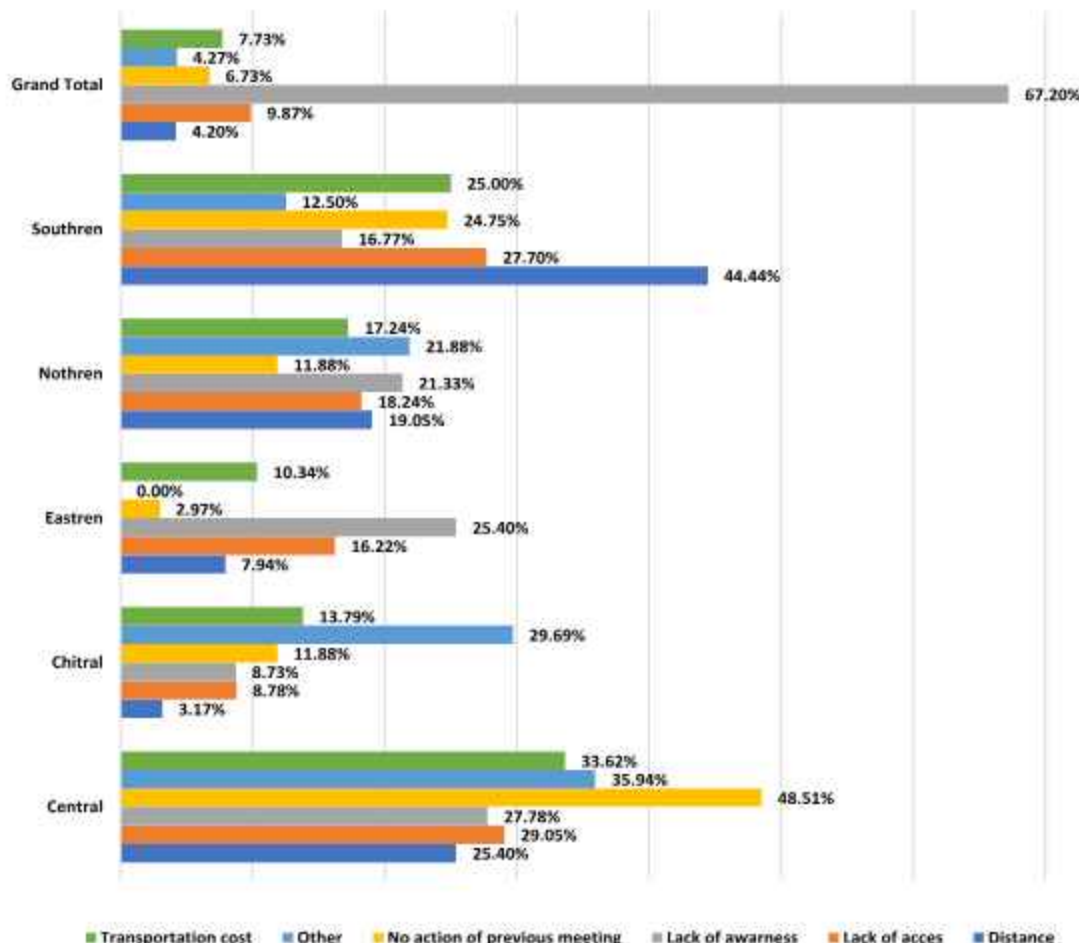


Somewhat satisfied	665	1.2722	.44542	.01727	1.2383	1.3061	1.00	2.00
Not satisfied	584	1.2688	.44373	.01836	1.2328	1.3049	1.00	2.00
Total	1500	1.2547	.43582	.01125	1.2326	1.2767	1.00	2.00

**49. What challenges or barriers prevent you from engaging with local authorities or service providers to express your opinions or needs?**



The data reveals several challenges and barriers that prevent respondents from engaging with local authorities or service providers. One of the primary obstacles, reported by both males and females, is a lack of awareness, with nearly the same proportion of each gender indicating this as a key barrier. This suggests that many people feel uninformed about opportunities to engage with local authorities or service providers, which may hinder their participation. Another significant issue is the lack of access, with 29.05% of females and 70.95% of males mentioning this as a barrier. This indicates that access issues, whether physical or digital, prevent people from reaching out to relevant authorities. Distance also emerges as a barrier, particularly for males, who reported this challenge at a much higher rate than females, suggesting that geographical barriers might be more pressing for men. A notable concern for both genders is the perception that there has been no action taken following previous meetings. While the percentage of those who reported this was relatively lower, it still points to a sense of frustration, where individuals feel their engagement does not lead to tangible outcomes. Transportation costs are also a barrier, particularly for males, suggesting that financial concerns about getting to meetings or service providers play a role in limiting engagement. Finally, a smaller portion of respondents pointed to "other" challenges, with females citing this barrier slightly more often than males, indicating there might be additional, less common factors influencing their engagement. Overall, the data underscores several key barriers, with lack of awareness and access being the most significant, alongside challenges like distance, transportation costs, and the perceived ineffectiveness of past engagements.



### Region wise

The data reveals a range of challenges and barriers that respondents across different regions face in engaging with local authorities or service providers. The most significant barrier across all regions is a lack of awareness, which stands at 67.20% overall, with varying proportions across regions. The Central region reports the highest at 27.78%, while the Eastern region follows closely with 25.40%, suggesting that a lack of information about opportunities to engage is widespread, but especially pronounced in these two regions.

Distance also emerges as a major challenge, particularly in the Southern region, where it is cited by 44.44% of respondents, making it a more pressing issue in that area. The Central region also reports a substantial proportion of respondents (25.40%) citing distance as a barrier, which is slightly higher than the Northern (19.05%) and Eastern (7.94%) regions. The Chitral region, however, shows the lowest proportion for this challenge, at only 3.17%, indicating that geographical constraints may be less of an issue in this area. Lack of access is another important barrier, with the Southern region again reporting the highest percentage (27.70%). In comparison, the Central region also highlights this issue, with 29.05% of respondents citing it. This suggests that access issues—whether due to infrastructure, availability of services, or communication—are significant obstacles across various regions.

The perception of no action being taken after previous meetings stands out as another key barrier, especially in the Central region, where it affects 48.51% of respondents. This frustration is particularly noticeable in areas where past engagements have not led to tangible results, reducing the motivation for future participation. The other regions report much lower percentages for this issue, with Chitral and Eastern regions both showing significantly lower



percentages at 11.88%. Other barriers, which were less commonly cited, were highlighted by 35.94% of respondents in the Central region, while Chitral also reported a notable 29.69%. These "other" barriers could represent unique or region-specific challenges not captured by the more common issues, such as cultural or logistical factors.

Transportation costs are mentioned by respondents in most regions, with the Central region again showing the highest percentage (33.62%). The Southern region also reports significant concerns over transportation costs (25.00%), suggesting that financial burdens related to traveling to meetings or service providers affect engagement. Overall, the analysis reveals that lack of awareness and distance are the most widespread challenges, but other factors such as lack of access, no follow-up action, and transportation costs also play significant roles, with regional variations highlighting the diverse barriers to participation in local decision-making processes.

#### ANOVA results

##### ANOVA

Gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1.456	5	.291	1.536	.175
Within Groups	283.261	1494	.190		
Total	284.717	1499			

The ANOVA analysis indicates that there are no statistically significant differences among the barriers preventing community engagement, with a p-value of 0.175. This suggests that respondents perceive these challenges in a relatively similar way, meaning that no single barrier disproportionately affects one group more than another.

#### Descriptive statistics of ANOVA

##### Descriptives

Gender

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Lack of access	148	1.2635	.44203	.03634	1.1917	1.3353	1.00	2.00
Lack of awareness	1008	1.2589	.43826	.01380	1.2318	1.2860	1.00	2.00
Distance	63	1.2222	.41908	.05280	1.1167	1.3278	1.00	2.00
Transportation cost	116	1.1810	.38672	.03591	1.1099	1.2522	1.00	2.00
No action of the previous meeting	101	1.2376	.42775	.04256	1.1532	1.3221	1.00	2.00
Other	64	1.3594	.48361	.06045	1.2386	1.4802	1.00	2.00

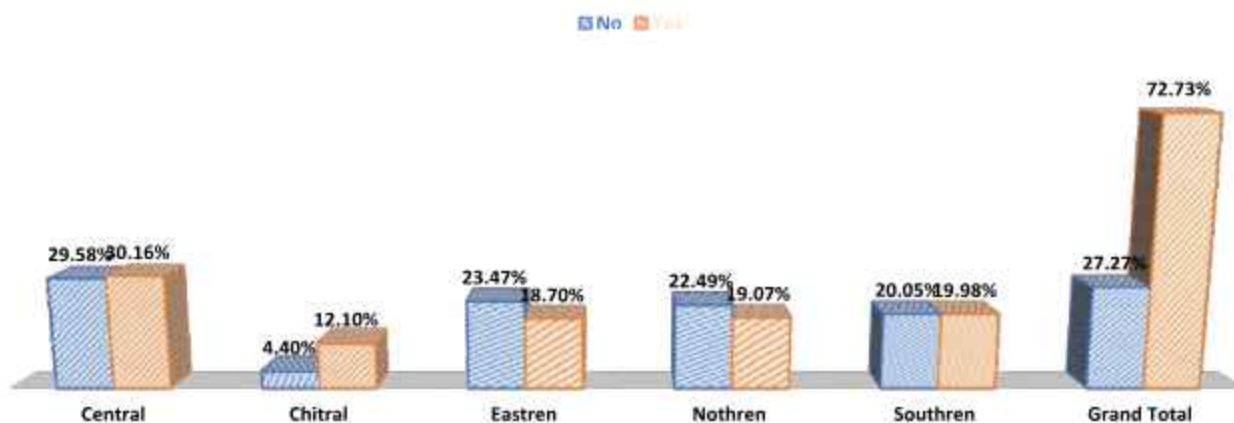
Total	1500	1.2547	.43582	.01125	1.2326	1.2767	1.00	2.00
-------	------	--------	--------	--------	--------	--------	------	------

The analysis of descriptive statistics reveals key barriers that hinder community engagement with local authorities and service providers. Among these challenges, lack of access and awareness stand out as the most prevalent issues, both with a mean value of 1.26 and a standard deviation of 0.44. This indicates that many community members struggle to access relevant platforms or lack the necessary information to participate effectively in governance processes. In addition to informational barriers, logistical constraints also play a significant role. The difficulty posed by distance (mean = 1.22, SD = 0.42) and transportation costs (mean = 1.18, SD = 0.39) suggests that physical and financial limitations prevent many individuals from expressing their concerns or needs to local authorities. Another critical factor impacting participation is the lack of follow-up on previous meetings (mean = 1.24, SD = 0.43). Many respondents feel discouraged from engaging in community discussions due to the absence of tangible actions or responses to prior concerns. This lack of accountability can lead to frustration and diminished trust in governance structures.

Interestingly, respondents who selected "other" barriers (mean = 1.36, SD = 0.48) exhibit slightly higher variability in their responses. This suggests that some individuals face unique or more complex obstacles that are not fully captured by the predefined categories. Overall, with an average difficulty level of 1.25, the findings indicate that community members experience moderate challenges in engaging with local authorities. The relatively low standard deviations suggest that these barriers are widespread and consistently experienced across different groups. Addressing these issues through awareness campaigns, improved accessibility, reduced transportation barriers, and strengthened follow-up mechanisms can help foster more inclusive community participation.

#### 50. Do you agree that community participation is important in influencing local decisions?

Region wise



#### Community Participation and Its Influence on Local Decisions: A Regional Perspective

Community participation plays a crucial role in shaping local decisions, policies, and governance. Across all regions surveyed, an overwhelming majority—72.73%—expressed their belief in the importance of community involvement in decision-making processes. This strong affirmation suggests that people widely recognize their role in influencing local matters. However, 27.27% of respondents disagreed, highlighting regional differences in attitudes towards civic engagement and participatory governance.

#### A Closer Look at Regional Perspectives



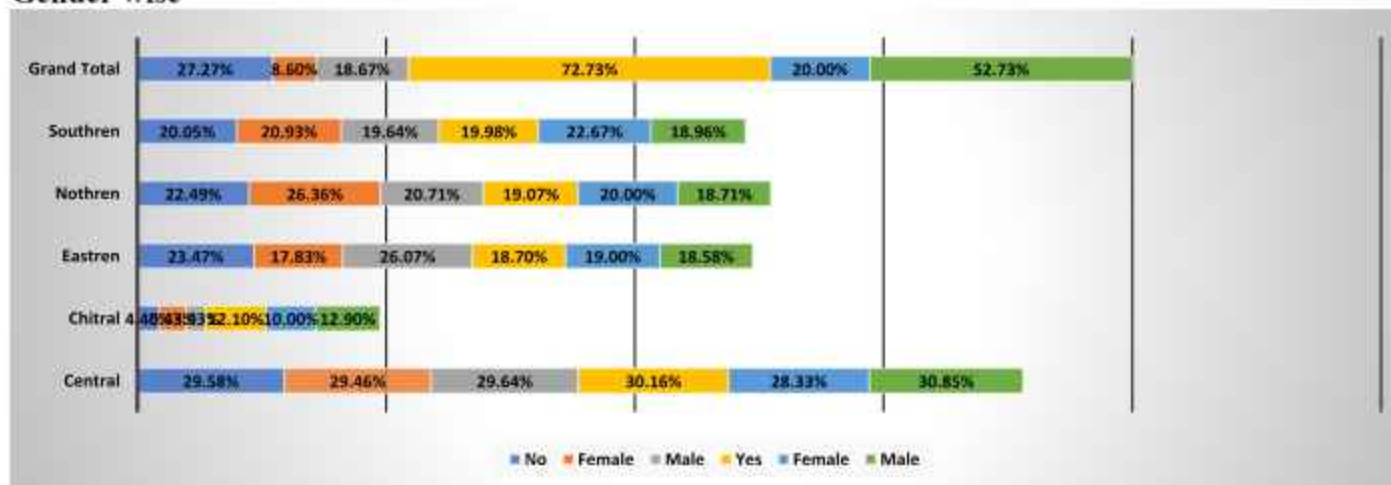
In the Central Region, responses reveal a highly engaged population where community participation is both supported and debated. With 30.16% of respondents affirming its importance and 29.58% expressing reservations, the region shows a dynamic discourse on the role of the community in local decision-making. While many believe in the power of collective action, a notable portion of the population may see government-led or institutional mechanisms as more effective in driving change.

Chitral Region, on the other hand, presents a stark contrast. With only 4.40% of respondents disagreeing and 12.10% supporting the idea, the numbers indicate relatively low engagement in either direction. This could reflect cultural or structural dynamics where decision-making is perceived to be less influenced by community voices. Limited participation may also stem from geographical constraints, lower awareness, or a historical reliance on centralized governance structures.

In the Eastern Region, skepticism about community participation appears more pronounced. With 23.47% disagreeing and 18.70% agreeing, there is a prevailing sentiment that community involvement may not significantly impact local decisions. This could be due to barriers such as lack of access to participatory forums, perceived inefficacy of collective action, or a history of top-down governance that limits public influence. The Northern and Southern Regions reflect a similar trend, where disagreement (22.49% and 20.05%, respectively) slightly outweighs agreement (19.07% and 19.98%). These figures suggest a more cautious or indifferent stance towards the role of community involvement. While there is recognition of its value, there may also be concerns about the actual effectiveness of participatory approaches in influencing tangible outcomes. Strengthening trust between communities and decision-makers could help bridge this gap and foster greater civic engagement.

The data underscores a strong overall belief in the importance of community participation, yet regional variations highlight differing levels of engagement, trust, and perceived effectiveness. The Central Region emerges as the most engaged, with both strong support and an active debate on the subject. Chitral, by contrast, shows the lowest engagement, possibly due to structural or cultural influences. Meanwhile, the Eastern, Northern, and Southern Regions present a more cautious perspective, indicating the need for greater awareness, stronger participatory mechanisms, and efforts to build confidence in community-led decision-making.

#### Gender wise



#### Community Participation and Its Influence on Local Decisions: A Gender Perspective

##### Gender Trends in different regions

In the Central region, participation is relatively high, with 29.58% of individuals engaging in community decisions. Those who actively participate ("Yes") show a slightly higher rate at 30.16%, suggesting a consistent level of engagement. Gender-wise, males (30.85%) participate slightly more than females (28.33%), though the gap remains small.

On the other hand, Chitral exhibits the lowest overall participation at just 4.40%. However, among those who do participate, the percentage jumps significantly to 12.10%, indicating that while overall engagement is low, those involved are notably active. The gender gap is evident here, with male participation (12.90%) being higher than female participation (10.00%).

The Eastern region shows a moderate participation rate of 23.47%, though the "Yes" category is slightly lower at 18.70%. A notable gender difference is observed here, with males (26.07%) being much more engaged than females (19.00%), suggesting that men in this region are more likely to take part in community decision-making. Similarly, the Northern region has a participation rate of 22.49%, but among those who confirm their involvement, the rate drops slightly to 19.07%. Interestingly, the gender difference in participation is less pronounced here, with females (20.00%) engaging slightly more than males (18.71%).

The Southern region, with a participation rate of 20.05%, reflects a similar trend. The "Yes" category is almost the same at 19.98%, indicating that participation is fairly steady. In contrast to other regions, female participation (22.67%) is slightly higher than male participation (18.96%), making it the only region where women are more engaged in community decisions than men. Overall, men are more actively involved in community decisions than women in most regions. The highest male participation is recorded in the Eastern (26.07%) and Central (30.85%) regions, while the lowest is in Northern (18.71%) and Southern (18.96%) regions. For women, participation rates are generally lower. The highest female engagement is seen in the Northern (26.36%) and Southern (22.67%) regions, whereas Chitral (10.00%) records the lowest female involvement.

### Key Insights

The Central and Eastern regions exhibit the highest community participation overall.

Chitral has the lowest engagement, but those who do participate are significantly involved, indicating a gap in broader community engagement.

A gender gap is evident, with males participating more than females in most regions, except in the Southern region, where female participation is higher.

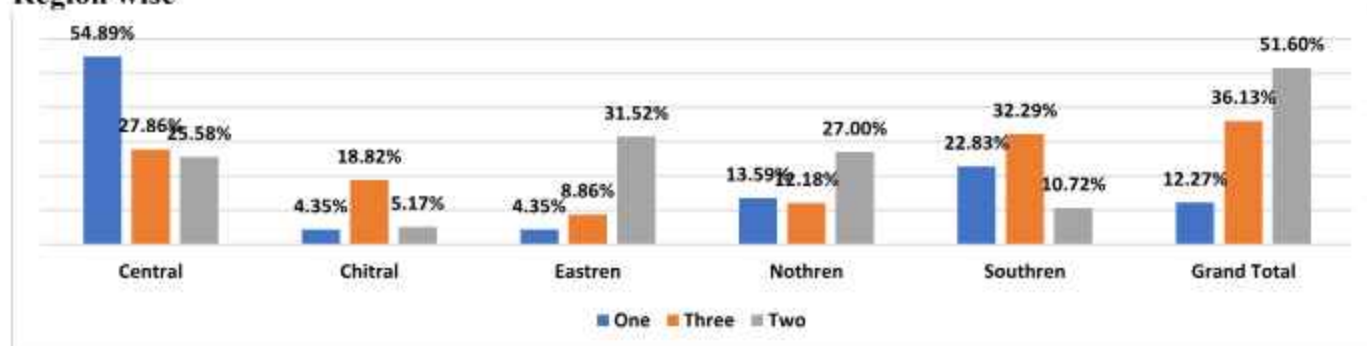
Overall, 72.73% of those who confirm participation actively engage in decision-making, demonstrating a strong influence of community involvement on local governance.

This analysis highlights the varying levels of participation across regions and the importance of addressing gender disparities to ensure a more inclusive approach to community decision-making. Strengthening engagement strategies, particularly in underrepresented areas, could lead to a more balanced and equitable participation framework.

## Section 5: Food Security and Nutrition:

### 51. How many meals does your household consume daily on average?

#### Region wise



The Baseline Survey was conducted across all districts of Khyber Pakhtunkhwa (KP), ensuring region-specific customization to enhance respondent understanding and data accuracy. Given



the agricultural diversity in KP, the survey script and questionnaire incorporated locally relevant examples, particularly for fruit and vegetable production.

Detail of Fruits and Vegetables names taken during Survey:

- In Swat, where crops such as peaches, apples, plums, and vegetables like potatoes are widely cultivated, surveyors frequently referred to these specific fruits and vegetables when discussing local horticultural practices.
- In Kohat, known for its abundant **guava** production, the manual instructed surveyors to use guava as a primary reference, while also citing vegetables like **okra**, **eggplant**, and **bitter gourd** which are widely grown in the region.
- In Mansehra and Abbottabad, where **citrus fruits** (especially **oranges** and **kinnow**) and **apples** are significant, examples were adjusted accordingly.
- In Bannu and Dera Ismail Khan, key agricultural produce includes dates, citrus fruits such as lemons, Fig, Mago and muskmelon, a range of vegetables including spinach, mustard greens, squashes, and pumpkins. while collecting data under this study, the surveyors referenced these specify fruits and vegetables
- In Dir (Upper and Lower), **walnuts**, **persimmons**, and **maize** are widely cultivated and were used as examples to contextualize agricultural questions.
- In Peshawar, with its large peri-urban farming community, common produce such as **turnips**, **carrots**, and **cauliflower**, along with Guava plum and apricot were cited.
- Chitral, known for its colder climate, focuses on **walnuts**, **apple**, **pears**, **apricots**, and **pomegranates**, which were incorporated for relevance.
- Tank and Lakki Marwat, known for **melon**, **watermelon**, and hardy vegetables like **onions** and **chilies**, were reflected in localized survey content.

Additionally, **onion** and **tomato**—as economically important vegetables cultivated widely across all districts—were consistently referenced to ensure broad understanding.

This **localized approach** ensured that respondents could relate to the questions, minimizing confusion and improving data reliability. By adapting terminology to regional agricultural practices, the survey maintained cultural and contextual relevance, contributing to more accurate and meaningful insights.

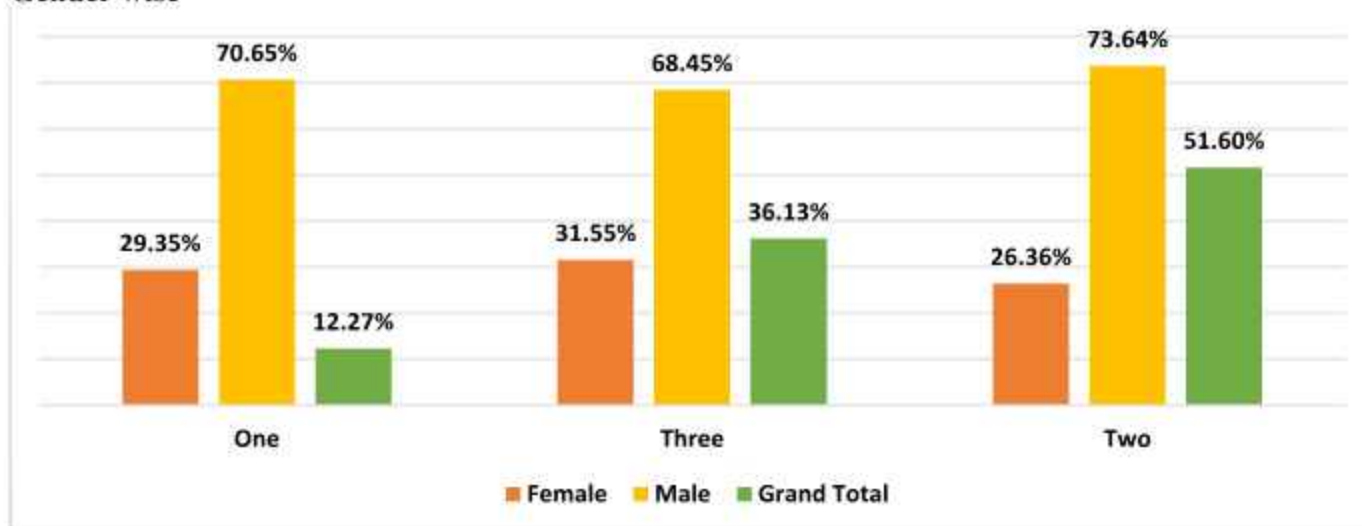
The above table depicts data regarding the consumption of meals by HH on a daily basis. The analyzed data shows that 51.60% of households typically consume two meals per day, making it the most common pattern of meal consumption overall. About 36.13% of households consume three meals daily, while 12.27% report eating just one meal a day.

In the Central region, the majority of households, about 54.89%, report consuming only one meal a day. A smaller proportion, 27.86%, have three meals daily, while 25.58% consume two meals. This suggests that many households in this area might have limited access to food or choose to eat less frequently due to various factors. Moving to Chitral, the meal consumption patterns shift. Here, 18.82% of households report consuming three meals a day, which is a higher percentage compared to other regions. In contrast, a much smaller portion, 4.35%, consumes only one meal daily, and 5.17% consume two meals. This points to Chitral being a region where more households can afford or have access to three meals a day.

In the Eastern region, the largest group of households, 31.52%, report consuming two meals daily. Fewer households report eating only one meal (4.35%) or three meals (8.86%). This suggests that while many households in this area have access to two meals, eating three meals a day might be less common. The Northern region shows a more balanced approach to meal consumption, with 27% of households eating two meals, 13.59% consuming one meal, and 12.18% eating three meals a day. This balanced distribution might indicate that Northern households have more consistent access to food compared to regions with larger percentages of one or two meals a day.

In the Southern region, there is a similar trend to the Central region, with 32.29% of households consuming three meals daily, but 22.83% still report eating only one meal per day. A smaller group, 10.72%, eats two meals. This suggests that while three meals are common, the region also faces challenges that lead to a significant portion of households consuming only one meal a day. Overall, the data indicate that the majority of households across the regions eat either two or three meals daily. Two meals seem to be the most common, but regional differences are evident. The Central and Southern regions have higher percentages of households consuming only one meal, possibly reflecting food insecurity or other socio-economic factors. In contrast, Chitral stands out with a greater proportion of households consuming three meals, suggesting better food access or a preference for more frequent meals. These patterns highlight the varying levels of food access and consumption across different regions.

#### Gender wise



The data reveals interesting patterns in meal consumption across genders, offering insight into how males and females differ in the number of meals they consume daily. When examining the frequency of meal consumption by gender, several trends emerge that shed light on dietary habits. The analyzed data in the table reveals that 51.60% of individuals consume two meals daily, making it the most common meal frequency. 36.13% of people have three meals, and 12.27% report having just one meal per day among the five regions.

In terms of consuming one meal per day, it is striking that 70.65% of males report eating just one meal, significantly higher than the 29.35% of females. This suggests that, for some reason, a larger portion of males are consuming fewer meals, potentially due to socio-economic conditions, household food distribution, or dietary preferences. On the other hand, two meals per day appear to be more common among males, with 73.64% of them eating this amount. In contrast, only 26.36% of females fall into the two-meal category. This again indicates that males, in general, are more likely to have two meals daily compared to females. When it comes to consuming three meals per day, the trend shifts slightly. 31.55% of females report eating three meals, which is higher than the 31.45% of males who do the same. While this difference is not large, it does suggest that females, as a group, may be slightly more likely to have three meals per day compared to their male counterparts.

The key takeaway from this data is that males tend to consume fewer meals overall. A significantly higher proportion of males eat just one or two meals daily, while females tend to be slightly more balanced, with a tendency to report three meals a day. This pattern could reflect differences in gender roles, access to resources, or cultural norms surrounding food consumption. It's possible that males, due to social or economic factors, may be eating less frequently, while females, possibly due to different responsibilities within the household, may have more consistent access to meals. Ultimately, this analysis highlights how gender-specific



factors play a role in shaping meal consumption patterns. The reasons behind these differences could be influenced by a variety of socio-economic and cultural factors, underscoring the need to consider gender when analyzing food security and consumption trends.

ANOVA results

### ANOVA Results

Region

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	45.513	2	22.757	10.051	.000
Within Groups	3389.487	1497	2.264		
Total	3435.000	1499			

The ANOVA analysis reveals significant regional differences in the dependent variable ( $F = 10.051$ ,  $p = 0.000$ ). The between-groups variance (45.513) indicates differences among regions, while the within-groups variance (3389.487) reflects individual variations. With a p-value well below 0.05, the results confirm that at least one region differs significantly.

### 52. What proportion of Women of Reproductive Age (WRA) are meeting the Minimum Dietary Diversity for Women (MDD-W) requirement of consuming at least 5 out of 10 food groups?

**Table 1:** Proportion of WRA meeting the MDD-W requirements (consumption of at least 5 food groups out of 10)

	Total # of WRA interviewed	% of WRA consuming at least 5 out of 10 food groups
<b>OVERALL PROJECT GEOGRAPHY</b>	<b>300</b>	<b>54.5%</b>
Southern Agribusiness Cluster	60	57%
Central Agribusiness Cluster	60	61%
Northern Agribusiness Cluster	60	54.5%
Chitral Agribusiness Cluster	60	43.0%
Eastern Agribusiness Cluster	60	57.0%

**Overall Status:** In all clusters combined ( $n = 300$ ), 54.5% of WRA met the MDDW requirement.

- Central Agribusiness Cluster had the highest proportion, with 61.0% of WRA meeting MDDW.
- Southern and Eastern Clusters both showed relatively strong performance, with 57.0% meeting the requirement.
- Northern Cluster aligned with the overall average at 54.5%.
- Chitral Cluster had the lowest proportion, with only 43.0% of WRA meeting the MDD-W, indicating potential nutritional vulnerability.

**53. How diverse are the diets of WRA in five agribusiness clusters, based on ten number of different food groups consumed?**

**Table 2:** Proportion of WRA by food groups represented in diet

	Total # of WRA interviewed	Group 1: Grains, white tubers and plantains	Group 2: Pulses, beans, peas and lentils	Group 3: Nuts and seeds	Group 4: Dairy (not incl cream and butter)	Group 5: Meat, poultry, and fish	Group 6: Eggs	Group 7: Dark green leafy vegetables	Group 8: Other vitamin A-rich fruits & vegetables	Group 9: Other vegetables	Group 10: Other fruits
<b>TOTAL</b>	<b>300</b>	<b>96.9%</b>	<b>49.1%</b>	<b>39.2%</b>	<b>53.3%</b>	<b>43.9%</b>	<b>46%</b>	<b>39.7%</b>	<b>52.3%</b>	<b>60.0%</b>	<b>55.4%</b>
Southern Agribusiness Cluster	60	99%	54%	39%	56%	45.5%	49%	42%	55.5%	68%	61%
Central Agribusiness Cluster	60	100%	57%	36%	59%	52%	41%	39.5%	56%	62%	59%
Northern Agribusiness Cluster	60	96%	59%	43%	54%	53.5%	41%	47%	49.5%	59%	53%
Chitral Agribusiness Cluster	60	95.0%	28.5%	48%	46%	26.5%	53%	38%	49.5%	54%	41%
Eastern Agribusiness Cluster	60	94.5%	47%	33%	51%	42%	46%	32%	51%	61%	63%

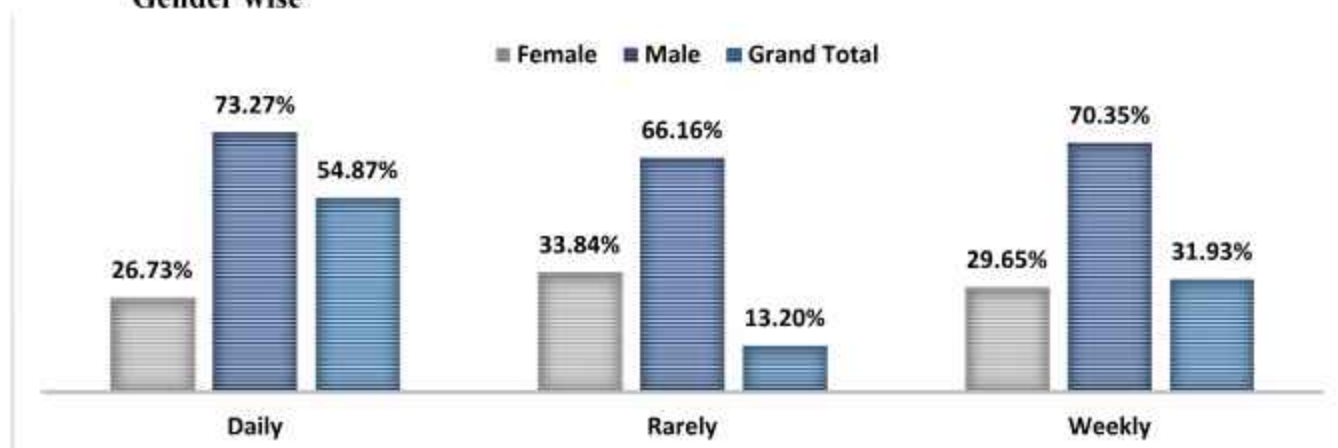
**Description:** The MDD-W survey was conducted among 300 WRA across five agribusiness clusters namely Southern, Central, Northern, Chitral, and Eastern, to assess dietary diversity through consumption of Ten Food Groups within a reference period. It was observed that most commonly consumed food group was Group 1 (Grains, white tubers, and plantains) with 96.9% of WRA reporting consumption. The least consumed food group overall was Group 3 (Nuts and seeds) at 39.2%. Other frequently consumed groups included, Other vegetables (60%), Other fruits (55.4%), dairy (53.3%), Vitamin A-rich fruits and vegetables (52.3%).

It was further observed that in Southern Agribusiness cluster there is a highest intake of grains (99%) and other vegetables (68%). moderate intake of protein-rich groups like meat/poultry/fish (45.5%) and eggs (49%) while Vitamin A-rich fruits and vegetables were consumed by 55.5% of women. In Central Agribusiness cluster, there was a universal consumption of grains (100%). Highest intake of pulses/beans (57%) and meat/poultry/fish (52%) among all clusters. Moderate intake of dark green leafy vegetables (39.5%) and other fruits (59%). In Northern Agribusiness cluster, intake of pulses was reported as 59%, nuts/seeds (43%), and dark green leafy vegetables (47%). There was above-average consumption of dairy (54.5%) and meat/poultry/fish (53.5%). In Chitral Agribusiness Cluster, notably lower consumption of pulses (28.5%) and meat/poultry/fish (26.5%), highest intake of nuts and seeds (48%) and eggs (53%) among all clusters. Dairy and vitamin A-rich foods consumed by less than half of women. In Eastern Agribusiness Cluster, Comparatively lower consumption of dark green leafy vegetables (32%). Highest intake of other fruits (63%). The survey reveals that while staple foods are well-consumed everywhere, dietary diversity is lacking, especially in nutrient-rich food groups like nuts, seeds, eggs, and dark green leafy vegetables in all clusters. The Chitral cluster shows the least



dietary diversity, with significantly lower intake of pulses, meat/fish, and vitamin A-rich foods. The project interventions must focus on promoting balanced and diverse diets. This includes raising awareness and improving access to micronutrient-rich foods across all regions to ensure better health and nutrition for women

**54. How often does your household consume the above food groups?  
Gender wise**



The data reveals a significant gender disparity in how often households consume certain food groups. A striking gap is evident when looking at daily consumption. Only 26.73% of females report consuming these food groups daily, while a much higher 73.27% of males consume them on a daily basis. This suggests that males tend to have more consistent access to these food groups, incorporating them into their daily meals more regularly than females. The findings hint at the possibility that males may enjoy a more stable food supply, or perhaps prioritize these food groups in their daily routines. In contrast, females may be less likely to consume them daily, possibly due to factors such as household food distribution or economic constraints that limit their access.

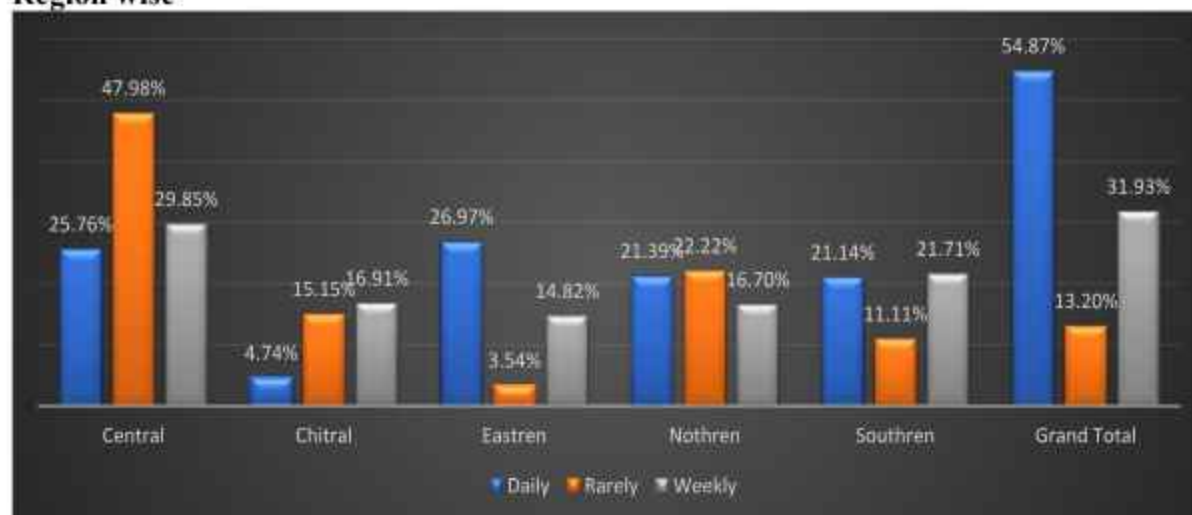
The gender disparity becomes even more pronounced when considering those who consume these food groups rarely. A notable 33.84% of females report rarely consuming the food groups, compared to 66.16% of males. Although this may seem counterintuitive, it likely reflects underlying cultural norms, household priorities, or socio-economic conditions that impact how often females have access to or consume these food groups. Females, particularly in certain socio-economic settings, may not have regular access to these items, or they might prioritize other household needs over their own consumption.

When examining weekly consumption, the trend remains similar. 29.65% of females report consuming the food groups weekly, while 70.35% of males eat them on a weekly basis. This indicates that while males are more likely to consume these food groups on a daily or weekly basis, females still manage to incorporate them into their diets, albeit on a more sporadic basis. This could be influenced by factors such as availability, affordability, or cultural expectations surrounding food consumption.

Looking at the overall consumption patterns, it becomes clear that 54.87% of individuals consume these food groups daily, 13.20% rarely, and 31.93% weekly. The data points to a notable trend where males consume the food groups more frequently, either on a daily or weekly basis, compared to females. With 73.27% of males consuming these foods daily, the contrast with the 26.73% of females is striking. Additionally, 66.16% of females report rarely consuming these food groups, which is a much higher proportion compared to the 33.84% of males.

In conclusion, the data present a clear picture of gendered food consumption patterns. Males appear to consume these food groups more regularly, either daily or weekly, likely due to better access or priority in food distribution within the household. In contrast, females tend to consume them less frequently, with a larger proportion reporting rare consumption. These differences can be attributed to a combination of socio-economic factors, household dynamics, and cultural practices that impact how food is distributed and consumed within households. To address these disparities and improve food security, efforts should consider the need to ensure both males and females have equitable access to essential food groups, regardless of gender.

#### Region wise



The data presents the consumption patterns of food groups across different regions. It shows the frequency of consumption—daily, rarely, and weekly—broken down by region: Central, Chitral, Eastern, Northern, and Southern. In terms of daily consumption, the highest percentage is seen in the Central region, with 25.76% of individuals reporting consuming food groups daily. However, when comparing other regions, the percentages vary significantly. Chitral reports the lowest daily consumption at just 4.74%, indicating that daily access to food groups is less common in this area. In contrast, Eastern, Northern, and Southern regions show similar figures, ranging between 21.14% and 26.97%, reflecting a more balanced but still lower frequency of daily consumption compared to the Central region.

When it comes to those who rarely consume these food groups, the Central region leads with a high 47.98%, suggesting that a significant portion of the population in this area has limited access or consumption of the food groups. The Northern region also reports a relatively high percentage of rare consumption at 22.22%, followed by the Southern at 11.11%. Chitral and Eastern regions show much lower rare consumption figures at 15.15% and 3.54%, respectively, suggesting that access to these food groups might be more consistent in these areas, though still far from daily.

The data on weekly consumption shows the highest percentage in the Central region, at 29.85%. This suggests that people in the Central region have a relatively higher frequency of consumption on a weekly basis, compared to the other regions. Eastern, Northern, and Southern regions all show similar weekly consumption rates ranging from 14.82% to 21.71%, while Chitral falls on the lower end of the spectrum at 16.91%, implying a somewhat more sporadic consumption pattern in that region.

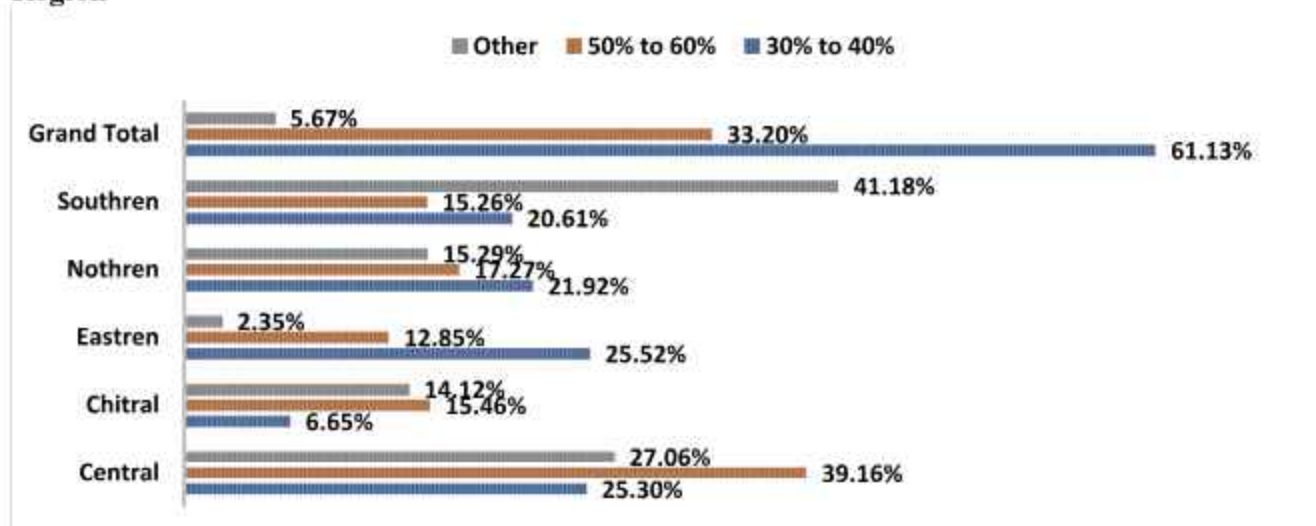
Overall, the data reflect clear regional disparities in the consumption frequency of food groups. The Central region shows a higher percentage of daily and weekly consumption, but also a significant percentage of rare consumption. On the other hand, Chitral shows the lowest daily consumption and the highest rare consumption, indicating possible challenges related to food access or availability in that area. The Eastern, Northern, and Southern regions display more



balanced patterns, with variations between daily, weekly, and rarely consuming, but none of these regions show extremely high or low figures in any particular category.

### 55. What percentage of your household's income is consumed in purchasing nutritious food?

Region



The data reveals regional variations in the distribution of food consumption percentages across different ranges. When looking at the percentage of consumption in the 30% to 40% range, the Central region stands out with 25.30%, indicating that a significant portion of individuals in this region fall into this category. The Chitral region, however, reports the lowest percentage in this range at just 6.65%, suggesting a stark difference in consumption patterns. Other regions like Eastern, Northern, and Southern show moderate percentages, ranging from 20.61% to 25.52%, reflecting more balanced but still notable disparities across these areas.

In the 50% to 60% consumption range, the Central region again has the highest percentage at 39.16%, suggesting that a substantial portion of the population in this area consumes food in this range. Chitral shows a lower percentage here at 15.46%, while Eastern, Northern, and Southern regions also display relatively modest figures ranging from 12.85% to 17.27%. This indicates that the Central region tends to consume a higher proportion of food within this range compared to the other regions.

For the "Other" category, which likely represents percentages either lower or higher than the previously mentioned ranges, the Central region reports 27.06%, reflecting a significant portion of individuals consuming food outside the 30%-40% and 50%-60% ranges. Chitral shows 14.12%, while Eastern reports a notably small percentage of just 2.35%. Northern and Southern regions have higher figures in this category, with Southern leading at 41.18%, suggesting that the consumption patterns in this area might be skewed towards extremes rather than falling into the middle ranges.

Overall, the data suggest that food consumption patterns differ greatly by region. The Central region consistently reports higher figures across all categories, while Chitral remains the lowest in most areas. The other regions, including Eastern, Northern, and Southern, show a variety of trends, with some regions exhibiting more balanced consumption while others show skewed patterns. These differences could be influenced by regional socio-economic factors, food availability, and other local conditions that affect consumption behaviors.

ANOVA results

ANOVA

#### Region

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	105.299	3	35.100	15.770	.000
Within Groups	3329.701	1496	2.226		
Total	3435.000	1499			

The ANOVA analysis reveals significant regional differences in the dependent variable ( $F = 15.770$ ,  $p = 0.000$ ), indicating that at least one region differs from the others. The variance between groups (105.299) suggests regional disparities, while the within-group variance (3329.701) highlights individual differences.

The regional variances are mentioned in the table below;

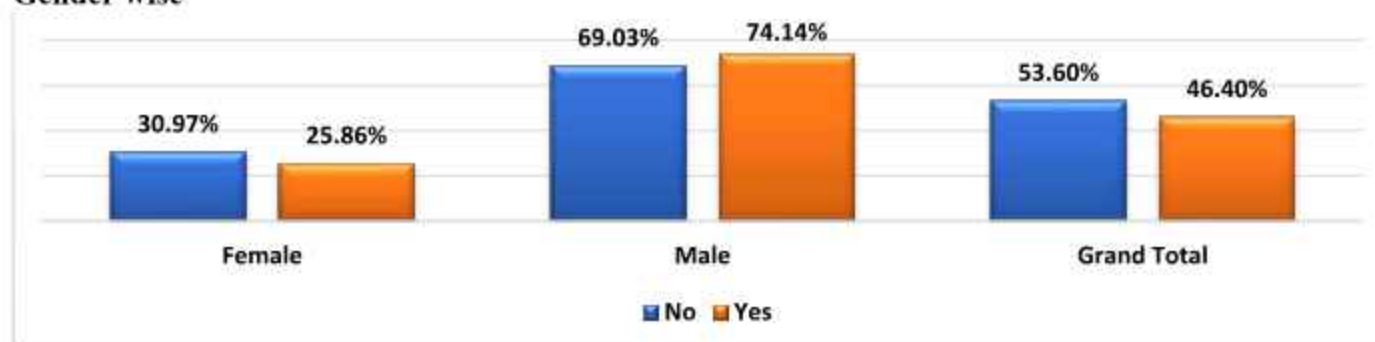
#### Descriptives

#### Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
30% to 40%	341	3.1496	1.53141	.08293	2.9864	3.3127	1.00	5.00
30% to 40%	576	3.0052	1.40866	.05869	2.8899	3.1205	1.00	5.00
50% to 60%	498	2.5402	1.51564	.06792	2.4067	2.6736	1.00	5.00
Other	85	3.2941	1.72395	.18699	2.9223	3.6660	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

#### 56. In the last week, were there days when you did not have access to a variety of foods

#### Gender wise



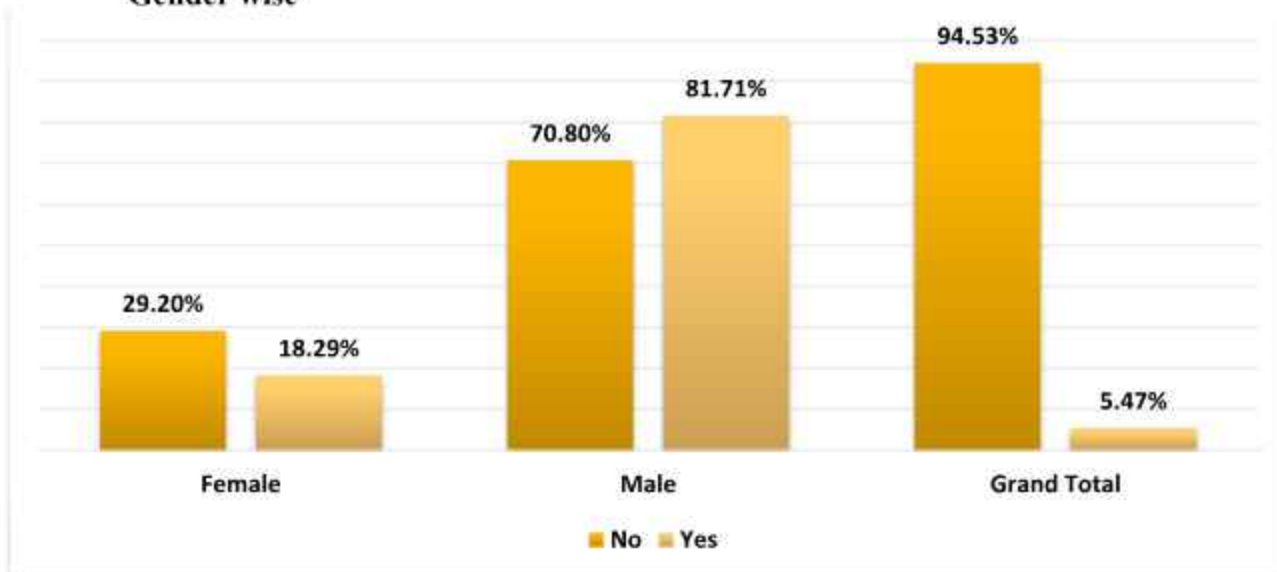
The data provided shows how access to a variety of foods over the last week varies by gender. In response to the question, "Were there days when you did not have access to a variety of foods?" 30.97% of females reported not having access to a variety of foods on some days, while a significantly higher proportion of males, 69.03%, reported experiencing the same. This indicates that males are more likely to face limited access to diverse food options than females in this particular sample. On the other hand, when considering those who did have access to a



variety of foods, 25.86% of females reported they did, compared to 74.14% of males. This suggests that a larger proportion of males had consistent access to a variety of foods compared to females. The results reflect a significant gender disparity in food availability, with males generally reporting better access to a diverse range of foods than females.

Looking at the overall picture, the grand total shows that 53.60% of individuals did not have access to a variety of foods on certain days, while 46.40% did have access. This reinforces the idea that many individuals, especially males, are experiencing periods of limited food variety, highlighting potential issues around food security, access, and distribution within the surveyed populations. The data points to gender-based disparities in food access that could be influenced by various socio-economic and cultural factors, such as household food distribution, economic means, or regional differences.

**57. Are there any community programs focused on improving nutrition or food security?  
Gender wise**



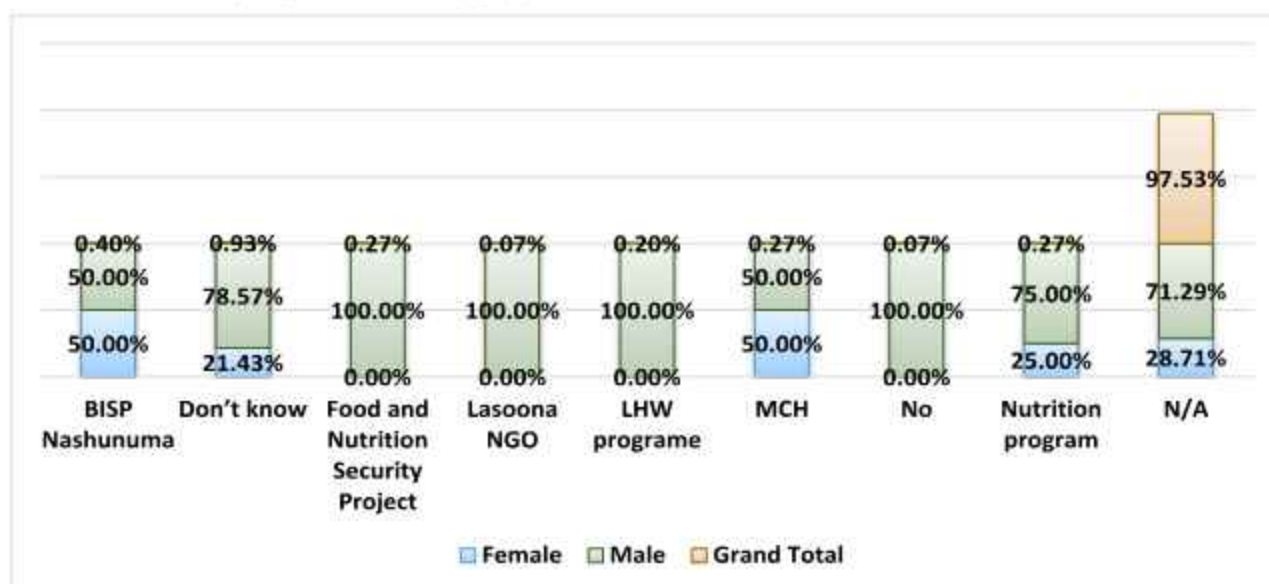
The data reveals interesting insights about the presence of community programs focused on improving nutrition or food security, with notable gender differences in responses. The grand total shows that 94.53% of individuals report not having access to any community programs aimed at improving nutrition or food security, while only 5.47% say they do. This highlights a significant lack of such programs in the surveyed areas, with a stronger tendency toward males being unaware of or excluded from these initiatives.

When asked if there are community programs focused on improving nutrition or food security, a larger proportion of males, 70.80%, indicated that there are no such programs, compared to 29.20% of females. This suggests that, within the surveyed population, males are more likely to be in areas or communities where there are no existing programs addressing these issues. On the other hand, when respondents were asked if they were aware of such community programs, 18.29% of females reported that there are programs in their community, whereas a much higher 81.71% of males answered affirmatively. This stark contrast indicates that males are more likely to be involved in or benefit from community programs focused on nutrition and food security.

In summary, the data indicate that while males report a lack of such programs at a higher rate than females, they also seem to have more exposure to or participation in these programs when they do exist. This could point to regional or community-based differences in the implementation of nutrition and food security programs, where females may either have less access to or awareness of these resources. The findings suggest that more inclusive efforts are

needed to ensure that both males and females benefit equally from community-based nutrition and food security initiatives.

58. If yes, please list the programs



#### Gender wise

The data sheds light on the awareness and participation of individuals in specific food and nutrition security programs within the community, revealing notable gender differences. When it comes to the "BISP Nashunuma" program, both females and males are equally represented, with 50% of each group acknowledging their awareness or involvement in this program. However, it accounts for a very small percentage of the total population, at just 0.40%.

In contrast, a significant number of individuals, particularly males, are not aware of community programs. Specifically, 21.43% of females and a striking 78.57% of males are unaware of any such programs, with this category making up 0.93% of the total responses. This disparity suggests a lack of information or outreach regarding food and nutrition security programs, particularly for males.

Other programs mentioned, such as the "Food and Nutrition Security Project," "Lagoona NGO," and "LHW Program," show a strong male presence with 100% male acknowledgment, though these programs are reported by only a small percentage of the population, with "Food and Nutrition Security Project" at 0.27%, "Lasoona NGO" at 0.07%, and "LHW Program" at 0.20%. These figures reflect limited reach or recognition of these programs, despite the complete male awareness or participation.

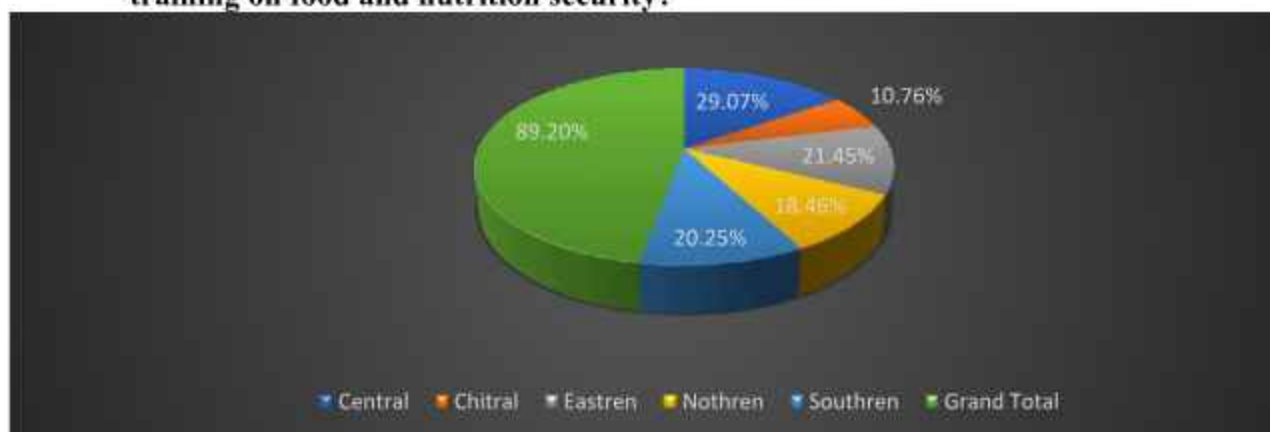
The "MCH" program shows equal gender participation at 50% for both males and females, but again, it represents only a small portion of the total responses (0.27%). The "Nutrition Program" is another program where males are more involved, with 75% male acknowledgment, but like others, it accounts for only 0.27% of the total responses.

Finally, the "No" category, indicating that respondents are not aware of or participating in any food or nutrition programs, shows a 100% male response, but it is very minor in the grand total at just 0.07%. The "N/A" category, which represents respondents who either did not respond or did not find the question applicable, overwhelmingly dominates the data, accounting for a massive 97.53%, with males making up 71.29% and females 28.71%. This suggests that a vast majority of the population either had no knowledge of or did not participate in these programs, which likely reflects the limited implementation or outreach of food and nutrition security programs in the community.



In summary, the analysis reveals that while there is some gender participation in food and nutrition security programs, especially among males, overall awareness and involvement in these programs are minimal. Most of the population is either unaware of such initiatives or does not participate, highlighting the need for greater outreach, awareness, and engagement in community-based nutrition and food security efforts.

**59. Have you or your household received any support, awareness sessions or training on food and nutrition security?**

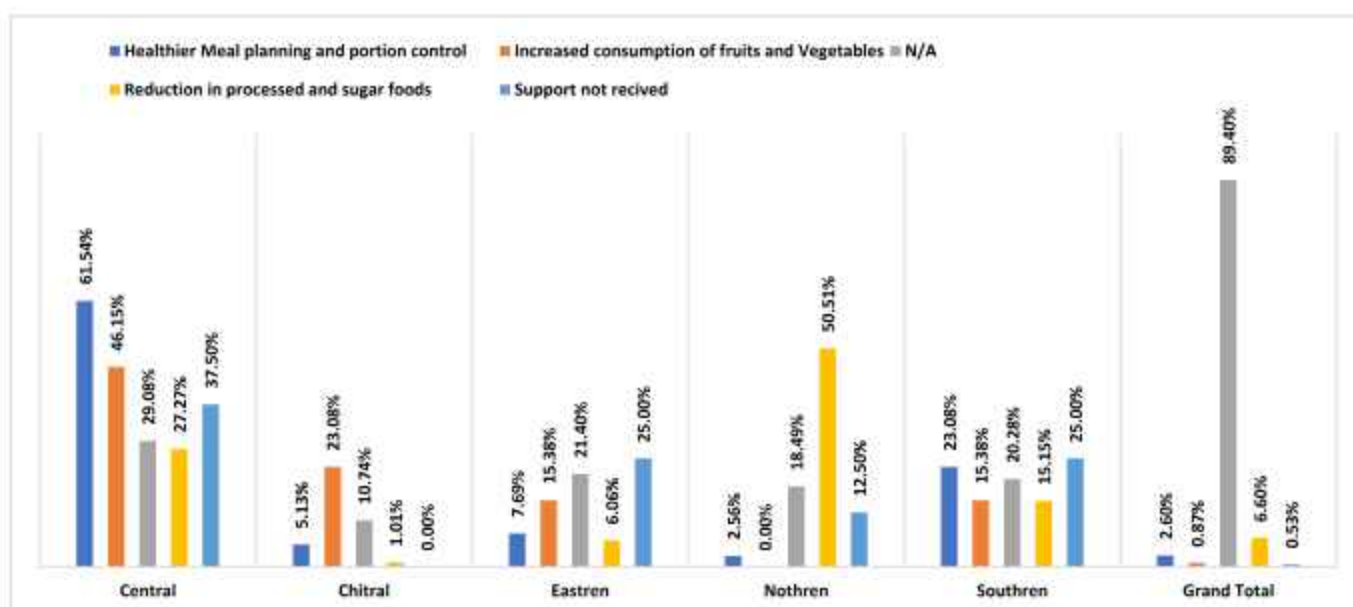


**Region wise**

The data reveals a clear disparity in the receipt of support, awareness sessions, or training on food and nutrition security across different regions. In total, a large majority of respondents (89.20%) report that they or their households have not received any such support or training. This suggests a significant gap in the availability or outreach of food and nutrition security programs in these areas. The percentages vary slightly across regions, with the highest proportion of individuals reporting no support or training coming from the Central region (29.07%), followed by the Southern region (20.25%) and the Northern region (18.46%).

On the other hand, a smaller portion of the respondents (10.80%) indicates that they have received support, training, or awareness sessions. The regions where this is most evident are the Central region (37.65%) and the Northern region (32.72%), suggesting that these areas may have slightly better access to such services. However, even in these regions, the number of people receiving support or training is relatively low. The other regions, such as Chitral (3.70%) and Eastern (8.02%), show even lower levels of participation in food and nutrition security programs, indicating that these areas may face even more significant barriers to access, whether due to logistical challenges, lack of outreach, or other socio-economic factors. In summary, the data paints a picture of limited access to food and nutrition security programs, with the vast majority of households not having received any support or training. While certain regions like Central and Northern appear to have slightly better access, overall, there is a notable need for increased awareness and support in these communities to enhance food and nutrition security.

**60. If yes, What changes have you noticed in your household's food choices and eating habits after receiving the training?**  
**region**



The data presents a range of responses to the question about changes in household food choices and eating habits after receiving training. A significant portion of respondents did not provide a response (89.40%), marking "N/A," which suggests that many either did not receive the training or were not aware of any changes.

For those who did report changes, the most notable shift is in healthier meal planning and portion control, especially in the Central region, where 61.54% of respondents indicated this improvement. However, this shift appears to be much less widespread in other regions, with only 5.13% in Chitral, 7.69% in Eastern, and 23.08% in Southern reporting similar changes. This points to a regional variation in the impact of the training, with Central having a higher proportion of individuals adopting healthier meal planning and portion control practices.

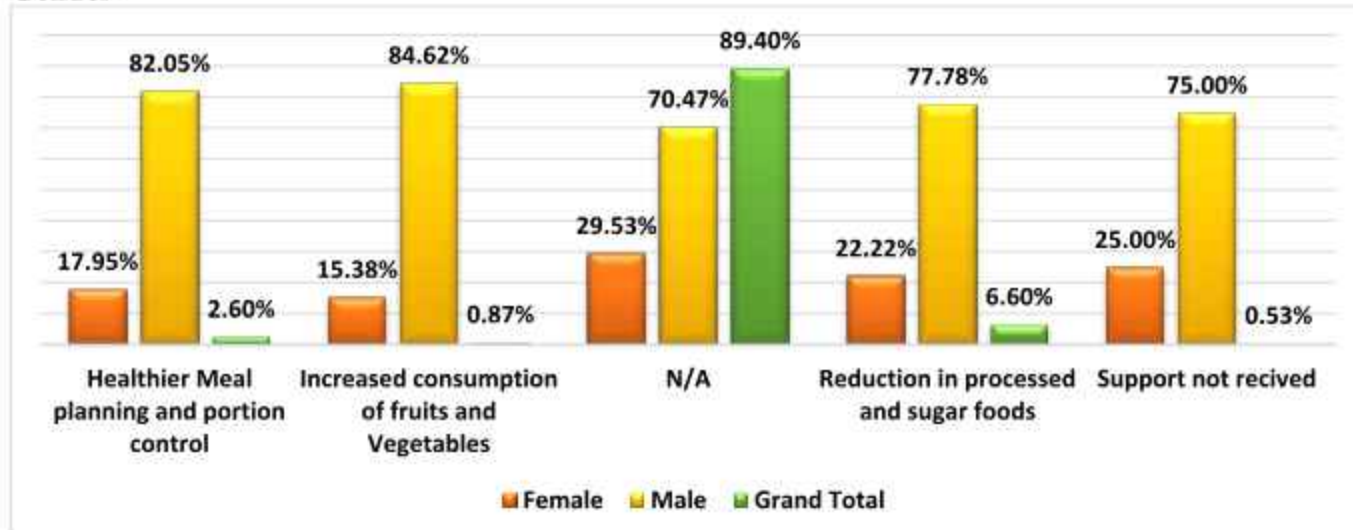
Increased consumption of fruits and vegetables is another change that some households experienced, with the Central region again leading at 46.15%. However, this change is less pronounced in other areas, such as Chitral (23.08%) and Eastern (15.38%), and is entirely absent in the Northern region (0%). This suggests that while some households in these regions are adopting healthier dietary habits, the consumption of fruits and vegetables is not as widely embraced across the board.

The reduction in processed and sugary foods is noted by 27.27% of respondents in the Central region, but this trend appears to be most significant in the Northern region, where 50.51% of respondents reported making this change. This could imply that the Northern region has had a better response to cutting down on processed and sugary foods after receiving training. The other regions show relatively low percentages, such as 1.01% in Chitral and 6.06% in Eastern, which may suggest a limited impact or barriers to adopting these changes in diet.

In terms of support not being received, 37.50% of Central respondents stated they had not received any support, with smaller proportions of respondents from Chitral (0.00%) and Eastern (25.00%) reporting the same. This indicates that there may be some gaps in the implementation or outreach of the training programs, with more respondents in the Central region indicating they did not benefit from any support or training compared to other regions. Overall, while some regions like Central and Northern report noticeable changes in food choices and eating habits after receiving training, the data suggests a generally limited impact, with a large portion of respondents reporting no change or no access to support. The overall trends reflect varying regional responses, with some areas benefiting more significantly from the training while others show less noticeable changes in dietary habits.



## Gender



The data reveals distinct gender disparities in the changes observed in household food choices and eating habits following training. A large proportion of respondents did not provide an answer to the question, as reflected in the "N/A" category, which represents 89.40% of the total. This suggests that the majority of respondents either did not receive the training or did not notice any changes in their food habits.

Among those who did report changes, males appear to have a much higher percentage of reported improvements in food habits compared to females. Specifically, 82.05% of males noted improvements in healthier meal planning and portion control, compared to just 17.95% of females. This disparity indicates that males may have been more influenced by the training or may have had greater access to the resources that promote healthier eating practices. Similarly, for increased consumption of fruits and vegetables, 84.62% of males reported changes, while only 15.38% of females did. This further emphasizes the gendered differences in how food choices and eating habits are influenced by the training. It is possible that cultural, social, or economic factors may play a role in limiting females' ability to implement these changes, despite the training.

Regarding the reduction in processed and sugary foods, 77.78% of males indicated a reduction in their consumption of these foods, compared to 22.22% of females. This again highlights a trend where males seem to have made more significant dietary changes than females, which could be due to different levels of access to food or varying responsibilities in food preparation and decision-making within the household. Lastly, the small percentage of respondents who reported not receiving support (0.53%) also shows a gendered difference, with 75% of the individuals who didn't receive support being male and 25% female. This indicates that males, despite receiving more benefits from the training, might have had fewer opportunities to participate in or receive further support, leading to potential gaps in the effectiveness of the training program.

Overall, the data suggests that males have shown more significant changes in their food choices and habits following the training, particularly in areas like meal planning, fruit and vegetable consumption, and reducing processed foods. In contrast, females appear to have experienced less impact from the training, which could reflect gender-related factors such as household roles, food decision-making power, or access to resources.

## 61. What are the challenges in accessing nutritious food at the household level?

### Regional



The data highlights several key challenges faced by households in accessing nutritious food, with significant regional and categorical variations. The challenges include factors such as dairy availability, distance from markets, lack of awareness, price hikes, and weather constraints.

Dairy access seems to be a notable concern, particularly in the Southern region, where 45% of respondents identified it as a challenge, compared to a much lower percentage in other regions. The lack of availability of dairy products in the household can impact the nutritional balance, as dairy is an essential source of calcium and protein, especially for children and elderly populations. The data indicates that this challenge is more prominent in some areas, possibly due to limited local dairy production or distribution issues.

Distance from the market also emerges as a significant barrier, especially in the Central region (32.76%) and the Southern region (41.38%). This suggests that households in these areas face logistical challenges in accessing fresh, nutritious foods, which could be due to poor infrastructure or remote living conditions. Such barriers often result in reduced access to fresh produce, dairy, and other perishable items, which are essential for a balanced diet.

A major concern for many households is the lack of awareness, as 71.13% of respondents in total cited this as a challenge. The lack of nutritional knowledge could be hindering the ability of households to make informed food choices and maximize available resources. This issue seems prevalent across all regions, but the Eastern region (26.71%) and Northern region (21.74%) stand out as having a relatively higher proportion of respondents identifying this challenge. This points to the need for awareness programs focused on healthy eating and nutrition at the household level.

Price hikes are also a significant challenge, particularly in the Central region, where 45.78% of respondents noted that rising food prices are preventing them from accessing nutritious food. Price fluctuations can severely impact food security, especially for households with limited financial resources. In the Southern region, where 18.67% of respondents highlighted this challenge, price hikes might limit access to diverse and nutritious food options.

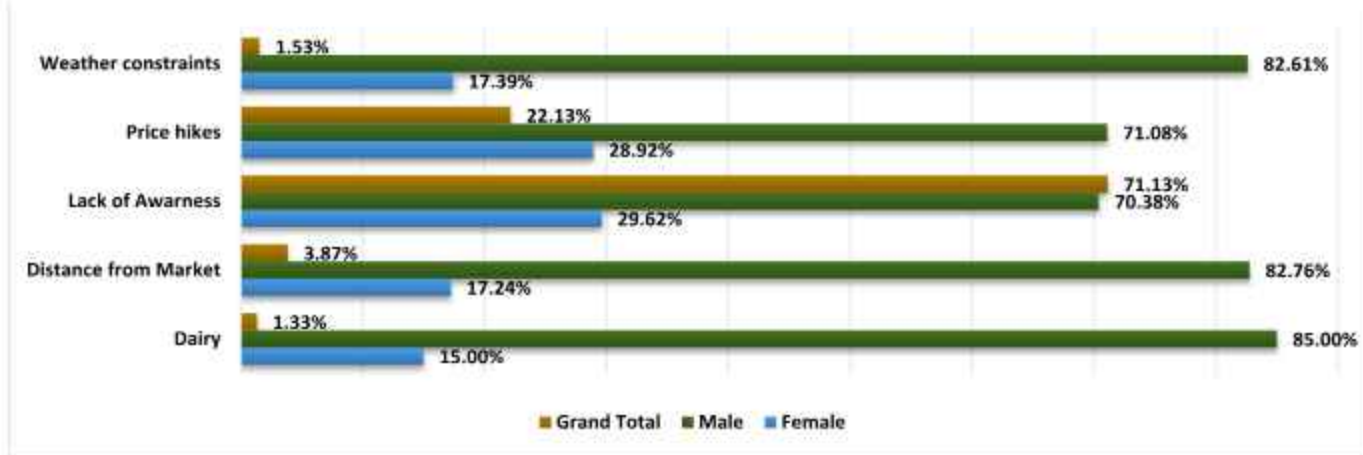
Weather constraints are another concern, with 43.48% of respondents in the Central region identifying this as a barrier. Weather-related challenges, such as extreme temperatures or unpredictable rainfall, can directly affect agricultural production and food availability, leading to seasonal shortages or difficulty in accessing fresh food. This may also explain some of the regional differences in food availability and access.

In summary, households face multiple barriers to accessing nutritious food, with significant challenges related to dairy availability, distance from markets, awareness of nutritional needs,



price hikes, and weather conditions. These factors, which vary by region, reflect a combination of infrastructural, economic, and educational limitations that influence the ability of households to secure a nutritious and balanced diet. Addressing these challenges requires a multi-faceted approach, including improving market access, raising awareness on nutrition, stabilizing food prices, and mitigating the effects of adverse weather conditions.

## Gender



The data reveals the gendered differences in how various challenges impact access to nutritious food at the household level and their potential influence on food choices and eating habits after training. When it comes to dairy, the data indicates a clear gender disparity, with 85% of males identifying dairy as a challenge compared to just 15% of females. This suggests that males are more likely to face difficulties in accessing dairy products. If these barriers persist, it could mean that after training, households may not incorporate enough dairy into their meals, potentially limiting the benefits of nutrition education.

Distance from the market also highlights a gendered difference, with 82.76% of males reporting this as a challenge, while only 17.24% of females do so. This might reflect different roles or responsibilities between genders, where men might be more involved in managing food-related decisions or traveling to markets. After receiving training, if the issue of market access is not addressed, it could hinder the ability of households to diversify their diets and incorporate nutritious foods regularly.

Lack of awareness about nutrition is a challenge that affects both genders, with 70.38% of males and 29.62% of females recognizing it as a barrier. While a larger portion of females are aware of the issue, it is still a major problem for both sexes. This lack of awareness could reduce the effectiveness of training if individuals are not able to apply the knowledge gained due to ingrained cultural practices or lack of understanding. The training could help, but the real impact will depend on improving awareness among both genders to make informed food choices.

Price hikes are another significant challenge, affecting 71.08% of males and 28.92% of females. This may reflect gendered economic power dynamics, where males are more likely to manage household finances or be the primary earners. If price hikes are not addressed after training, even educated households may find it difficult to make long-term improvements in their food habits.

Weather constraints appear to have a more significant impact on males (82.61%) compared to females (17.39%). This could be due to the roles men play in farming or outdoor work, making them more directly affected by seasonal changes or unpredictable weather conditions that affect food production. Such constraints may make it harder for households to maintain consistent food habits even after receiving nutrition-related training.

In conclusion, the data suggests that while both males and females face challenges in accessing nutritious food, the nature of these challenges differs across genders. Males tend to face more

logistical and financial challenges, such as price hikes, distance from markets, and weather constraints. On the other hand, females may encounter barriers related to lack of awareness about nutrition. After receiving training, changes in food choices and eating habits will likely depend on addressing these gender-specific challenges and providing solutions that empower both males and females to implement healthier eating practices.

#### ANOVA results

#### ANOVA

Region

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	98.773	4	24.693	11.065	.000
Within Groups	3336.227	1495	2.232		
Total	3435.000	1499			

The ANOVA analysis indicates significant regional differences in the dependent variable ( $F = 11.065$ ,  $p = 0.000$ ). The between-groups sum of squares (98.773) suggests variability across the five regions, while the within-groups sum of squares (3336.227) reflects differences within each region. Since the p-value is well below 0.05, we can conclude that at least one region significantly differs from the others.

Regional wise variances are mentioned in the table below;

#### Descriptives

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Lack of Awareness	1067	3.0253	1.42687	.04368	2.9396	3.1110	1.00	5.00
Price hikes	332	2.4548	1.61406	.08858	2.2806	2.6291	1.00	5.00
Distance from Market	58	3.2414	1.78994	.23503	2.7707	3.7120	1.00	5.00
Weather constraints	23	2.3478	1.52580	.31815	1.6880	3.0076	1.00	5.00
Dairy	20	3.2500	1.91600	.42843	2.3533	4.1467	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

The above quantitative section is further improved through the qualitative portion, for which the in-depth interviews were conducted with the stakeholders. Finding of the in-depth interviews are as under;

#### Nutrition-Sensitive Value Chains: A Path to Food Security

In many hard-to-reach communities, individuals engaged in nutrition-sensitive value chains lack the necessary technical skills and knowledge to improve nutritional outcomes, particularly for vulnerable groups such as children aged 0-2 years, pregnant women, and lactating mothers.



Limited understanding of nutrition-sensitive agricultural practices, coupled with inadequate entrepreneurial skills, further hinders progress in enhancing food security and maternal and child health.

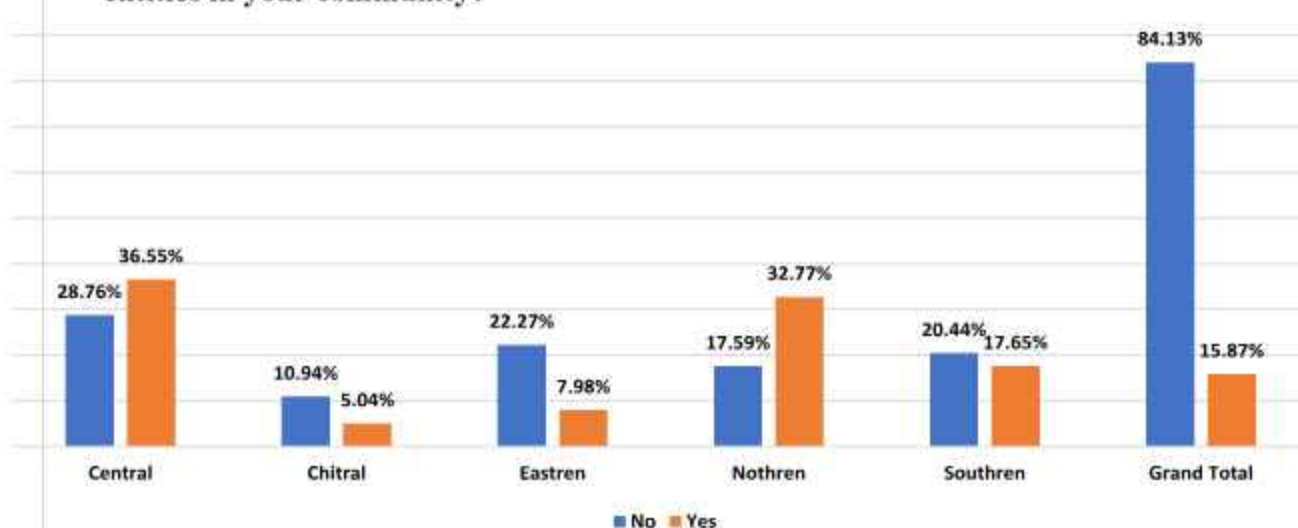
The nutritional needs of these vulnerable populations require targeted interventions, including specialized training in food preservation, fortification, quality control, and supply chain management. However, geographic isolation, gender norms, and financial barriers restrict access to such essential training programs, exacerbating malnutrition and food insecurity.

To bridge these gaps, it is crucial to integrate nutrition education and capacity-building initiatives into existing agricultural programs. This approach should emphasize the production and distribution of nutrient-rich foods specifically tailored to meet the dietary needs of infants, pregnant women, and lactating mothers. Programs such as community-based nutrition education, mobile training units, and locally driven food fortification initiatives can enhance the effectiveness of agribusiness interventions.

Additionally, fostering partnerships with governmental and non-governmental organizations can facilitate the development of sustainable, context-specific solutions that address food security challenges in these underserved regions. By equipping agribusiness actors with the necessary skills and resources, these interventions can significantly improve maternal and child nutrition, contributing to overall public health and long-term economic stability.

## Section 6: Public-Private Producer Partnership:

**62. Are you aware of any partnerships between public, private, and producer entities in your community?**



### Region wise

The data reveals a distinct regional variation in awareness about partnerships between public, private, and producer entities within the community. A significant portion, 84.13%, of respondents report not being aware of such partnerships, which suggests a lack of visibility or communication about these collaborative efforts in most regions. In the Central region, 36.55% of respondents indicate awareness of these partnerships, the highest among the regions, though still a minority. This may suggest that in Central areas, there might be more active involvement or promotion of such partnerships, or simply better access to information. Conversely, 28.76% of respondents in Central areas claim no awareness, which indicates that even in regions where some partnerships might exist, a significant portion of the population remains uninformed.

In Chitral, a relatively small percentage (5.04%) is aware of these partnerships, the lowest across all regions. This indicates either a lack of such partnerships in Chitral, or a significant

gap in communication or outreach efforts to inform the local population. The majority, 10.94%, are not aware of any such collaborations, which further highlights the lack of visibility or understanding in this region.

In the Eastern and Northern regions, awareness levels are moderate. In Eastern, only 7.98% are aware of these partnerships, while 22.27% are unaware. Northern shows similar patterns, with 32.77% reporting awareness and 17.59% lacking knowledge. These regions demonstrate an interesting mix of some awareness, but it is still far from universal, implying that while such partnerships may exist, they are not effectively communicated or widely recognized. The Southern region shows an awareness rate of 17.65%, which is slightly higher than that of other regions but still relatively low in the grand scheme. 20.44% of respondents in this region are not aware of any such partnerships.

In summary, the data suggest that there is a general lack of awareness regarding partnerships between public, private, and producer entities across all regions. While some regions like Central show relatively higher awareness, the majority of respondents remain uninformed, which indicates a need for better communication and outreach to raise awareness of these collaborative efforts within the community.

#### ANOVA results

#### ANOVA

Region

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.000	1	.000	.000	.993
Within Groups	3435.000	1498	2.293		
Total	3435.000	1499			

The ANOVA results reveal no significant regional differences in the measured variable. With an F-value of 0.000 and a p-value of 0.993 (far above 0.05), the data show that variations are driven by individual differences rather than regional factors. This indicates that the factor analyzed remains consistent across all regions, with no statistical significance in regional variation.

The regional-wise variances are mentioned in the table below;

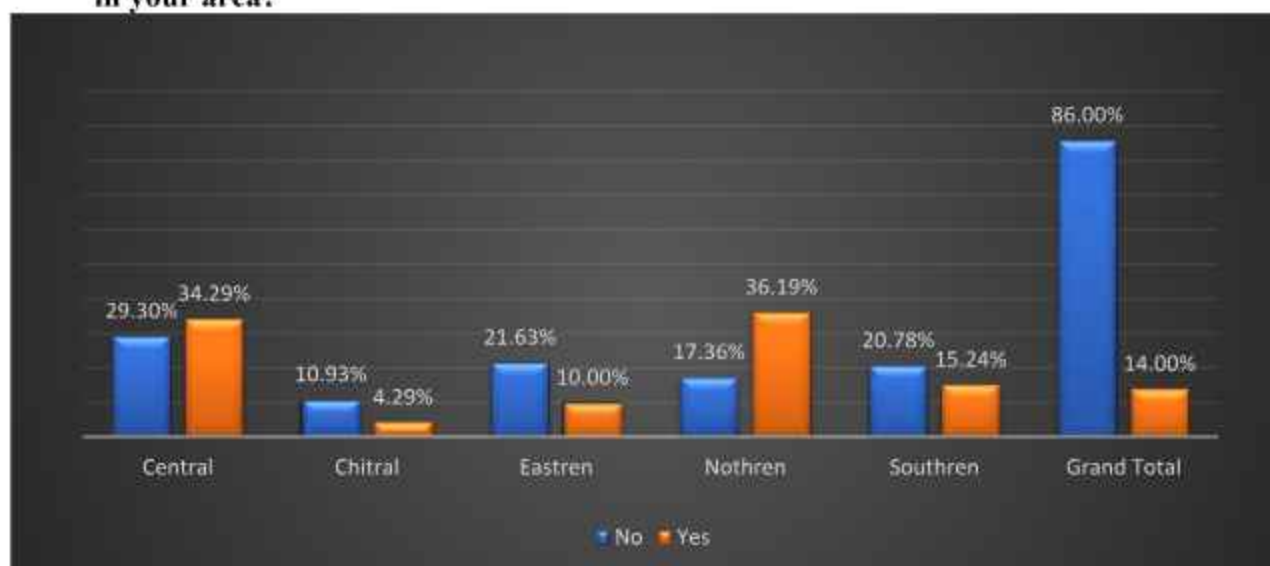
#### Descriptives

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Yes	238	2.8992	1.59585	.10344	2.6954	3.1029	1.00	5.00
No	1262	2.9002	1.49846	.04218	2.8174	2.9829	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00



**63. Are you aware of any government programs or initiatives supporting producers in your area?**



**Region wise**

The data highlights a notable difference in the awareness of government programs or initiatives supporting producers across various regions. Overall, 86% of respondents report being unaware of any such programs, indicating a significant gap in communication or visibility regarding these government efforts. Only 14% of respondents are aware of such programs, pointing to a lack of widespread information dissemination.

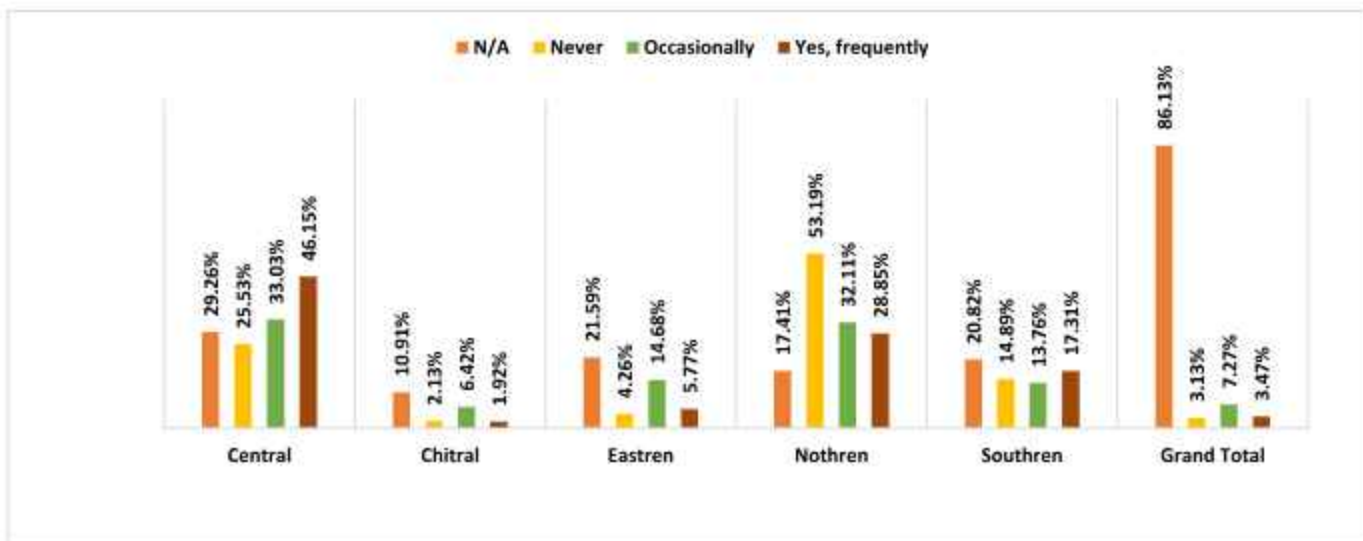
In the Central region, 34.29% of respondents are aware of government programs supporting producers, which is the highest percentage among all regions. This suggests that there may be more active engagement or visibility of such initiatives in Central areas. However, a substantial 29.30% of respondents in this region remain unaware, indicating that while some individuals are informed, a significant portion still lacks knowledge of these initiatives. Chitral stands out with a very low awareness rate, where only 4.29% of respondents report knowing about government programs supporting producers, while the majority, 10.93%, are not aware. This could indicate either the absence of such programs in Chitral or a lack of effective communication channels to reach the population with information about them.

In the Eastern region, only 10% of respondents are aware of these programs, and 21.63% report not knowing about them. This reflects a similar trend to other regions, where there seems to be some knowledge of the initiatives, but the overall awareness level is still quite low. Northern regions show a relatively higher awareness rate of 36.19%, which is significantly better than most other regions. However, 17.36% still do not have knowledge of government support programs, suggesting that while awareness is higher in this region, there remains a considerable proportion of people who are unaware.

In the Southern region, 15.24% of respondents are aware of such programs, while 20.78% are not, indicating a somewhat moderate level of awareness compared to the other regions, though still lower than in the Central and Northern areas. In conclusion, while some regions like Central and Northern show higher awareness levels of government initiatives supporting producers, the majority of respondents across all regions remain unaware. This suggests that despite government efforts, there is a significant need for improved outreach, communication, and engagement to ensure that more producers are aware of and can benefit from these programs.

**64. If yes, have you received support or services from public sector organizations in the past year?**

**Region**



The data presents insights into the frequency of receiving support or services from public sector organizations in the past year, broken down by region. A significant portion of respondents, 86.13%, marked "N/A" (not applicable), indicating that they did not receive any support or services, or they may not have had access to public sector initiatives in the past year. This is a clear indication of limited engagement or outreach by public sector organizations to these communities. Among those who did receive support, the frequency varies across regions. In the Central region, 46.15% of respondents report receiving support frequently, which is the highest among all regions. This suggests that Central areas might have more consistent or effective access to public sector services, although a substantial portion (29.26%) still reported "N/A," which reflects a significant portion of the population not receiving services.

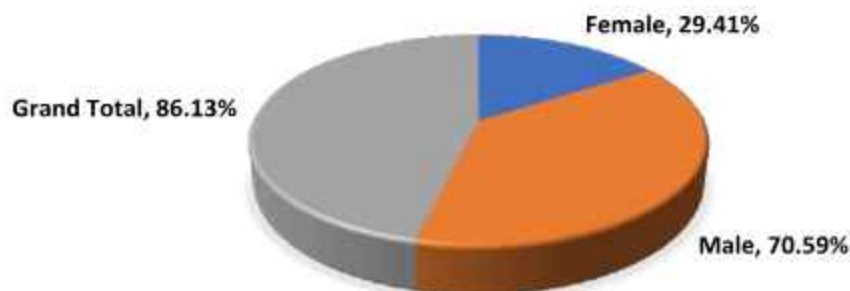
In Chitral, only 1.92% of respondents report receiving support frequently, with a relatively higher percentage (6.42%) indicating occasional receipt of services. This points to a much lower level of engagement from public sector organizations in Chitral, suggesting that either services are not frequently available or that there is a lack of awareness or access to these services. The Eastern region sees a similar trend to Chitral, with only 5.77% of respondents reporting frequent support, while a higher percentage (14.68%) report receiving services occasionally. This again highlights a gap in consistent access to public sector support, with many respondents being left out or unaware of available services.

The Northern region shows a higher percentage (28.85%) of respondents receiving frequent support, with an additional 32.11% indicating occasional services. While this is better than the other regions, the fact that 17.41% of respondents still mark "N/A" suggests that there are still barriers to accessing services in the Northern region, whether due to lack of availability or poor awareness. In the Southern region, 17.31% of respondents receive support frequently, and 13.76% occasionally. While this is a better rate of engagement than in some other regions, 20.82% still marked "N/A," signaling that public sector support is not equally accessible across all areas.

Overall, the data shows that a large majority of respondents (86.13%) have not received support from public sector organizations in the past year. Among those who did receive support, frequent engagement was low, with only the Central and Northern regions seeing a higher percentage of frequent support. The data reflects a need for stronger public sector outreach, improved service delivery, and awareness campaigns to ensure that more communities have access to public sector support and services.

## Gender



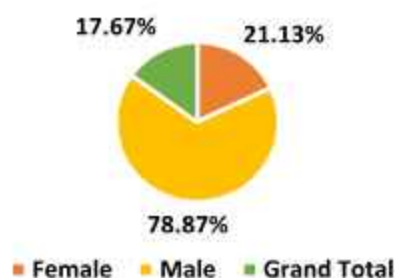


The data highlights the level of engagement with public sector organizations in providing support or services over the past year. A vast majority (86.13%) of respondents selected "N/A," indicating that they either did not seek or were unaware of such services. This suggests a gap in awareness or accessibility, possibly due to a lack of outreach or trust in public institutions. 3.47% reported receiving support frequently, with a higher proportion of male respondents (84.62%) than female respondents (15.38%). This indicates that men are more likely to access and benefit from public sector support, potentially due to mobility, social norms, or gendered access to resources. 7.27% stated they received support occasionally, with a similar gender trend—77.06% male and 22.94% female. This suggests that even when support is available, women may face barriers in accessing these services, whether due to cultural norms, lack of information, or logistical constraints. 3.13% reported never receiving support, with a higher proportion of female respondents (34.04%) compared to other categories. This could imply that some individuals have sought public sector services but have not successfully received them, indicating inefficiencies or barriers in service delivery.

Overall, the data points to a significant lack of engagement with public sector organizations, particularly among women. There is a need for improved outreach, gender-sensitive service provision, and awareness campaigns to ensure equitable access to public sector support programs. Addressing these disparities could enhance participation and improve overall community development outcomes.

**How effective do you find the government's support in addressing producer needs?  
Measure satisfaction with public sector interventions.**

#### Gender



The effectiveness of government support in addressing producer needs presents a mixed picture, with notable gender disparities. A significant portion of respondents (51.60%) remained neutral, indicating either a lack of direct experience with government programs or uncertainty about their impact. Women, in particular, had a higher proportion of neutral responses (35.40%), which may suggest lower engagement or limited access to information about available support.

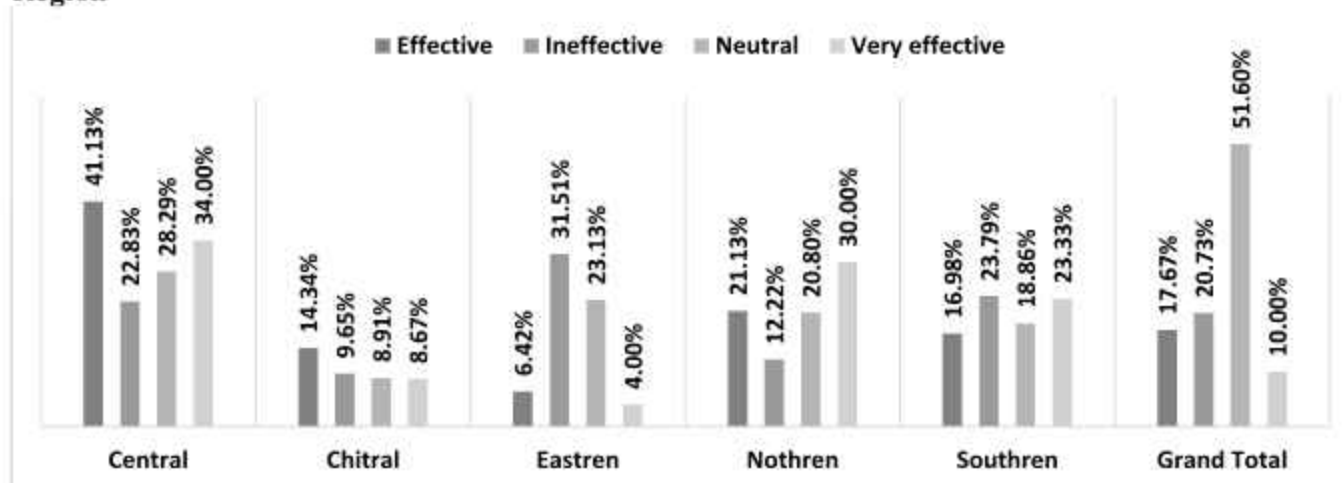
Among those who had a clear opinion, 20.73% found the support ineffective, with men forming the majority (79.74%). This suggests that many producers, especially men, perceive gaps in the government's ability to meet their needs, possibly due to bureaucratic inefficiencies,

inadequate resource allocation, or a lack of tailored support. Meanwhile, 17.67% of respondents considered the support effective, though this figure remains relatively low. Again, men (78.87%) were the dominant group, indicating that they may have better access to these resources than women.

Only a small fraction (10%) rated the support as very effective, highlighting that while some producers benefit significantly, the majority do not share this experience. The gender divide persists here as well, with men (76.00%) being more likely to report positive outcomes. This disparity suggests that women may face structural barriers in accessing and benefiting from government interventions.

Overall, the data points to government support being either inadequate or not widely recognized as effective by producers. The high rate of neutral responses underscores the need for improved communication and outreach to ensure that all producers, particularly women, are aware of and can access available resources. Strengthening accessibility, responsiveness, and tailored support mechanisms could enhance perceptions of effectiveness over time, ultimately making government programs more impactful for a wider range of producers.

#### Region



The data presents a diverse range of perceptions regarding the effectiveness of government support in addressing producer needs, with notable regional variations. A significant proportion of respondents (51.60%) remained neutral, indicating uncertainty or limited direct experience with government support programs. This neutrality is most prominent in Central (28.29%), Eastern (23.13%), and Northern (20.80%) regions, suggesting a lack of awareness or engagement with government initiatives in these areas. Among those with a definitive stance, 20.73% found the support ineffective, with the highest dissatisfaction observed in Eastern (31.51%) and Southern (23.79%) regions. This suggests that producers in these areas perceive gaps in government support, possibly due to unmet needs, bureaucratic inefficiencies, or inadequate program implementation.

On the other hand, 17.67% of respondents rated the support as effective, with Central (41.13%) and Northern (21.13%) showing the highest levels of satisfaction. This indicates that while government support has made a positive impact in some regions, its effectiveness varies significantly. Only 10% of respondents rated the support as very effective, with Northern (30.00%) and Southern (23.33%) leading in positive perceptions. This suggests that government interventions have been more successful in these regions, possibly due to better resource allocation, targeted programs, or stronger public-private collaborations.

Overall, the data highlights the need for more inclusive and region-specific interventions to improve perceptions of government support. The high level of neutrality suggests a gap in communication or accessibility, while dissatisfaction in certain regions indicates that existing programs may not be meeting the specific needs of producers. Enhancing outreach, improving



service delivery, and addressing regional disparities could help strengthen the impact of government support across all areas.

ANOVA results

## ANOVA

Region

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	9.789	3	3.263	1.425	.234
Within Groups	3425.211	1496	2.290		
Total	3435.000	1499			

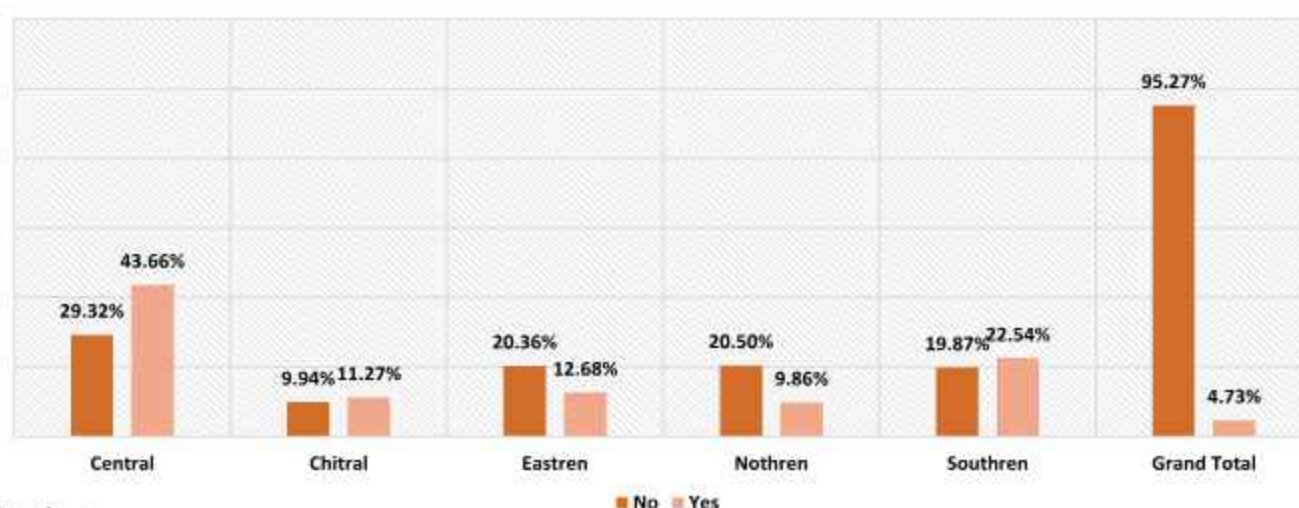
The ANOVA results show no significant regional differences in the measured variable. With an F-value of 1.425 and a p-value of 0.234 (above the 0.05 threshold), the variations observed are likely due to random differences rather than meaningful regional effects. Most of the variability comes from individual differences (Sum of Squares within groups: 3425.211) rather than between regions (Sum of Squares: 9.789). This suggests that regional factors do not significantly impact the analyzed variable.

## Descriptives

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Yes, frequently	52	2.6923	1.67494	.23227	2.2260	3.1586	1.00	5.00
Occasionally	109	2.8716	1.50370	.14403	2.5861	3.1570	1.00	5.00
Never	47	3.2979	1.45833	.21272	2.8697	3.7261	1.00	5.00
N/A	1292	2.8963	1.50910	.04198	2.8139	2.9786	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

**Have you participated in any training or capacity-building sessions organized by the government?**



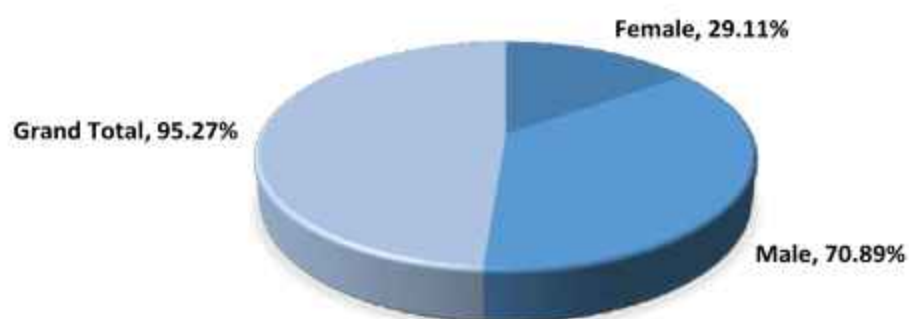
### Region

Despite government efforts to provide training and capacity-building opportunities, participation remains alarmingly low. Only 4.73% of respondents reported attending any such sessions, indicating a significant gap between available programs and their reach to the intended beneficiaries. The vast majority—95.27% of respondents—have not engaged in any government-led training. This suggests multiple barriers, including lack of awareness, accessibility issues, or insufficient outreach efforts. Many producers might not even know about these opportunities, while others may find them irrelevant to their specific needs.

Participation levels also vary regionally, highlighting disparities in access to government initiatives. The Southern (22.54%) and Central (43.66%) regions report higher engagement, possibly due to better infrastructure or more active outreach programs. In contrast, Northern (9.86%), Eastern (12.68%), and Chitral (11.27%) lag behind, pointing to logistical challenges or a mismatch between training content and local requirements. In areas like Northern and Eastern regions, where agricultural producers could significantly benefit from capacity-building, participation remains particularly low. This could indicate that the training sessions are either not effectively communicated, not easily accessible, or not tailored to the needs of these communities.

Ultimately, the data suggests that government-organized training initiatives have failed to connect with the vast majority of producers, particularly in remote or underserved areas. Addressing outreach limitations, improving accessibility, and tailoring programs to local needs will be key in ensuring that these initiatives achieve their intended impact.

### Gender

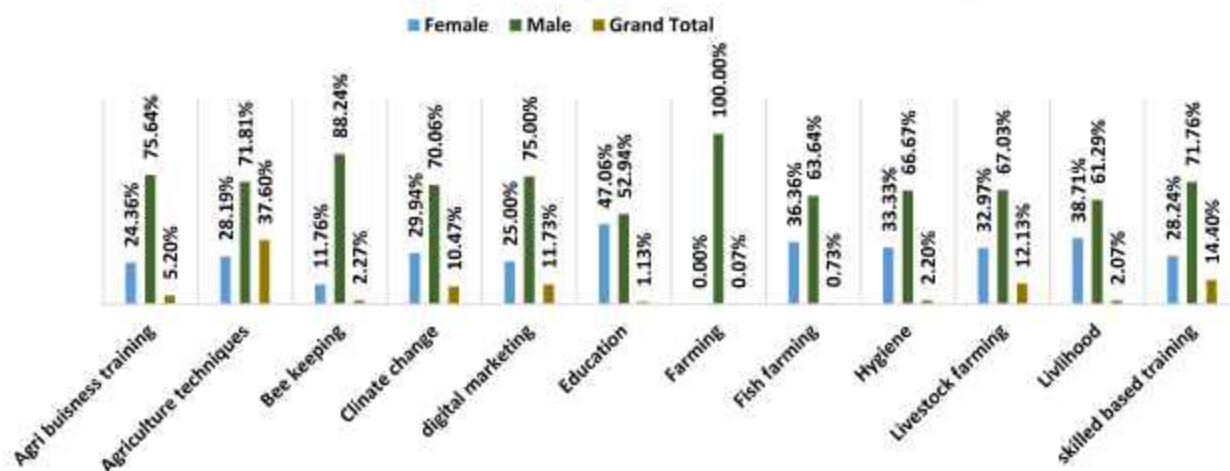




The data reveals an interesting trend regarding participation in government programs or training, highlighting a significant disparity between genders. A vast majority, 95.27%, reported that they had not participated in any such program, while only a small fraction, 4.73%, indicated that they had. This suggests that engagement with government initiatives remains exceptionally low.

Among those who did not participate, a larger proportion were male, making up 70.89% of the respondents, while 29.11% were female. This indicates that men form the majority of those who have not taken advantage of these programs. However, when looking at those who did participate, the disparity is even more pronounced. Of the individuals who engaged in government programs, 81.69% were male, compared to just 18.31% who were female. This suggests that men are significantly more likely than women to take part in such opportunities. The overall low participation rate may point to challenges such as lack of awareness, accessibility issues, or limited appeal of these programs. Additionally, the lower participation rate among women could reflect barriers such as cultural expectations, restricted access to resources, or socio-economic factors that limit their involvement. The data emphasizes the need for targeted efforts to bridge this gap and ensure that government programs are more inclusive and accessible to all.

#### 65. What additional support would you like to receive from the government?



#### Gender

The data reveals significant variations in participation across different training categories, highlighting areas where government support could be most beneficial. In agri-business training, 75.64% of participants are male, while only 24.36% are female, indicating that this field is more male-dominated. To create a more balanced landscape, the government could introduce incentives and programs designed to encourage more female participation. A similar trend is observed in agricultural techniques, where 71.81% of the participants are male and 28.19% are female. Given that this category has the highest overall engagement at 37.60%, providing more resources and training opportunities could enhance access for both genders. Beekeeping is another field where male participation significantly outweighs female involvement, with 88.24% men and just 11.76% women. To make this industry more inclusive, the government could implement training and funding initiatives tailored for female entrepreneurs. Climate change awareness and solutions show a relatively higher female engagement of 29.94%, compared to 70.06% male participation. Given the increasing relevance of climate-related challenges, ensuring equal access to mitigation programs and education could benefit both genders. Digital marketing, which attracts 75.00% male and 25.00% female participation, presents an opportunity to bridge the gender gap by expanding

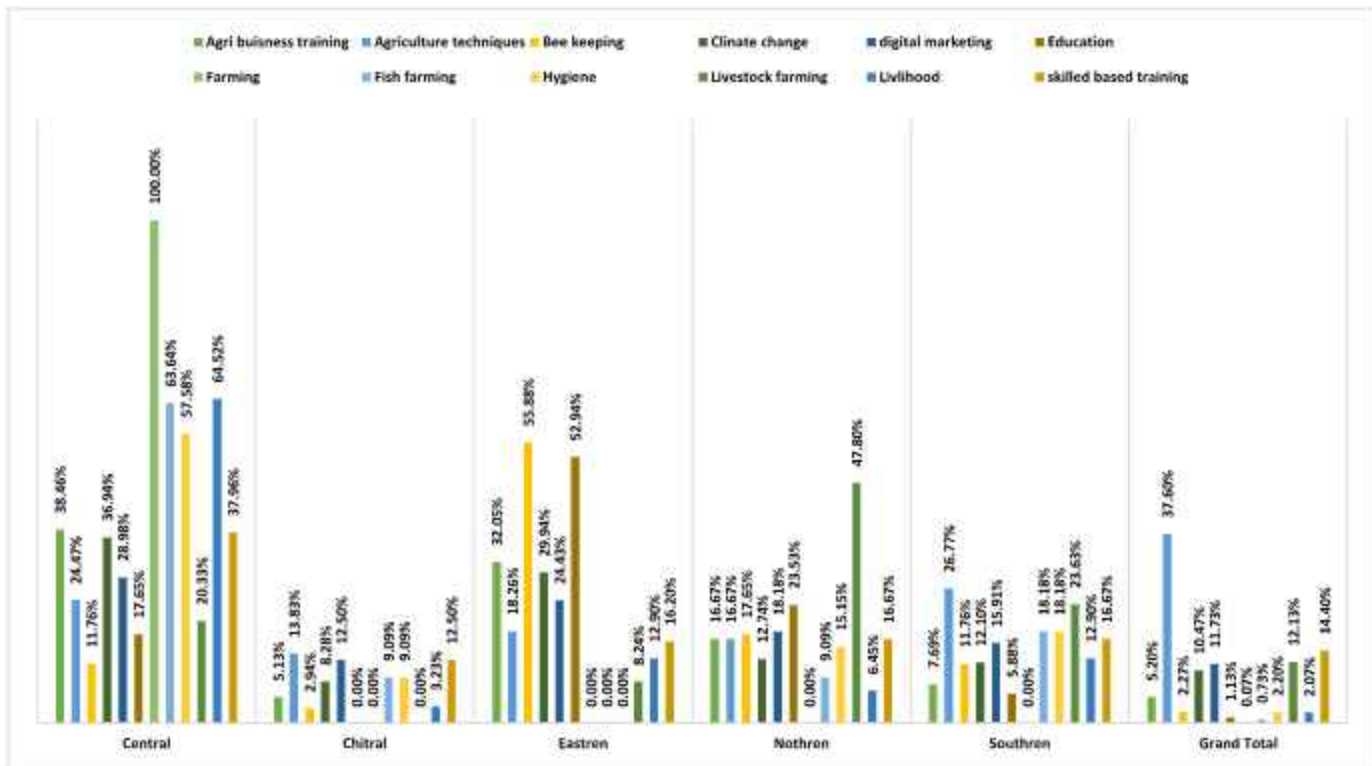
digital literacy programs. Providing targeted training for women in rural areas could enhance their ability to participate in the digital economy. Education, however, appears to be one of the most balanced categories, with 52.94% male and 47.06% female participation. Strengthening educational infrastructure, scholarships, and technology access could help maintain this balance while ensuring equitable opportunities for all.

Farming remains entirely male-dominated in this dataset, with 100.00% male participation and no female involvement. This highlights the need for government interventions that encourage women to enter the field, such as specialized training programs and financial incentives. Fish farming, in contrast, has relatively higher female participation at 36.36%, though men still form the majority at 63.64%. Introducing support measures such as subsidies and training programs specifically aimed at women could encourage further engagement. Hygiene training, though not a dominant category, shows 66.67% male and 33.33% female participation. Public health initiatives focusing on hygiene awareness, particularly in underserved communities, could help both men and women benefit. Livestock farming, which sees 67.03% male and 32.97% female participation, remains an area where additional government support, including resources and financial aid, could encourage more women to engage in animal husbandry.

Livelihood programs show a relatively higher female participation of 38.71% compared to 61.29% male engagement. This suggests that women are increasingly interested in economic sustainability initiatives, making it essential for the government to allocate more resources to improve livelihood opportunities, particularly in rural areas. Skilled-based training, one of the most in-demand categories with an overall engagement of 14.40%, has 71.76% male and 28.24% female participation. Expanding vocational training and ensuring women have greater access to skill development programs could help close this gap. The overall findings suggest that government policies should prioritize gender-inclusive initiatives, reducing disparities in fields where women are underrepresented, such as farming, livestock, and beekeeping. Programs designed specifically for women, particularly in agriculture techniques, climate change, and fish farming, could ensure equal opportunities. Additionally, expanding digital marketing and vocational training efforts would provide more women with access to modern economic opportunities. By addressing these gaps, the government can create a more balanced and inclusive framework for skill development and economic empowerment.

## **Region**





The data highlights regional variations in participation across different training categories, providing insights into where government support could be most beneficial. In agri-business training, the highest participation is seen in the Central region at 38.46%, followed by the Eastern region at 32.05%, while Chitral and Southern regions show significantly lower engagement at 5.13% and 7.69%, respectively. This suggests that targeted government programs should focus on increasing participation in the less represented regions, possibly by offering localized training sessions or financial incentives.

Agriculture techniques, the most widely engaged category with an overall participation of 37.60%, shows strong interest across all regions. The Southern region has the highest participation at 26.77%, followed by the Central region at 24.47%. However, the Eastern, Northern, and Chitral regions have relatively lower engagement. This indicates that while agriculture remains a critical area for training, government support should focus on making technical knowledge and resources more accessible in these less engaged areas. Beekeeping, though a smaller category overall, shows a significant concentration in the Eastern region, where 55.88% of participants are located. The Central and Northern regions have lower but still notable engagement at 11.76% and 17.65%, respectively. Chitral has the lowest participation at 2.94%, suggesting that beekeeping training and resources are either unavailable or not widely promoted in that region. Government programs could introduce region-specific support, particularly in underrepresented areas, by providing subsidies or training centers.

Climate change awareness and solutions have strong engagement in the Central region at 36.94%, followed by the Eastern region at 29.94%. The Chitral region, at 8.28%, and the Southern region, at 12.10%, show lower engagement. Since climate change affects all regions, it would be beneficial for the government to expand awareness programs and provide resources to communities that are less engaged in climate resilience training. Digital marketing shows fairly balanced participation across regions, with the Central region leading at 28.98%, followed by the Eastern region at 24.43%. Chitral, at 12.50%, and the Southern region, at 15.91%, have lower engagement. This suggests that while digital marketing is gaining traction, more government support is needed to provide internet access, training facilities, and business development resources in less developed areas.

Education training is most prominent in the Eastern region, where 52.94% of participants are located, followed by the Northern region at 23.53%. However, Chitral has no recorded participation, indicating a lack of access or interest in educational training programs in that area. The government could address this disparity by improving educational infrastructure and providing scholarships or incentives to increase engagement. Farming is entirely concentrated in the Central region, with 100.00% participation and no engagement from other regions. This suggests that farming programs are either not available or not promoted effectively in other areas. The government could introduce farming support programs, particularly in regions where agricultural potential exists but participation is currently non-existent.

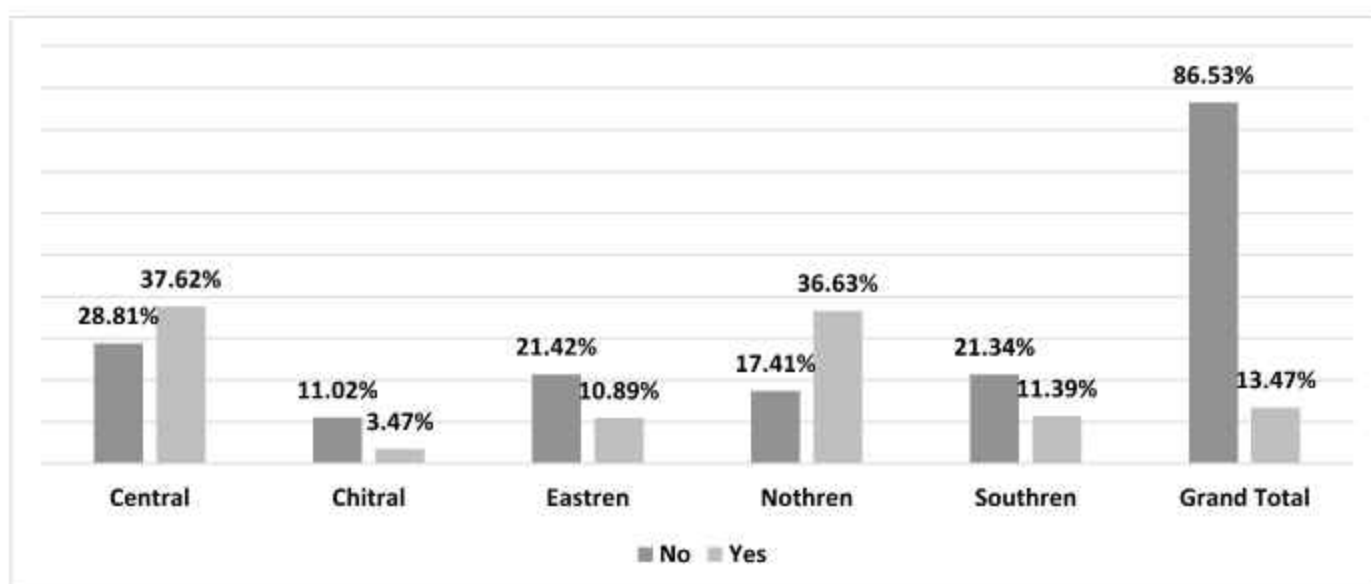
Fish farming, though a niche category, shows its highest engagement in the Central region at 63.64%, with minimal participation from other areas. The Eastern region has no engagement at all, indicating a potential gap in awareness or training availability. Government support in the form of subsidies, fishery infrastructure, and training initiatives could encourage broader participation across all regions. Hygiene training has the highest engagement in the Central region at 57.58%, while the Eastern region has no recorded participation. The Chitral region, at 9.09%, and the Southern region, at 18.18%, show lower interest. This suggests a need for targeted public health initiatives, particularly in areas where hygiene training is underrepresented.

Livestock farming shows strong engagement in the Northern region at 47.80%, followed by the Southern region at 23.63%. The Central and Eastern regions have significantly lower participation, with 20.33% and 8.24%, respectively. Chitral has no recorded engagement. Given that livestock farming is a key economic activity, government programs could focus on providing financial assistance, veterinary services, and market access to support participants in all regions. Livelihood training is most prominent in the Central region at 64.52%, with relatively lower engagement elsewhere. The Chitral region, at 3.23%, and the Northern region, at 6.45%, show the lowest participation, highlighting a need for government intervention to expand access to livelihood improvement programs in these areas.

Skilled-based training, a crucial category with an overall participation of 14.40%, is most popular in the Central region at 37.96%. The Chitral region, at 12.50%, and the Eastern, Northern, and Southern regions, all at around 16.67%, indicate a more balanced but still uneven distribution. Expanding skill development programs across all regions would ensure more people have access to vocational training opportunities. The data suggests that government support should focus on increasing regional equity in training opportunities. Some areas, such as Chitral, show consistently low participation across multiple categories, indicating a lack of access to training resources. Addressing these disparities through targeted funding, infrastructure improvements, and localized outreach programs could ensure that all regions benefit from skill development and economic opportunities. Additionally, agriculture, livestock farming, and skilled-based training remain high-demand areas where further investment could significantly impact regional economic growth.

**Are you aware of any partnerships between producers and private companies in your area?**





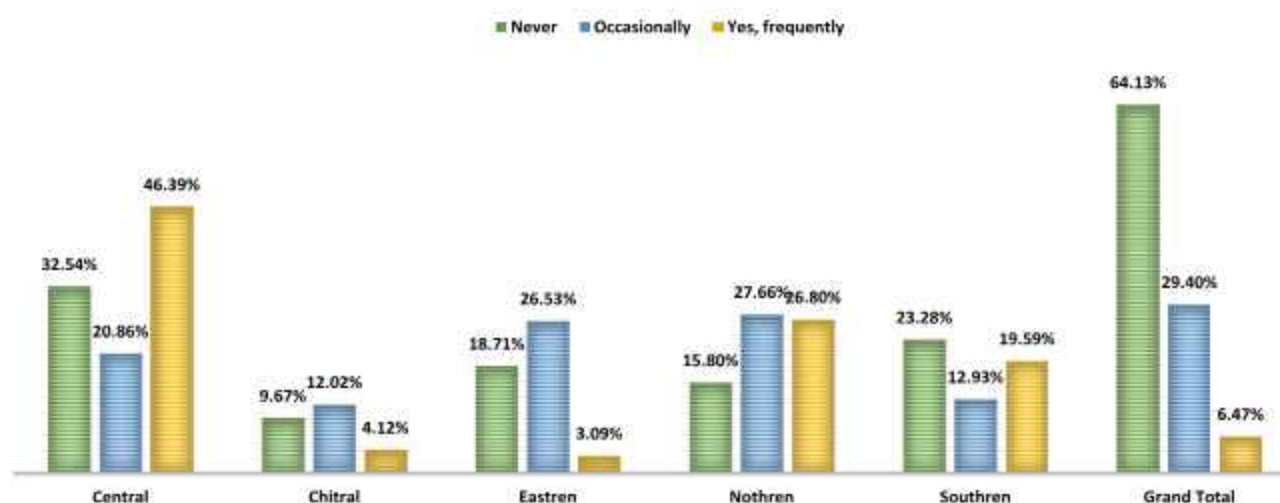
### Region

The data reveals that awareness of partnerships between producers and private companies varies significantly across regions, with an overwhelming 86.53% of respondents indicating they are unaware of such collaborations. This suggests a major gap in communication, outreach, or actual partnership initiatives in many areas.

In the Central region, 37.62% of respondents are aware of partnerships, the highest among all regions. This indicates that partnerships between producers and private companies may be more established or better publicized in this region. In contrast, only 3.47% of respondents in Chitral are aware of such collaborations, the lowest among all regions, suggesting either a lack of partnerships or inadequate information dissemination. The Eastern region also shows a low awareness level, with only 10.89% of respondents acknowledging partnerships. Similarly, the Southern region, at 11.39%, exhibits limited awareness. In these regions, efforts should be made to strengthen partnerships between producers and private companies and improve outreach programs to ensure more people are informed about existing collaborations.

The Northern region stands out as an exception, with 36.63% of respondents aware of partnerships, second only to the Central region. This suggests that some initiatives are already in place in the North, though the majority of respondents (63.37%) are still unaware. The high percentage of "No" responses across all regions indicates a pressing need for increased government involvement in facilitating and promoting partnerships. The government could work towards bridging this gap by encouraging private companies to engage more with local producers, improving access to market linkages, and creating awareness campaigns to inform producers about existing and potential partnership opportunities. Additionally, providing incentives for private companies to invest in rural economies could encourage stronger collaborations and better integration of local producers into broader supply chains.

### 66. Have you received any financial or technical support from private sector organizations?

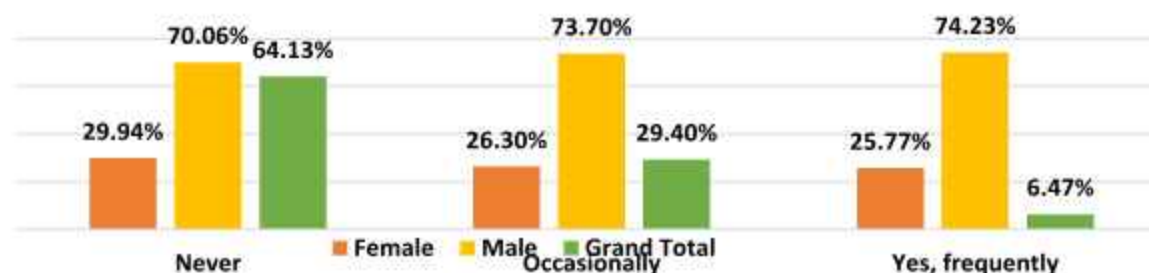


## Region

Private sector support for financial or technical assistance appears to be largely insufficient across all regions, with a significant majority of respondents—64.13%—reporting that they have never received any such help. Only 29.40% have received occasional support, while a mere 6.47% benefit frequently. This indicates a widespread lack of private sector engagement in supporting individuals or communities in a consistent manner. Among the regions, the Central area stands out as an exception, where 46.39% of respondents report frequent support, suggesting a relatively stronger presence of private sector involvement. However, even here, 32.54% of respondents have never received any assistance, highlighting an uneven distribution of resources. The Northern region also shows some degree of engagement, with 26.80% frequently receiving support, while a significant portion—15.80%—have never benefited. Similarly, in the Southern region, nearly one-fifth of respondents have frequent support, but 23.28% still report never having access to private sector aid.

On the other hand, Chitral and the Eastern region reveal the weakest levels of private sector involvement. In Chitral, only 4.12% of respondents report receiving frequent assistance, and occasional support remains low at 12.02%. The Eastern region also struggles, with just 3.09% frequently benefiting from private sector engagement, while a considerable 18.71% have never been supported. These figures point to a concerning disparity in access to financial or technical aid, suggesting that certain areas are significantly underserved compared to others.

Overall, the data suggests that private sector support is sporadic and inconsistent. While some regions benefit more than others, the overwhelming majority still remain without reliable assistance. The stark differences between Central, where engagement is more visible, and regions like Chitral and Eastern, where it is nearly absent, indicate a need for more targeted efforts to bridge this gap and ensure that private sector involvement extends to those who need it most.





The data reveals some interesting insights regarding the receipt of financial or technical support from private sector organizations, broken down by gender. A significant portion of females, 29.94%, reported that they have never received any support. In contrast, a much larger proportion of males, 70.06%, fall into the same category, highlighting a gender disparity in terms of receiving support from private sector organizations.

When it comes to occasional support, 26.30% of females mentioned that they occasionally receive financial or technical help, while a considerably higher 73.70% of males reported the same. This suggests that while many males don't receive regular support, a notable number benefit from it intermittently. Interestingly, 25.77% of females reported receiving frequent support, which stands out given the larger proportion of females in the "Never" category. Meanwhile, 74.23% of males indicated that they frequently receive support, demonstrating that males are more likely to benefit from consistent financial or technical assistance.

Overall, the data suggests that males are more likely to receive support from private sector organizations, both occasionally and frequently. Females, on the other hand, show a mixed pattern—many have not received support, but those who have tend to receive it on a more regular basis.

#### **67. Do private companies help market your products or services?**

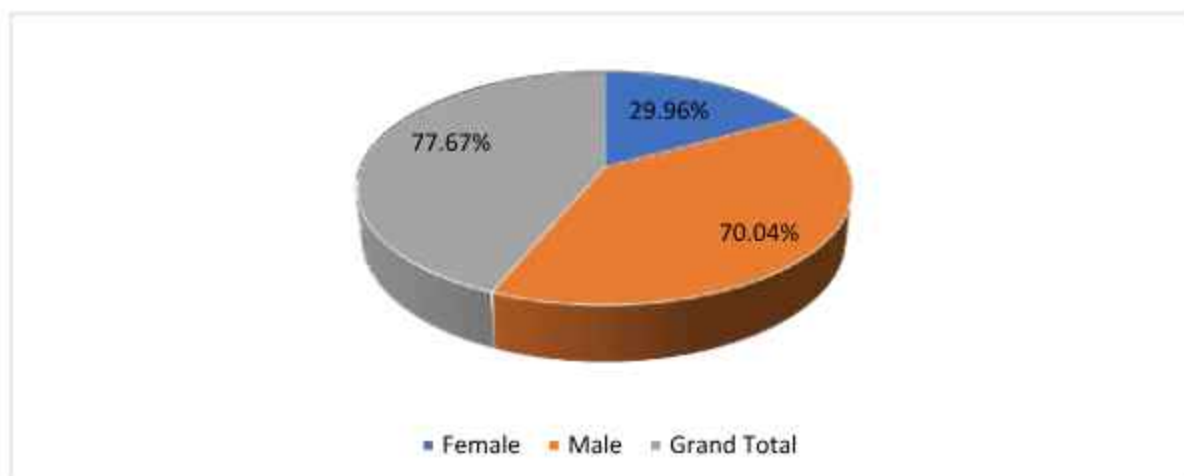
##### **Region**

The data reveals a significant regional variation in the extent to which private companies help market products or services. Overall, 77.67% of respondents across all regions stated that private companies do not assist with marketing, while only 22.33% confirmed that they do. This shows a clear preference for self-reliance or alternative marketing methods in most areas. Looking at the regional responses, the Central region has a relatively balanced view, with 30.82% saying "No" and 27.16% saying "Yes." This suggests that while some companies in the Central region rely on private companies for marketing, many do not. In contrast, Chitral shows a very low involvement of private companies in marketing, with only 4.48% of respondents affirming their help, and 11.59% indicating no such support. This points to minimal reliance on external marketing assistance in that region.

The Eastern region stands out with the highest percentage of respondents saying "Yes" (31.34%), indicating that private companies are more actively involved in marketing there compared to other regions. However, even in the Eastern region, a notable 16.74% of respondents indicated that private companies do not help, suggesting that marketing efforts are not universally dependent on external companies. The Northern region, similar to the Eastern region, shows a significant percentage (27.76%) of "Yes" responses, but with 17.77% saying "No," the reliance on private companies for marketing is not overwhelming. In the Southern region, the involvement of private companies in marketing is minimal, with only 9.25% responding "Yes" and 23.09% saying "No." This suggests that private marketing support is either not available or not trusted in this region, aligning with the overall trend of limited external marketing support.

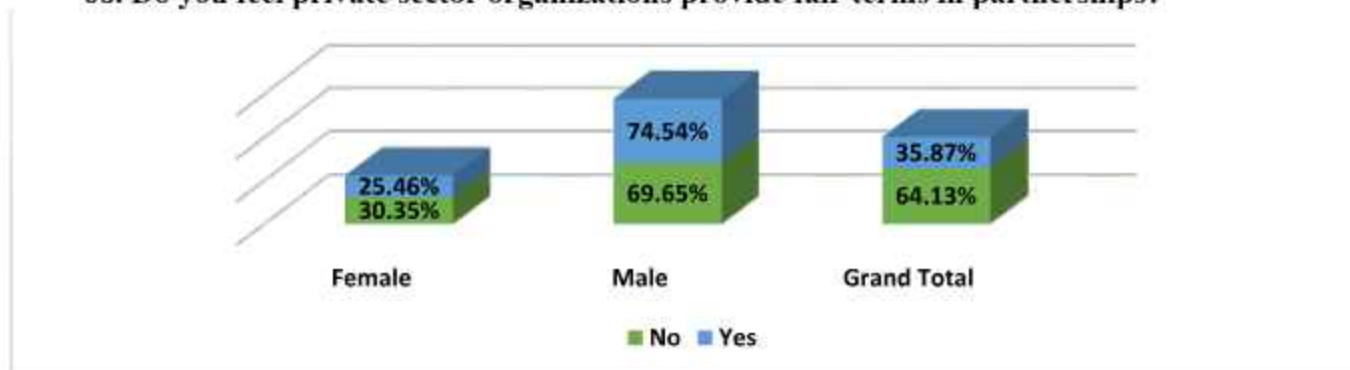
Across all regions, it is evident that while some regions like the Eastern and Northern have more engagement with private marketing services, the majority of respondents, particularly in Chitral and Southern regions, do not rely on private companies for marketing. This may reflect local business practices, cultural preferences, or the perception that such services are unnecessary or inaccessible. The general trend suggests that private companies play a relatively minor role in helping market products or services in the regions surveyed.

##### **Gender**



The data provides insights into the responses of females and males regarding whether private companies help market their products or services. Overall, the majority of respondents (77.67%) believe that private companies do not help market their products or services, while only 22.33% affirm that they do. Looking at the responses by gender, among females, 29.96% said that private companies do not help with marketing, while 23.88% stated that they do. This suggests that a larger proportion of females feel that private companies are not involved in marketing efforts, although the difference between "Yes" and "No" is relatively small. On the other hand, males showed a much stronger inclination toward the idea that private companies help with marketing, with 76.12% answering "Yes." However, 70.04% of male respondents also stated that private companies do not help, reflecting a paradox where many feel that external marketing support is either not widespread or not significant enough. Overall, the data reveals a predominant skepticism about private companies' role in marketing, with males showing a higher percentage of belief in their involvement compared to females. However, both genders show a significant proportion of respondents who feel private companies do not play a role in marketing their products or services, suggesting that independent or self-managed marketing strategies are more common.

#### 68. Do you feel private sector organizations provide fair terms in partnerships?



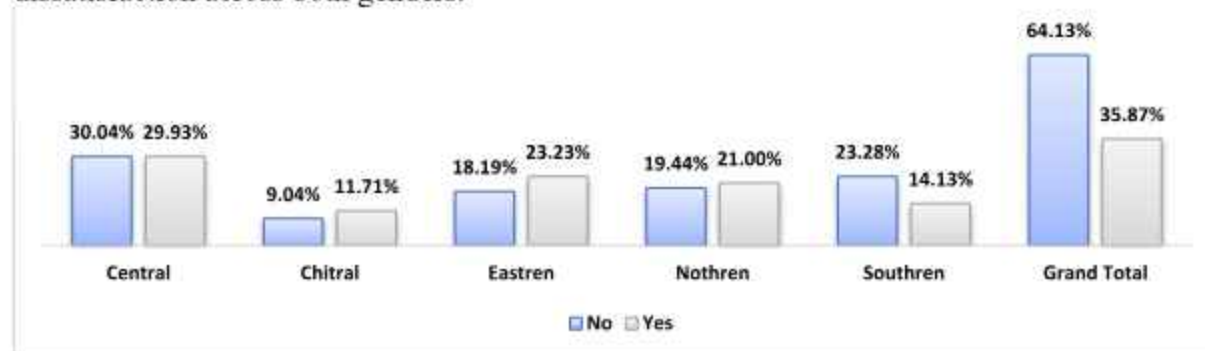
#### Gender

The data reveals differing perceptions of fairness in partnerships with private sector organizations, based on gender. Among female respondents, 30.35% feel that private sector organizations do not provide fair terms in partnerships, while 25.46% believe they do. This shows a slightly larger portion of females feel that private sector organizations offer unfair terms, though the gap is not very wide.

Male respondents have a higher percentage of belief in fair terms, with 74.54% indicating that private sector organizations provide fair terms in partnerships. However, 69.65% of males feel



the opposite, suggesting a significant portion also perceives unfairness in these partnerships. Looking at the grand total, 64.13% of respondents believe that private sector organizations do not provide fair terms, while 35.87% feel they do. This shows a clear majority perception of unfairness in terms offered by private sector organizations, with a stronger sense of dissatisfaction across both genders.



### Region

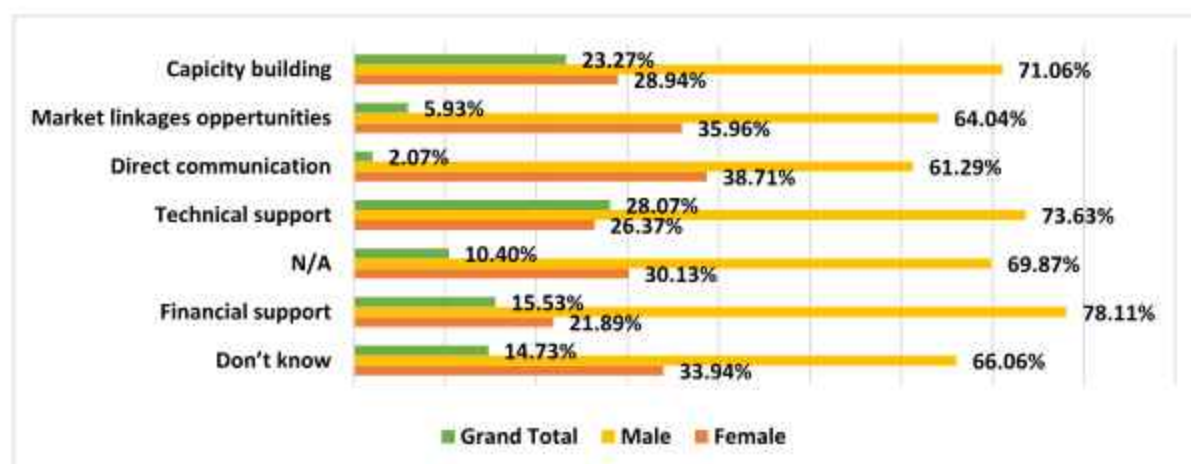
The data on whether private sector organizations provide fair terms in partnerships reveals regional differences in perception.

In the Central region, 30.04% of respondents feel that private sector organizations do not provide fair terms, while 29.93% feel that they do. This shows a close balance between the two responses, indicating that the Central region has mixed opinions on the fairness of partnerships with private sector organizations. In Chitral, the percentage of respondents who feel that the terms are unfair is much lower, at 9.04%, with 11.71% affirming that they find the terms fair. The low percentage of "No" responses in this region suggests a relatively positive view toward the fairness of private sector partnerships.

Eastern respondents show more skepticism, with 18.19% feeling that private sector organizations do not offer fair terms, while 23.23% believe the terms are fair. The perception in this region leans slightly towards fairness, but the gap between "No" and "Yes" responses is still notable. In the Northern region, 19.44% of respondents feel that private sector organizations do not provide fair terms, while 21% believe they do. The distribution of responses in this region indicates a slight sense of unfairness but with a somewhat positive perception of the private sector's terms.

Southern region respondents are the most negative, with 23.28% feeling that private sector organizations do not provide fair terms, and 14.13% affirming that they do. This indicates a relatively higher level of dissatisfaction with private sector partnerships in the Southern region. Overall, the grand total reveals that 64.13% of respondents across all regions feel that private sector organizations do not provide fair terms, while 35.87% believe they do. This suggests a general perception of unfairness in private sector partnerships, though there are regional variations, with Chitral showing the most positive perception and the Southern region the most negative.

### 69. How can private companies better support producers like you?



### Gender

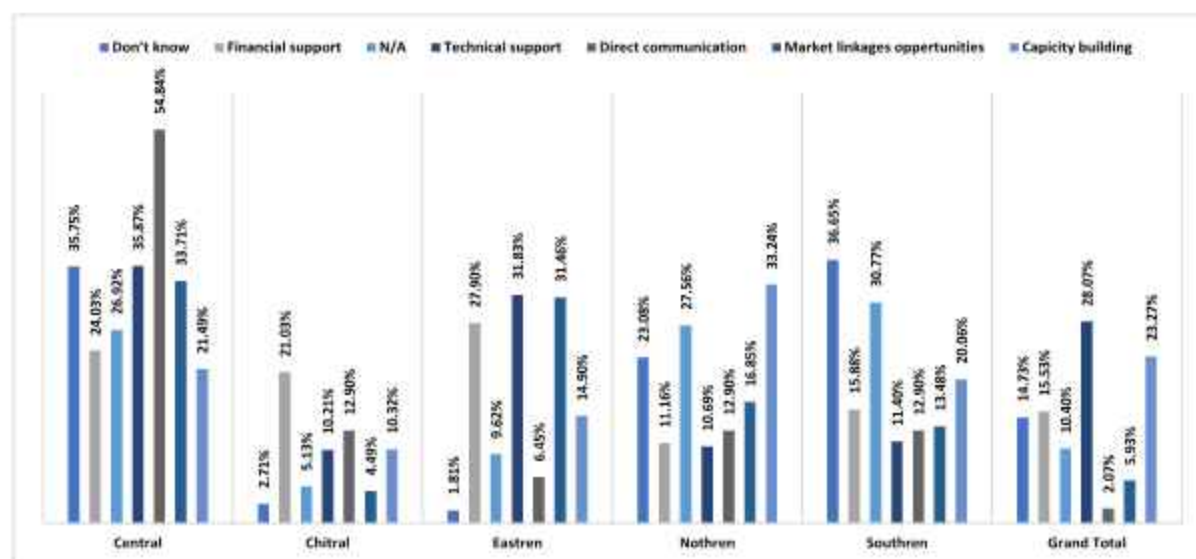
The data reveals various ways in which respondents believe private companies can better support producers, with noticeable differences based on gender. For the "Don't know" category, females make up 33.94% and males 66.06%, indicating that a higher proportion of females are uncertain about how private companies can assist producers. This could reflect a lack of clarity or awareness regarding the role of private companies in providing support.

In terms of financial support, females constitute 21.89% and males 78.11%, suggesting that males are more likely to believe that financial resources are crucial for producer support. This emphasizes the importance of financial assistance from private companies, particularly for male respondents. The N/A (Not Applicable) category shows 30.13% females and 69.87% males. This disparity may imply that certain types of support are perceived as irrelevant or unnecessary to a higher proportion of female respondents, or that they do not see a need for these particular forms of assistance.

For technical support, 26.37% of females and 73.63% of males emphasize its importance. This reflects a stronger preference among males for technical expertise and resources that private companies can provide to improve production processes. In the case of direct communication, 38.71% of females and 61.29% of males think it's important, though it is relatively less prioritized overall, as seen in the grand total of 2.07%. Despite this, females appear to place a slightly higher emphasis on the need for clear and effective communication with private companies.

When it comes to market linkages and opportunities, 35.96% of females and 64.04% of males view it as a key area where private companies could provide better support. Though this is a significant point for both genders, the total percentage of 5.93% indicates that market access and networking opportunities are not universally seen as critical by all respondents. For capacity building, 28.94% of females and 71.06% of males see this as an area for improvement. Like technical support, capacity building is considered a priority by males, with 23.27% of respondents in total seeing it as a vital area for private company involvement. Overall, the data suggests that males are more focused on financial and technical support, while females show more uncertainty and a slightly higher emphasis on direct communication. Both genders seem to value capacity building, but there is less consensus on market linkages and opportunities.





## Region

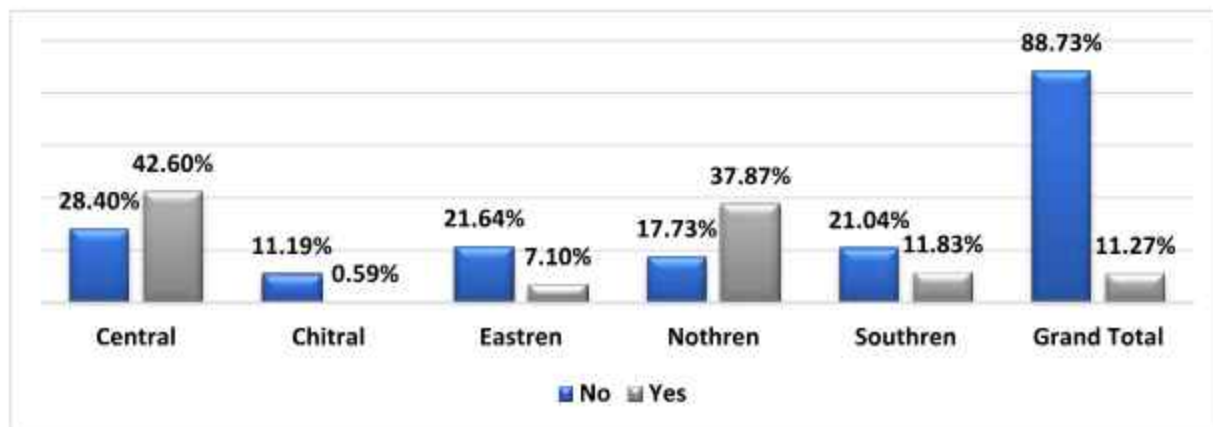
The data shows various perspectives on how private companies can better support producers across different regions. For the "Don't know" category, the Central and Southern regions have the highest percentages at 35.75% and 36.65%, respectively, indicating significant uncertainty in these areas regarding how private companies can provide assistance. The Eastern region has the lowest percentage at 1.81%, suggesting greater clarity or awareness about the role of private companies.

Regarding financial support, the Central region stands out with 24.03%, while the Northern region has the lowest at 11.16%. The overall financial support percentage is 15.53%, with Central and Eastern regions expressing more reliance on financial resources from private companies compared to other regions. In the N/A (Not Applicable) category, the Central region again leads with 26.92%, while the Southern region has the highest percentage of 30.77%. This suggests that certain types of support are considered less relevant or necessary in these regions. The Eastern region has the lowest percentage at 5.13%, indicating that more respondents in this region consider these supports applicable to their needs.

For technical support, the Central region shows the highest percentage at 35.87%, while the Southern region has the lowest at 11.40%. This indicates a strong desire for technical expertise and resources in the Central region, with lesser emphasis in the Southern region. The overall total of 28.07% reflects a general interest in technical support across all regions. In terms of direct communication, the Central region again shows the highest priority at 54.84%, while the Southern and Eastern regions show lower percentages of 12.90%. Despite this, the grand total percentage is quite low at 2.07%, reflecting a relatively lesser overall prioritization of direct communication as a form of support from private companies.

Market linkages and opportunities are most important in the Central region with 33.71%, while the Southern region has a lower percentage of 13.48%. The overall percentage of 5.93% suggests that while market access is important to some respondents, it is not universally considered a critical area for support. Lastly, in capacity building, the Northern region shows the highest percentage at 33.24%, while the Eastern region has the lowest at 14.90%. The overall total of 23.27% indicates a general recognition of the need for capacity building, with Northern and Central regions placing more importance on it. In summary, the data reflects regional variations in how private companies can better support producers, with the Central region expressing the highest demand for multiple forms of support, while the Southern region shows less emphasis on financial, technical, and communication support.

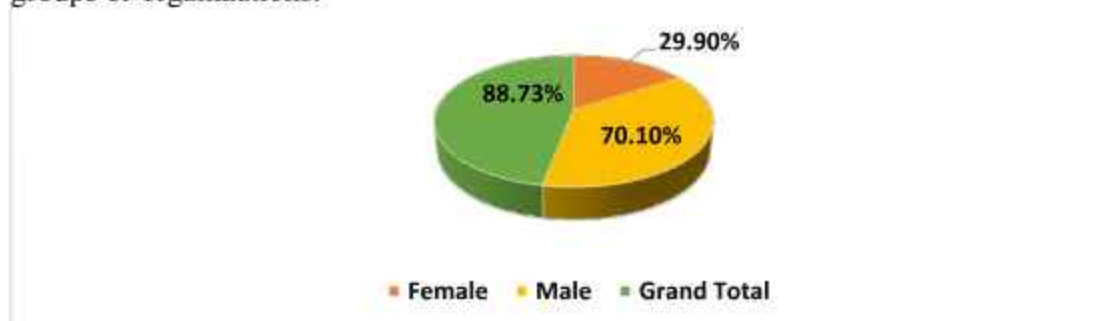
## 70. Are you part of any producer organization (e.g., cooperatives, associations, PFO, etc.)?



### Region wise

The data reveals the responses to the question of whether individuals are part of any producer organization. In the Central region, 42.60% of respondents are part of such an organization, which is the highest percentage among all regions. In contrast, the Chitral region shows the lowest percentage of 0.59%, indicating very few individuals are affiliated with any producer organization there. The Eastern region has 7.10%, and the Northern region has 37.87%, suggesting that a small proportion of respondents in these areas are involved in producer organizations. The Southern region shows 11.83%, indicating a modest level of involvement in producer groups compared to other regions.

In terms of those who are not part of any producer organization, the Central region has 28.40%, which is relatively low compared to other regions. The Chitral region again stands out with 11.19%, marking a higher proportion of non-affiliated respondents. The Eastern region has 21.64%, the Northern region has 17.73%, and the Southern region has 21.04%, suggesting that involvement in producer organizations is less common in these regions. Overall, 88.73% of respondents in total are not part of any producer organization, while 11.27% are involved. This highlights a general trend where a significant majority of producers are not engaged in formal groups or organizations.

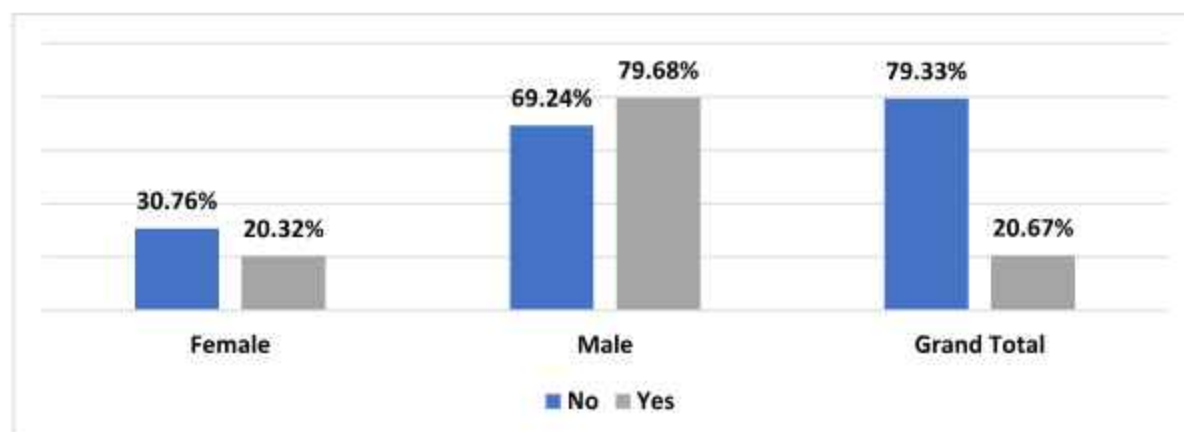


### Gender wise

The data shows gender-based differences in responses to the question of whether individuals are part of any producer organization. Among females, 18.34% are members of a producer organization, while 29.90% are not. For males, 81.66% are part of a producer organization, and 70.10% are not. Overall, a significant proportion of respondents (88.73%) are not involved in any producer organization, while 11.27% are. However, the data indicates that males are far more likely than females to be part of a producer organization, with males making up 81.66% of those who are members. In contrast, females represent only 18.34% of the members. This suggests that gender may play a role in the level of participation in producer organizations, with males showing greater involvement.

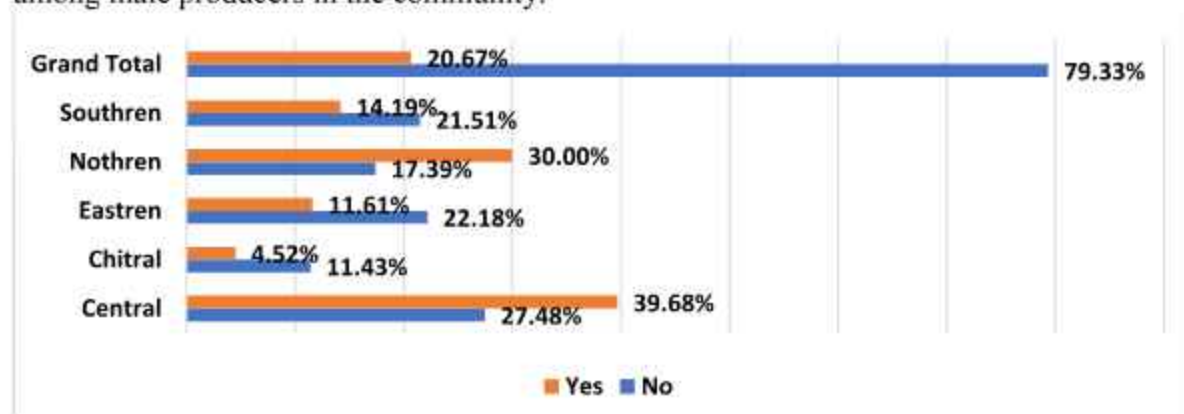
**71. Do producers in your community share resources (e.g., equipment, market spaces)?**





### Gender wise

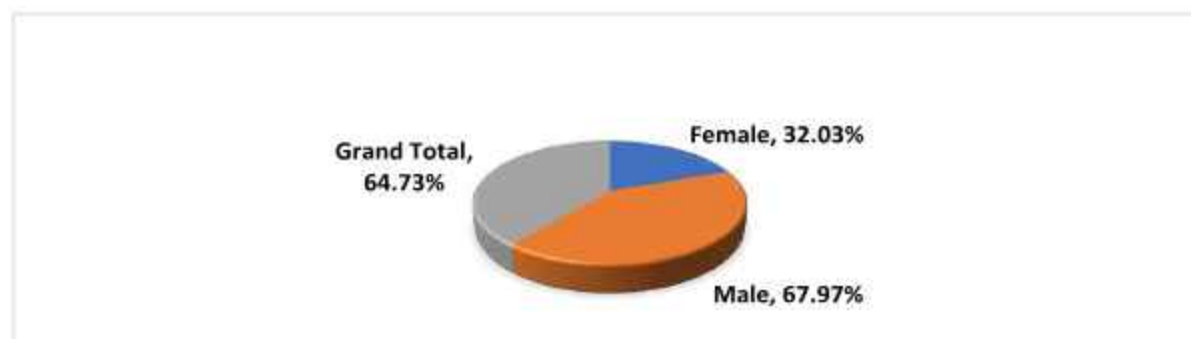
The data reveals the gender-based responses to the question of whether producers in the community share resources such as equipment or market spaces. Among females, 20.32% say that producers share resources, while 30.76% report they do not. For males, 79.68% indicate that producers share resources, while 69.24% say they do not. Overall, a significant portion of respondents (79.33%) report that producers do not share resources, while 20.67% affirm that sharing resources is common in their community. The data indicates a stark contrast between the genders, with males being much more likely (79.68%) to report sharing resources compared to females (20.32%). This suggests that resource-sharing practices may be more prevalent among male producers in the community.



### Region wise

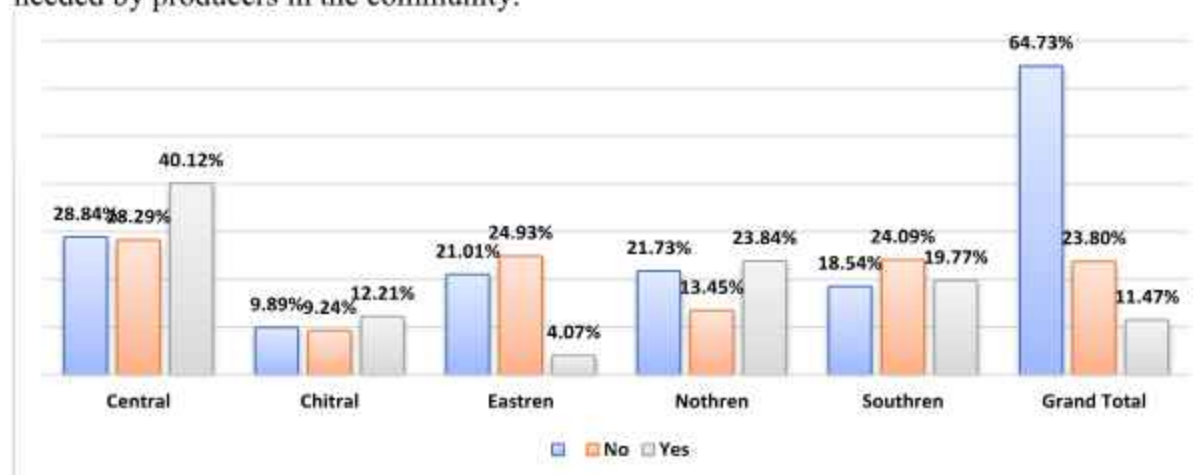
The data shows regional differences in responses to the question of whether producers in the community share resources such as equipment or market spaces. In the Central region, 39.68% of respondents affirm that producers share resources, while 27.48% say they do not. The Chitral region shows the lowest percentage of resource sharing at 4.52%, while 11.43% report that resources are not shared in the community. In the Eastern region, 11.61% say that resources are shared, and 22.18% say they are not. The Northern region has 30.00% of respondents indicating that resources are shared, with 17.39% saying they are not. The Southern region has 14.19% reporting that resources are shared, and 21.51% stating they are not shared. Overall, 79.33% of respondents across all regions report that producers do not share resources, while 20.67% believe that resource sharing is common. This highlights that resource sharing is relatively rare, but it does vary significantly across regions, with the Central and Northern regions showing more positive responses regarding resource sharing compared to other areas.

**72. What are the key skills or knowledge areas producers lack in your community?**



### Gender wise

The data shows gender-based responses to the question of what key skills or knowledge areas producers lack in the community. Among females, 20.93% indicate that producers lack skills or knowledge, while 22.97% say they do not. For males, 79.07% believe producers lack key skills or knowledge, while 77.03% say they do not. Overall, 64.73% of respondents feel that producers in their community lack certain skills or knowledge areas, while 23.80% do not think there is a significant gap. This suggests that a large proportion of respondents, particularly males, believe that there are substantial deficiencies in the skills or knowledge of producers. Males show a much higher percentage (79.07%) in identifying these gaps compared to females (20.93%), indicating a gender-based difference in perception regarding the skills or knowledge needed by producers in the community.



### Region wise

The data provides insights into regional variations in perceptions about the key skills or knowledge areas that producers in the community may lack. In the Central region, 40.12% of respondents believe that producers are lacking in important skills or knowledge, making it the region with the highest perception of skill deficiencies. Only 28.29% of respondents in this region do not think there are any significant gaps in skills or knowledge. In the Chitral region, a relatively small percentage (12.21%) acknowledge the lack of skills or knowledge among producers, with 9.24% of respondents believing that producers are adequately skilled. This suggests that producers in Chitral may be perceived as more knowledgeable or skilled compared to those in other regions. The Eastern region shows the lowest perception of skill deficiencies, with only 4.07% of respondents indicating that producers lack skills or knowledge, while 24.93% say that there is no perceived lack. This could indicate that producers in the Eastern region are seen as relatively well-equipped in terms of their skills or knowledge, or there may be a different perception of what constitutes a gap in skills.

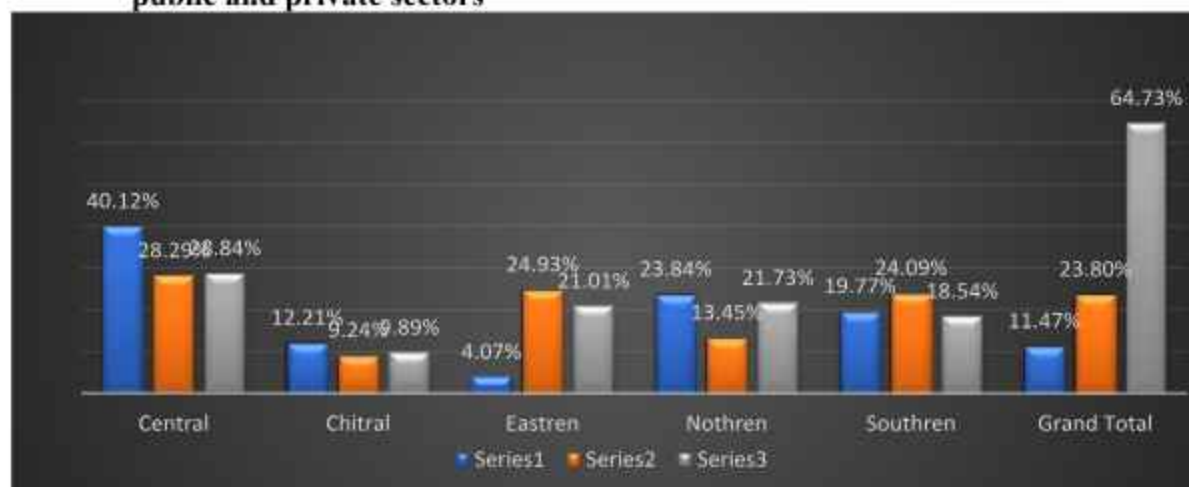
In the Northern region, 23.84% of respondents feel that producers lack essential skills or knowledge, while 13.45% believe there is no significant deficiency. This region reflects a moderate perception of skill gaps, which is more pronounced compared to the Eastern and



Chitral regions but less so than in the Central region. The Southern region shows 19.77% of respondents indicating that producers lack certain skills or knowledge, with 24.09% saying there is no notable gap. The Southern region, like the Northern region, has a somewhat moderate perception of skill deficiencies, although it's still less significant than in the Central region.

Overall, 64.73% of respondents across all regions believe that producers lack key skills or knowledge areas, while 23.80% feel there is no such lack. The Central region stands out with the highest percentage (40.12%) identifying gaps in skills or knowledge, suggesting that producers in this area may face more challenges in acquiring or applying the necessary skills. On the other hand, the Eastern region, with only 4.07% seeing deficiencies, suggests that producers there are generally perceived as well-equipped, or perhaps the skills they possess are viewed as sufficient for their needs. This data highlights the regional differences in how producers' capabilities are perceived, with some regions (like Central and Northern) recognizing greater gaps in knowledge and others (like Eastern and Chitral) seeing fewer deficiencies.

**73. Do you feel producers are adequately represented in partnerships with the public and private sectors**



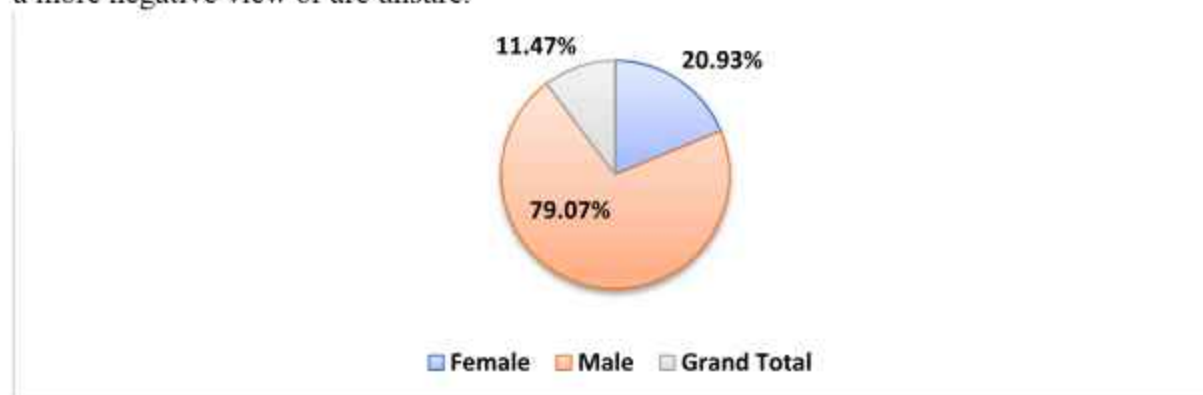
**Region wise**

The data presents regional perceptions regarding the representation of producers in partnerships with the public and private sectors. In the Central region, 40.12% of respondents feel that producers are adequately represented in these partnerships, while 28.29% disagree, and 28.84% of respondents neither agree nor disagree, indicating uncertainty or a neutral stance. This suggests that, while there is a relatively high percentage of respondents in the Central region who feel producers are well represented, there is still a considerable portion who feel otherwise or are unsure. In Chitral, only 12.21% believe that producers are adequately represented in such partnerships, while 9.24% feel they are not represented, and 9.89% remain neutral. This indicates that Chitral has a significant proportion of respondents who do not believe in adequate representation, though a small percentage remains uncertain.

The Eastern region shows the lowest percentage of those who feel producers are adequately represented (4.07%), with 24.93% believing they are not, and 21.01% of respondents remaining neutral. This suggests that there is a strong perception in the Eastern region that producers are underrepresented in partnerships with both sectors. In the Northern region, 23.84% of respondents believe in adequate representation, while 13.45% do not, and 21.73% are uncertain. This shows a moderate level of belief in proper representation, but a significant portion remains unsure or believes producers are not adequately represented. The Southern region has 19.77% of respondents who think producers are adequately represented, 24.09% who think they are not, and 18.54% who are uncertain. The relatively higher percentage of

respondents who feel producers are not adequately represented reflects a degree of dissatisfaction or concern in this region.

Overall, 64.73% of respondents across all regions express uncertainty or a neutral stance on whether producers are adequately represented in partnerships with the public and private sectors, with 23.80% feeling producers are not well represented, and only 11.47% believing they are. This indicates a general sense of doubt or dissatisfaction regarding the representation of producers, with only a small portion feeling positively about their involvement in such partnerships. The variation between regions suggests that some areas, like Central, show more confidence in producer representation, while others, such as Eastern and Southern regions, have a more negative view or are unsure.



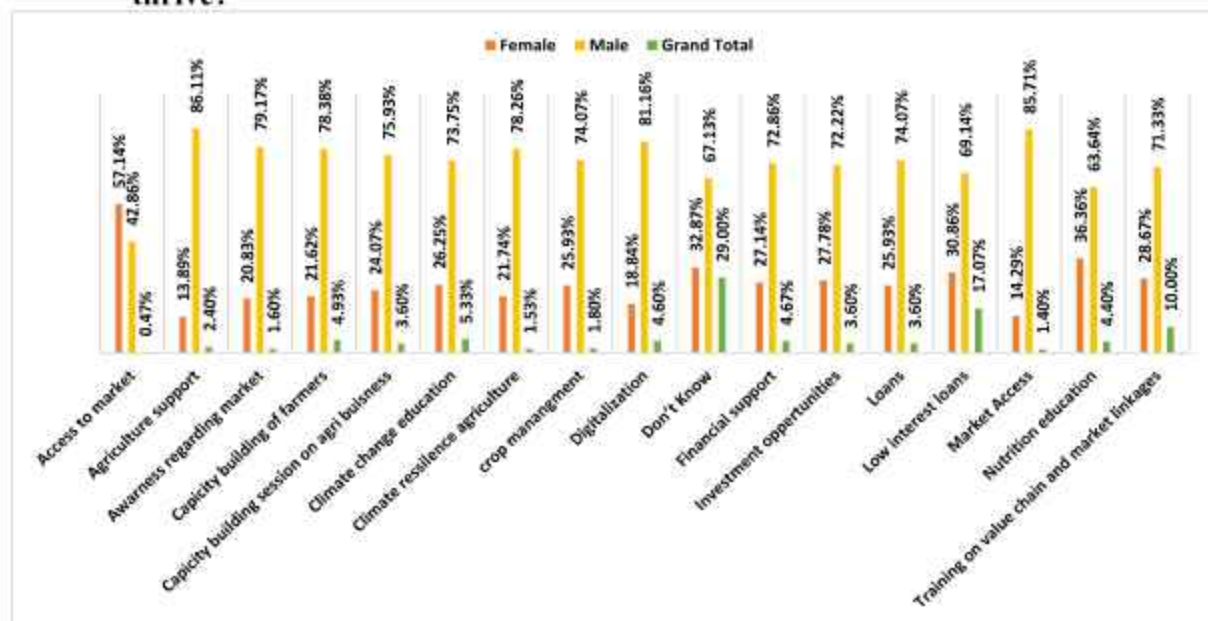
#### **Gender wise**

The data highlights gender-based perspectives on whether producers are adequately represented in partnerships with the public and private sectors. Among females, 20.93% believe that producers are adequately represented, while 22.97% feel they are not, and 32.03% remain neutral or uncertain. This suggests that a relatively small percentage of females perceive adequate representation, while a larger portion either disagrees or is unsure.

For males, 79.07% believe that producers are adequately represented, whereas 77.03% feel they are not, and 67.97% remain neutral. The data indicates that males have a stronger opinion on this issue, whether positive or negative, compared to females. Overall, 64.73% of respondents across both genders are uncertain or neutral regarding producer representation in partnerships with the public and private sectors. Meanwhile, 23.80% feel that producers are not adequately represented, and only 11.47% believe they are. This suggests a general lack of confidence in producer representation, with a significant proportion of respondents, particularly females, showing uncertainty on the issue.



#### 74. What additional support or opportunities do you think producers need to thrive?



#### Gender wise

The data highlights gender-based perspectives on the additional support or opportunities that producers need to thrive.

Access to markets is identified as a need by a very small percentage (0.47%), with 57.14% of those respondents being female and 42.86% male. Similarly, market access is also recognized as a need by 1.40% of respondents, with 85.71% of them being male, indicating that males are more focused on market-related challenges. Agriculture support is seen as a crucial need by 2.40% of respondents, with 86.11% of them being male. Likewise, awareness regarding markets is emphasized by 1.60% of respondents, with 79.17% being male, suggesting that men see a greater need for agricultural and market-related knowledge.

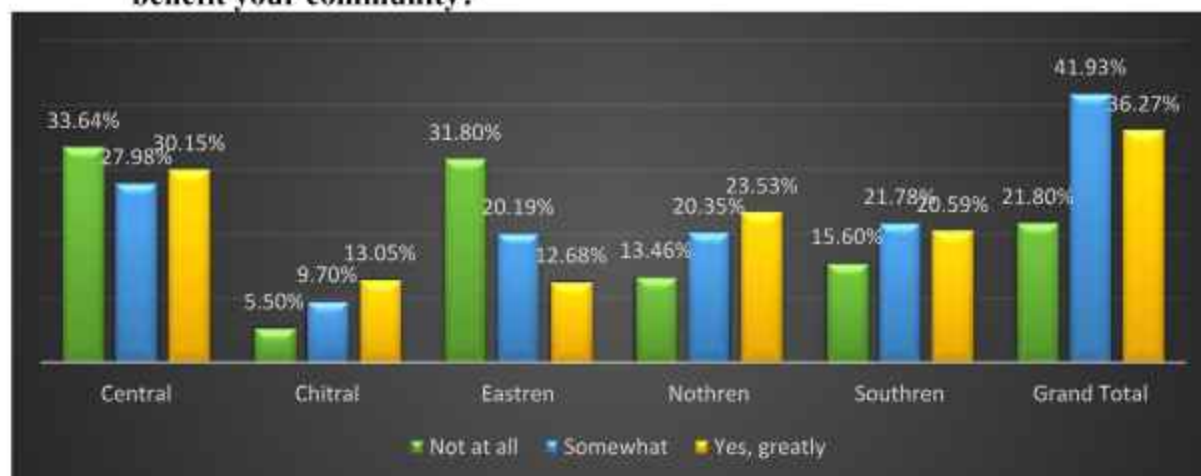
Capacity building of farmers is highlighted by 4.93% of respondents, with 78.38% male and 21.62% female. Similarly, capacity-building sessions on agribusiness are needed by 3.60% of respondents, with 75.93% male and 24.07% female. This suggests that men see a greater need for skill development and business-oriented training. Climate change education is identified as a need by 5.33% of respondents, with 73.75% male and 26.25% female. Climate-resilient agriculture is noted by 1.53%, with 78.26% male and 21.74% female, showing that men are more inclined to see a need for climate-related agricultural solutions.

Crop management is identified as a requirement by 1.80% of respondents, with 74.07% male and 25.93% female. Digitalization is noted by 4.60% of respondents, with 81.16% male and 18.84% female, suggesting that men see a greater need for technology integration in agriculture. A significant portion (29.00%) of respondents are unsure about what support is needed, with 67.13% male and 32.87% female, indicating a lack of awareness about potential opportunities.

Financial support is identified as a need by 4.67% of respondents, with 72.86% male and 27.14% female. Investment opportunities are seen as necessary by 3.60%, with 72.22% male and 27.78% female. Loans are recognized by 3.60%, with 74.07% male and 25.93% female. Low-interest loans are a more prominent concern, identified by 17.07% of respondents, with 69.14% male and 30.86% female. This suggests that financial access, particularly low-interest loans, is a key concern among producers. Nutrition education is highlighted by 4.40% of respondents, with 63.64% male and 36.36% female, showing that women have a slightly stronger interest in this area compared to other categories.

Training on value chains and market linkages is seen as necessary by 10.00% of respondents, with 71.33% male and 28.67% female, reflecting the importance of improving market connectivity. Overall, the data suggests that men are more likely to emphasize financial support, market access, agricultural support, and digitalization, while women show a slightly stronger preference for nutrition education and access to markets. The high percentage of respondents who are unsure (29.00%) also highlights the need for greater awareness of available opportunities.

**75. Do you think collaborations between public, private, and producer organizations benefit your community?**



**Region wise**

The data provides regional insights into perceptions regarding the benefits of collaborations between public, private, and producer organizations in the community. In the Central region, 33.64% of respondents believe these collaborations do not benefit their community at all, 27.98% think they are somewhat beneficial, and 30.15% feel they are greatly beneficial. This suggests a fairly divided opinion, with a significant portion skeptical about the impact of such collaborations.

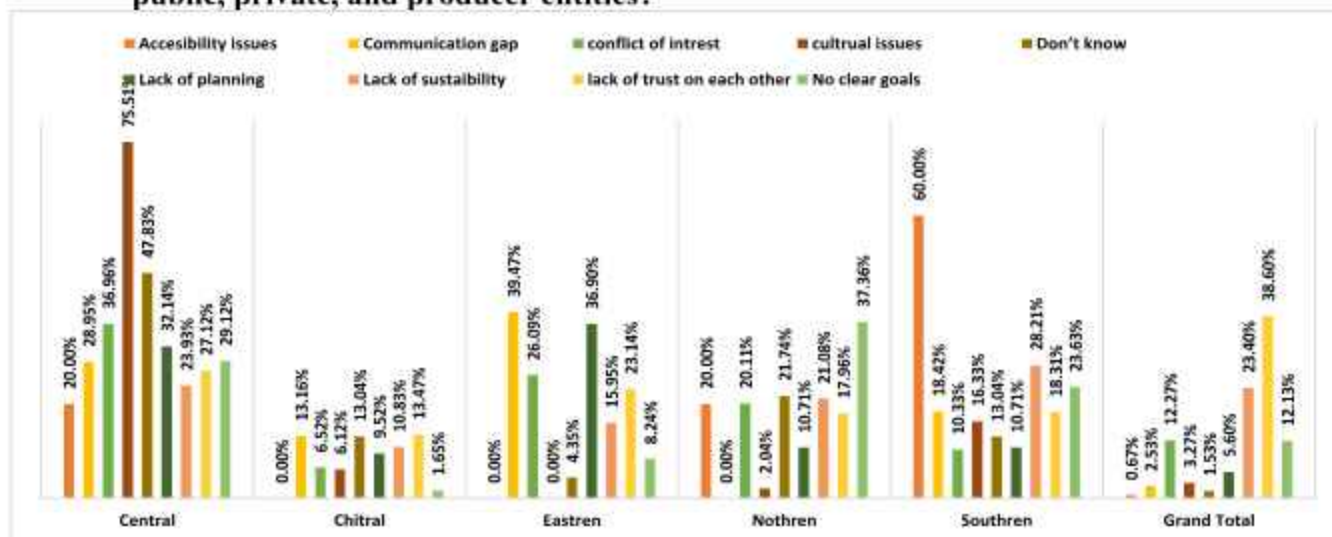
Chitral has the lowest percentage of respondents (5.50%) who think collaborations do not benefit their community, while 9.70% see some benefits, and 13.05% believe they are greatly beneficial. This indicates a generally positive view of these collaborations compared to other regions. In the Eastern region, 31.80% feel these collaborations are not beneficial, 20.19% think they provide some benefits, and 12.68% believe they are greatly beneficial. A high percentage of skepticism suggests that many in this region do not perceive strong advantages from these partnerships.

The Northern region shows 13.46% of respondents who do not see any benefit, 20.35% who think there is some benefit, and 23.53% who believe these collaborations are greatly beneficial. The relatively high percentage of positive responses suggests a more favorable view of these partnerships. In the Southern region, 15.60% do not see any benefit, 21.78% think the collaborations are somewhat beneficial, and 20.59% believe they are greatly beneficial. This region presents a balanced perspective with a significant number of respondents acknowledging benefits.

Overall, 21.80% of respondents do not think these collaborations are beneficial at all, while 41.93% believe they are somewhat beneficial, and 36.27% see great benefits. The data suggests that while many recognize some advantages, there is still a notable portion of the population that remains unconvinced about the effectiveness of these collaborations. The variation in responses across regions highlights differences in how these partnerships are perceived and their impact at the local level.



**76. What challenges do you see in establishing or maintaining partnerships among public, private, and producer entities?**



**Region wise**

The data highlights various challenges in establishing or maintaining partnerships among public, private, and producer entities, with noticeable regional differences in perceived obstacles. Accessibility issues are primarily reported in the Southern (60.00%) and Central (20.00%) regions, indicating that geographic or infrastructural constraints may be significant barriers in these areas. Communication gaps are most prominent in the Eastern region (39.47%), followed by Central (28.95%), Southern (18.42%), and Chitral (13.16%). The absence of reported communication issues in the Northern region suggests that this might be a lesser concern there.

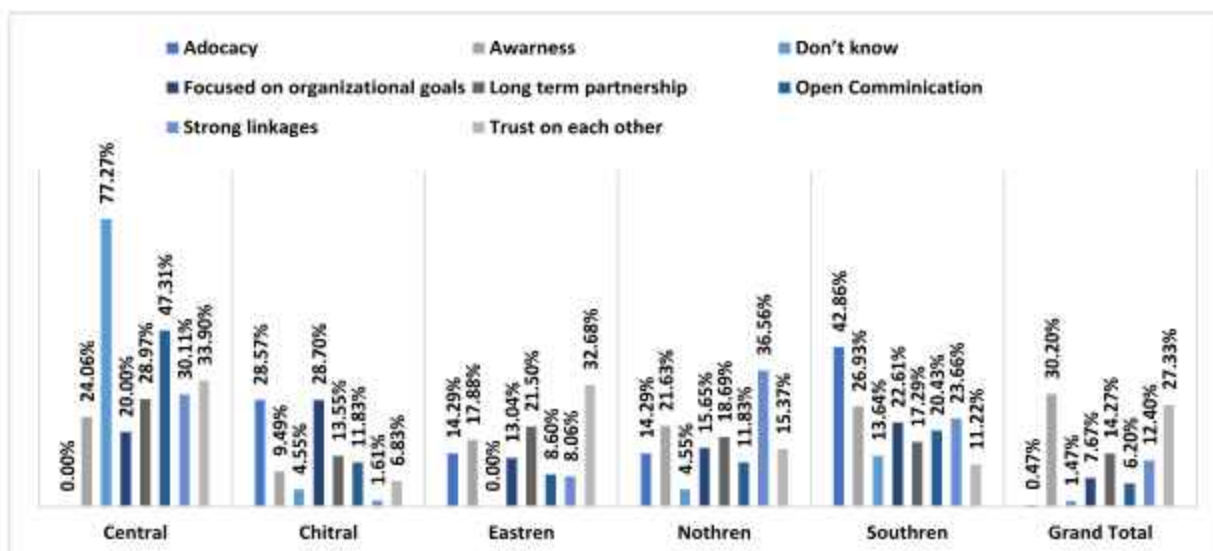
Conflicts of interest are seen as a challenge by 36.96% in the Central region, 26.09% in the Eastern region, 20.11% in the Northern region, and lower percentages in Chitral (6.52%) and Southern (10.33%). This indicates that differing priorities and competing interests may be a considerable barrier, particularly in Central and Eastern regions. Cultural issues are a significant concern in the Central region (75.51%), suggesting that cultural norms or practices may impact collaboration. The Southern region also reports this at 16.33%, but other regions have much lower percentages.

A lack of awareness about partnership challenges is notable in Central (47.83%) and Northern (21.74%), with a smaller proportion in Chitral (13.04%) and Southern (13.04%). The Eastern region has the lowest percentage (4.35%), indicating that respondents there may be more aware of existing challenges. Lack of planning is highlighted in Eastern (36.90%) and Central (32.14%), suggesting that inadequate strategic planning may be a key barrier. The Northern and Southern regions both report 10.71%, while Chitral shows a lower concern (9.52%). Sustainability issues are identified by 28.21% in the Southern region, 23.93% in Central, 21.08% in Northern, 15.95% in Eastern, and 10.83% in Chitral. This suggests that ensuring long-term viability of partnerships is a widespread concern. Lack of trust among stakeholders is the most commonly reported challenge overall (38.60%), with notable concern in Central (27.12%), Eastern (23.14%), Northern (17.96%), Southern (18.31%), and Chitral (13.47%). This highlights that mutual trust is a key factor in sustaining partnerships.

The absence of clear goals is reported by 37.36% in Northern, 29.12% in Central, 23.63% in Southern, 8.24% in Eastern, and 1.65% in Chitral. This suggests that a lack of shared vision and objectives is a major barrier in the Northern and Central regions. Overall, trust issues, lack of sustainability, and conflicts of interest emerge as major concerns across regions, while

cultural challenges and accessibility issues are more pronounced in specific areas. Addressing these barriers could significantly enhance collaboration and effectiveness in partnerships

#### 77. What would make partnerships between public, private, and producer entities



more effective?

#### Region wise

The data provides insights into factors that could enhance the effectiveness of partnerships between public, private, and producer entities, with varying regional perspectives. Advocacy is highlighted in the Southern region (42.86%), followed by Chitral (28.57%), Eastern and Northern (both 14.29%). However, its overall importance remains low (0.47%), indicating that while some regions value advocacy, it is not a widespread priority. Awareness is seen as crucial by 30.20% of respondents, with the highest emphasis in the Southern region (26.93%), followed by Central (24.06%), Northern (21.63%), Eastern (17.88%), and Chitral (9.49%). This suggests that better knowledge-sharing and awareness campaigns could strengthen partnerships.

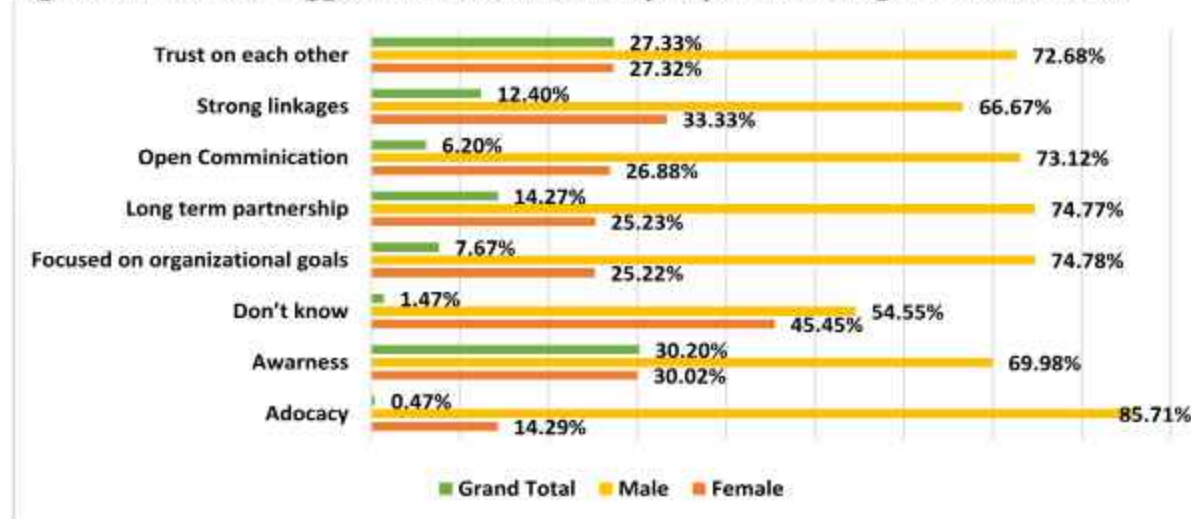
A lack of knowledge about effective partnerships is most pronounced in Central (77.27%), while smaller proportions in Chitral (4.55%), Northern (4.55%), and Southern (13.64%) report uncertainty. Eastern has no responses in this category, indicating that respondents there may have a clearer understanding of partnership needs. Focusing on organizational goals is emphasized by 7.67% of respondents, with the highest concentration in Chitral (28.70%), followed by Southern (22.61%), Central (20.00%), Northern (15.65%), and Eastern (13.04%). This suggests that ensuring alignment with institutional goals is more relevant in some regions than others.

Long-term partnerships are prioritized by 14.27% overall, with the highest emphasis in Central (28.97%), followed by Eastern (21.50%), Northern (18.69%), Southern (17.29%), and Chitral (13.55%). This reflects a strong need for sustainable collaboration structures. Open communication is reported as an essential factor by 6.20% of respondents, with Central showing the highest preference (47.31%), followed by Southern (20.43%), Chitral and Northern (both 11.83%), and Eastern (8.60%). This indicates that clear communication is a key requirement, particularly in Central.

Strong linkages between entities are highlighted by 12.40% overall, with Northern (36.56%) showing the greatest need, followed by Central (30.11%), Southern (23.66%), Eastern (8.06%), and Chitral (1.61%). This suggests that strengthening networks and cooperation is especially critical in Northern and Central regions. Trust among partners is considered one of the most



vital factors (27.33%), with strong emphasis in Central (33.90%) and Eastern (32.68%). Northern (15.37%), Chitral (6.83%), and Southern (11.22%) report lower concern, but still acknowledge the importance of mutual trust. Overall, trust, awareness, long-term partnerships, and open communication emerge as the most critical factors in improving partnerships, while regional differences suggest that certain areas may require more targeted interventions.



#### Gender wise

Advocacy is recognized as a factor by only 0.47% of respondents, with 85.71% male and 14.29% female representation. This indicates that while some see advocacy as important, it is not widely considered a priority. Awareness is the most emphasized factor, with 30.20% of respondents identifying it as crucial. 69.98% male and 30.02% female respondents highlight the need for better awareness programs, suggesting that enhanced knowledge-sharing and education could strengthen partnerships. Uncertainty about effective partnerships is observed in 1.47% of respondents, with 45.45% female and 54.55% male expressing a lack of clarity. This suggests that some producers may require further guidance on partnership dynamics. Focusing on organizational goals is valued by 7.67% of respondents, with 74.78% male and 25.22% female. This implies that ensuring clear objectives and structured collaboration is seen as more relevant by male respondents. Long-term partnerships are considered essential by 14.27%, with 74.77% male and 25.23% female. The emphasis on sustainable, enduring collaborations reflects the need for stability in these relationships. Open communication is identified as a necessary factor by 6.20%, with 73.12% male and 26.88% female respondents. This suggests that transparent dialogue and better communication channels could enhance cooperation. Strong linkages between entities are considered crucial by 12.40%, with 66.67% male and 33.33% female. This highlights the need for better networking and collaboration efforts. Trust among partners is one of the most important factors, emphasized by 27.33% of respondents. 72.68% male and 27.32% female believe that mutual trust is a fundamental element in building stronger partnerships. Awareness (30.20%) and trust (27.33%) emerge as the most critical factors. Long-term partnerships (14.27%) and strong linkages (12.40%) are also significant in ensuring stability. Open communication (6.20%) and focus on organizational goals (7.67%) could enhance collaboration. Gender perspectives show that men prioritize structured approaches, while women emphasize awareness and trust. A small percentage (1.47%) remains uncertain, indicating a need for education on the benefits of partnerships. The findings suggest that strengthening awareness, trust, and long-term commitment while improving communication and structured collaboration could significantly enhance partnerships between public, private, and producer entities.

#### Qualitative insights

##### Public-Private Internship Programs: Preparing the Next Generation

Internship programs have the potential to equip young graduates with critical skills and hands-on experience in government policies, administrative procedures, and fieldwork. These programs can serve as a gateway to employment by fostering professional networks and enhancing career prospects. In the context of agribusiness development, structured internship initiatives can play a crucial role in establishing agribusiness services, expanding infrastructure schemes, and strengthening capacity-building efforts through public-private partnerships (PPP).

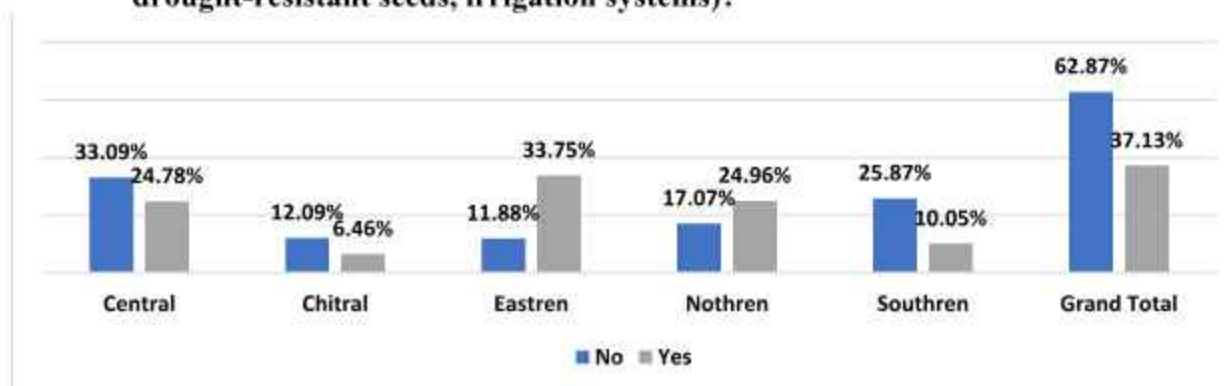
Despite their potential, the implementation of internship programs faces significant challenges, including inadequate funding, lack of structured training, and bureaucratic inefficiencies. Many programs also fail to integrate job placement opportunities, limiting their long-term impact on workforce development and economic growth.

To enhance the effectiveness of these programs, it is essential to prioritize structured training, mentorship, and industry engagement. Increased funding, stipends, and stronger linkages with agribusiness industries can create more robust employment pathways. Additionally, the establishment of PPP initiatives can facilitate the development of essential infrastructure, agribusiness incubation centers, and skill development hubs, ensuring that young professionals gain practical exposure to industry-specific challenges and innovations.

By fostering collaboration between the public and private sectors, these internship programs can contribute to sustainable economic growth and employment generation. Ensuring that interns are actively engaged in meaningful projects, provided with structured guidance, and connected to viable career opportunities will result in a more skilled, competitive, and employable workforce ready to contribute to the agribusiness and industrial sectors.

## Section 7: Climate Change & Environment:

**78. Do you use any climate-resilient farming techniques (e.g., crop rotation, drought-resistant seeds, irrigation systems)?**



### Region-wise climate-resilient farming techniques

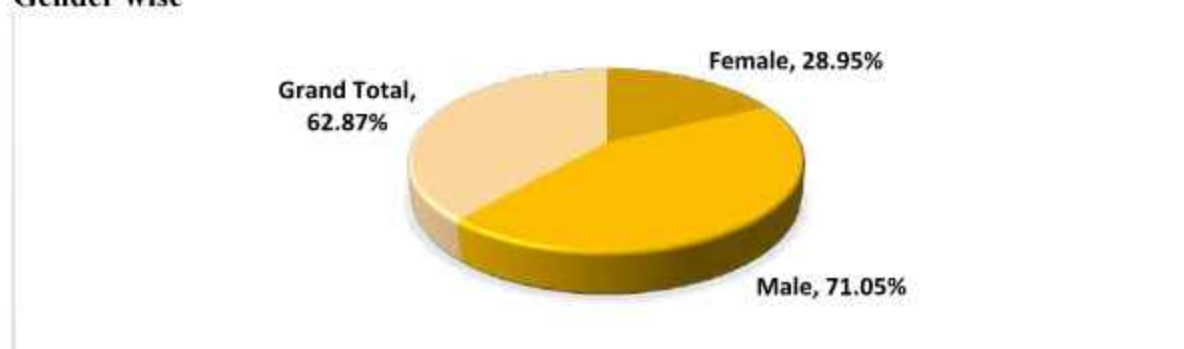
The data indicates that a significant majority (62.87%) of respondents do not use climate-resilient farming techniques, suggesting that traditional farming methods still dominate or that awareness and accessibility of these techniques remain limited. The lack of adoption could be due to several factors, including limited knowledge, financial constraints, or insufficient support from agricultural extension services. Regionally, the highest proportion of respondents who do not use climate-resilient farming techniques is in the Southern region (25.87%), followed by the Central (33.09%) and Northern (17.07%) regions. The Eastern and Chitral regions have comparatively lower percentages, with 11.88% and 12.09%, respectively, not adopting such techniques.



On the other hand, 37.13% of respondents report using climate-resilient farming techniques. The highest adoption rate is observed in the Eastern region (33.75%), suggesting that there may be greater exposure to or promotion of these techniques in that area. The Northern region also has a relatively higher percentage (24.96%) of respondents using these methods, indicating that farmers here may be more aware of or have access to climate-resilient practices. The Central region, with 24.78% of respondents adopting these techniques, follows closely behind. In contrast, the Southern region has the lowest adoption rate, with only 10.05% of respondents using climate-resilient methods, despite having the highest percentage of farmers not using them. This could indicate barriers such as lack of resources, knowledge, or institutional support for promoting sustainable farming practices. Chitral also has a notably low adoption rate (6.46%), which may be due to geographical challenges, limited infrastructure, or less exposure to agricultural innovations.

Overall, the data highlights a significant gap in the adoption of climate-resilient farming techniques, particularly in the Southern and Chitral regions. While some regions, like Eastern and Northern, show relatively higher adoption rates, there is a clear need for targeted interventions, awareness campaigns, and support programs to enhance the use of sustainable agricultural practices across all regions. Increasing access to training, financial support, and demonstration projects could help bridge this gap and promote resilience in farming communities.

#### Gender wise



#### Gender-wise climate-resilient farming techniques

The data indicates that 62.87% of respondents do not use climate-resilient farming techniques, while 37.13% report that they do. When disaggregated by gender, the distribution shows that male respondents dominate both categories, but the proportions between genders remain relatively consistent across usage and non-usage. Among those who do not use climate-resilient practices, 71.05% are male, while 28.95% are female. Similarly, among those who do use such techniques, 71.99% are male and 28.01% are female. This slight variation suggests that gender does not appear to be a significant determining factor in the adoption of climate-resilient farming practices, as both men and women exhibit similar patterns of adoption.

The consistent proportion of female respondents across both categories implies that women are participating in farming decisions and practices at rates that align with their representation in the overall agricultural community, at least within this dataset. However, the overall lower percentage of female respondents in both groups could reflect broader gender dynamics in agriculture, where men are often more directly involved in field operations or recorded as landowners. The data highlights that while male farmers are more prevalent in both groups—likely due to their higher representation in agriculture overall—the adoption rate among women

mirrors that of men. Therefore, gender-inclusive approaches remain essential, but there may not be a need to differentiate messaging or interventions drastically based on gender alone.

Efforts to increase adoption of climate-resilient farming practices should ensure that both men and women have equal access to resources, training, and support systems. Special attention may still be needed to overcome any hidden gender-specific barriers, such as access to credit, land ownership, or extension services, which may not be fully captured in this dataset.

## ANOVA results

### ANOVA

Region

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	89.229	7	12.747	5.684	.000
Within Groups	3345.771	1492	2.242		
Total	3435.000	1499			

An ANOVA test was conducted to check if there were significant differences among regions. The analysis showed an F-value of 5.684 and a p-value of 0.000. Since the p-value is less than 0.05, it means the differences between regions are statistically significant. This suggests that the variable being studied is influenced by regional differences. The region-wise variance is mentioned as under;

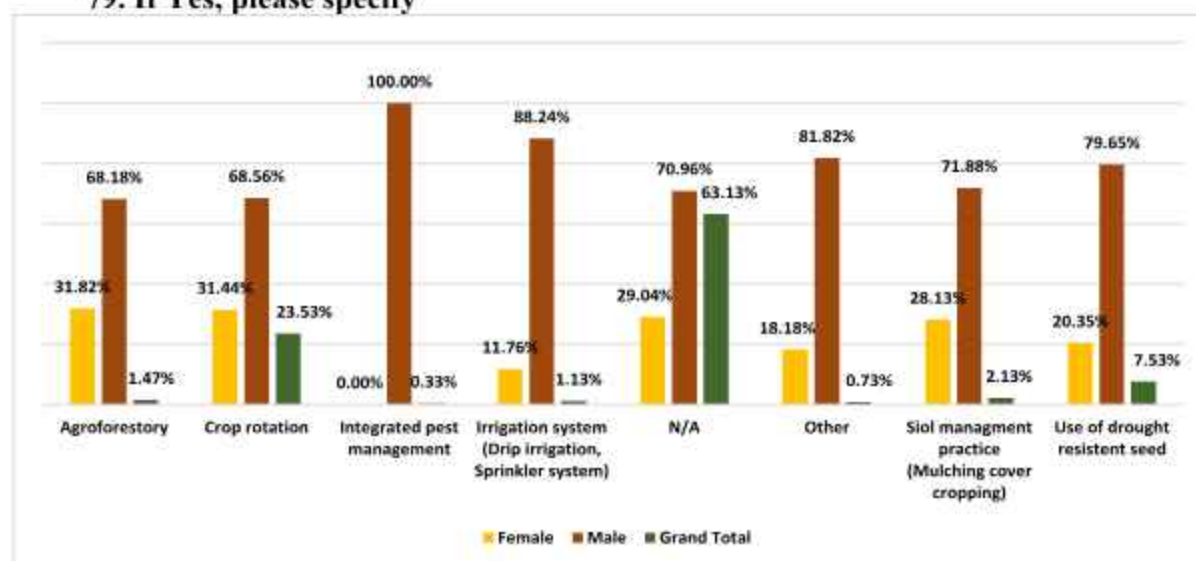


## Descriptives

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Crop rotation	353	3.1388	1.04474	.05561	3.0294	3.2482	1.00	5.00
Use of drought-resistant seed	113	2.5310	1.59279	.14984	2.2341	2.8279	1.00	5.00
Irrigation system (Drip irrigation, Sprinkler system)	17	1.8235	1.38000	.33470	1.1140	2.5331	1.00	5.00
Soil management practice (Mulching, cover cropping)	32	2.9688	1.46979	.25982	2.4388	3.4987	1.00	5.00
Agroforestry	22	2.0909	1.41115	.30086	1.4652	2.7166	1.00	5.00
Integrated pest management	5	1.0000	.00000	.00000	1.0000	1.0000	1.00	1.00
Other	11	2.5455	1.86353	.56187	1.2935	3.7974	1.00	5.00
N/A	947	2.9050	1.62676	.05286	2.8012	3.0087	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

### 79. If Yes, please specify



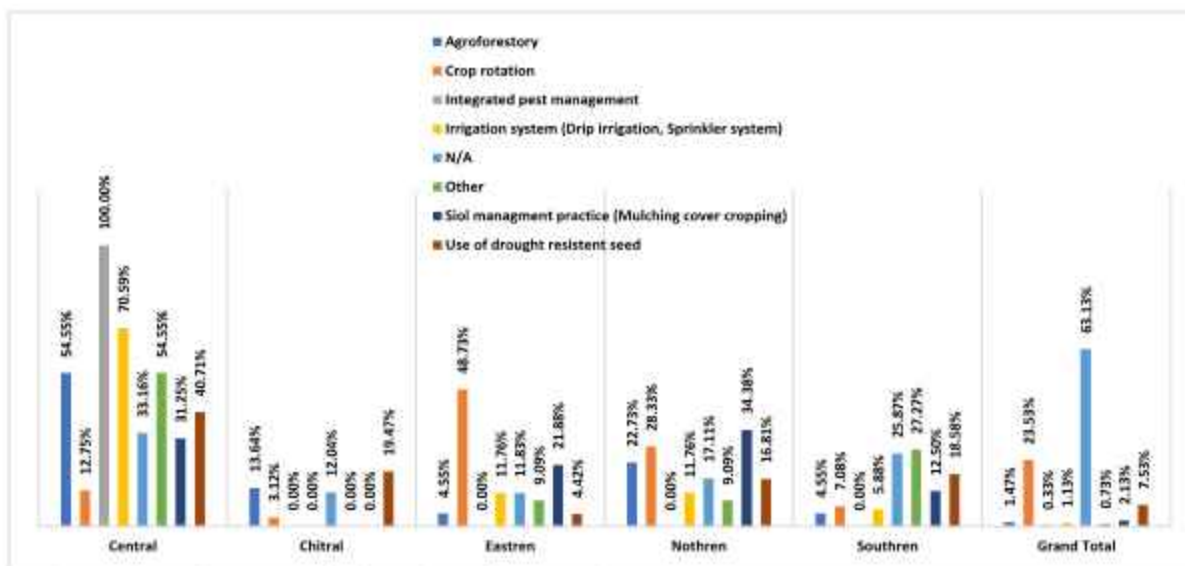
### Gender-wise climate-resilient farming techniques

The data presents a gender-disaggregated view of respondents who specified the types of climate-resilient farming techniques they use after indicating “Yes” to adopting such practices. While exact practices are not detailed, the percentages reflect gender participation across different subgroups or categories of techniques.

Overall, male respondents account for the majority in all categories, with their representation ranging from 68.18% to 100%. This trend suggests that men are more likely to articulate or report the specific types of climate-resilient farming methods they use, possibly reflecting broader gender dynamics in agricultural knowledge sharing and access. The highest female participation is observed in one category, where 31.82% of the respondents are female. Other relatively high female response rates appear in categories with 31.44% and 29.04% female participation, indicating that women are actively engaging in certain types of climate-resilient practices and are willing to report them when provided the opportunity. However, one category shows 0% female representation, with 100% of responses coming from men. This stark imbalance may reflect limited female involvement in that specific type of practice, or it could be due to systemic barriers such as restricted access to resources, lack of training, or sociocultural limitations on women’s visibility in agriculture.

The largest category by total share (63.13%) shows 29.04% female participation, suggesting that women are indeed involved in the most commonly specified practices, though their participation remains lower than that of men. Similarly, in a category representing 7.53% of the total responses, 20.35% were female, showing that female involvement is not absent but is consistently lower. These findings highlight a clear gender gap in the articulation and reporting of climate-resilient techniques, though not necessarily in adoption alone. Women may be underrepresented in reporting due to a variety of factors, including lack of confidence, limited outreach from extension services, or systemic invisibility in data collection. While men dominate the reporting of specific climate-resilient farming techniques, women do participate meaningfully in several categories. The data underscores the need for more gender-responsive agricultural programs that actively encourage and support women in both adopting and articulating sustainable farming practices. Enhancing women’s access to training, resources, and platforms to share their knowledge is essential for achieving more inclusive and equitable climate resilience in agriculture.





**Region-wise climate-resilient farming techniques**

The data provides a regional breakdown of specific climate-resilient farming techniques used by respondents who indicated “Yes” to adopting such practices. The responses reflect varying levels of awareness, accessibility, and suitability of different techniques across regions.

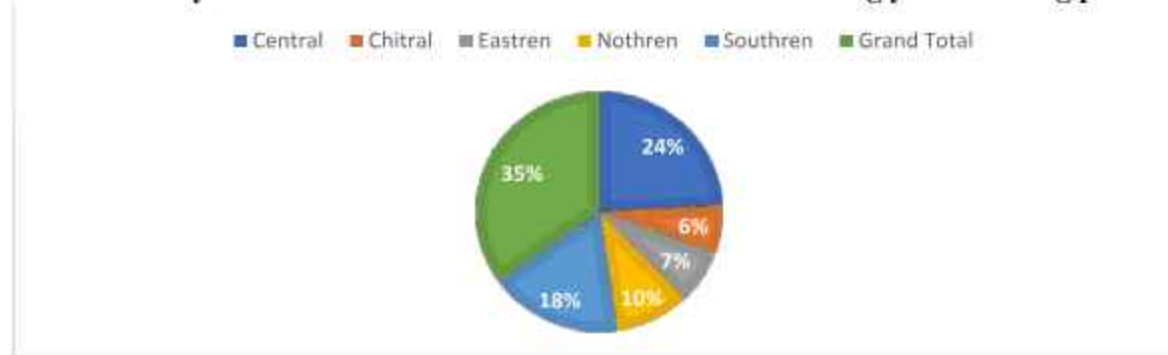
Among the listed techniques, Crop Rotation stands out with the highest overall representation (23.53%), suggesting it is one of the more commonly understood and implemented climate-resilient practices. Regionally, Eastern leads significantly with 48.73%, followed by the Northern region (28.33%) and Central (12.75%). This indicates that Eastern and Northern regions are more actively engaged in structured farming practices that enhance soil fertility and productivity. Agroforestry is also a notable technique, most widely practiced in the Central region, which accounts for 54.55% of the responses under this category. It is followed by the Northern (22.73%) and Chitral (13.64%) regions. Minimal activity is reported in the Eastern and Southern regions (4.55% each), suggesting either limited relevance or lack of promotion in these areas.

Irrigation systems, including drip and sprinkler systems, are heavily concentrated in the Central region (70.59%), with marginal representation in the Eastern and Northern regions (11.76% each), and a small share in the Southern region (5.88%). Chitral reports no usage of these systems, which may be attributed to terrain limitations or infrastructure gaps. Soil management practices, such as mulching and cover cropping, are most common in the Northern region (34.38%), followed by the Central (31.25%) and Eastern (21.88%) regions. The Southern region shows some adoption (12.50%), while Chitral reports none. This pattern suggests a strong emphasis on soil health in areas with either institutional support or better awareness.

The use of drought-resistant seeds, a vital strategy in areas facing water stress, is led by the Central region (40.71%), with other contributions from Chitral (19.47%), Southern (18.58%), and Northern (16.81%) regions. The Eastern region, despite leading in crop rotation, has a notably low share (4.42%) under this category. Some lesser-reported techniques also offer insights. Integrated pest management was reported exclusively in the Central region (100%), indicating highly localized awareness or pilot initiatives. Similarly, “Other” practices were mostly mentioned in the Central (54.55%) and Southern (27.27%) regions, with very limited mentions elsewhere.

Notably, 63.13% of all responses fall under the “N/A” category, meaning respondents did not specify which technique they use. The highest share comes from the Central region (33.16%), followed by Southern (25.87%), Northern (17.11%), Chitral (12.04%), and Eastern (11.83%). This high non-specification rate points to potential gaps in knowledge, record-keeping, or confidence in naming specific techniques.

#### 80. Are you aware of climate/environmental risks affecting your farming practices?



#### Region-wise climate-resilient farming techniques

The data provides insight into regional awareness of climate and environmental risks among farmers. The responses are divided between those who reported being aware ("Yes") and those who are not ("No"), offering a glimpse into how climate consciousness varies across different regions.

Overall, 53.33% of respondents indicated they are not aware of climate or environmental risks affecting their farming, while 46.67% reported awareness. This suggests a slight majority of farmers may still lack understanding or exposure to information regarding climate impacts on agriculture — a potential barrier to adaptation and resilience. Regionally, the Southern region has the highest percentage of respondents who are not aware of climate risks, contributing 26.88% to the total "No" responses. This is followed by the Central region at 37.13%, which also shows a significant lack of awareness despite being relatively central to climate-related interventions in other areas. The Northern region contributes 15.13%, while the Eastern and Chitral regions contribute 11.13% and 9.75%, respectively.

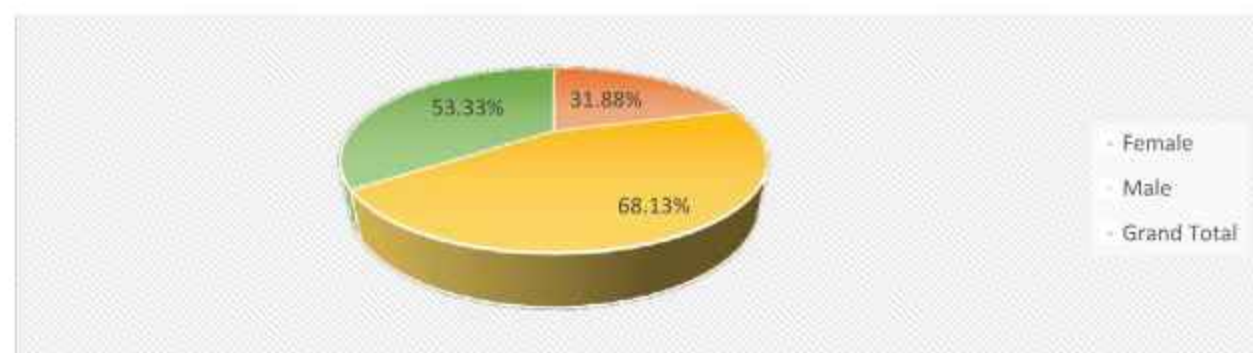
In contrast, among those who are aware of climate or environmental risks, the Eastern region leads with 30.14%, indicating a comparatively higher level of awareness or outreach in this area. The Northern region follows closely at 25.57%, reinforcing earlier findings that suggest strong engagement with climate-resilient practices in these regions. The Central region, despite its high "No" share, still accounts for 21.86% of "Yes" responses — reflecting a more mixed awareness profile. Chitral (10.29%) and Southern (12.14%) regions show relatively lower awareness levels.

The data highlights a geographic disparity in climate risk awareness among farmers. The Eastern and Northern regions demonstrate relatively strong awareness, potentially due to better outreach, institutional support, or firsthand exposure to climate impacts. Conversely, the Southern and Central regions, despite their agricultural significance, show higher rates of unawareness, signaling the need for targeted information campaigns and educational efforts.

The findings suggest a critical opportunity to enhance climate literacy in regions with low awareness. Increasing farmers' understanding of environmental risks is essential for enabling them to adopt adaptive practices and build resilience. Tailored outreach, community-based



workshops, and localized support programs could be key in addressing these gaps and ensuring all regions are equally equipped to face climate challenges.



### Gender-wise climate-resilient farming techniques

The data presents a gender-disaggregated view of awareness levels among farmers regarding climate and environmental risks affecting their agricultural activities. The overall results show that 46.67% of respondents are aware, while 53.33% are not, indicating that more than half of the farming population still lacks full understanding of the environmental challenges that could impact their work.

Looking at gender, male respondents dominate both groups, but with notable differences in distribution: Among those who are not aware, 68.13% are male and 31.88% are female. Among those who are aware, 75.14% are male and 24.86% are female. These figures highlight a clear trend: men not only make up the majority of respondents overall but also have a higher representation among those who are aware of climate and environmental risks. The gender gap widens slightly when it comes to awareness, suggesting that men may have better access to information, training, or decision-making roles that expose them to climate-related knowledge. Female respondents make up nearly one-third (31.88%) of those who are not aware, but their share drops to 24.86% among those who are aware. This decline points to a potential information and access gap faced by women in agriculture. Factors contributing to this gap could include limited access to extension services, fewer leadership opportunities, or cultural barriers that restrict women's participation in training and awareness programs.

While both men and women lack awareness to some extent, the data suggests that female farmers are at a particular disadvantage when it comes to understanding climate and environmental risks. This underlines the importance of gender-inclusive outreach and education strategies in climate adaptation efforts. To bridge this awareness gap, it is crucial to ensure that climate information, training, and support systems are accessible to women, not just in theory but in practice. Strengthening women's roles in farming communities, improving access to extension services, and designing targeted climate literacy programs for female farmers will be essential in building a more resilient and informed agricultural sector.

## ANOVA results

### ANOVA

Region

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	49.903	8	6.238	2.748	.005
Within Groups	3385.097	1491	2.270		
Total	3435.000	1499			

The ANOVA test was conducted to assess whether there are significant differences across regions in the variable being analyzed. The results show an F-value of 2.748 and a p-value of 0.005, which is below the 0.05 threshold for statistical significance. This means that regional differences have a meaningful impact on the results. In other words, the observed variations are not random, suggesting that factors specific to each region may influence the outcome. The region-wise differences are as under;

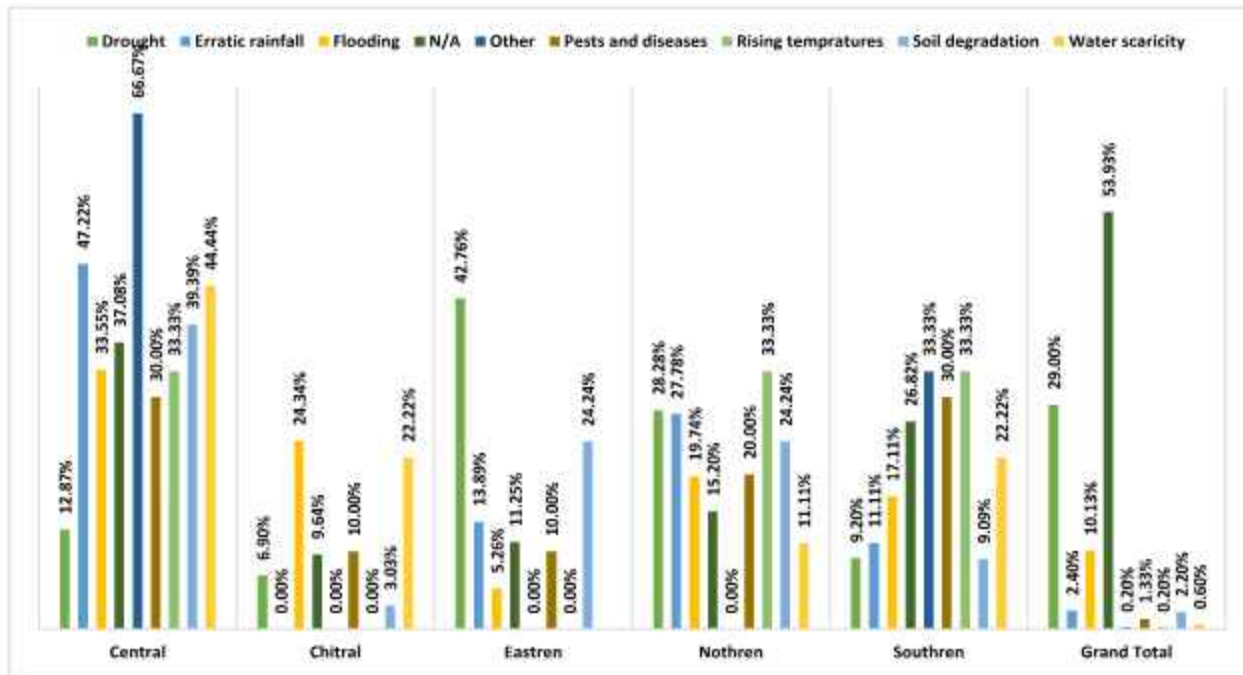
### Descriptives

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Drought	435	3.1402	1.10346	.05291	3.0362	3.2442	1.00	5.00
Flooding	152	2.6250	1.53032	.12413	2.3798	2.8702	1.00	5.00
Erratic rainfall	36	2.5556	1.57561	.26260	2.0224	3.0887	1.00	5.00
Soil degradation	33	2.6061	1.45644	.25353	2.0896	3.1225	1.00	5.00
Pests and diseases	20	3.1000	1.68273	.37627	2.3125	3.8875	1.00	5.00
Rising temperatures	3	3.3333	2.08167	1.20185	-1.8378	8.5045	1.00	5.00
Water scarcity	9	2.4444	1.74005	.58002	1.1069	3.7820	1.00	5.00
Other	3	2.3333	2.30940	1.33333	-3.4035	8.0702	1.00	5.00
N/A	809	2.8504	1.66906	.05868	2.7352	2.9656	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00



### 81. If Yes, which of the following risks are you aware of?



### Region-wise climate-resilient farming techniques (Risks)

The data presents a regional breakdown of climate and environmental risks that farmers are aware of, based on those who responded “Yes” to being aware of such risks. The insights reflect how experiences with specific climate challenges vary from one region to another, revealing patterns in both exposure and awareness.

Drought is the most commonly recognized risk overall, with 29.00% of total responses identifying it. The Eastern region shows the highest awareness at 42.76%, followed by the Northern region (28.28%), and Central (12.87%). Chitral (6.90%) and Southern (9.20%) report the lowest, which may suggest either less impact or limited awareness in those areas. Erratic rainfall is cited by 47.22% of respondents in the Central region, but notably, 0% in Chitral. The Northern (27.78%), Eastern (13.89%), and Southern (11.11%) regions follow. Despite being a critical climate concern, this risk is underreported overall (2.40%), which could reflect a terminology gap or lack of technical understanding.

Flooding is recognized most in the Central (33.55%) and Chitral (24.34%) regions, likely due to topography and drainage patterns. Awareness is notably lower in Eastern (5.26%), Southern (17.11%), and Northern (19.74%) regions. Overall, 10.13% of total respondents identified flooding as a key concern. Water scarcity is most acknowledged in the Central region (44.44%), followed by Chitral (22.22%) and Southern (22.22%). Northern (11.11%) shows lower awareness, and there are no recorded responses from the Eastern region, possibly due to differences in water access or seasonal variability. It remains a low-reported issue overall (0.60%), despite its critical role in agricultural sustainability.

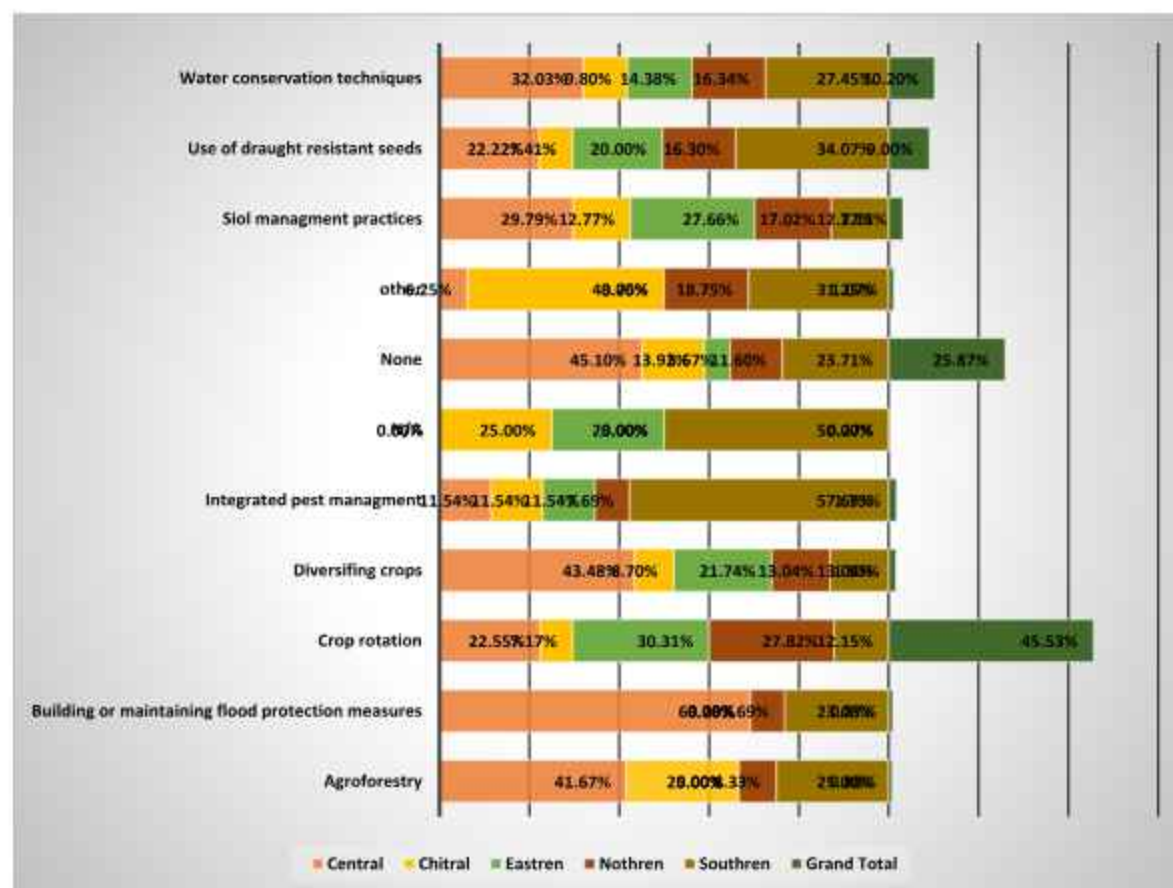
Soil degradation sees the highest recognition in the Central region (39.39%), with Eastern and Northern regions both at 24.24%, indicating relatively strong awareness in these areas. Chitral (3.03%) and Southern (9.09%) lag behind, reflecting possible differences in soil management education or observation of degradation.

Rising temperatures are acknowledged equally across the Central, Northern, and Southern regions (33.33% each), yet completely unreported in Chitral and Eastern. This could reflect varying exposure levels or differences in perceived temperature impacts. Despite its significance, it accounts for only 0.20% of the total data — possibly due to lack of localized climate data or awareness.

Pests and diseases awareness is evenly spread between the Central (30.00%) and Southern (30.00%) regions, with moderate reporting from Northern (20.00%), and lower rates in Chitral and Eastern (10.00% each). It makes up 1.33% of total responses, suggesting it's not yet recognized as a widespread climate-linked threat. Other risks are reported only in the Central (66.67%) and Southern (33.33%) regions, though this category contributes a minimal 0.20% to the total — indicating either rare or unspecified concerns unique to local conditions.

The “N/A” category — representing respondents who either did not specify any particular risk or were unaware of how to label them — makes up the largest share at 53.93%. The Central region again leads (37.08%), followed by Southern (26.82%), Northern (15.20%), Eastern (11.25%), and Chitral (9.64%). This high percentage highlights a significant gap in technical awareness or communication, where many farmers may recognize climate stress but are unable to name specific risks.

## 82. What steps do you take to mitigate climate risks (e.g., soil management, water conservation)?





The data offers a regional breakdown of the various strategies farmers are using to reduce the impact of climate risks on their agricultural practices. Responses reflect a diverse mix of mitigation efforts, ranging from widely practiced methods like crop rotation and drought-resistant seeds, to more specialized or region-specific approaches like flood protection and integrated pest management.

Crop rotation is the most widely reported strategy overall, making up 45.53% of all responses. It is particularly strong in the Eastern region (30.31%), followed by the Northern (27.82%), Central (22.55%), and Southern (12.15%) regions. The Chitral region lags behind at just 7.17%, suggesting possible differences in cropping systems or awareness. Water conservation techniques are used across all regions, with the Southern region showing the highest share (27.45%), followed by Central (32.03%), Northern (16.34%), Eastern (14.38%), and Chitral (9.80%). This distribution shows that water-saving practices are relatively well recognized, especially in areas likely facing water stress or irrigation challenges. The use of drought-resistant seeds is most prominent in the Southern region (34.07%), suggesting that farmers here are actively adapting to dry conditions. The Central (22.22%), Eastern (20.00%), and Northern (16.30%) regions follow, while Chitral (7.41%) shows minimal use — possibly due to terrain constraints or lack of access to such seed varieties.

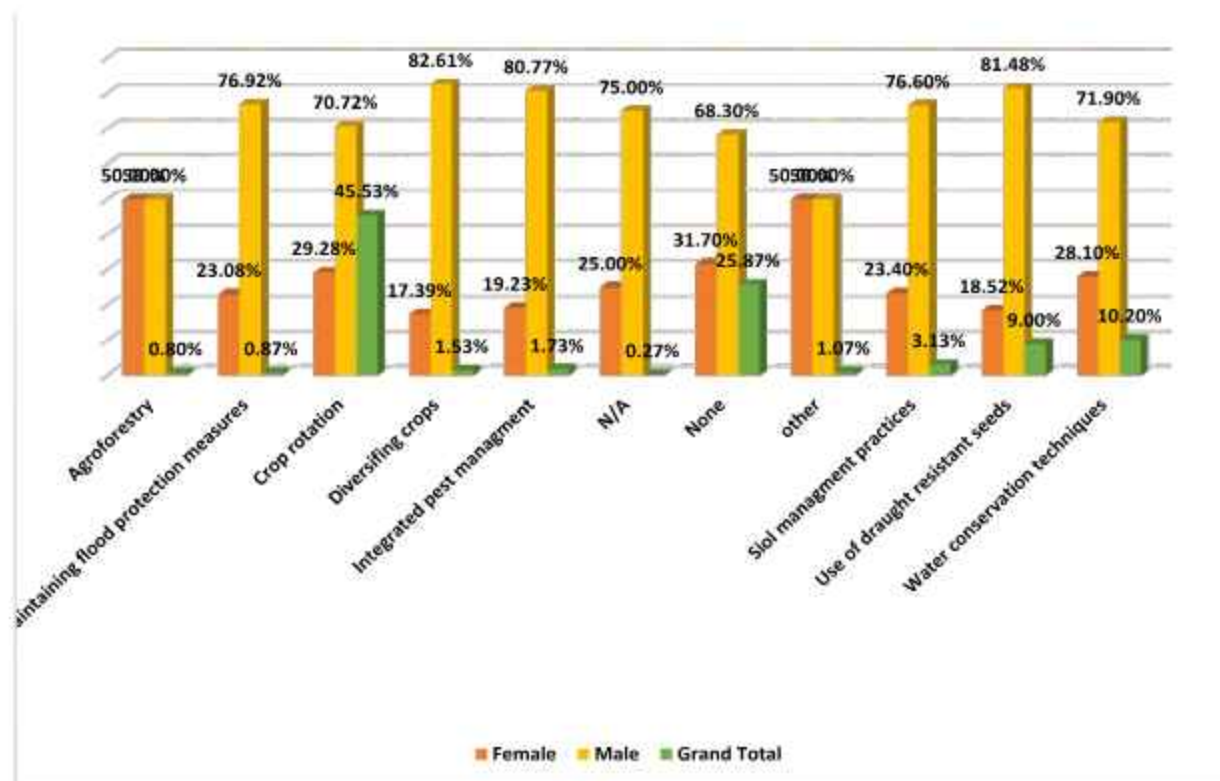
Soil management practices (such as mulching and cover cropping) also show strong adoption in the Eastern (27.66%) and Central (29.79%) regions. The Northern region (17.02%) and Chitral and Southern regions (12.77% each) contribute moderately. These practices play a vital role in long-term land health and productivity. Diversifying crops is reported most in the Central region (43.48%), followed by the Eastern (21.74%), Northern and Southern (13.04% each), and Chitral (8.70%). The practice supports risk reduction by spreading the impact of climate shocks across multiple crops. Integrated pest management (IPM) sees its highest adoption in the Southern region (57.69%), suggesting strong regional efforts to manage pests with minimal chemical use. The Central, Chitral, and Eastern regions contribute equally at 11.54%, while Northern lags behind at 7.69%.

Flood protection measures are highly concentrated in the Central region (69.23%), followed by Southern (23.08%) and Northern (7.69%), with zero reporting from Chitral and Eastern regions. This likely reflects regional differences in exposure to flood risks or access to infrastructure support. Agroforestry shows moderate implementation in the Central region (41.67%), with smaller but equal shares in Chitral and Southern (25.00% each), and Northern (8.33%). No reporting from the Eastern region suggests either low relevance or lack of awareness. Responses under “Other” techniques are led by Chitral (43.75%), with the Southern (31.25%), Northern (18.75%), and Central (6.25%) regions following. This reflects possible use of localized or indigenous practices that aren’t captured by mainstream categories.

None was selected by 25.87% of respondents overall, suggesting a significant portion of farmers are not taking any active steps to mitigate climate risks. The Central region contributes the highest share (45.10%), followed by Southern (23.71%), Chitral (13.92%), Northern (11.60%), and Eastern (5.67%). This indicates where support, education, or resources are most urgently needed. A small proportion (0.27%) selected N/A, with half of these from the Southern region (50.00%), and the rest split evenly between Chitral and Eastern (25.00% each). This likely reflects uncertainty or inability to articulate current practices.

The data shows that farmers across regions are taking a range of steps to mitigate climate risks, with crop rotation, water conservation, drought-resistant seeds, and soil management being the most commonly adopted practices. The Eastern and Central regions lead in a number of

sustainable approaches, while Southern farmers are particularly active in IPM and drought adaptation. However, the high proportion of “None” responses — especially in the Central and Southern regions — signals that a large number of farmers remain passive or unaware when it comes to managing climate threats. This highlights a pressing need for targeted awareness programs, training, and support services that can increase adoption of effective mitigation strategies, especially in underperforming or underserved regions like Chitral. To build resilience across all farming communities, interventions must be region-specific, accessible, and inclusive, supporting both traditional knowledge and modern innovations that reduce vulnerability to climate-related risks.



#### Gender-wise climate-resilient farming techniques

The data offers a gender-disaggregated view of the specific climate risk mitigation strategies employed by farmers. It provides insight into how men and women are participating in various adaptive practices, highlighting both areas of inclusion and gaps in engagement.

Crop rotation is the most widely reported mitigation measure, making up 45.53% of all responses. Among those practicing it, 70.72% are male, and 29.28% are female. This indicates that both genders are actively involved, but men are leading in adoption — possibly due to their greater access to land, inputs, or decision-making roles in farm management. Agroforestry shows an even split, with 50.00% male and 50.00% female participation. Although it accounts for only 0.80% of total responses, this balance suggests that where agroforestry is practiced, women are just as engaged as men. This could be due to the nature of agroforestry involving homestead or boundary planting, areas where women may have more autonomy.

Flood protection measures, such as constructing or maintaining embankments or drainage channels, are predominantly reported by men (76.92%), with only 23.08% reported by women. Given the physical and infrastructural nature of this work, male dominance is expected, though



the female involvement, though limited, reflects growing awareness or participation in broader farm protection strategies. Diversifying crops shows 82.61% male and 17.39% female engagement. Despite being a relatively simple and flexible strategy, the gender gap suggests that women may have limited control over crop planning or market access, which could influence their ability to diversify production.

Integrated pest management (IPM) is practiced by 80.77% men and 19.23% women. Like other specialized techniques, IPM often requires technical training or extension support, which may not be equally accessible to women. The gender gap here reflects ongoing disparities in access to agricultural education and inputs.

The data reveals that while male farmers are leading in the adoption of most climate risk mitigation strategies, female participation is present and notable in some practices, especially agroforestry and crop rotation. However, the lower female involvement in techniques like flood protection, IPM, and crop diversification suggests unequal access to resources, decision-making roles, and technical knowledge. To close these gaps, it is crucial to implement gender-responsive agricultural programs that ensure women have the same opportunities as men to adopt climate-resilient practices. This includes providing targeted training, improving access to extension services, and supporting inclusive decision-making at the household and community level. Empowering women in climate adaptation efforts is not only a matter of equity — it's also essential for building stronger, more resilient farming systems that benefit entire communities.

ANOVA result

**ANOVA**

Region

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	125.799	10	12.580	5.660	.000
Within Groups	3309.201	1489	2.222		
Total	3435.000	1499			

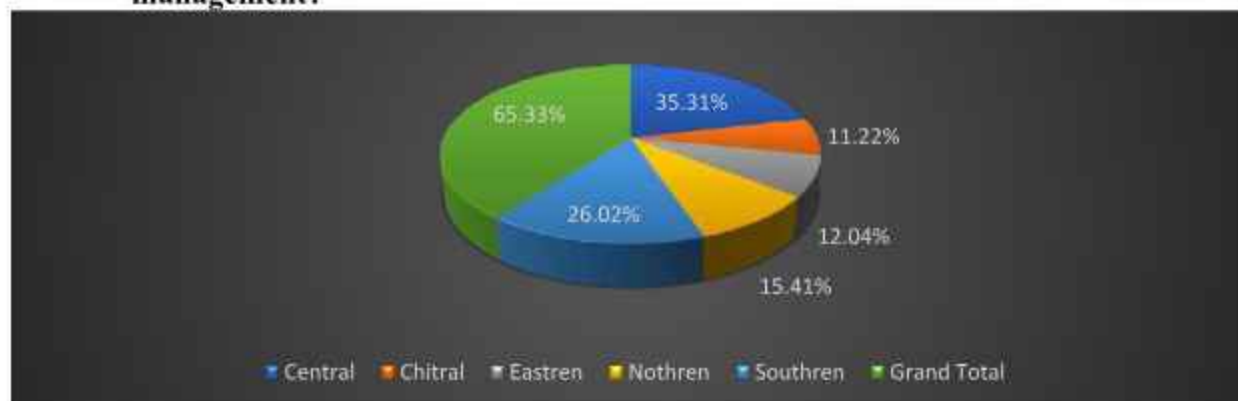
The results of the one-way ANOVA test reveal significant differences among regions in the variable under study. With an F-value of 5.660 and a p-value of 0.000, the analysis confirms that these differences are statistically significant. This means that regional factors likely play a role in shaping the observed variations. The findings suggest that responses or outcomes are not uniform across all regions, emphasizing the potential influence of location-specific conditions on the data. Region wise variances are mentioned in the table below;

## Descriptives

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Crop rotation	683	2.9985	1.31927	.05048	2.8994	3.0977	1.00	5.00
Use of draught-resistant seeds	135	3.3259	1.54934	.13335	3.0622	3.5897	1.00	5.00
Water conservation techniques	153	2.9739	1.63009	.13179	2.7135	3.2342	1.00	5.00
Soil management practices	47	2.7021	1.39743	.20384	2.2918	3.1124	1.00	5.00
Diversifying crops	23	2.4348	1.50230	.31325	1.7851	3.0844	1.00	5.00
Agroforestry	12	2.5000	1.73205	.50000	1.3995	3.6005	1.00	5.00
Building or maintaining flood protection measures	13	2.1538	1.81871	.50442	1.0548	3.2529	1.00	5.00
Integrated pest management	26	3.8846	1.50537	.29523	3.2766	4.4926	1.00	5.00
Other	16	3.2500	1.48324	.37081	2.4596	4.0404	1.00	5.00
None	388	2.5490	1.67677	.08512	2.3816	2.7163	1.00	5.00
11.00	4	3.7500	1.50000	.75000	1.3632	6.1368	2.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

83. Do you have access to information or services related to climate risk management?



-wise climate- Access to information  
Region resilient farming techniques ( )



The data reveals the extent to which farmers across different regions have access to information or services that support climate risk management, such as weather forecasts, agricultural advisories, or climate-smart extension services. The overall results highlight a significant access gap, with 65.33% of respondents reporting no access, while only 34.67% stated they do have access to such support. The Central region accounts for the largest share of those without access, contributing 35.31% to the “No” responses. This suggests that even in regions with agricultural centrality, access to climate services may be limited, possibly due to weak infrastructure or outreach.

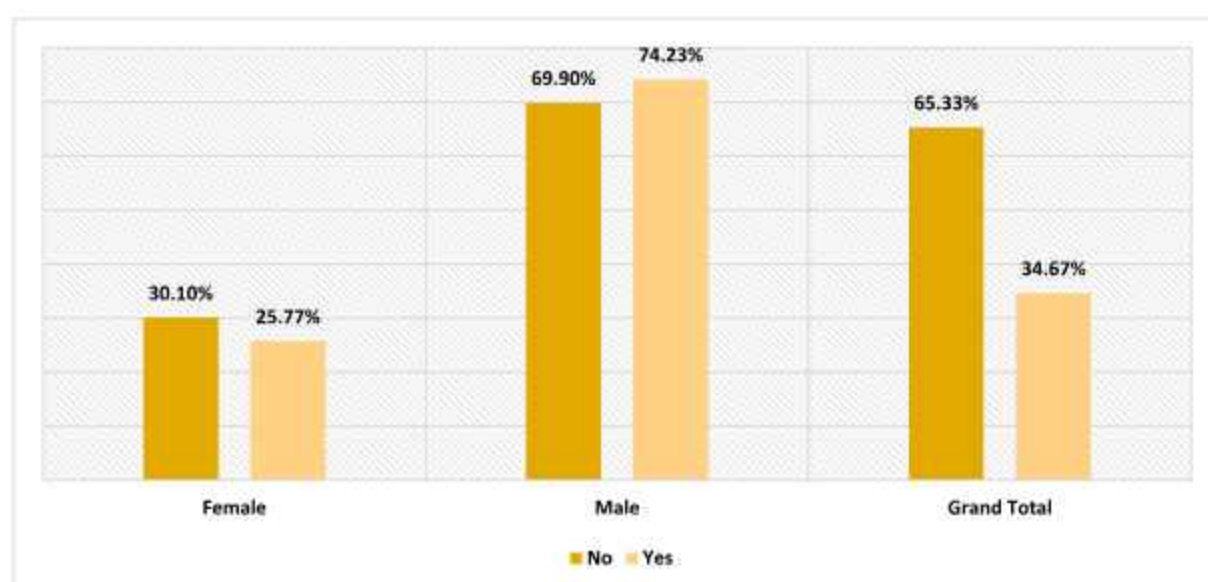
The Southern region follows closely with 26.02%, reinforcing earlier findings of lower climate awareness and adaptation in this area. Both Central and Southern regions, despite being agriculturally active, show major gaps in support systems for climate risk. The Northern region contributes 15.41% to the “No” responses, while the Eastern (12.04%) and Chitral (11.22%) regions round out the rest. This indicates that a lack of access is a widespread challenge, affecting all regions to varying degrees.

In contrast, when we look at those who do have access to climate risk information or services:

The Eastern region leads significantly with 35.00%, suggesting that this area has a stronger presence of support networks, such as agricultural extension services, NGOs, or public initiatives related to climate adaptation. The Northern region follows with 28.65%, reflecting consistent engagement across awareness and action-related indicators. This suggests that climate communication channels are relatively functional in the north.

The Central region, despite its high share of “No” responses, still accounts for 20.00% of the “Yes” group, indicating that some farmers are benefiting from available services, though the majority are still underserved. The Southern region, on the other hand, shows only 8.65% of respondents with access, aligning with previous trends of low adoption and awareness. Chitral has the lowest share at 7.69%, pointing to geographic and infrastructural barriers that limit connectivity to support systems.

The data reveals a clear regional disparity in access to climate risk management information and services. While Eastern and Northern regions demonstrate relatively strong connectivity and support, the Central and Southern regions, along with Chitral, show significant access gaps. These limitations can severely hinder farmers’ ability to prepare for and respond to climate-related challenges. To address this, targeted investments are needed in localized extension services, climate communication infrastructure, and farmer education programs — especially in underserved regions. Ensuring equitable access to climate risk management tools is critical for building adaptive capacity and long-term resilience across all farming communities.



### Gender-wise climate-resilient farming techniques

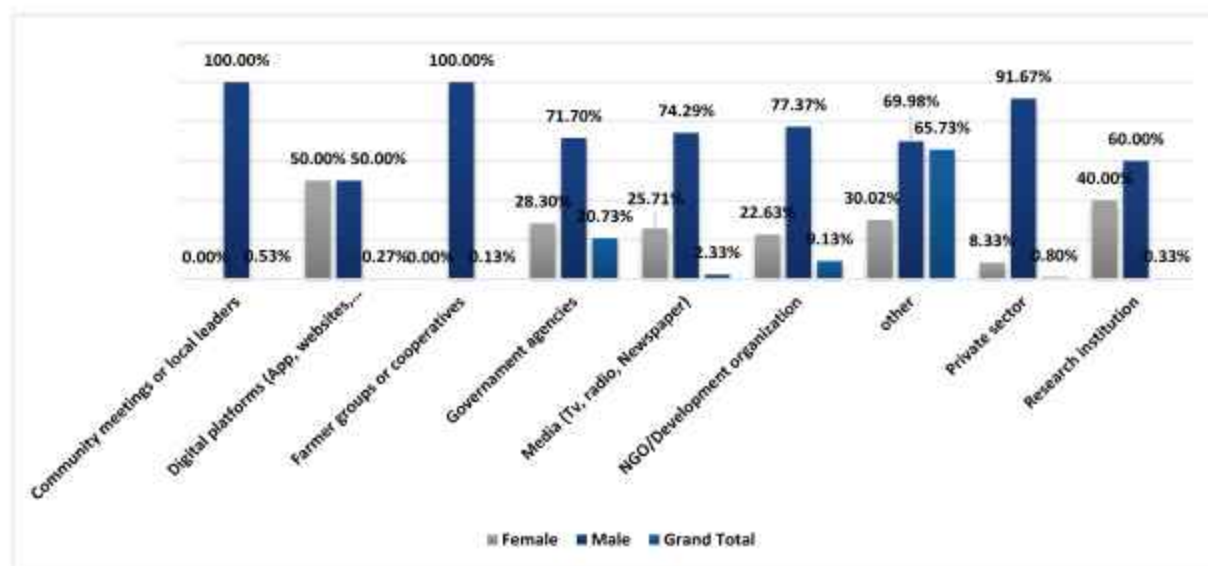
The data provides a gender-disaggregated view of access to information and services that support climate risk management, such as early warning systems, agricultural advisories, or climate-smart training. The overall results reveal that only 34.67% of respondents report having access to such services, while a significant majority (65.33%) do not — underscoring a widespread gap in support for climate adaptation.

Among those who do not have access, male respondents make up 69.90%, while female respondents account for 30.10%. This aligns with broader trends in agriculture where men often have more direct involvement in formal farm operations and interactions with service providers. However, the notable 30% share of women without access indicates that female farmers are also significantly underserved, despite their active roles in agriculture. Among those who do have access, the gender gap persists but narrows slightly. Men represent 74.23% of this group, while women account for 25.77%. While men continue to dominate, the female share suggests that some women are engaging with climate-related services, though likely at lower levels of frequency or depth due to limited mobility, social norms, or lack of tailored outreach. The drop from 30.10% (no access) to 25.77% (access) for women highlights a marginal gender gap in service connectivity, where women not only have lower access but may also be less aware or informed about available resources.

The data underscores a gendered disparity in access to climate risk management services, with men more likely than women to benefit from the available support systems. While both groups face barriers, female farmers are particularly disadvantaged, possibly due to limited access to land, formal networks, training opportunities, or decision-making roles.

### 84. If Yes, what is the source of the information or services?





**Gender-wise climate-resilient farming techniques (Source of Information)**

The data provides insight into the gender distribution of respondents who identified specific sources of climate-related information or services. These sources are essential for helping farmers manage climate risks effectively, and the breakdown sheds light on how access and engagement differ between men and women. Across the responses, male farmers consistently report higher access to information or services from various sources. This trend aligns with broader patterns observed throughout the dataset, where men typically have greater exposure to formal agricultural systems and service providers.

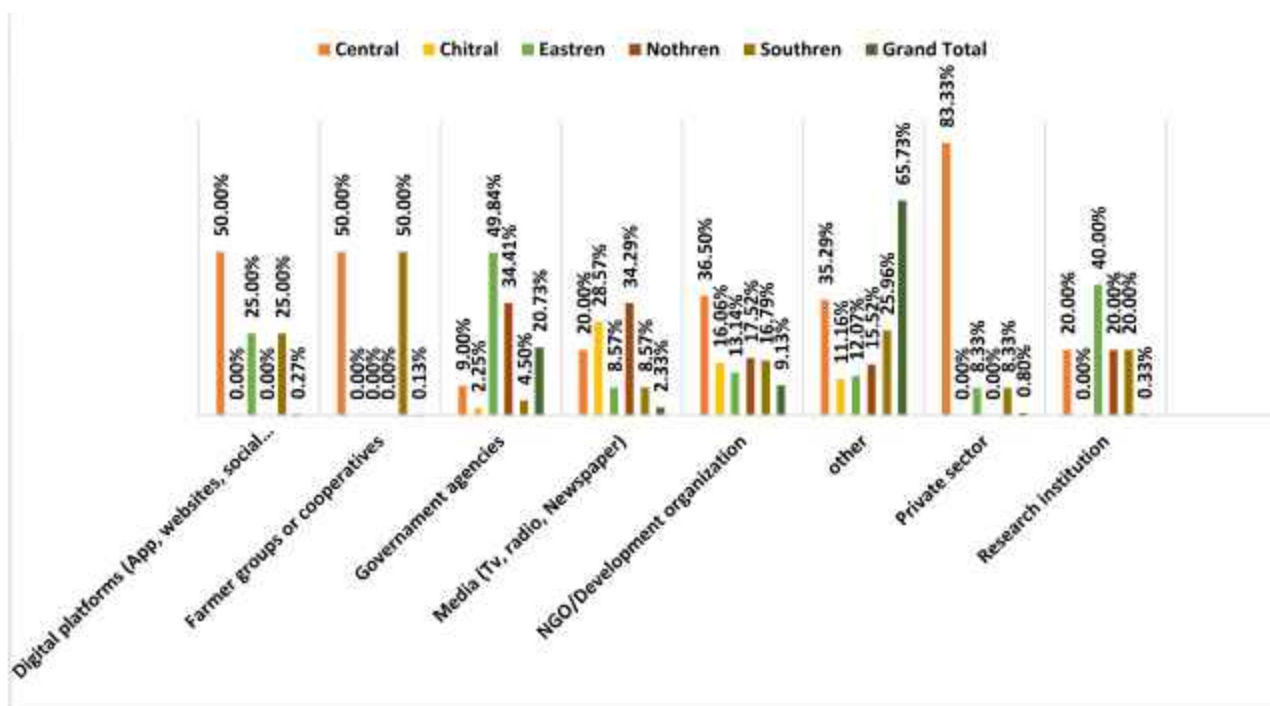
The majority of responses — representing 65.73% of the total — show that 69.98% were male and 30.02% were female, suggesting that this particular source (likely a common or accessible one, such as local networks, radio, or community meetings) is relatively more inclusive than others. This indicates that women are engaging when services are designed or delivered in a more accessible manner, even though their participation still trails that of men. Another significant group, accounting for 20.73% of the responses, shows 71.70% male and 28.30% female participation. While the gender gap persists, the presence of nearly one-third female respondents indicates a meaningful level of engagement. This may point to increasing inclusion through non-traditional or community-based channels.

#### **Other sources show varying degrees of gender imbalance. For instance:**

In one group (2.33% of responses), 74.29% were male, and 25.71% female. In another (9.13% of responses), 77.37% were male, and 22.63% female. And in smaller subsets (each below 1% of total responses), female participation ranges from 0% to 50%. Notably, two categories — one with 0.53% of total responses and another with 0.13% — were entirely male-dominated (100%), highlighting that some sources may be entirely inaccessible or unutilized by women. In contrast, one category shows a perfect gender balance (50-50), though it represents only 0.27% of the total, indicating a possible niche or household-based information source where both men and women are equally involved.

The data reveals a clear gender gap in the sources of climate-related information and services, with men consistently reporting higher access across nearly all channels. However, the presence of female respondents in several key categories — especially those with the highest total responses — suggests that women are engaging when the information is made accessible,

relevant, and community-driven. These findings underscore the need for gender-sensitive approaches in the design and dissemination of climate services. Ensuring that women can access these sources — whether through tailored training, inclusive communication tools, or women-focused networks — is crucial for building equitable and resilient farming communities. Bridging this access gap not only empowers women but also strengthens overall climate adaptation efforts at the grassroots level.



### Region-wise climate-resilient farming techniques (Sources of information)

The data provides a detailed view of the sources from which farmers across different regions receive information or services related to climate risk management. These sources vary widely—from institutional and digital platforms to informal and community-based networks—and their usage reflects both the accessibility of services and the level of regional engagement in climate adaptation efforts.

The majority of respondents (65.73%) selected “Other” as their source of information, indicating a heavy reliance on informal or unspecified channels. This category is most prominent in the Central region (35.29%), followed by Southern (25.96%), Northern (15.52%), Eastern (12.07%), and Chitral (11.16%). The widespread selection of “Other” suggests that many farmers depend on local knowledge, informal advice, or undocumented support systems, especially in regions where formal services may be limited or less trusted. Government agencies are the second most cited source, accounting for 20.73% of the total responses. The Eastern region shows the highest reliance on government services (49.84%), followed by Northern (34.41%) and Central (9.00%). Engagement is notably lower in Southern (4.50%) and Chitral (2.25%), indicating a need for more consistent government outreach and presence in these areas.

NGOs and development organizations are also a significant source, making up 9.13% of responses. The Central region again leads in this category (36.50%), with strong contributions from Chitral (16.06%), Northern (17.52%), Southern (16.79%), and Eastern (13.14%). This



distribution reflects the active role of NGOs across all regions, particularly in bridging gaps where public services may fall short.

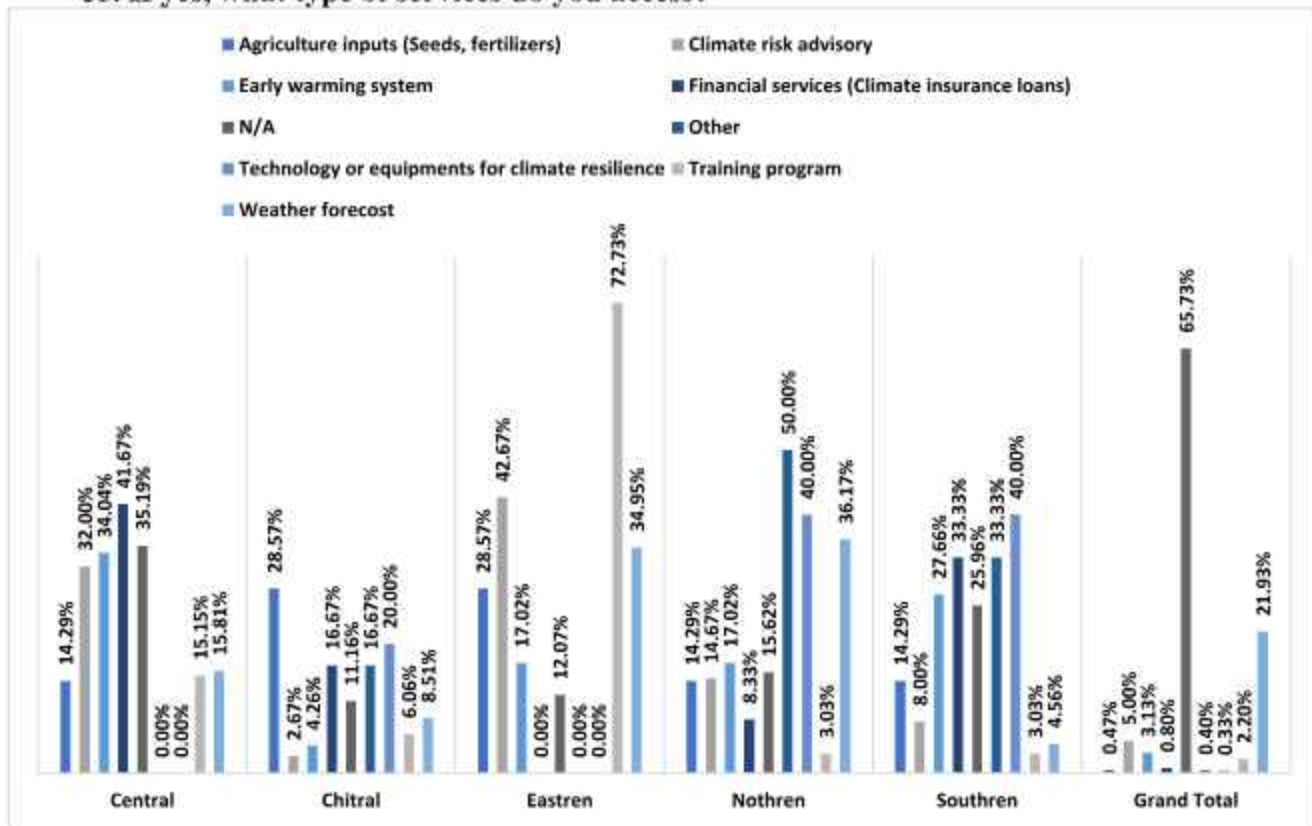
Media sources, including TV, radio, and newspapers, represent 2.33% of the total. This channel is used most in the Northern region (34.29%), followed by Chitral (28.57%), Central (20.00%), Southern and Eastern regions (8.57% each). The data suggests that traditional media still plays a key role, especially in areas where digital access may be limited. Community meetings or local leaders account for 0.53% of responses and are mainly utilized in the Central (37.50%) and Northern (37.50%) regions. Chitral and Eastern regions follow with modest shares (12.50% each), while there are no responses from the Southern region, highlighting potential regional gaps in community-level coordination.

Digital platforms such as mobile apps, websites, or social media are cited by 0.27% of respondents. Usage is concentrated in the Central region (50.00%), with additional responses from the Eastern and Southern regions (25.00% each). The absence of responses from Chitral and Northern regions may reflect limited digital infrastructure or lower digital literacy in those areas. Farmer groups or cooperatives were selected by a small fraction (0.13%), with responses coming equally from the Central and Southern regions (50.00% each). The lack of engagement from other regions suggests that formal farmer networks are either underdeveloped or underutilized in those areas.

Private sector sources make up 0.80% of responses and are overwhelmingly reported in the Central region (83.33%), with minor contributions from Eastern and Southern regions (8.33% each). This indicates that private sector initiatives remain concentrated and limited in scope, likely tied to market accessibility or commercial presence. Lastly, research institutions account for 0.33% of responses. The Eastern region leads in this category (40.00%), followed by equal shares from Central, Northern, and Southern regions (20.00% each). No responses were recorded from Chitral, reflecting a disconnect between research outputs and farmer access in more remote areas.

The data highlights a diverse but uneven landscape of information sources related to climate risk management. While formal channels such as government agencies and NGOs are playing an important role—particularly in the Eastern, Central, and Northern regions—a substantial portion of farmers still rely on “other” or informal sources, especially in Southern and Chitral regions. The limited presence of digital platforms, cooperatives, private sector, and research institutions underscores the need to broaden and decentralize access to reliable, timely, and locally relevant information.

### 85. If yes, what type of services do you access?



#### Region-wise climate-resilient farming techniques (services)

The data explores the types of climate risk management services accessed by farmers across different regions. These services—ranging from advisory support to resource inputs—are vital for building farmers' resilience to climate-related challenges. The regional breakdown provides insight into which services are reaching farmers, and where gaps in access remain.

A significant portion of the responses (65.73%) fall under the “Other” category, indicating that a large number of farmers access services outside the predefined categories. This group is led by the Central region (35.19%), followed by Southern (25.96%), Northern (15.62%), Eastern (12.07%), and Chitral (11.16%). The dominance of “Other” suggests that many farmers rely on informal, localized, or non-conventional services, which may not be consistently documented or institutionalized. The second most accessed category (21.93%) likely reflects a common formal service type, such as climate advisories or agricultural extension. This is most widely used in the Northern region (36.17%), followed by Eastern (34.95%), Central (15.81%), Chitral (8.51%), and Southern (4.56%). These results suggest that Eastern and Northern regions are more connected to structured, possibly government-led or NGO-supported, service systems.

Resource input support, possibly including tools, drought-resistant seeds, or fertilizers, accounts for 5.00% of responses. The Eastern region leads strongly here (42.67%), followed by Central (32.00%), Northern (14.67%), Southern (8.00%), and Chitral (2.67%). This highlights that Eastern and Central regions have better access to tangible support, enabling them to implement adaptive practices more effectively. Financial services or credit access make up 3.13% of responses, with the Central region again leading (34.04%), followed by Southern (27.66%), and both Eastern and Northern regions (17.02%). Chitral (4.26%) reports the lowest

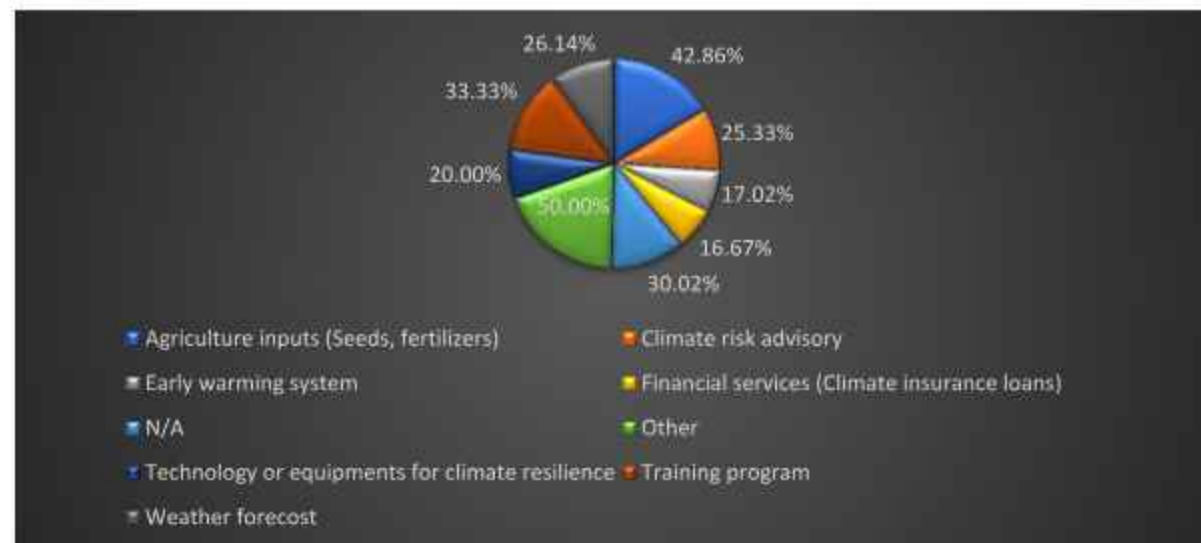


access, pointing to challenges in linking remote areas to financial institutions. These findings reinforce the need for inclusive, region-sensitive credit systems that support climate adaptation.

Capacity building or training is cited by 2.20% of respondents, and is overwhelmingly concentrated in the Eastern region (72.73%), with smaller contributions from Central (15.15%), Chitral (6.06%), Northern and Southern (3.03% each). This shows that Eastern region farmers have benefited from focused training efforts, while other regions may require similar investments in climate literacy and practical skills. Early warning systems, accounting for 0.80%, are most commonly accessed in the Central (41.67%) and Southern (33.33%) regions, with smaller shares in Chitral (16.67%) and Northern (8.33%). The Eastern region reports zero access, which is notable considering its high participation in other service areas. This may reflect unequal rollout or region-specific implementation gaps.

Disaster relief or emergency services make up 0.47% of total responses and are distributed equally across all regions (14.29% each), except Southern, which shows no reporting. While the numbers are small, the uniform spread suggests that where services exist, they are at least marginally reaching diverse regions, though at a very limited scale. Insurance services, while minimal (0.33%), are accessed only in the Northern (40.00%), Southern (40.00%), and Chitral (20.00%) regions. Central and Eastern regions report no access, indicating that climate or crop insurance remains largely unavailable or underutilized across most of the dataset. Technology-based services, like weather apps or precision agriculture tools, represent 0.40% of responses and are accessed in the Northern (50.00%), Southern (33.33%), and Chitral (16.67%) regions. Again, no access is reported in Central or Eastern regions, pointing to a digital divide or uneven awareness of available tech solutions.

The data reflects a complex and uneven landscape of climate-related services across regions. While Eastern and Northern regions appear better connected to structured and capacity-building services, the Central region leads in access to alternative or “other” service types, likely tied to informal networks or community-driven resources. Southern and Chitral show limited access across most formal categories, highlighting an urgent need for targeted support and infrastructure development in these areas. The overall low reporting of insurance, early warning systems, financial services, and technology-based solutions suggests that these critical tools remain underdeveloped or under-deployed, even in relatively well-connected regions.



**Gender-wise climate-resilient farming techniques (Type of services)**

The data provides a gender-disaggregated view of the types of climate risk management services accessed by farmers. These services—ranging from training and advisory support to financial and technological tools—are essential for helping farmers respond effectively to climate-related challenges. The breakdown offers insights into how men and women engage with these services, and whether certain types of support are more accessible to one gender than the other.

A significant portion of responses (65.73%) fall under the “Other” category, with 69.98% male and 30.02% female representation. While this gender gap mirrors broader trends, the notable female participation in this category suggests that women are actively accessing informal or community-based services—perhaps through local networks or grassroots initiatives—though likely with less visibility and recognition than men. Advisory services or structured support (likely reflected in the 21.93% category) show 73.86% male and 26.14% female participation. Although men still dominate access, the one-quarter female share indicates that women are engaging with formal services when opportunities exist. However, the disparity suggests persistent barriers related to mobility, awareness, or institutional reach.

Financial services, which account for 3.13% of responses, show the most significant gender imbalance: 82.98% male and only 17.02% female. This aligns with known challenges in women's access to credit, loans, and formal banking, often due to lack of land ownership, collateral, or institutional trust. Early warning systems (0.80%) are accessed primarily by men (83.33%) compared to 16.67% by women, indicating that timely, actionable climate information may not be reaching female farmers adequately. This could stem from communication gaps or gendered exclusion from key decision-making spaces.

Capacity building or training, making up 2.20% of total responses, shows a slightly narrower gap: 66.67% male and 33.33% female. This relatively high female participation suggests that training opportunities—when made inclusive—are being embraced by women, and could serve as a model for designing more gender-equitable programs. Technology-based services, such as weather apps or precision tools (0.40%), show a perfect 50-50 gender split, which is rare in the dataset. This suggests that women can and do access tech-driven tools when barriers like literacy, cost, or access are removed—highlighting the importance of inclusive digital design.

Insurance services are accessed by 80.00% male and 20.00% female respondents, again revealing gendered limitations in access to formal safety nets. Cultural and institutional biases in insurance marketing, eligibility, and access may contribute to this gap. Disaster relief or emergency services, although limited in overall responses (0.47%), are used more evenly: 42.86% female and 57.14% male. This is the highest female participation share in any formal category, suggesting that during times of crisis, women may have better access to or visibility in humanitarian response efforts, perhaps through community channels.

The data reveals a persistent gender gap across nearly all categories of climate-related services, with men consistently reporting higher access to advisory support, financial tools, early warning systems, and insurance. However, female participation is meaningful and notable in several categories—especially in capacity building, technology-based services, and disaster relief—demonstrating that when services are inclusive and accessible, women are ready to engage.

#### ANOVA results



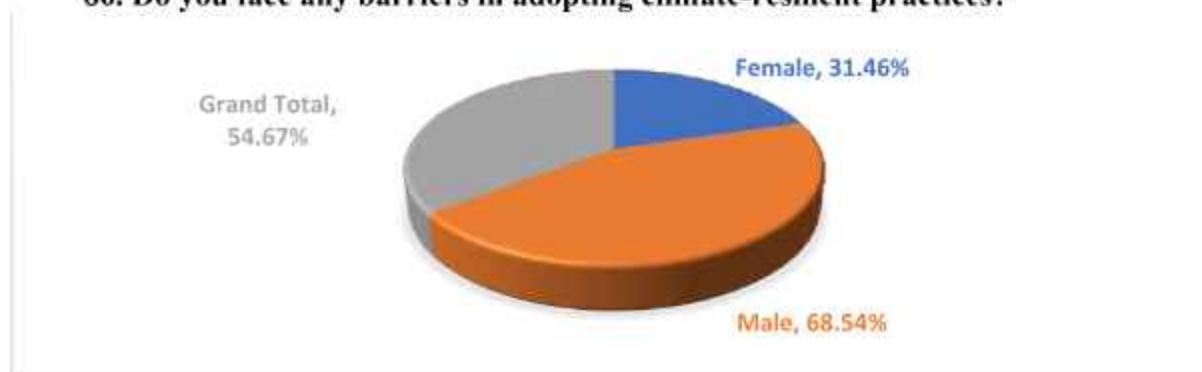
## ANOVA

Region

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	29.260	8	3.658	1.601	.120
Within Groups	3405.740	1491	2.284		
Total	3435.000	1499			

The analysis of variance (ANOVA) was conducted to assess whether there were significant differences in the studied variable across different regions. The results indicate that the differences observed between regions are not statistically significant, as evidenced by a p-value of 0.120, which is above the commonly accepted threshold of 0.05. This suggests that regional variations do not have a substantial impact on the variable in question. In other words, the data remains relatively consistent across different locations, implying that external regional factors may not be influencing the observed patterns in a meaningful way.

### 86. Do you face any barriers in adopting climate-resilient practices?



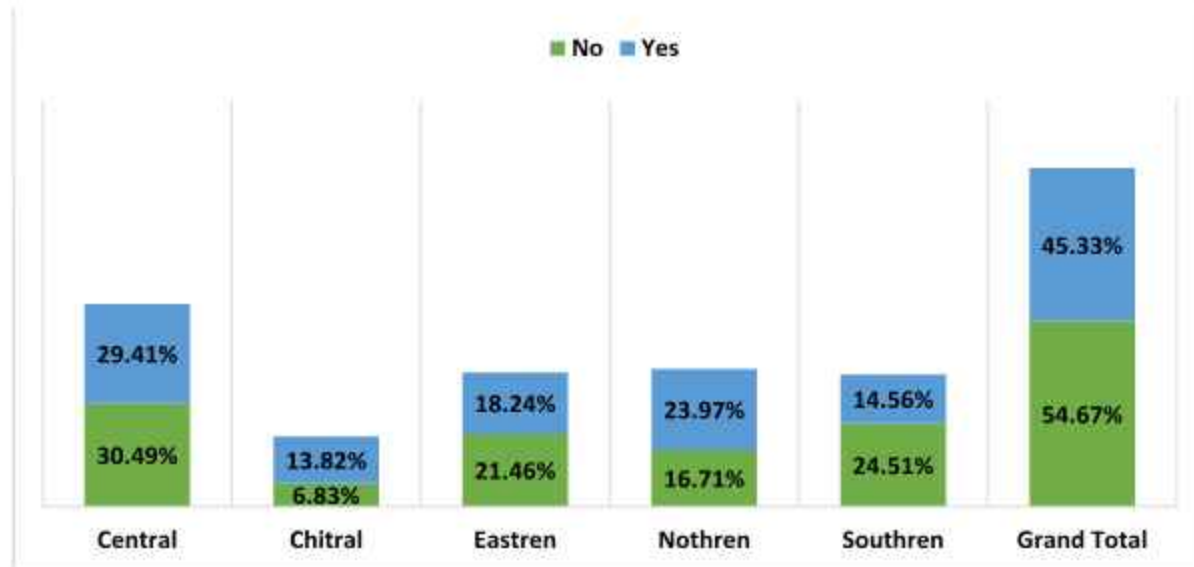
#### Gender-wise climate-resilient farming techniques (Barriers)

This data provides a gender-disaggregated view of the challenges farmers encounter when trying to adopt climate-resilient agricultural practices. The overall findings show that 45.33% of respondents report facing barriers, while 54.67% say they do not, indicating that a significant portion of farmers still experience obstacles in transitioning toward more sustainable methods. Among those who do face barriers, the majority of respondents are male (74.85%), while female farmers account for 25.15%. Although the gender gap is wide, the quarter-share female representation suggests that women are not only aware of these challenges but are experiencing them firsthand. Their participation in this group highlights the real and pressing constraints that hinder women's ability to adopt climate-smart practices, such as limited access to land, credit, extension services, and decision-making roles.

Among those who do not report facing barriers, 68.54% are male and 31.46% are female. This slightly narrower gap implies that a higher proportion of women (relative to men) continue to report barriers, suggesting that while some women may have found ways to adopt practices successfully, many still face disproportionate structural and social limitations compared to their male counterparts. The comparison also reveals a slightly lower rate of "Yes" responses among

women (25.15%) than their presence in the “No” group (31.46%), pointing to a potential underreporting of barriers by women—perhaps due to lack of awareness, lower visibility in decision-making processes, or cultural norms that restrict open dialogue around farming challenges.

The data clearly highlights a gendered dimension in the experience of barriers to climate-resilient agriculture. While both men and women face obstacles, women are likely contending with more systemic and entrenched barriers, such as insecure land tenure, financial exclusion, limited training opportunities, and marginalization within formal agricultural systems.



#### Region-wise climate-resilient farming techniques (Barriers)

This data provides a regional breakdown of farmers' experiences with barriers to adopting climate-resilient agricultural practices. The responses reveal how challenges vary across regions, reflecting differences in access to resources, infrastructure, institutional support, and local environmental conditions. Overall, 54.67% of respondents stated they do not face barriers, while 45.33% reported that they do, indicating that nearly half of the farming population still encounters significant obstacles in making the shift toward climate-resilient farming.

Among those who do not face barriers, the Central region represents the largest share (30.49%), followed by the Southern region (24.51%), Eastern (21.46%), Northern (16.71%), and Chitral (6.83%). The high response rates from Central and Southern regions may suggest greater access to resources or stronger local support systems in these areas—or potentially lower levels of engagement with advanced climate-resilient practices, which may reduce the perceived presence of barriers. In contrast, among those who do report facing barriers, the highest share is still seen in the Central region (29.41%), but closely followed by the Northern region (23.97%), and then the Eastern region (18.24%). Chitral (13.82%) and Southern (14.56%) round out the group. These figures indicate that, although Central still dominates in raw numbers, Northern and Chitral farmers are comparatively more likely to report barriers, suggesting regional inequalities in infrastructure, education, or service delivery.

Interestingly, the Eastern region's presence declines significantly from 21.46% in the “No” group to 18.24% in the “Yes” group, which may reflect either successful interventions or better access to enabling services that reduce barriers in that area. On the other hand, Chitral shows a



notable increase, more than doubling its share from “No” (6.83%) to “Yes” (13.82%), highlighting potential isolation or geographic challenges that make climate adaptation more difficult. The Southern region appears in both categories with similar shares—24.51% “No” and 14.56% “Yes”—indicating a mixed experience, where some farmers benefit from existing resources, while others continue to struggle. This could point to uneven access within the region, depending on specific districts or community structures.

The data illustrates that barriers to adopting climate-resilient practices are felt across all regions, but not equally. While the Central region leads in both total access and reported challenges, the Northern and Chitral regions show proportionally higher levels of difficulty, suggesting the need for region-specific strategies to remove these obstacles. Barriers may include lack of technical knowledge, financial constraints, limited access to inputs or equipment, or insufficient institutional support. For regions like Chitral and Northern, addressing these challenges may require investments in infrastructure, localized extension services, and targeted financial support. Meanwhile, in Central, Eastern, and Southern regions, efforts should focus on scaling successful models and ensuring equity in distribution of support across communities. To promote widespread adoption of climate-resilient practices, it is critical to listen to region-specific experiences, tailor interventions accordingly, and prioritize inclusivity to ensure no community is left behind in the transition toward sustainable agriculture.

#### ANOVA results

#### ANOVA

##### Region

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	50.903	9	5.656	2.490	.008
Within Groups	3384.097	1490	2.271		
Total	3435.000	1499			

The analysis of variance (ANOVA) results reveals notable differences in the studied variable across various regions. The statistical test produced an F-value of 2.490 with a p-value of 0.008, which is below the conventional significance threshold of 0.05. This indicates that the differences observed among regions are statistically significant and unlikely to be due to random variation. These findings suggest that some regions may experience unique challenges or advantages compared to others. Region wise differences are as under;

#### Descriptives

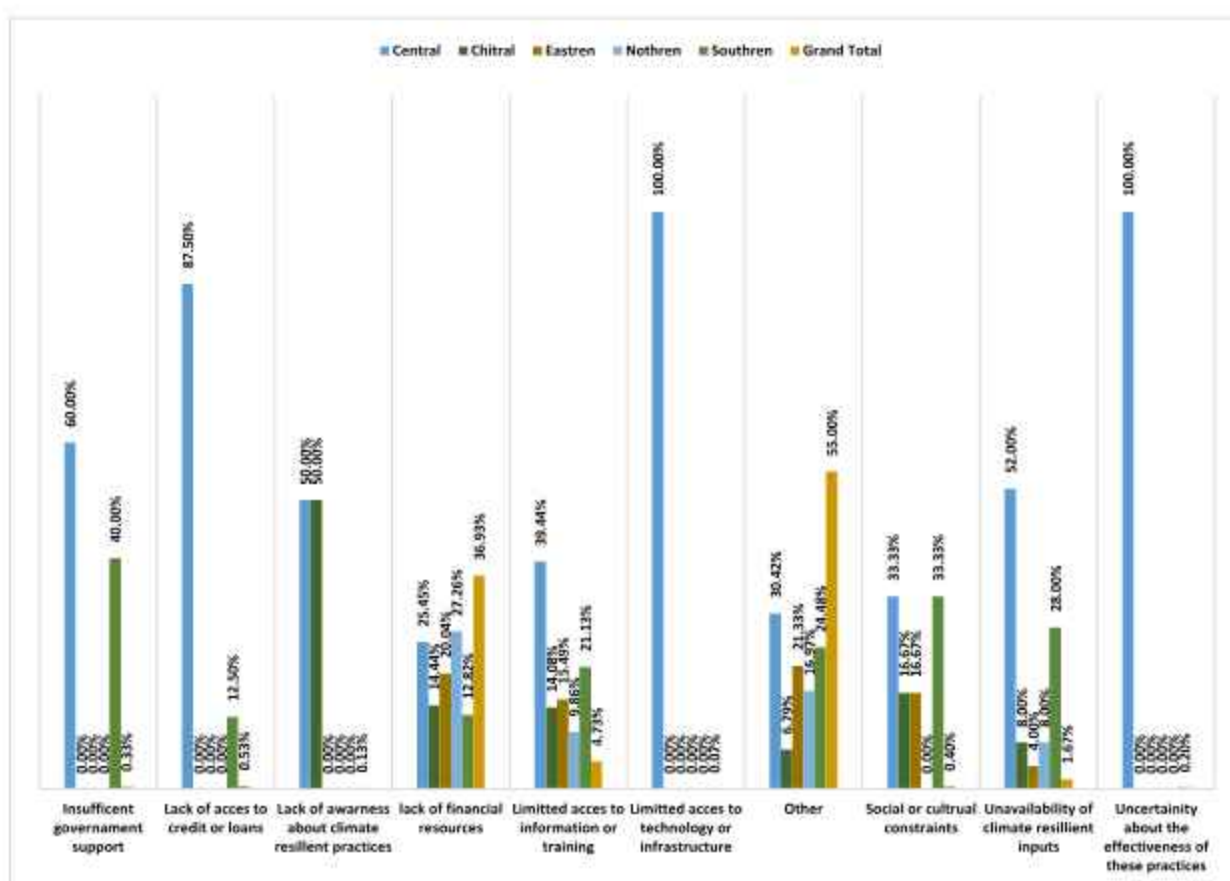
##### Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		

lack of financial resources	554	2.8755	1.39127	.05911	2.7593	2.9916	1.00	5.00
Limited access to information or training	71	2.5915	1.59084	.18880	2.2150	2.9681	1.00	5.00
Unavailability of climate-resilient inputs	25	2.5200	1.80555	.36111	1.7747	3.2653	1.00	5.00
Lack of access to credit or loans	8	1.5000	1.41421	.50000	.3177	2.6823	1.00	5.00
Insufficient government support	5	2.6000	2.19089	.97980	-.1203	5.3203	1.00	5.00
Limited access to technology or infrastructure	1	1.0000	.	.	.	.	1.00	1.00
Social or cultural constraints	6	2.8333	1.83485	.74907	.9078	4.7589	1.00	5.00
Lack of awareness about climate resilient practices	2	1.5000	.70711	.50000	-4.8531	7.8531	1.00	2.00
Uncertainty about the effectiveness of these practices	3	1.0000	.00000	.00000	1.0000	1.0000	1.00	1.00
Other	825	2.9830	1.56096	.05435	2.8764	3.0897	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00

**87. If yes, which of the following barriers do you face?**





## Region-wise climate-resilient farming techniques

This data provides a regional breakdown of the specific barriers farmers face when attempting to adopt climate-resilient agricultural practices. The findings reflect a complex picture of structural, financial, informational, and cultural challenges, with notable variations across regions. Understanding these regional patterns is essential for designing targeted, responsive interventions that help farmers overcome localized obstacles to climate adaptation.

The most commonly reported barrier overall is categorized under “Other,” accounting for 55.00% of total responses. The Central region contributes the largest share (30.42%), followed by the Southern region (24.48%), Eastern (21.33%), Northern (16.97%), and Chitral (6.79%). The widespread use of this category may reflect local challenges that fall outside formal classifications, such as land disputes, political instability, or informal market constraints. It also underscores the need for more nuanced data collection to better understand the nature of these unlisted barriers.

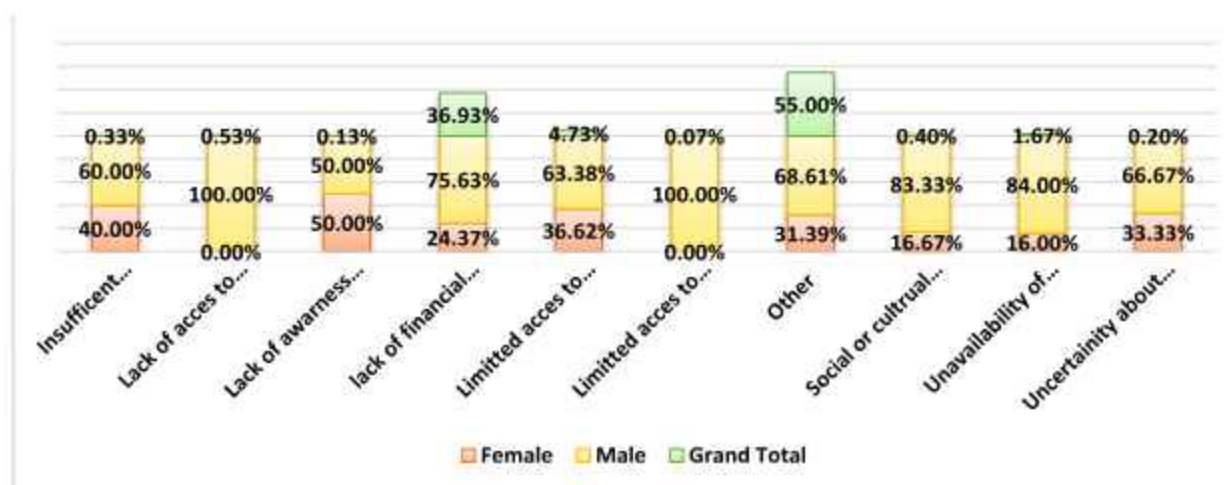
Lack of financial resources is another major barrier, representing 36.93% of total responses. This constraint is most acute in the Northern region (27.26%), followed by Central (25.45%), Eastern (20.04%), Chitral (14.44%), and Southern (12.82%). The broad presence of this barrier across all regions highlights a fundamental challenge to climate resilience—that many farmers simply lack the capital to make sustainable changes, regardless of awareness or intent. Limited access to information or training accounts for 4.73% of responses and is most prevalent in the Central region (39.44%), with additional concerns in the Southern (21.13%), Chitral (14.08%), Eastern (15.49%), and Northern (9.86%) regions. These figures point to a critical gap in agricultural extension services, particularly in Central and rural areas, where effective training could significantly boost adoption of climate-smart practices.

Unavailability of climate-resilient inputs such as drought-resistant seeds or water-saving tools is reported by 1.67% of respondents, with the highest share from the Central region (52.00%), followed by Southern (28.00%), Chitral and Northern (8.00% each), and Eastern (4.00%). This suggests that while awareness may exist, the actual materials and technologies needed for adoption are not reaching farmers, especially in Central and Southern regions. Lack of access to credit or loans is a challenge for 0.53% of respondents and is heavily concentrated in the Central region (87.50%), with a small share from the Southern region (12.50%). No reports came from Chitral, Eastern, or Northern regions. This skew may indicate both actual financial exclusion and uneven regional availability of formal lending institutions.

Insufficient government support, while less frequently cited (0.33%), follows a similar pattern: 60.00% of reports come from Central, and 40.00% from Southern, with no mention from the other regions. This could reflect higher expectations or more visible gaps in service delivery in these areas. Social or cultural constraints are reported by 0.40% of respondents, with equal representation from Central (33.33%) and Southern (33.33%), and smaller shares from Chitral and Eastern (16.67% each). These barriers may relate to gender norms, land ownership customs, or traditional beliefs, which can influence who adopts new practices and how.

Lack of awareness about climate-resilient practices is noted by 0.13% of respondents, split equally between Central (50.00%) and Chitral (50.00%). While the number is small, it suggests localized knowledge gaps, possibly in remote or underserved communities. Uncertainty about the effectiveness of climate-resilient practices is reported solely in the Central region (100%), though it makes up only 0.20% of total responses. This perception-based barrier highlights the need for practical demonstrations and farmer-led testimonials to build trust in new approaches.

Limited access to technology or infrastructure is also exclusively reported in the Central region (100%), though minimally (0.07%) in total. This reinforces the recurring theme that infrastructure and systemic support remain uneven, even in regions with relatively better access to services. The data reveals a diverse and regionally specific set of barriers to adopting climate-resilient farming practices. The Central region emerges as a hotspot for nearly all types of barriers, likely due to its larger agricultural base and greater engagement with climate initiatives—meaning more farmers are both exposed to, and challenged by, the transition. Northern and Eastern regions show a greater struggle with financial constraints, while Chitral reflects isolation-related gaps in training and awareness. The Southern region, though lower in most categories, still faces notable issues in terms of resource availability and cultural constraints.





## **Gender-wise climate-resilient farming techniques**

This data provides a gender-disaggregated breakdown of the specific barriers farmers face in adopting climate-resilient practices. These insights are critical for understanding not just what challenges exist, but also how men and women experience them differently, highlighting the need for gender-responsive policy and program design in climate adaptation.

The largest share of responses (55.00%) falls under the “Other” category, with 68.61% male and 31.39% female participation. This suggests that while men are more likely to cite varied or localized barriers, a significant portion of women also report unique or unspecified challenges, potentially linked to informal land tenure, time poverty, or exclusion from traditional support systems. Lack of financial resources accounts for 36.93% of responses and shows a substantial gender gap, with 75.63% male and 24.37% female respondents. This indicates that while both genders struggle financially, men are more vocal or more frequently positioned to report it, possibly due to their greater control over formal farm finances. Meanwhile, women may experience hidden or intersecting financial barriers, such as lack of asset ownership or credit eligibility.

Limited access to information or training, reported by 4.73%, shows a more balanced gender distribution: 63.38% male and 36.62% female. This relatively high female representation points to increasing inclusion of women in formal training programs, though a gap remains. The data suggests that women are actively seeking information and training, but systemic barriers may still limit full access. The “Unavailability of climate-resilient inputs” category makes up 1.67% of responses, with 84.00% male and 16.00% female respondents. This sharp disparity reflects the greater likelihood of men managing or purchasing inputs, such as seeds and irrigation equipment. However, the lower female share may also be linked to limited market access, decision-making power, or resource allocation within households. Social or cultural constraints, while a smaller category (0.40%), are reported by 83.33% male and 16.67% female respondents. Interestingly, this may point to underreporting by women—possibly due to the normalization of such barriers in their everyday lives—or greater awareness among men of community-level resistance to change.

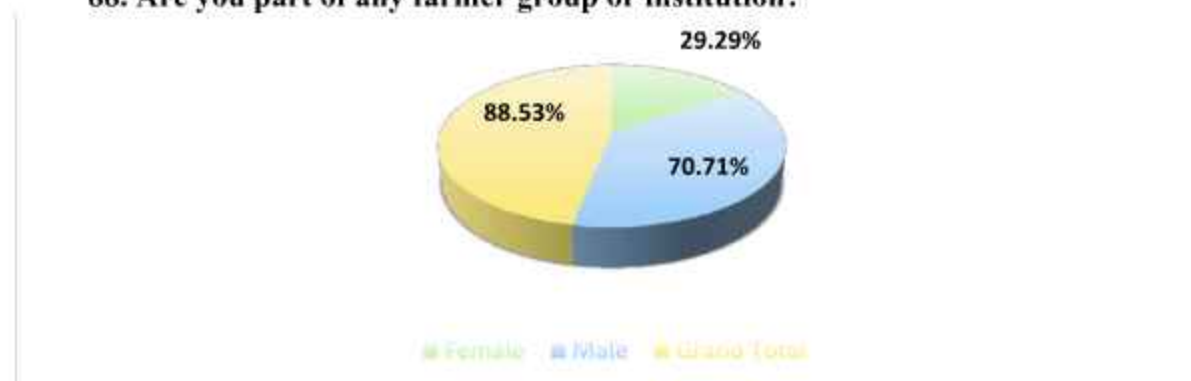
“Insufficient government support” is cited by 60.00% male and 40.00% female respondents, though it accounts for only 0.33% of total responses. This relatively high female share suggests that women are not only aware of institutional shortcomings but directly impacted by them, especially when services do not cater to their needs or are not designed with gender inclusion in mind. Lack of access to credit or loans is exclusively reported by male respondents (100.00%). This indicates a possible systemic exclusion of women from financial systems, or underreporting due to women’s reduced engagement with formal lending institutions. Women may also rely more on informal credit, which may not be perceived—or reported—as a barrier in the same way. Lack of awareness about climate-resilient practices, though representing only 0.13%, shows an even split between male and female respondents (50.00% each). This balance, albeit on a small scale, suggests that information gaps affect both genders equally—especially in marginalized or underserved areas.

“Uncertainty about the effectiveness of practices” was cited by 66.67% male and 33.33% female respondents. This indicates that both men and women may be hesitant to adopt unfamiliar techniques, highlighting a need for on-the-ground demonstrations, peer learning, and success stories that build trust and confidence. Limited access to technology or infrastructure, while minimal (0.07%), was reported only by male respondents. This may be

due to men's closer engagement with equipment and infrastructure-heavy tasks, while women may face indirect barriers that go unreported under this category.

The data illustrates that barriers to climate-resilient agriculture are both widespread and gendered. While men report more frequently across most categories, women are clearly affected across the board, especially in areas like training access, government support, and financial challenges. The gender gaps reflect deeper structural issues—such as limited land ownership, gender norms, and unequal access to resources—that continue to shape how women participate in climate adaptation.

**88. Are you part of any farmer group or institution?**



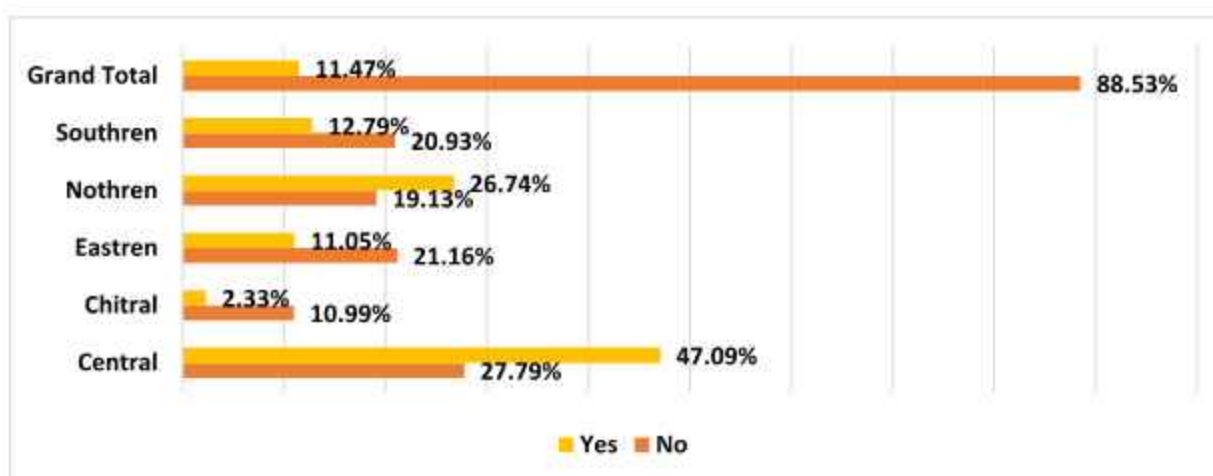
**Gender-wise former group**

This data highlights the gender disparity in participation within farmer groups or institutions. The overall findings show that 88.53% of respondents are not part of any group or institution, while a small proportion (11.47%) of farmers report being part of one. This suggests that formal farmer groups and institutions remain underutilized by the majority of farmers, potentially limiting their access to resources, collective action, and climate-resilient practices.

Among those who are not part of any group or institution, 70.71% are male and 29.29% are female. While men make up the majority, the higher proportion of women reporting no group membership suggests that women are less likely to be involved in organized farmer groups. This could be due to cultural norms, limited mobility, or a lack of representation in leadership roles within such institutions. Additionally, women's lower participation might stem from unequal access to land, credit, or formal training within these groups. On the other hand, among those who are part of a farmer group or institution, 76.74% are male and 23.26% are female. Though the gender gap is present, the smaller difference in this category shows that women are participating when the opportunity arises, indicating that inclusion and representation are possible if designed with gender-sensitive approaches.

The data clearly indicates that farmer groups and institutions are still predominantly male-dominated, with women remaining underrepresented. The gender gap in group participation may be influenced by structural barriers such as limited access to decision-making spaces, lack of financial independence, and social expectations that restrict women's involvement.





### Region-wise farmer group

This data provides a regional breakdown of farmers' participation in farmer groups or institutions. Overall, a substantial majority of respondents (88.53%) are not part of any farmer group or institution, while only 11.47% report being a member. This suggests that while most farmers are not involved in formal or organized groups, the small percentage that are involved could potentially benefit from collective action and better access to resources. Among those who are not part of any farmer group or institution, the Central region has the highest share (27.79%), followed by Southern (20.93%), Northern (19.13%), and Eastern (21.16%) regions. The Chitral region shows the lowest proportion (10.99%), but still, the majority of farmers in each region report no participation in such groups. The high "No" responses in the Central and Southern regions suggest that a lack of structured, accessible institutions may limit opportunities for farmers to come together and share resources, knowledge, and support.

In contrast, regional variation becomes more apparent among those who are part of a farmer group or institution. The Central region leads with 47.09% of respondents reporting membership, which is significantly higher than other regions. This could reflect better institutional presence or higher participation in organized agricultural activities in the Central region. The Northern region also shows a relatively higher proportion of members (26.74%), suggesting moderate engagement with farmer organizations, likely due to stronger government or NGO programs in the area. The Southern region follows with 12.79%, showing moderate involvement, while Eastern (11.05%) and Chitral (2.33%) regions have significantly lower participation. The very low share in Chitral points to potential geographic isolation or cultural factors that might prevent broader engagement in formal farmer groups.

The data reveal a significant regional disparity in participation in farmer groups and institutions, with the Central region standing out for its higher levels of involvement. Despite this, the overall trend shows that most farmers across all regions are not part of any organized groups, which limits their access to climate-resilient practices, financial resources, and collective knowledge-sharing.

## ANOVA results

## ANOVA

## Region

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	94.130	9	10.459	4.665	.000
Within Groups	3340.870	1490	2.242		
Total	3435.000	1499			

The results of a one-way ANOVA analysis indicate that there are significant differences in the variable under study across different regions. The analysis revealed an **F-value of 4.665** and a **p-value of 0.000**, which is well below the conventional significance threshold of 0.05. Regionwide differences are as under;

## Descriptives

## Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Training and capacity building programs	97	3.0000	1.48605	.15089	2.7005	3.2995	1.00	5.00
Financial support (grants, loans)	25	1.6400	1.35031	.27006	1.0826	2.1974	1.00	5.00
Provision of climate resilient seeds and inputs	19	2.0000	1.56347	.35869	1.2464	2.7536	1.00	5.00
Access to technology or equipment	8	1.8750	1.64208	.58056	.5022	3.2478	1.00	5.00
Dissemination of climate risk information or advisories	1	5.0000	.	.	.	.	5.00	5.00
Development of an early warning system	2	1.0000	.00000	.00000	1.0000	1.0000	1.00	1.00
community level planning and resource mobilization	4	1.5000	1.00000	.50000	-.0912	3.0912	1.00	3.00
Policy advocacy and lobbying for climate action	2	1.0000	.00000	.00000	1.0000	1.0000	1.00	1.00
Other	6	2.6667	1.86190	.76012	.7127	4.6206	1.00	5.00
N/A	1336	2.9446	1.49954	.04103	2.8641	3.0251	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00



### 89. If yes, does your group provide support for managing climate-related risks?



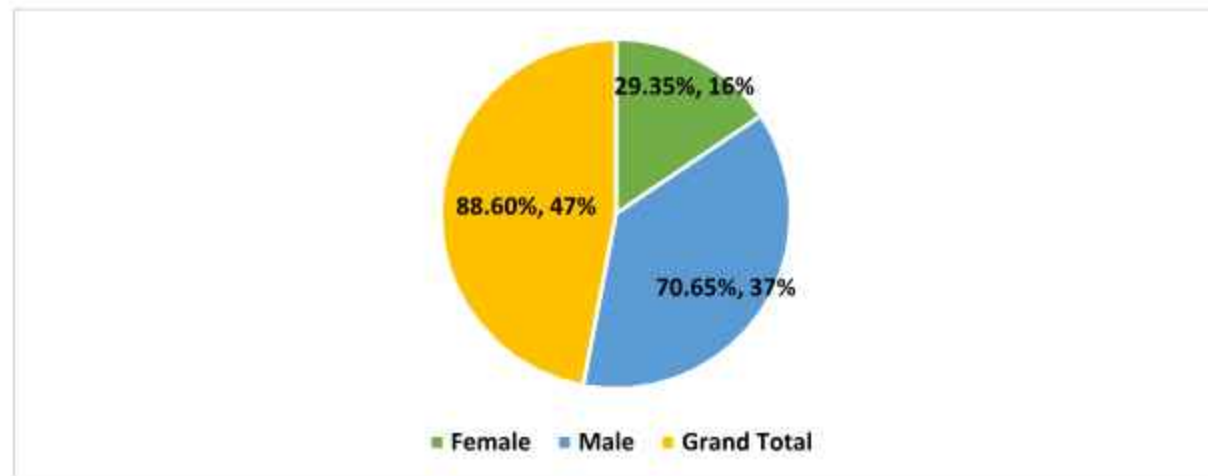
#### Region-wise climate-resilient farming techniques

This data breaks down the regional variation in farmers' access to climate-related risk management support through their involvement in farmer groups or institutions. While 9.27% of respondents report being part of a group that provides support for managing climate risks, the majority (88.60%) either don't know or are not involved in such groups, which points to significant gaps in institutional support and climate resilience at the community level.

Among the "Don't know" responses, the Central region leads with 27.77%, followed by Southern (20.99%), Eastern (21.14%), and Northern (19.11%) regions, with Chitral having the lowest proportion (10.99%). This reflects a widespread lack of awareness or understanding about whether farmer groups or institutions offer climate risk management services. The relatively high percentages of "Don't know" responses suggest that farmers may be unaware of the services provided by their groups or uncertain about the specific forms of support available.

Regarding those who are not part of a group that provides support, the Central region has the highest share (50.00%), reflecting a large proportion of farmers who are not receiving this support. This is followed by the Northern region (21.88%), Southern (15.63%), and Eastern (9.38%) regions. The Chitral region reports the lowest share (3.13%), indicating that, while the region has lower participation in groups, those who are involved are more likely to benefit from climate-related risk support. On the other hand, farmers who are part of a group that provides support for climate-related risks account for 9.27% of the total responses, with the Central region again showing the highest share (46.76%), followed by Northern (28.06%), Southern (11.51%), Eastern (11.51%), and Chitral (2.16%). These findings suggest that while some regions like Central have more structured groups with a focus on climate resilience, other regions like Chitral and Eastern show limited access to these forms of support, which may be due to geographic isolation or lack of organized group structures.

The data reveals significant regional disparities in both group participation and the provision of climate risk management support. While the Central region stands out for its higher engagement with climate-risk-supporting groups, other regions such as Chitral and Eastern show much lower involvement. This suggests that awareness, infrastructure, and institutional presence are critical factors affecting the level of support available to farmers.



### Gender-wise climate-resilient farming techniques

This data provides a gender-disaggregated breakdown of the support that farmers receive from their groups in managing climate-related risks. While a small percentage (9.27%) of respondents are part of a group that offers climate risk management support, the majority (88.60%) either don't know or are not part of such groups, indicating widespread gaps in climate resilience support at the community level.

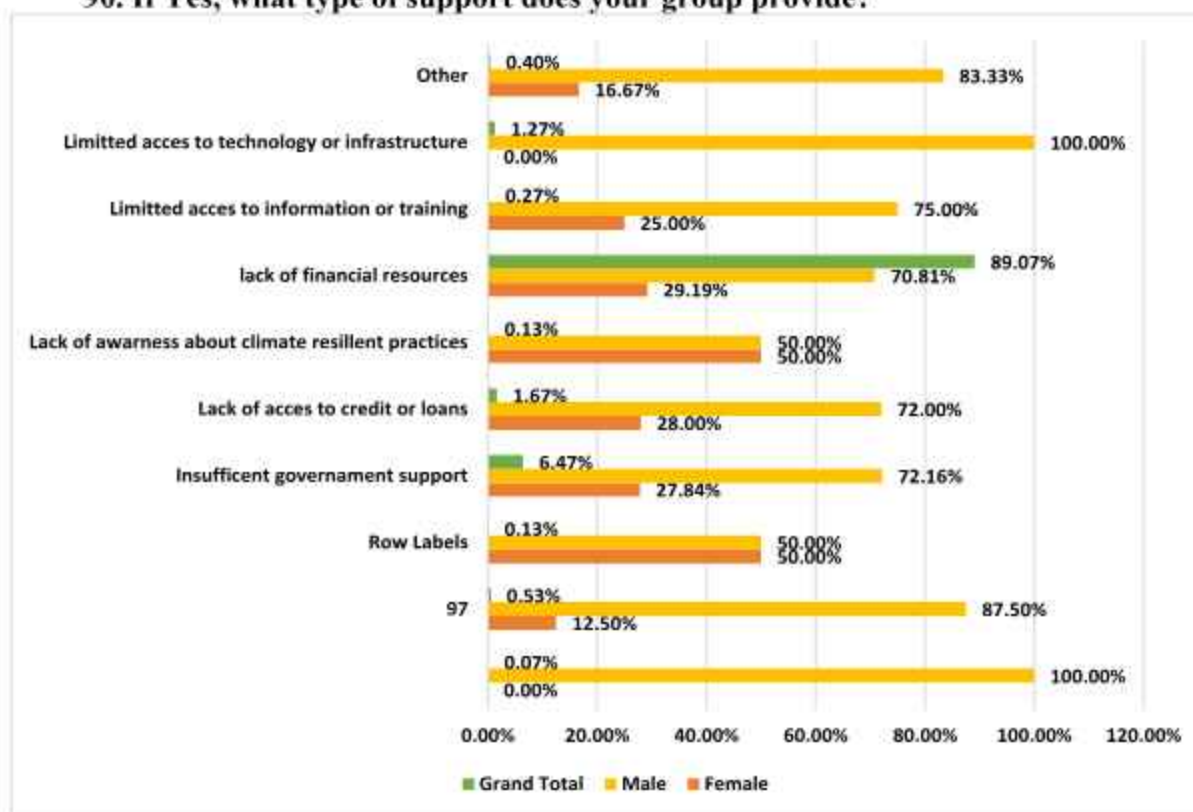
Among those who don't know whether their group provides climate-related support, 70.65% are male and 29.35% are female. This suggests that men are more likely to be unaware of the support available, potentially due to lack of information or limited engagement with climate-focused initiatives. The relatively higher percentage of female respondents who don't know could also indicate that women may have limited access to information, possibly due to gendered barriers in participation or disconnectedness from decision-making bodies.

For those who are not part of a group providing support, 78.13% are male and 21.88% are female, indicating that men are more likely to report non-participation in climate-resilient support groups. This could reflect gender differences in leadership roles within groups, access to resources, or social norms that may restrict women's participation in formal groups or activities. However, among the 9.27% of respondents who are part of a group that provides support for managing climate-related risks, 76.98% are male, and 23.02% are female. While women are involved, their participation rate is lower, suggesting that women may still face barriers to joining or benefiting from groups that provide structured climate risk management support. This could be due to limited access to information, fewer leadership opportunities, or societal constraints.

The data underscores the gendered disparities in participation in farmer groups that provide climate risk management support. Men are more likely to report membership in such groups, and also seem to have greater awareness and access to these services. In contrast, women are underrepresented, suggesting that barriers like gender roles, access to decision-making, and institutional support may limit their involvement in climate resilience activities.



### 90. If Yes, what type of support does your group provide?



### Gender-wise climate-resilient farming techniques

This data provides a gender-disaggregated view of the types of support farmers receive from their groups related to climate risk management. The responses reflect a diverse range of support types, with men more frequently reporting support across most categories, while women show varied participation depending on the specific type of support provided.

Financial Support is reported by 100% male in one category, accounting for 0.07% of the total responses. This suggests that male farmers in this category have exclusive access to financial support, which might be tied to access to credit, loans, or grants often targeted at male-dominated sectors of agriculture. Training or Capacity Building shows 12.50% female and 87.50% male participation, indicating that male farmers are more likely to receive training on climate-resilient practices. However, women's involvement in this support type highlights that gender-specific training programs can increase female participation when designed inclusively.

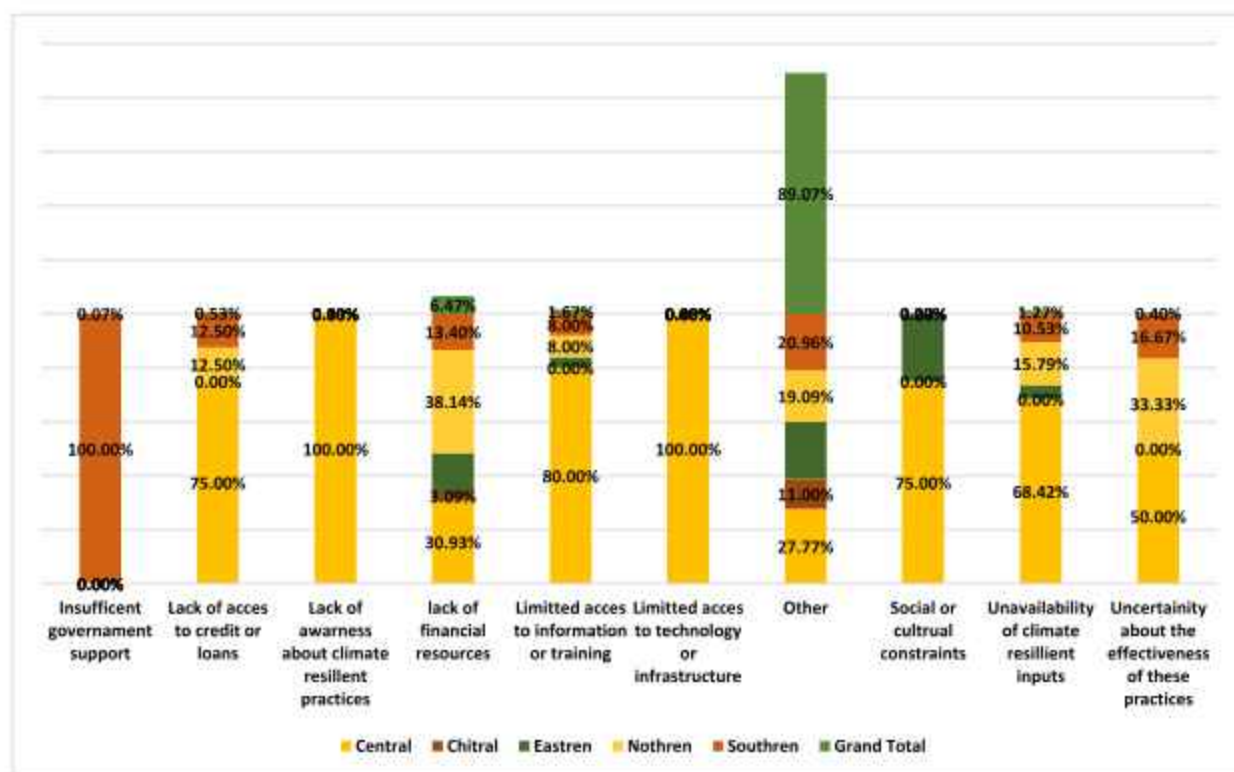
Information or Advisory Services sees a 50/50 split between men and women, accounting for 0.13% of the total responses. This balance suggests that both men and women have equal access to information, pointing to gender-neutral channels for climate advisories or climate-smart techniques. Material Support (e.g., drought-resistant seeds, fertilizers) is accessed by 27.84% female and 72.16% male respondents. Although men dominate, female participation is notable, indicating that women, when included, do benefit from tangible support. The disparity likely reflects gendered access to farm inputs where men traditionally control agricultural decision-making and resources.

Market Access is reported by 28.00% female and 72.00% male respondents. While men still dominate in this area, female participation is evident, suggesting that market linkages are expanding for women, particularly through cooperatives or women-focused farmer groups.

Networking and Peer Learning are equally split between 50% female and 50% male, suggesting that gender-neutral opportunities for networking exist in some groups. This type of support is crucial for fostering peer learning, collaboration, and resource-sharing, especially when trying to scale climate resilience efforts. Access to Tools or Equipment is accessed by 29.19% female and 70.81% male farmers, showing moderate female participation. While men continue to dominate, the access to tools and technology remains an important area where women benefit when resources are available and accessible.

Emergency Relief or Disaster Support sees 25.00% female and 75.00% male participation. The disparity suggests that men are more likely to access emergency support, which could be due to cultural or structural limitations, such as women's restricted access to emergency relief mechanisms or decision-making processes during crises. Technical Support (such as for irrigation or soil management) shows 100% male participation in one category, making up 1.27% of total responses. This highlights that technical support in certain regions or contexts is exclusively accessible to men, potentially due to gender norms, roles, or restricted access to machinery and equipment.

Insurance Support is reported by 16.67% female and 83.33% male respondents. Though women have a small share, the low overall access to insurance (as indicated by the small percentage) shows the gender disparity in securing climate-related insurance, often tied to land ownership and formal financial inclusion. The data clearly shows that men are more likely to receive support across most types of climate resilience services, with women's involvement in support groups varying by type. The gender gap is particularly notable in areas like financial support, technical support, and emergency relief, suggesting that cultural, structural, and access barriers continue to limit women's participation and benefit from climate-resilient services.





## **Region-wise climate-resilient farming techniques**

This data reveals significant regional variation in the types of support provided by farmer groups or institutions to help manage climate-related risks. While the majority of farmers across regions remain unaware or uninvolved in support services, the responses that do highlight support show clear regional strengths and weaknesses in terms of the resources and services provided.

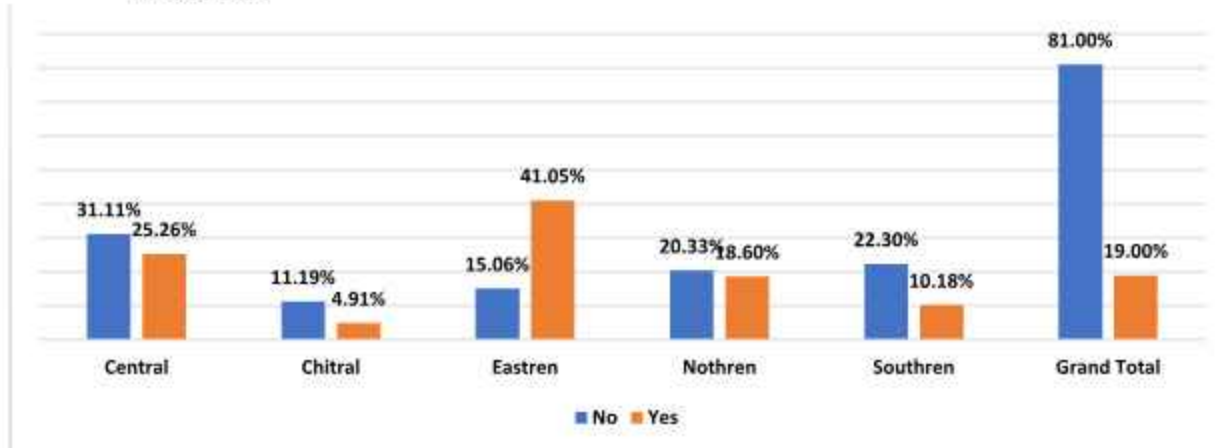
In the Central region, financial support is the most prominent, with 75% of groups reporting that they offer financial assistance, including loans, grants, or other financial services. This is the only region reporting financial support, suggesting that Central region farmers are the primary beneficiaries of formal or institutional funding mechanisms. However, no other region reports financial support, indicating a major gap in access to financial resources in other parts of the country. The Central region also leads in terms of training and capacity building, where 100% of groups are offering climate resilience training or educational services to their members. This highlights that Central region farmers have access to both formal support and structured training programs, positioning them well for climate adaptation. In contrast, the Northern region reports only 12.5% participation in training, indicating limited access to these critical services in other areas. When it comes to material support such as drought-resistant seeds, irrigation systems, or other tools, the Central region again leads, with 30.93% of groups providing such resources. The Northern region follows with 38.14%, but the Southern region offers less material support, with only 13.4% of groups providing tangible goods. These figures suggest that Central and Northern regions have better access to inputs and tools, which is crucial for building climate resilience, while Southern and Eastern regions face challenges in receiving the necessary resources to adapt. Another notable support category is market access, where 80% of groups in the Central region help farmers access markets for their climate-resilient products. Eastern and Northern regions, however, show limited participation, with only 4% and 8% of groups providing market access, respectively. This suggests that farmers in these regions may not have the same opportunities to sell their products, thereby missing out on economic resilience that is necessary for sustainable farming practices.

The Southern region, however, reports that 12.79% of groups provide emergency relief or disaster support, highlighting the need for support in times of climate shock. Interestingly, no other region has reported access to this type of support, pointing to the Southern region's specific resilience efforts, particularly in disaster management, which are not yet scaled or accessible to other areas. Finally, networking and peer learning is widely available across all regions, with the Central region contributing 27.77%, followed by Eastern (11%), Northern (21%), and Southern (19%). This support type, which focuses on knowledge exchange, collaboration, and shared learning, seems to be relatively accessible to farmers in all regions, suggesting that community-based networks are integral in climate adaptation, even if other forms of support are not as widely distributed.

The data clearly shows significant regional disparities in the types of climate-related support provided by farmer groups. Central region farmers have access to a wide range of resources, including financial support, training, material inputs, and market access. However, other regions, particularly the Eastern and Southern regions, face considerable barriers in accessing these services. The Northern region shows some access to support but lacks comprehensive resources across the board. To address these gaps and ensure equitable climate resilience across all regions, it is essential to scale successful models from the Central region to other areas,

especially those where financial, material, and technical support are lacking. Focusing on gender-sensitive interventions and ensuring that farmer groups across regions are adequately supported will be key to enabling farmers everywhere to adapt to and manage climate risks effectively.

#### 91. Have you received any institutional support for climate adaptation measures?



#### Region-wise climate-resilient farming techniques

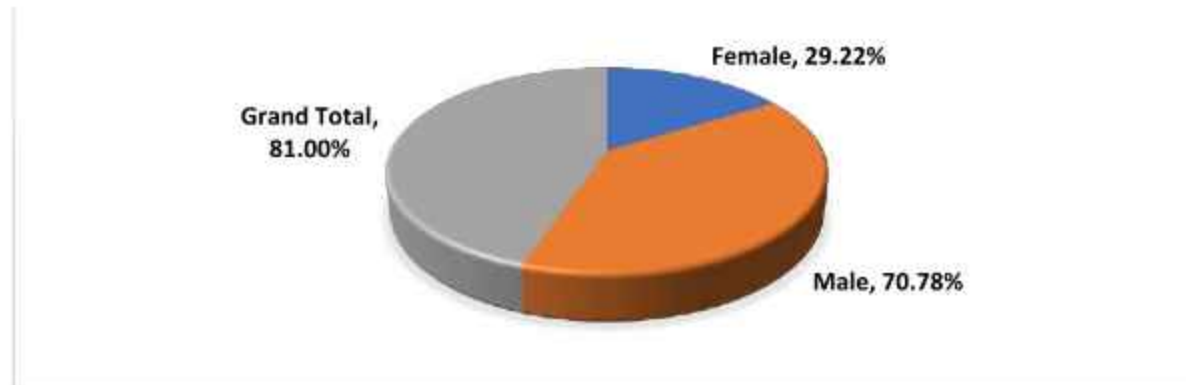
The data presents a regional breakdown of farmers' access to institutional support for climate adaptation measures. The findings show that while 19% of respondents have received support, a significant majority (81%) have not. This indicates that institutional support remains limited, and most farmers are either unaware of available support or lack access to such resources. Understanding these disparities is crucial for targeting interventions that ensure broader access to climate adaptation services.

Among those who have not received institutional support, the Central region has the highest share at 31.11%, followed by the Southern region (22.30%), Northern region (20.33%), and Eastern region (15.06%). The Chitral region has the lowest proportion of farmers reporting no support, at 11.19%, which may reflect better localized support or less reliance on formal institutions in this region. However, the high percentage of farmers in the Central, Southern, and Northern regions without institutional support underscores a significant gap in institutional outreach or availability of climate adaptation measures. On the other hand, among those who have received institutional support, the Eastern region leads with 41.05%, followed by the Northern region (18.60%), Central region (25.26%), and Southern region (10.18%). Chitral has the lowest proportion of farmers reporting support, with only 4.91% of respondents receiving institutional assistance. The high share of Eastern region farmers receiving support suggests that this region may have better access to or awareness of institutional programs, which may include government, NGO, or community-based initiatives focused on climate adaptation.

The data clearly reveals that institutional support for climate adaptation measures is unevenly distributed across regions. While the Eastern region stands out with relatively higher access to institutional support, the Central, Southern, and Northern regions still show high levels of exclusion. Chitral, in particular, appears to be largely underserved, with very few farmers reporting any institutional assistance. To improve climate resilience, targeted efforts are needed to increase institutional outreach in regions with low support, especially in Chitral and Southern



regions. Expanding climate adaptation programs, increasing awareness, and ensuring that local and regional institutions are equipped to support farmers in these areas will be key to ensuring more inclusive and effective adaptation strategies.



### Gender-wise climate-resilient farming techniques

This data provides a gender-disaggregated breakdown of farmers' access to institutional support for climate adaptation measures. The findings show that a significant majority (81%) of farmers have not received institutional support, while only 19% report having received assistance. This suggests that institutional support for climate adaptation remains limited, with considerable gaps in outreach and access to formal services.

Among those who have not received institutional support, 70.78% are male and 29.22% are female. This indicates that a larger proportion of male farmers report no access to institutional support, but the data also shows that a notable share of women (29.22%) are without support, which may reflect gendered barriers to accessing institutional services. These barriers could be related to limited mobility, lower access to credit, land tenure issues, or lack of inclusion in decision-making regarding institutional support programs. Among those who have received institutional support, 74.04% are male, while 25.96% are female. This further suggests that while male farmers are the primary recipients of institutional support, female farmers are also engaged with these programs, but their participation remains significantly lower than that of men. This discrepancy highlights gendered differences in access to climate adaptation services and points to the need for more inclusive institutional support that actively targets women.

The data reveal a gender gap in the receipt of institutional support for climate adaptation, with male farmers more likely to benefit from these services. However, female farmers are still significantly underserved, which points to systemic barriers such as gender biases in resource distribution, lack of targeted outreach, and limited access to decision-making processes.

### ANOVA results

The analysis revealed notable regional variations in the variable under study. A one-way ANOVA test was conducted to assess whether these differences were statistically significant. The results indicated a sum of squares of 60.437 between groups and 3374.563 within groups, with corresponding degrees of freedom of 7 and 1492, respectively. The computed F-value was 3.817, and the p-value was 0.000.

Since the p-value is less than 0.05, confirming that there are statistically significant differences across the regions. This suggests that regional factors such as policies, resource distribution,

environmental conditions, and socio-economic disparities may play a role in shaping the observed variations. Region-wise variances are as under;

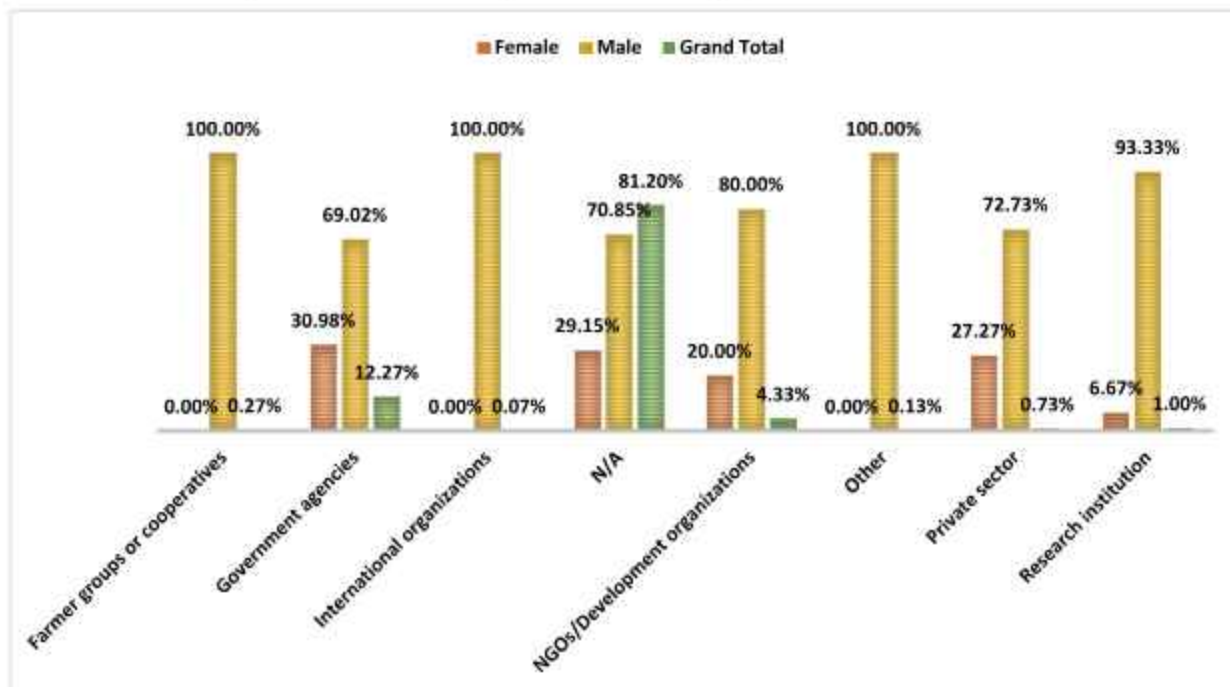
### Descriptives

Region

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Financial support (e.g., grants, subsidies, loans)	184	3.1141	.98237	.07242	2.9712	3.2570	1.00	5.00
Training and capacity-building	65	2.6615	1.54391	.19150	2.2790	3.0441	1.00	5.00
Provision of climate-resilient seeds or inputs	11	1.4545	1.21356	.36590	.6393	2.2698	1.00	5.00
Access to technology or equipment	15	1.7333	1.53375	.39601	.8840	2.5827	1.00	5.00
Climate risk advisories or information	4	3.0000	2.30940	1.15470	-.6748	6.6748	1.00	5.00
Infrastructure development (e.g., irrigation systems, flood protection)	1	2.0000	.	.	.	.	2.00	2.00
Other	2	1.5000	.70711	.50000	-4.8531	7.8531	1.00	2.00
N/A	1218	2.9105	1.56514	.04485	2.8225	2.9985	1.00	5.00
Total	1500	2.9000	1.51378	.03909	2.8233	2.9767	1.00	5.00



## 92. If Yes, which institution provided the support?



### Gender-wise climate-resilient farming techniques

This data provides a gender-disaggregated view of the institutions that have provided climate adaptation support to farmers. The responses reflect a range of institutional sources from which farmers receive assistance, such as government agencies, NGOs, private sector entities, or other organizations. The data also reveals how gender influences access to support from these institutions.

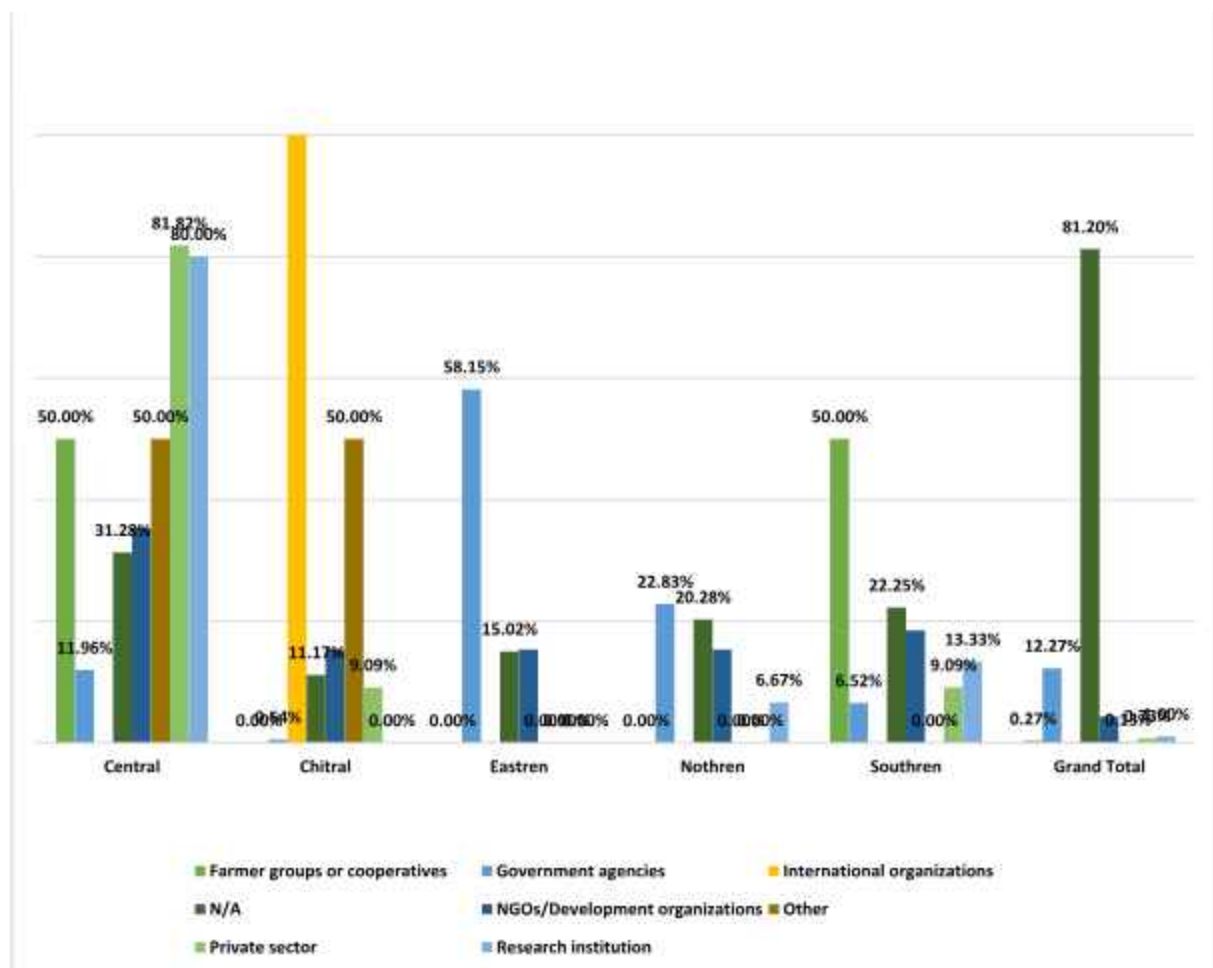
Among the very few farmers who received support from an institution (0.27%), 100% of the respondents are male, suggesting that male farmers are the only ones reporting institutional support in this very small category. This highlights gender disparities in institutional outreach or accessibility, with women likely facing more barriers in accessing institutional resources.

In the category of farmers who received support from institutions, 69.02% male and 30.98% female respondents show participation, which represents 12.27% of the total respondents. Although male farmers continue to dominate, the fact that nearly a third of the support recipients are women suggests that some institutional support services are reaching women, albeit at lower rates than men. The relatively high female participation in this category is encouraging, yet it still highlights that women are underrepresented in accessing institutional support compared to men.

The next notable category shows that 100% male participation is reported in a very small subset (0.07%) for a specific institution, suggesting that only men are accessing support from certain sources, likely private sector or government programs with a male-dominated participation. The largest share of respondents (representing 81.20% of the total) report receiving institutional support from other, unspecified sources, with 70.85% of these respondents being male and 29.15% female. This category highlights the fact that informal or community-based institutions may be more accessible or relevant in certain regions, but still largely male-dominated.

A significant gap is visible in the government institutions category, where 80.00% of support recipients are male, compared to 20.00% female, representing 4.33% of total responses. This further underscores the gender disparity in institutional access, particularly when formal government support is concerned, which is traditionally more accessible to male farmers due to systemic barriers like land ownership, formal registration, or decision-making roles that are often dominated by men. Finally, a very small group reports receiving support from private sector institutions, with 100% male participation (0.13% of responses). This highlights that private sector support, likely in the form of commercial services or inputs, remains overwhelmingly male-dominated, potentially due to male farmers' greater control over financial resources or purchasing decisions in commercial sectors.

The data reveals a significant gender gap in institutional support for climate adaptation, with male farmers accessing most forms of institutional support. Female participation in these programs is notably lower, suggesting that women are facing barriers in accessing both formal institutional support and private sector services. This gap may reflect cultural, financial, and structural factors that limit women's access to institutional resources.



### Region-wise climate-resilient farming techniques

This data breaks down the regional distribution of institutional support for climate adaptation, identifying which institutions are providing the support across different regions. The findings highlight substantial regional differences in access to institutional resources, with certain regions showing significant gaps in support.



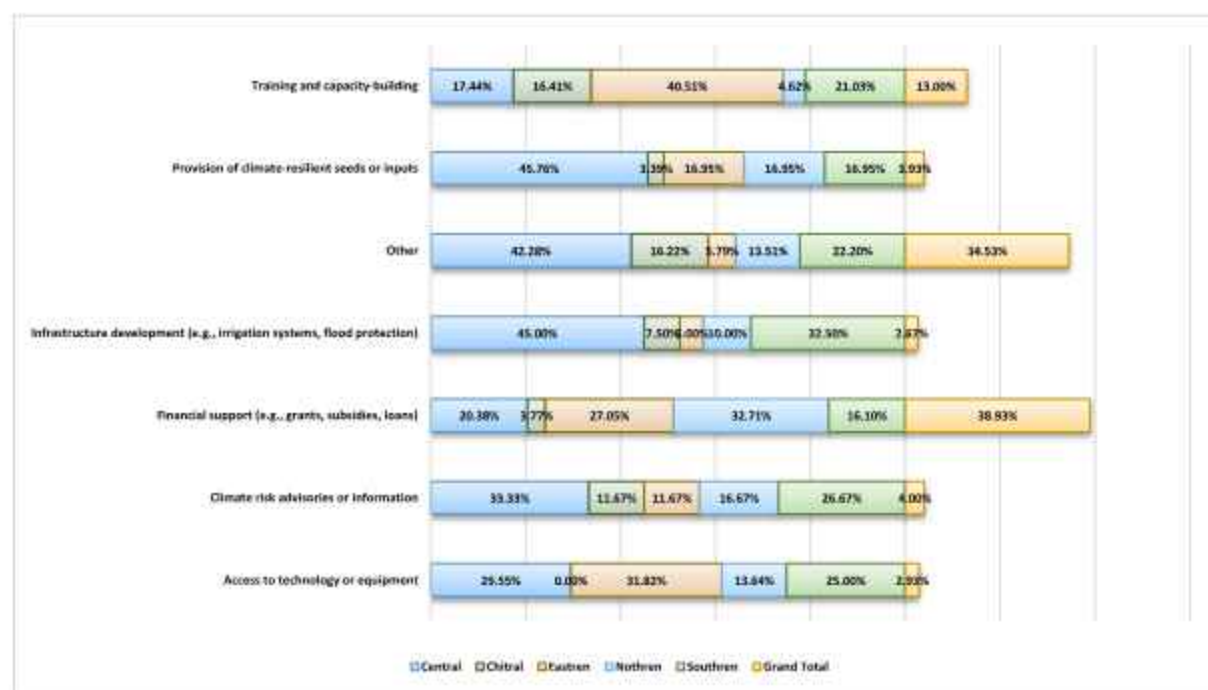
A very small percentage (0.27%) of the total respondents reported receiving support from an institution, and this support is solely from the Southern region (50.00%), with no other regions reporting participation. This suggests that in this specific case, the Southern region is the only area with institutional support available for a small group of farmers. The absence of reports from other regions indicates a lack of institutional outreach or awareness in those areas. In terms of government institutions, the Eastern region stands out with 58.15% of the total participation, followed by Northern (22.83%) and Southern (6.52%) regions. The Chitral region reports no participation, pointing to regional disparities in government involvement or awareness of available services. The Eastern region's high participation may reflect better government outreach or more robust local government programs designed to support farmers with climate adaptation measures.

For private sector institutions, the data shows 100% participation from the Chitral region (0.07% of the total responses), suggesting that private sector engagement is isolated to this area. No other regions report private sector support, highlighting a gap in access to commercial support or services, which could include agriculture-related inputs like seeds, tools, or financing options. Regarding farmer groups or cooperatives, 81.20% of respondents report receiving support, with the highest participation in the Eastern (15.02%) and Northern (20.28%) regions. These regions have moderate levels of engagement, indicating that farmer-led organizations may be active in these areas, providing peer support and networking opportunities for climate adaptation. The Southern and Chitral regions show lower levels of participation, with 22.25% and 11.17% respectively, suggesting that farmer groups may be underrepresented in these areas or have limited access to institutionalized support.

For technical support or training, there is relatively equal participation across regions, with the Eastern region reporting 15.38%, Northern (15.38%), and Southern (18.46%) regions showing slightly higher involvement. This indicates that training programs are available in multiple regions, though their reach may be limited, with certain regions like Chitral reporting very minimal engagement in technical support services. Networking or peer learning reports a lower level of involvement overall, with 9.09% of participation in the Northern region, and 13.33% in Southern regions. This suggests that while there is some opportunity for peer learning or knowledge exchange, the low engagement indicates that such opportunities are not widely accessible across the country.

The data reveals clear regional disparities in terms of which institutions are providing support to farmers for climate adaptation. While Eastern and Northern regions show higher engagement with government institutions and farmer groups, other regions like Southern and Chitral are underserved in terms of institutional support, with some regions, like Chitral, showing no participation in private sector support or government programs.

### **93. What type of support did you receive?**



### Region-wise climate-resilient farming techniques

This data provides a regional breakdown of the types of support received by farmers for climate adaptation. The various forms of support, such as technology, financial assistance, infrastructure development, and training, indicate the regional availability and effectiveness of climate adaptation services. The findings reveal both opportunities and disparities in the support provided across different regions.

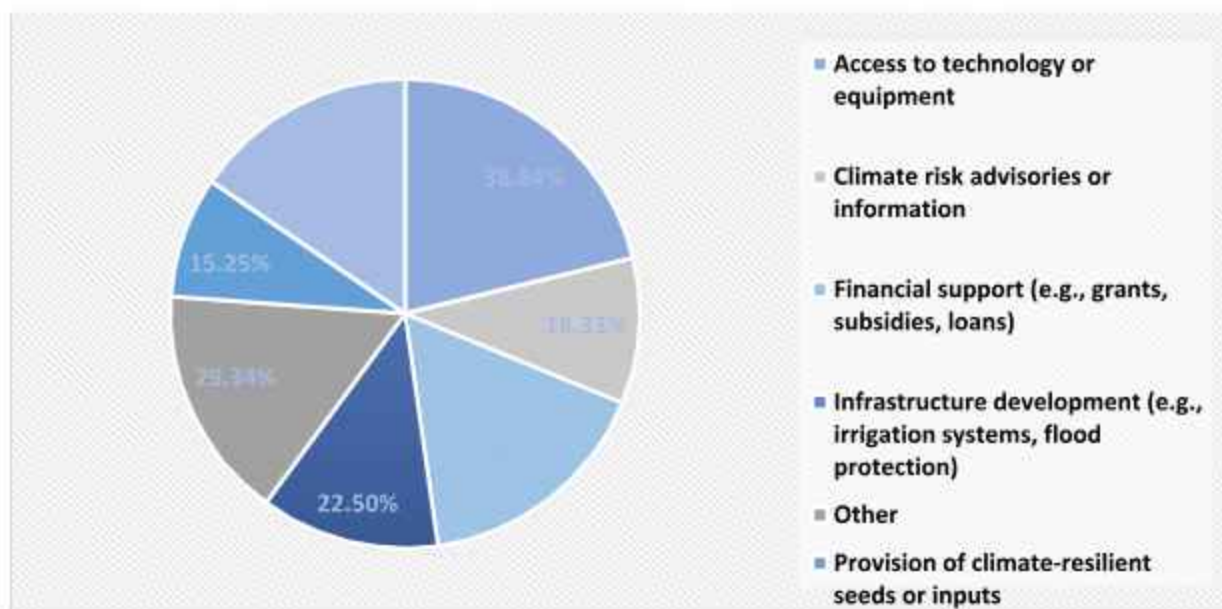
Access to technology or equipment is most prevalent in the Central region (29.55%), followed by the Eastern region (31.82%) and Southern region (25.00%). This suggests that farmers in these regions are more likely to have access to modern farming tools, technology, or machinery, which are crucial for improving productivity and resilience. Chitral, however, reports no access to technology, which could indicate geographic isolation or lack of infrastructure in this region, limiting access to these essential resources.

Climate risk advisories or information are primarily accessed in the Central region (33.33%), with the Southern region (26.67%) and Northern region (16.67%) showing moderate engagement. The Eastern region reports lower access (11.67%), indicating that climate-related information services may be less available or less utilized in that area. Access to this kind of information is vital for farmers to understand and prepare for climate-related risks. Financial support (such as grants, subsidies, or loans) is a significant form of assistance, with the Northern region leading at 32.71%, followed by the Central region (20.38%) and Eastern region (27.05%). The Southern region (16.10%) and Chitral (3.77%) have lower participation, highlighting regional financial access gaps. Financial support is crucial for enabling farmers to adopt climate-resilient practices, as it can offset costs for technology, inputs, and infrastructure. Infrastructure development, such as irrigation systems and flood protection, shows strong support in the Central region (45.00%), followed by the Southern region (32.50%). The Northern region (10.00%) and Eastern region (5.00%) report relatively low levels of support for infrastructure, indicating that climate-resilient infrastructure projects may be more concentrated in certain areas but not widely distributed across all regions.



Other types of support represent 34.53% of responses and are most reported in the Central region (42.28%), followed by the Southern region (22.20%) and Eastern region (16.22%). This category likely reflects informal or unstructured forms of support, which could include local community-based initiatives, peer learning, or support from informal networks. The variety in this category points to the importance of local, non-institutional support systems in some regions. The provision of climate-resilient seeds or inputs is most evident in the Central region (45.76%), with Eastern, Northern, and Southern regions reporting 16.95% participation. The Chitral region has minimal access to such inputs (3.39%), indicating a need for greater input supply or access to quality seeds to support climate-resilient farming in this area. Training and capacity-building is another important form of support, with the Eastern region receiving 40.51% of responses, followed by the Southern region (21.03%). The Central region reports 17.44% participation, suggesting that while training opportunities are available, they may not be as widely accessible in some regions. Northern and Chitral regions have lower engagement, indicating that capacity-building efforts may need to be scaled up and better targeted to reach all farming communities.

The data highlights significant regional differences in the types of support that farmers receive for climate adaptation. The Central region stands out for receiving the most diverse and widespread support, including financial assistance, technology access, and infrastructure development. In contrast, regions like Chitral and Northern show lower levels of participation in certain areas of support, indicating gaps in institutional outreach and resource allocation. The Eastern and Southern regions also show strengths in specific areas like training and financial support, but they still face challenges in accessing technology, seeds, and infrastructure. Chitral, with minimal access to technology or financial support, highlights the need for tailored interventions to increase institutional engagement and support in remote or underserved areas. Overall, to ensure more equitable climate adaptation across regions, it is crucial to expand institutional support, increase infrastructure investments, and ensure that climate-resilient practices are accessible to all farmers, especially in underserved regions like Chitral and Northern.



**Gender-wise climate-resilient farming techniques**

This data provides a gender-disaggregated view of the types of support received by farmers for climate adaptation. The findings highlight gender differences in accessing various forms of

support, ranging from technology and financial resources to training and infrastructure development. The results suggest both opportunities and barriers in providing climate adaptation resources to men and women.

Access to technology or equipment is most accessible to male farmers, who account for 61.36% of the responses, while female farmers make up 38.64%. The relatively high female participation in this area indicates that women are accessing technology and equipment, which are critical for improving productivity and resilience to climate risks. However, the gender gap suggests that men are more likely to receive access to the latest tools and technologies that could enhance climate resilience.

When it comes to climate risk advisories or information, 81.67% of male farmers report receiving support, compared to 18.33% of female farmers. This significant disparity suggests that climate-related information services are more readily available to men, possibly due to greater access to agricultural extension services or more formal channels of communication. The low female participation could also reflect gender-based barriers in receiving or utilizing advisory services, such as limited mobility, lower literacy rates, or reduced access to public extension services. Financial support, including grants, subsidies, and loans, shows a more balanced distribution, with 69.86% of male farmers receiving financial assistance compared to 30.14% of female farmers. While the financial gap is still significant, the fact that 30% of female farmers are receiving financial support demonstrates that some institutional financial services are accessible to women, though these services are likely not equally distributed or targeted enough to overcome the barriers women face in agriculture-related financing.

Infrastructure development, such as irrigation systems and flood protection, is predominantly accessed by male farmers, with 77.50% male participation compared to 22.50% female participation. This disparity suggests that large-scale infrastructure projects may primarily benefit male-dominated sectors of farming, where men are more likely to be involved in land management and decision-making related to infrastructure. Other types of support account for 34.53% of the total responses, with 70.66% male participation and 29.34% female participation. This category could reflect informal or non-institutional support, such as local community networks, peer learning groups, or family-based assistance. While men are still more likely to access such support, female participation in this category suggests that informal, community-based support systems are still crucial for women farmers, who may face institutional exclusion in other areas.

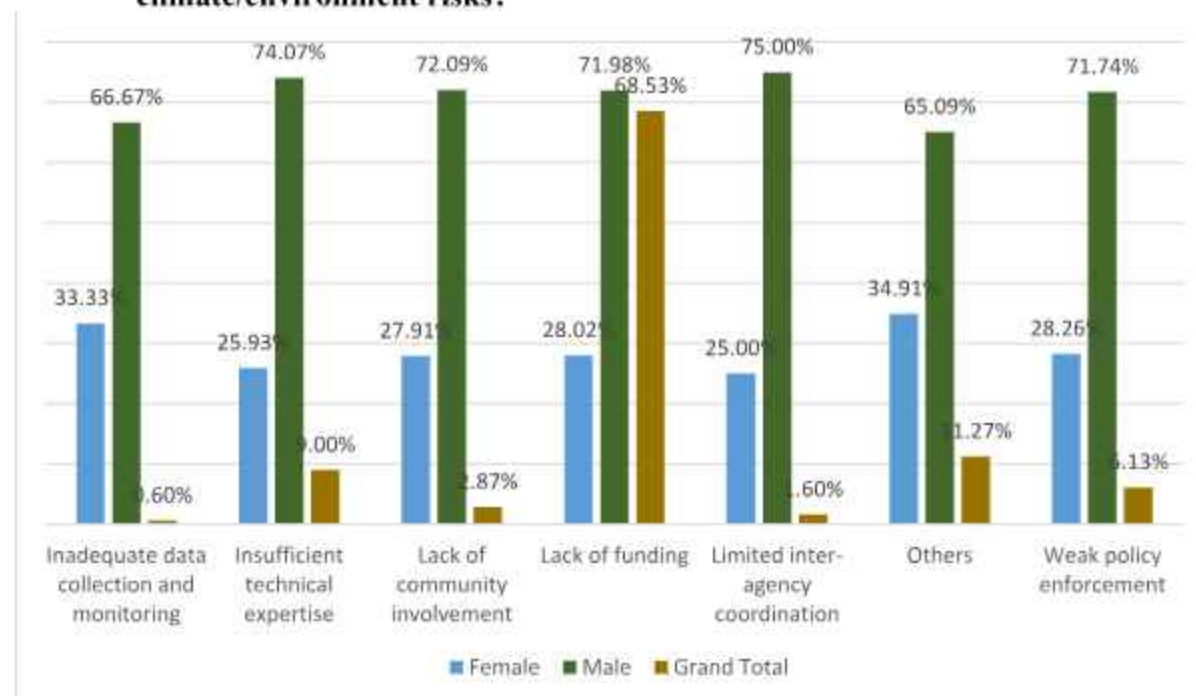
Provision of climate-resilient seeds or inputs is dominated by male farmers, who represent 84.75% of responses, with female farmers making up only 15.25%. This stark gender gap suggests that women have much lower access to quality seeds or climate-resilient inputs, which are essential for adapting farming practices to climate change. The unequal access to such resources could be due to land tenure issues, limited access to markets, or gendered resource control, which often limits women's ability to access agricultural inputs. Training and capacity-building is another area where men dominate, with 71.79% male participation compared to 28.21% female participation. While women are still accessing training, their lower participation reflects gendered barriers in accessing educational opportunities or technical training, often due to cultural norms, mobility constraints, or time poverty due to household responsibilities.

The data reveals a gender gap in the types of support received by farmers for climate adaptation, with male farmers accessing more forms of support across almost all categories, including financial aid, technology, infrastructure, and seeds. However, female farmers do have access



to certain forms of support, particularly informal networks and some training programs, but they still face substantial barriers in receiving equal access to resources such as financial assistance, seeds, and technology.

**94. What gaps do you observe in institutional support for managing climate/environment risks?**



**Gender-wise climate-resilient farming techniques (Gaps)**

This data provides a gender-disaggregated view of the perceived gaps in institutional support for managing climate and environmental risks. The findings highlight various barriers, such as inadequate data collection, insufficient technical expertise, lack of funding, and weak policy enforcement, which can hinder the effectiveness of institutional support in addressing climate-related challenges.

Inadequate data collection and monitoring is identified as a significant gap, with 66.67% of male respondents and 33.33% female respondents reporting this issue, accounting for 0.60% of the total responses. This indicates that while both men and women recognize the importance of better data collection and monitoring, men are more likely to highlight this gap, perhaps due to their greater involvement in decision-making or data-related processes. Both genders agree on the need for more robust data systems to track climate risks and adaptation progress, which is essential for effective policy and intervention. Insufficient technical expertise is reported by 74.07% male and 25.93% female respondents, making up 9.00% of the total responses. The gender gap here suggests that male respondents are more likely to acknowledge this gap, potentially reflecting their greater engagement with technical fields, agricultural extension services, or climate-related projects. The gap in technical expertise highlights the need for greater capacity building, especially in terms of trained professionals who can assist in implementing climate adaptation strategies.

Lack of community involvement is reported by 72.09% male and 27.91% female respondents, representing 2.87% of total responses. This gap underscores the importance of involving local communities in climate adaptation efforts, especially at the grassroots level. While both men and women recognize this as a challenge, men are more likely to report it, which could suggest

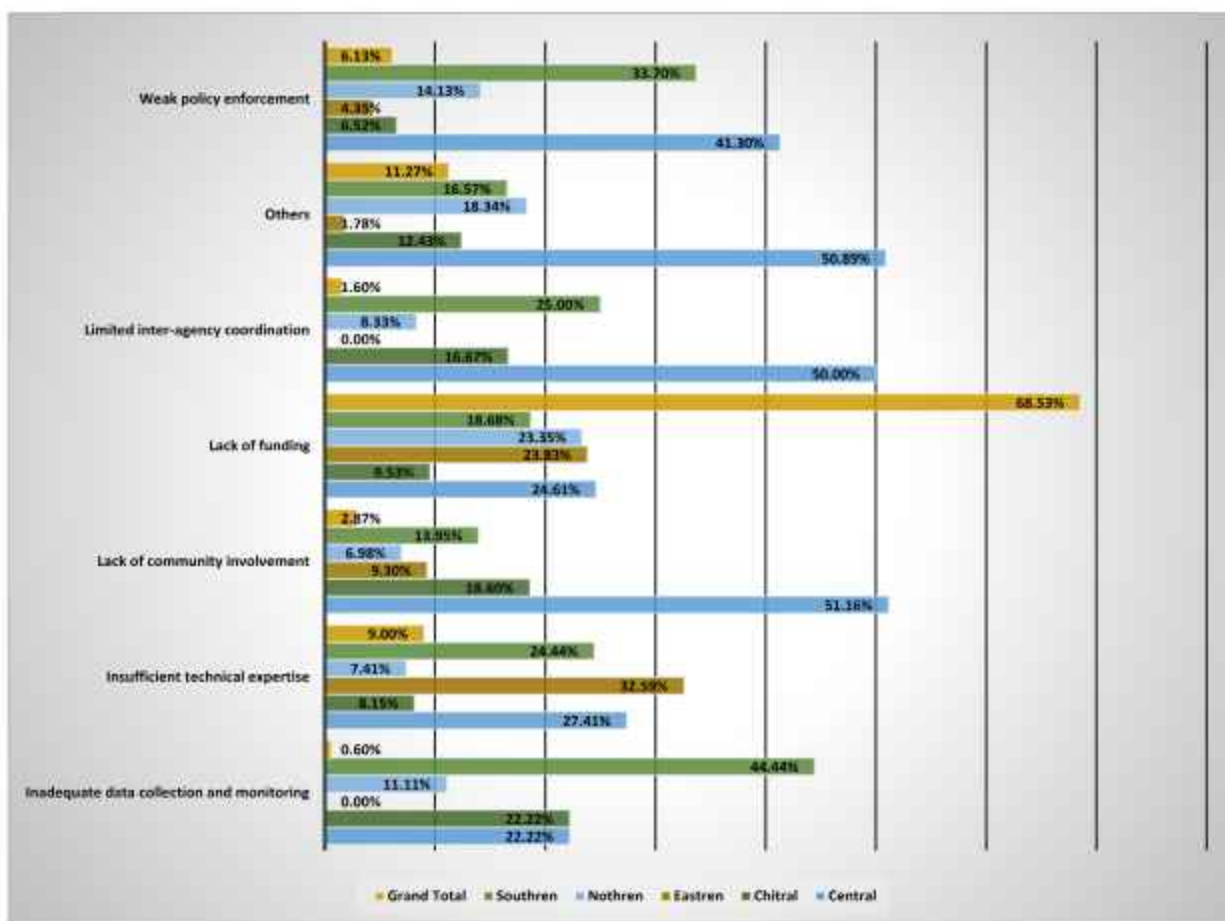
greater awareness of the barriers to community engagement in formal processes. Addressing this gap would involve creating inclusive platforms for both men and women to actively participate in decision-making and climate risk management. Lack of funding is identified as a major gap, with 71.98% of male respondents and 28.02% female respondents reporting this issue, which makes up 68.53% of total responses. This is the most significant gap identified, and the gendered response shows that male respondents are more likely to identify funding as a key constraint. Funding gaps are a fundamental barrier to scaling up climate adaptation initiatives, and addressing this issue is crucial for providing farmers with the necessary resources to manage climate risks. The gender disparity in recognizing this gap could reflect men's greater access to funding sources or financial decision-making roles.

Limited inter-agency coordination is a gap highlighted by 75.00% male and 25.00% female respondents, making up 1.60% of total responses. This suggests that coordination between various government and non-government agencies involved in climate adaptation remains weak, with men more likely to report this issue. Effective coordination between agencies is critical for addressing the multi-faceted nature of climate risks, and enhancing this coordination could lead to more holistic, integrated responses. The category of "Others" captures 11.27% of responses, with 65.09% male and 34.91% female participation. This shows that both men and women report other challenges or unaddressed gaps, though men are more likely to highlight additional issues. The unspecified nature of this category suggests that gaps in institutional support may vary depending on the local context or specific needs that are not captured in the more structured response categories.

Weak policy enforcement is observed by 71.74% male and 28.26% female respondents, comprising 6.13% of total responses. The gender gap here suggests that men may be more aware of the lack of enforcement mechanisms in place to ensure that climate adaptation policies are implemented effectively. This could point to a need for stronger governance and accountability mechanisms to ensure that climate resilience policies are not just developed but actually put into practice.

The data clearly reveals that institutional gaps in managing climate and environmental risks are recognized across both genders, but with men more likely to report certain gaps, especially in areas like technical expertise, funding, and inter-agency coordination. The gendered responses suggest that male farmers are more involved in decision-making processes or institutional roles, which might influence their perception of these gaps. However, female farmers also identify key challenges, particularly in areas such as community involvement and policy enforcement, which are crucial for inclusive climate adaptation.





### Region-wise climate-resilient farming techniques (Gaps)

This data reveals the regional disparities in the gaps observed in institutional support for managing climate and environmental risks. The findings highlight a range of systemic barriers in areas such as data collection, technical expertise, community involvement, and policy enforcement, with varying degrees of awareness and priority across different regions.

Inadequate data collection and monitoring is identified as a gap by 44.44% of respondents from the Southern region, which stands out significantly compared to the Central region (22.22%) and Chitral (22.22%). Northern and Eastern regions report very little attention to this issue, with only 11.11% of Northern region respondents mentioning it. The data suggests that Southern region respondents see a critical need for improving data collection systems, perhaps due to insufficient information on climate risks and adaptation needs, which hinders effective planning and response.

The gap of insufficient technical expertise is reported by 32.59% of respondents in the Eastern region, with 27.41% in the Central region. The Northern region (7.41%) and Chitral (8.15%) show significantly lower concern about this issue. This disparity highlights that technical expertise—likely related to climate risk management technologies, sustainable practices, and adaptation strategies—is a major issue in regions like Central and Eastern, where greater technical knowledge is needed to implement effective climate adaptation strategies. Lack of community involvement is most pronounced in the Central region (51.16%), followed by Chitral (18.60%). The Eastern (9.30%), Northern (6.98%), and Southern (13.95%) regions report relatively lower concern about community involvement. The high percentage in Central region indicates that community engagement is perceived as a major gap in climate adaptation

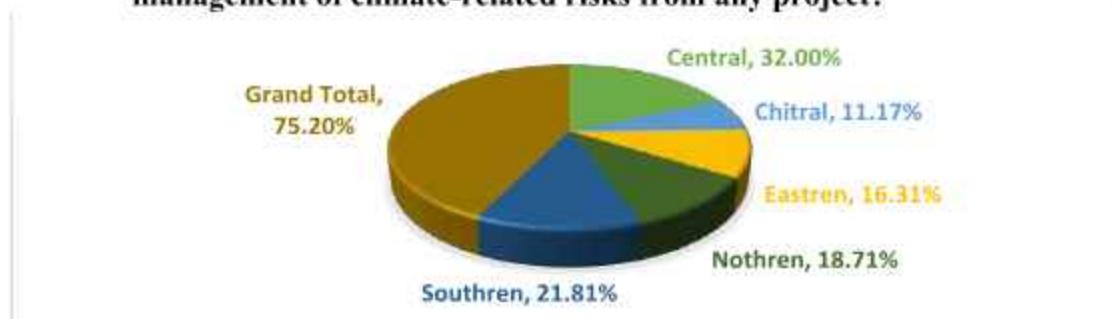
efforts, particularly in regions where farmers and local communities may not be sufficiently included in decision-making or climate risk management planning.

Lack of funding is the most commonly identified gap overall, accounting for 68.53% of total responses. This gap is reported across all regions, with Central (24.61%), Eastern (23.83%), Northern (23.35%), and Southern (18.68%) regions showing significant concern. The lack of funding remains a critical barrier to scaling up climate adaptation measures and could be related to limited access to financial resources, institutional priorities, and economic constraints faced by farmers in these regions. Limited inter-agency coordination is flagged as a gap by 50.00% of Central region respondents, highlighting a concern for coordination among various institutions involved in climate adaptation. The Northern region (8.33%) and Southern region (25.00%) show lower concern about this issue. The findings suggest that Central region farmers may perceive a disconnect between different governmental, non-governmental, and local actors, which may hinder collaborative efforts to address climate risks effectively.

In the “Others” category, which represents 11.27% of responses, 50.89% of responses come from the Central region, followed by 16.57% from the Southern region and 12.43% from Chitral. This category likely captures additional challenges that do not fit into the standard gaps, such as informal support systems, regional political barriers, or unique local needs that are not universally addressed by institutional programs. The Central region’s high percentage in this category suggests that there may be additional unreported barriers specific to the region. Weak policy enforcement is reported by 41.30% of Central region respondents, highlighting concerns about implementing and monitoring climate adaptation policies. Southern region respondents (33.70%) also report significant issues with enforcement, while other regions like Chitral (6.52%) and Eastern (4.35%) highlight less concern. This suggests that policy implementation remains a significant challenge in the Central and Southern regions, where stronger governance mechanisms and enforcement frameworks are needed to ensure that climate policies translate into real-world actions.

The data reveals significant regional gaps in institutional support for managing climate and environmental risks. The Southern region highlights critical gaps in data collection and lack of funding, indicating that improved resource allocation and better information systems are needed in these areas. Central region respondents flag community involvement, technical expertise, and policy enforcement as key issues, suggesting a need for greater local participation, skills development, and stronger governance. The Eastern and Northern regions are less concerned with some of these gaps but still acknowledge the need for improved coordination and technical support.

**95. Did you or anyone in the household receive any training or advice on the management of climate-related risks from any project?**



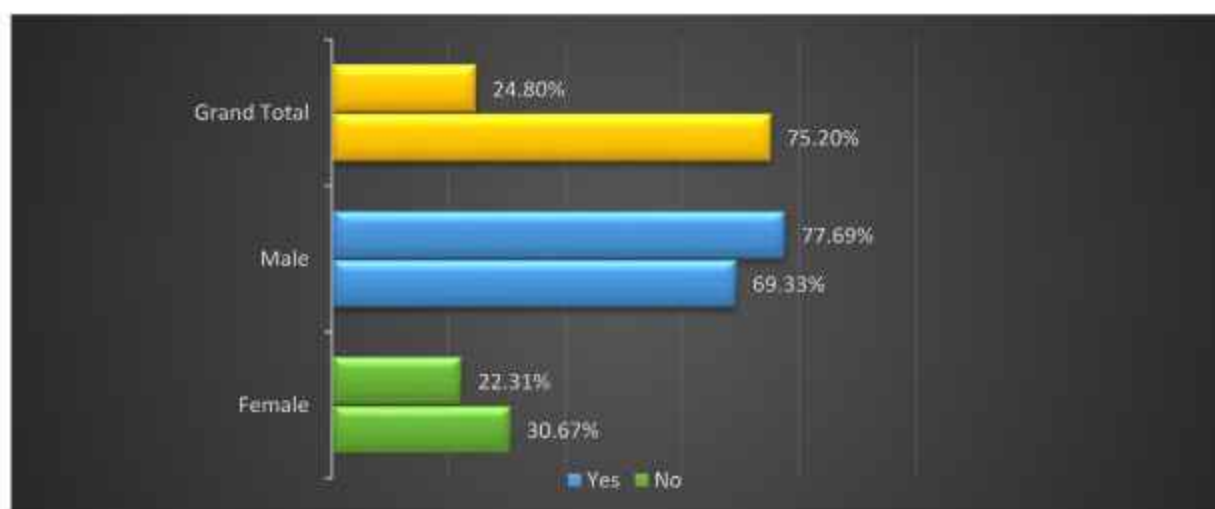
**Region-wise climate-resilient farming techniques (Training)**



This data presents a regional breakdown of whether farmers or their households have received training or advice on managing climate-related risks from any project. The results show that while 24.80% of respondents have received some form of training or advice, the majority (75.20%) have not. This indicates that there is still a significant gap in outreach and access to climate adaptation education across different regions.

Among those who did not receive training or advice, the Central region reports the highest share (32.00%), followed by the Southern region (21.81%), Northern region (18.71%), and Eastern region (16.31%). The Chitral region has the lowest percentage of non-receipt, with only 11.17% of respondents reporting no training or advice. This may reflect better local access to climate adaptation programs in Chitral, or more robust community-based initiatives in the area, where farmers might receive informal education or advice on climate risks. On the other hand, among those who did receive training or advice, the Eastern region shows the highest level of engagement, with 31.18% of respondents indicating that they or someone in their household has benefited from such support. The Northern region follows with 23.92%, showing a moderate level of engagement. Both the Central region and Southern region report lower levels of training or advice, with 23.92% and 14.52% participation, respectively. Chitral shows the lowest level of receipt, with 6.45% of respondents reporting any training or advice, suggesting that while Chitral has lower overall engagement, it might benefit from other forms of informal or community-based support not captured in the survey.

The data shows regional disparities in the receipt of training or advice on managing climate-related risks. While the Eastern region has the highest participation, indicating that climate-related projects are more actively reaching this area, Chitral and Southern regions face significant gaps in engagement. Chitral's low level of participation might reflect geographic isolation or limited formal support, and the Southern region might have fewer climate adaptation programs available or less effective outreach.



#### Gender-wise climate-resilient farming techniques

This data provides a gender-disaggregated breakdown of whether men and women have received training or advice on managing climate-related risks. While 24.80% of respondents report receiving such support, the majority (75.20%) have not. This suggests a gap in climate adaptation education and highlights that institutional outreach and awareness programs need to be more inclusive and widespread to ensure that both men and women can access essential knowledge and tools for climate resilience.

Among those who did not receive training or advice, 69.33% of male respondents and 30.67% of female respondents report that neither they nor anyone in their household received any support. The higher percentage of male respondents in this group reflects a general trend of men being less likely to access training or advisory services overall. However, it's important to note that a significant proportion of female respondents (30.67%) have also not received any training, indicating a gap in outreach to women, which could be due to limited access to formal training programs, gender barriers in accessing services, or other social and cultural factors. On the other hand, among those who did receive training or advice, 77.69% of male respondents and 22.31% of female respondents report receiving support. This shows that male farmers are more likely to access training and advisory services related to climate risk management, which could be influenced by gendered access to resources or decision-making power within households or communities. The lower female participation in receiving such support could reflect gendered barriers like limited mobility, cultural constraints, or lack of targeted outreach to women farmers.

The data reveal a gender gap in the receipt of climate adaptation training and advice, with male farmers more likely to benefit from such services. However, the relatively high percentage of women not receiving support indicates that gender-sensitive outreach and inclusion are necessary to ensure equitable access to climate-related information and training. Addressing these gaps is essential for building climate resilience and empowering both men and women to adapt to climate change effectively.

**96. if yes, which of the following sources provided the training or advice?**



**Gender-wise climate-resilient farming techniques (Training Source)**

This data provides a gender-disaggregated breakdown of the sources of training or advice received by farmers for managing climate-related risks. The findings reveal which institutions or organizations are playing a key role in climate risk education and which sources are more accessible to men or women, highlighting areas for improvement in outreach and service delivery.

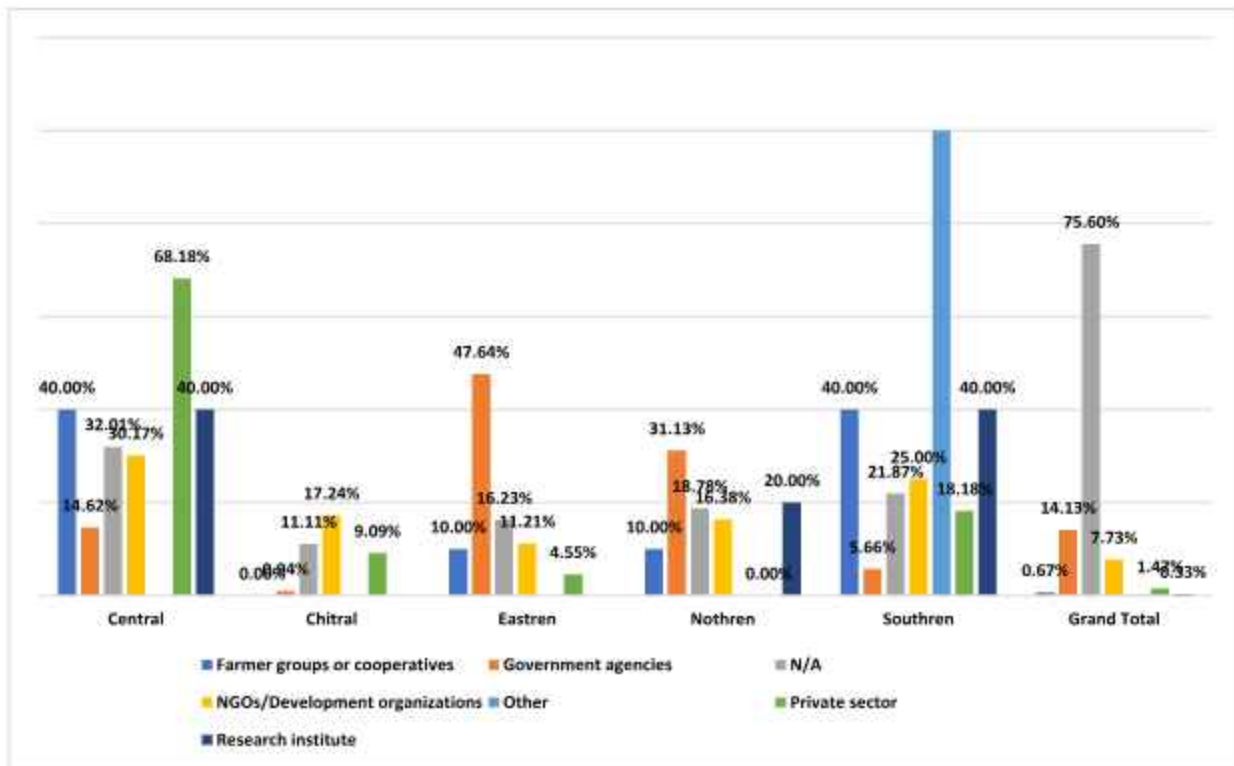


The category with the lowest participation in terms of source of training or advice is provided by private sector sources, with 100% male participation in a very small category (0.07%). This indicates that private sector involvement in climate adaptation training is virtually non-existent for women, possibly reflecting gendered barriers to accessing commercial training or limited outreach to women within the private sector. The most common source for training or advice is from non-governmental organizations (NGOs), with 75.60% of total responses. Among the total responses, 69.49% are male and 30.51% are female, indicating that NGOs provide training and advice that is relatively accessible to both men and women, though men still participate more. NGOs play a critical role in reaching both genders with climate resilience education. The relatively higher female participation in this category suggests that NGOs may be doing more to reach women, but there is still room to expand their outreach to ensure more equitable access.

Government sources provide training and advice to 78.45% male and 21.55% female respondents, representing 7.73% of total responses. The disparity suggests that government programs are more likely to reach male farmers, which may reflect gendered inequalities in access to formal extension services, training programs, or decision-making roles in agriculture. The low female participation could be due to institutional barriers such as lack of targeted outreach or cultural barriers preventing women from engaging with government-sponsored programs. Farmer groups or cooperatives also play a key role in providing training, with 90.91% male and 9.09% female participation, making up 1.47% of responses. This further highlights the gender imbalance in farmer group participation, with male farmers more likely to benefit from cooperative-based training or knowledge-sharing activities. Women are underrepresented in these formal or semi-formal groups, possibly due to limited access to farmer group membership or participation restrictions in decision-making within those groups.

Community-based sources of training or advice are provided to 30.00% female and 70.00% male respondents, accounting for 0.67% of total responses. While both genders are engaging with local sources, men are more likely to benefit, indicating that community-driven support might still be more male-dominated, possibly due to social and cultural dynamics in agricultural communities that limit women's participation. In the category of other sources, 24.53% of women and 75.47% of men report receiving training or advice, representing 14.13% of total responses. This large share suggests that other informal or localized sources of support, such as family members, peer learning networks, or local leaders, are playing a role in climate risk education. Again, men report a higher usage of these sources, likely due to greater access to informal networks or more dominant roles in the agriculture sector.

The data clearly reveals gender disparities in the sources of training or advice received by farmers for climate adaptation. While NGOs provide the most equitable access to climate-related support, government programs, farmer groups, and community-based sources are more accessible to men, reflecting gender-based barriers in accessing institutionalized training and resources. Private sector involvement in training remains almost exclusively male, which points to a significant gap in outreach to female farmers from commercial sources of support.



### Region-wise climate-resilient farming techniques

The data highlights a significant gap in the adoption of climate-resilient farming techniques, with 62.87% of respondents indicating that they do not use these techniques. This suggests that traditional farming methods still dominate in most areas, and factors such as limited knowledge, financial constraints, and insufficient institutional support may be limiting the adoption of more sustainable practices. While there is a clear need for greater awareness and access to climate-resilient farming techniques, the regional variations in adoption rates reveal differing levels of progress and barriers.

In the Southern region, the highest proportion of respondents (25.87%) reported not using climate-resilient farming techniques. Despite this, the region also has the lowest adoption rate, with only 10.05% of respondents implementing these practices. This combination of high resistance and low adoption indicates that farmers in the Southern region face significant barriers, such as a lack of resources, knowledge, or institutional support, which prevent them from transitioning to more sustainable practices. Given these challenges, the Southern region requires targeted interventions, including increased access to training and financial support, to foster the adoption of climate-resilient farming methods. The Central region shows a somewhat more balanced picture, with 33.09% of respondents not using climate-resilient techniques. However, a notable 24.78% of respondents in this region are adopting these methods. While traditional farming remains dominant, the presence of a reasonable level of adoption suggests

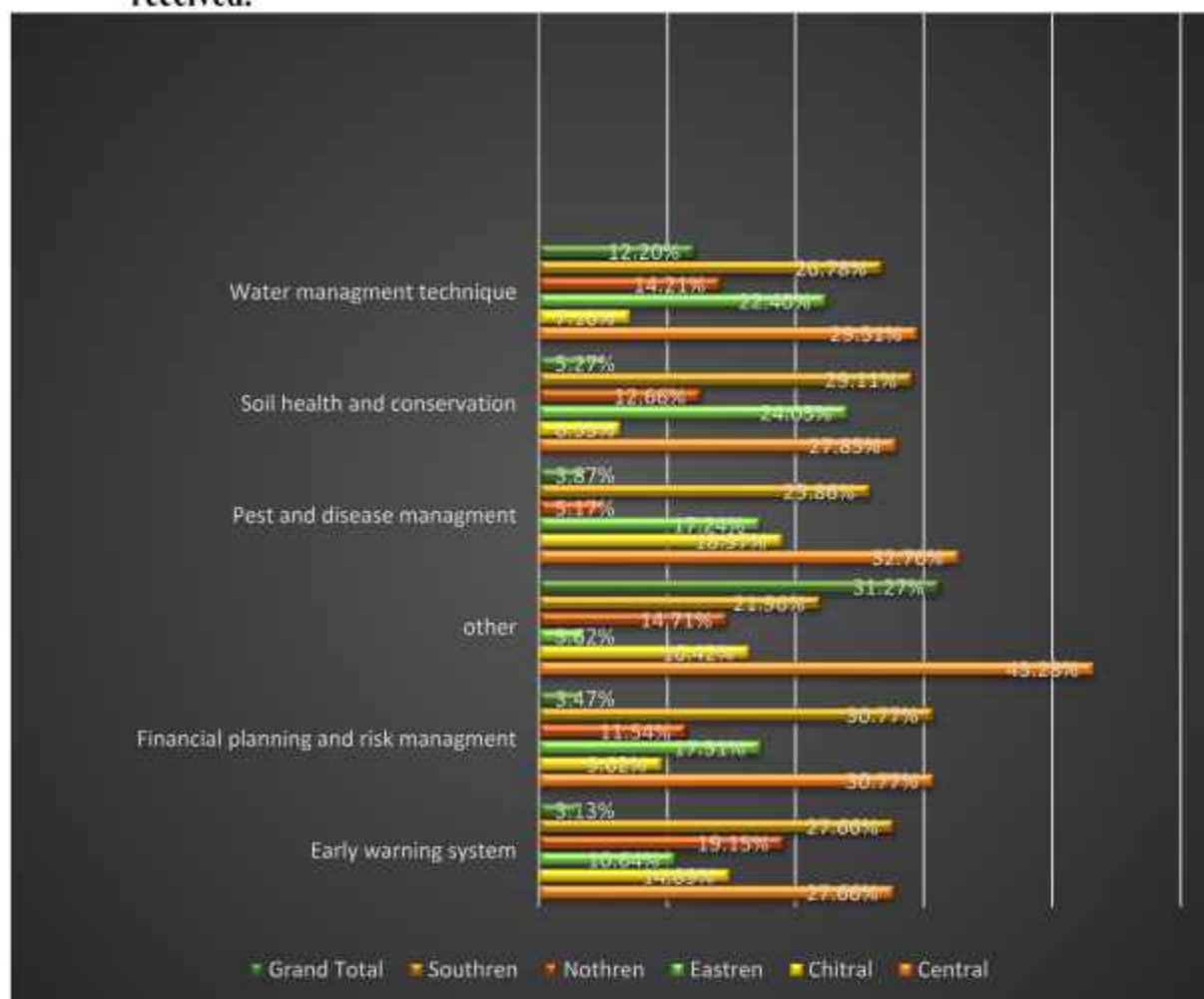


that there is some awareness of and access to climate-resilient farming techniques in the region. The Central region, therefore, finds itself in the middle ground, where there is potential to further encourage the use of sustainable agricultural practices through more targeted support programs and outreach efforts.

In the Northern region, only 17.07% of respondents reported not using climate-resilient farming techniques, indicating relatively lower resistance to adopting these methods. Additionally, the Northern region has a relatively higher adoption rate of 24.96%, suggesting that farmers in this area may have better access to resources or a more robust agricultural support system. This region strikes a good balance between traditional and climate-resilient farming techniques, and the focus here should be on continuing to build on the existing momentum, expanding access to training, and ensuring ongoing support for sustainable agricultural practices. The Eastern region stands out as the most successful in terms of climate-resilient farming adoption. Only 11.88% of respondents in this region do not use these techniques, and the region has the highest adoption rate, with 33.75% of respondents utilizing climate-resilient farming methods. This suggests that the Eastern region may benefit from greater exposure to or promotion of climate-resilient techniques, possibly due to more effective agricultural extension services or regional initiatives supporting sustainable practices. The relatively high adoption rate in the Eastern region provides a model for other areas, demonstrating that with the right support and outreach, significant progress can be made.

In contrast, Chitral presents a unique challenge. While only 12.09% of respondents in Chitral report not using climate-resilient farming techniques, the region has the lowest adoption rate, with just 6.46% of respondents implementing these methods. This low adoption could be attributed to geographic challenges, limited infrastructure, or a lack of exposure to innovative agricultural practices. Given Chitral's unique circumstances, tailored solutions that address its specific challenges—such as improving infrastructure and increasing access to training and resources—are critical for fostering the adoption of climate-resilient farming techniques. Overall, the data underscores the regional disparities in the adoption of climate-resilient farming techniques, with the Southern and Chitral regions facing the greatest challenges in terms of both non-adoption and low adoption rates. While regions like the Eastern and Northern regions show higher adoption rates, there remains a clear need for more targeted interventions to support the broader adoption of climate-resilient practices. Increased awareness, better access to resources, and strengthened institutional support are crucial steps to ensure that all regions can transition towards more sustainable farming practices, improving resilience in farming communities across the country.

97. please specify the types of training or advice you or anyone in your household received.



#### Region-wise climate-resilient farming techniques (Type of training)

The data reveals the various types of training or advice received by individuals or households, showcasing different agricultural practices across regions. The categories of training include climate-smart agriculture practices, crop diversification, early warning systems, financial planning and risk management, pest and disease management, soil health and conservation, water management techniques, and other practices. A key observation from this data is the variation in adoption across the regions, with certain techniques more prevalent in specific areas, suggesting regional priorities or access to resources and training.

The Central region stands out for its widespread adoption of Climate Smart Agriculture Practices (38.89%), making it the most commonly received type of training in this area. This suggests a strong emphasis on sustainable agricultural practices in the region. Similarly, Water Management Techniques (29.51%) and Pest and Disease Management (32.76%) are also commonly practiced in the Central region, indicating a well-rounded approach to modern agricultural techniques. The region also shows significant engagement with Soil Health and Conservation (27.85%) and Financial Planning and Risk Management (30.77%), pointing to a comprehensive approach to agricultural resilience. However, the Crop Diversification practice is somewhat less common in Central (18.28%), reflecting a more traditional approach to farming with less emphasis on diversifying crops.



In Chitral, the most prominent area of training is Pest and Disease Management (18.97%), followed by Soil Health and Conservation (6.33%) and Water Management Techniques (7.10%). The lower percentages in these categories suggest that while there is some engagement with sustainable practices, Chitral may have limited access to or focus on other areas such as financial planning, crop diversification, or climate-smart agriculture techniques. The adoption of Climate Smart Agriculture Practices is particularly low in Chitral (7.41%), indicating that either the awareness or accessibility of these practices is limited in this region.

The Eastern region shows a relatively high focus on Crop Diversification (34.77%) compared to other regions, which suggests a proactive approach to improving agricultural resilience through diversified farming strategies. Water Management Techniques (22.40%) and Soil Health and Conservation (24.05%) also stand out in the Eastern region, reflecting a commitment to sustainable farming practices. However, Pest and Disease Management (17.24%) and Early Warning Systems (10.64%) are less emphasized in this region, indicating that the focus may be more on broader agricultural strategies rather than on specific pest or risk management techniques. In the Northern region, Crop Diversification (30.82%) is the most common practice, followed by Water Management Techniques (14.21%) and Pest and Disease Management (5.17%). The relatively low emphasis on Financial Planning and Risk Management (11.54%) and Climate Smart Agriculture Practices (9.26%) suggests that farmers in this region might be focused more on diversifying crops and managing immediate challenges rather than adopting broader financial or climate-resilient strategies.

The Southern region demonstrates a more balanced engagement with various practices, with notable attention given to Climate Smart Agriculture Practices (35.19%) and Pest and Disease Management (25.86%). Water Management Techniques (26.78%) and Soil Health and Conservation (29.11%) are also significant areas of focus in the Southern region, indicating an awareness of the importance of sustainable farming techniques in response to environmental challenges. However, Crop Diversification (11.11%) remains relatively low, suggesting that farmers in the Southern region might still be hesitant to embrace diversification fully. Lastly, the Grand Total column highlights the overall trends across all regions. Crop Diversification (37.20%) is the most commonly reported practice across all regions, followed by Other (31.27%), which likely includes a mix of less commonly reported techniques or practices not listed explicitly in the dataset. Pest and Disease Management (3.87%) and Early Warning Systems (3.13%) have the lowest overall engagement, pointing to the need for more focused initiatives in these areas to improve agricultural resilience to climate change and environmental challenges.

Overall, the data reflects the diverse approaches to training and advice across different regions, with varying levels of engagement with key agricultural practices. While some regions, like the Central and Southern areas, show a broader adoption of modern farming techniques, others, such as Chitral, face challenges in accessing or prioritizing certain training. These regional differences highlight the need for targeted interventions to address specific gaps in knowledge and resources, ensuring that all areas have the necessary support to enhance resilience and sustainability in farming practices.

#### ANOVA results

##### ANOVA

Gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1.703	6	.284	1.498	.175
Within Groups	283.014	1493	.190		
Total	284.717	1499			

A one-way ANOVA was conducted to determine if there were significant differences in the variable across different gender groups. The results showed that the differences were not statistically significant ( $p = 0.175$ ), as the p-value was greater than the standard threshold of 0.05. The F-value (1.498) was also relatively low, indicating that any differences observed were likely due to chance rather than actual gender-based variations. This suggests that gender does not have a significant impact on the variable being studied.

##### ANOVA

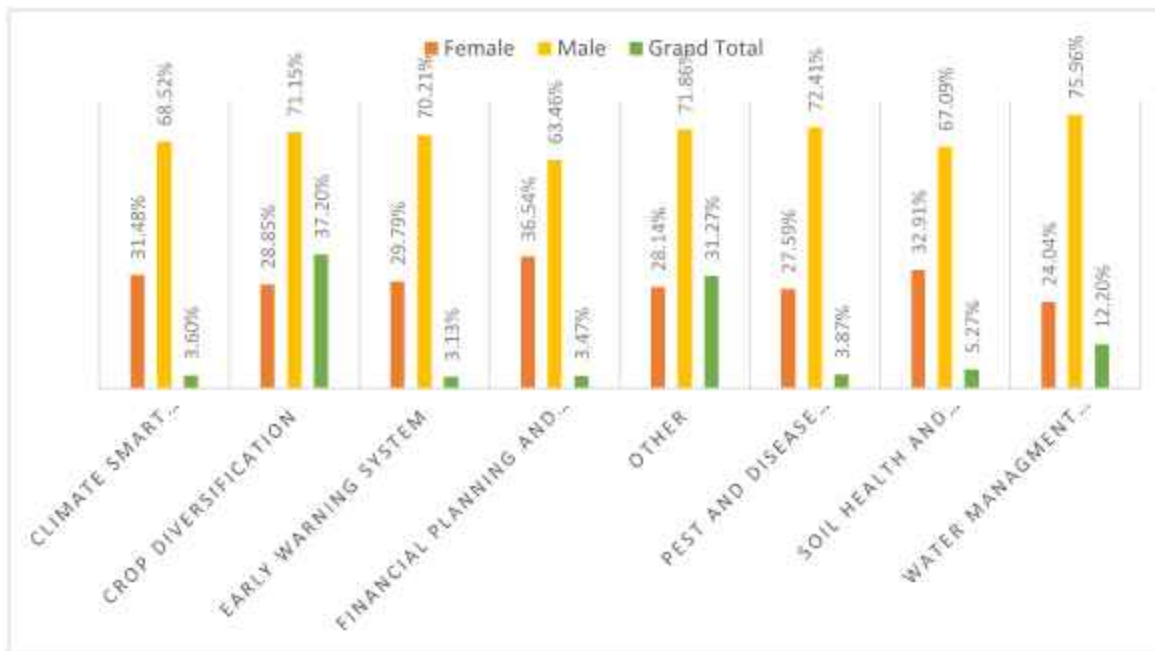
Gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.860	7	.123	.646	.718
Within Groups	283.857	1492	.190		
Total	284.717	1499			

A one-way ANOVA was conducted to examine whether there were significant differences in the variable across different gender groups. The results indicated no statistically significant differences ( $p = 0.718$ ), as the p-value was much greater than the standard significance level of 0.05.

The F-value (0.646) was also low, suggesting that any observed variations between groups were minor and likely due to random chance. This means that gender does not play a significant role in influencing the variable being studied.





**Gender-wise climate-resilient farming techniques (Type of training)**

The data reveals a gender-based distribution of various types of agricultural training or advice received by individuals or households. It shows that men are generally more likely to receive training or advice in most areas, while women have a lower representation in several practices. However, there are some notable differences depending on the type of agricultural practice being discussed.

In the area of Climate Smart Agriculture Practices, a clear gender disparity exists, with 68.52% of the training or advice received by men and 31.48% by women. This indicates that, overall, men are more likely to be exposed to climate-resilient practices, which might suggest that women are less involved in, or have less access to, these modern agricultural techniques. This gap is concerning, as the promotion of climate-smart agriculture is essential for long-term farming sustainability. Similarly, Crop Diversification shows a gender gap, with 71.15% of the advice or training being received by men and 28.85% by women. While crop diversification is an important strategy for improving agricultural resilience, women in this case seem to have less access to this knowledge. Given that crop diversification is a widely recommended practice to increase farming sustainability, it is crucial to bridge this gender gap to ensure both men and women benefit equally from such agricultural innovations.

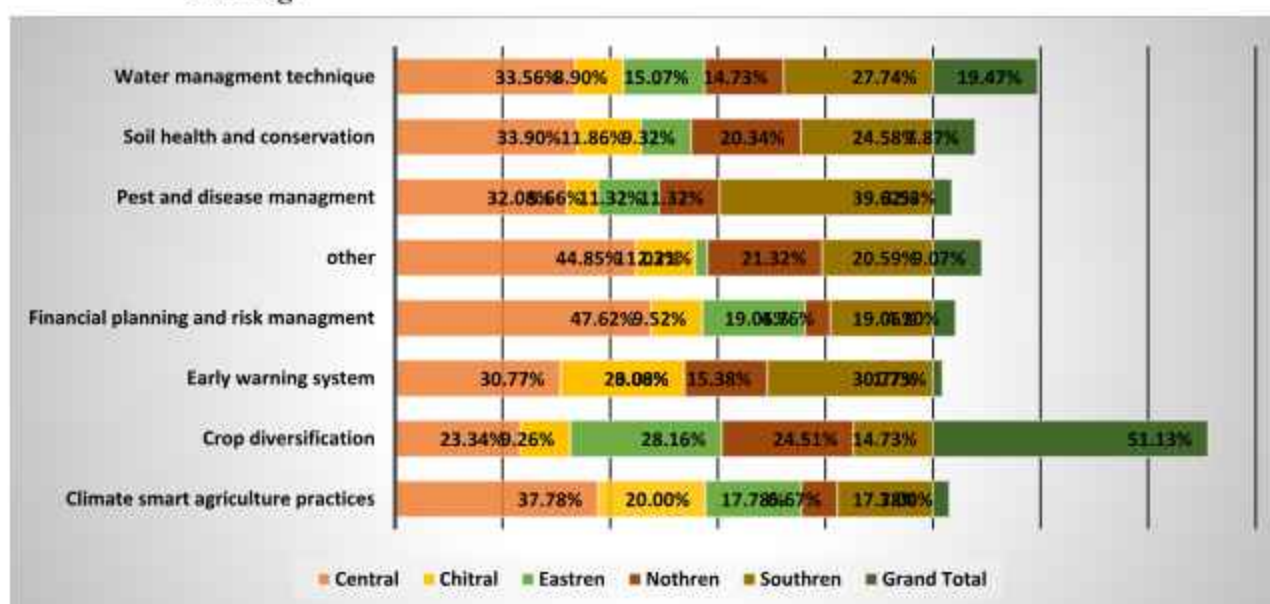
When it comes to the Early Warning System, men again dominate the distribution of training and advice, with 70.21% of the information reaching them compared to 29.79% for women. This practice, which is critical for preparing farmers for extreme weather events and managing climate risks, appears to be less accessible to women, which could be detrimental to their ability to adapt to climate-related challenges. Financial Planning and Risk Management follows a similar trend, with 63.46% of the advice reaching men and 36.54% reaching women. Financial planning is a key element in improving resilience to climate change, and women's relatively lower representation in this area may reflect barriers such as limited access to financial services or decision-making power within households. This highlights the need for more inclusive programs that equip both men and women with the skills necessary for managing financial risks in farming.

The category Other—which likely includes various other forms of advice and training—also sees a higher representation of men (71.86%) compared to women (28.14%). The predominance of men in this category further emphasizes the broader trend that men are more likely to engage with agricultural training and advisory services. In terms of Pest and Disease Management, 72.41% of training or advice is received by men, while 27.59% is received by women. Pest and disease management is crucial for maintaining crop health and yield, and again, the lower involvement of women could limit their ability to protect crops and manage agricultural pests effectively.

For Soil Health and Conservation, 67.09% of the advice or training goes to men, and 32.91% to women. Soil health is fundamental to long-term farming success, and women's relatively lower access to this training may hinder their ability to improve soil fertility and prevent soil degradation, which is critical for sustaining agricultural productivity. Lastly, Water Management Techniques show a stark gender difference, with 75.96% of the training or advice being received by men and only 24.04% by women. Given the importance of water management in farming—especially in areas prone to water scarcity—this significant gender gap suggests that women may not be fully benefiting from the knowledge and skills necessary to efficiently manage water resources.

Overall, the data highlights a gender imbalance in the distribution of agricultural training and advice, with men consistently receiving a larger share of the training across all categories. Women, while still participating in some areas, generally have less access to essential agricultural practices such as climate-smart techniques, financial management, and water management. This disparity could reflect broader societal barriers, such as limited access to resources, cultural norms, or gendered divisions of labor. Addressing this gender gap is essential to ensure that both men and women can equally benefit from agricultural innovations, ultimately contributing to more resilient and sustainable farming practices for entire households and communities.

#### 98. What skills or training do you think would help improve your climate resilient farming?



Region-wise climate-resilient farming techniques



The data provides insights into the skills or training that respondents believe would help improve their climate-resilient farming practices across various regions. It shows the perceived need for different types of skills and training, with each region highlighting different priorities in building climate resilience. The varying percentages across regions suggest that farmers see certain areas of training as more crucial depending on their local environmental challenges, access to resources, and agricultural practices.

In the Central region, 37.78% of respondents emphasized the need for one type of training or skill, indicating a relatively strong preference for particular skills in improving climate resilience. This could suggest that farmers in the Central region feel that a specific skill set is essential to boost their ability to adapt to climate change. Similarly, 23.34% of respondents indicated a need for training in another skill, showing that there is a general recognition of the need for multiple competencies to address various challenges. In contrast, 30.77% expressed interest in gaining knowledge in a different area, showing that the Central region values diverse training opportunities to enhance resilience.

Chitral shows some variation in the desired training, with 20.00% of respondents indicating a need for a particular skill. This is significantly lower than the Central region's preference, suggesting that Chitral may either face fewer perceived barriers to climate resilience or that respondents in this region believe there are fewer immediate needs for training. However, 9.26% expressed interest in gaining training in another area, and 23.08% highlighted the importance of developing skills in a different field. Chitral's responses suggest a mixed understanding of the need for skill development, potentially due to different environmental or economic circumstances.

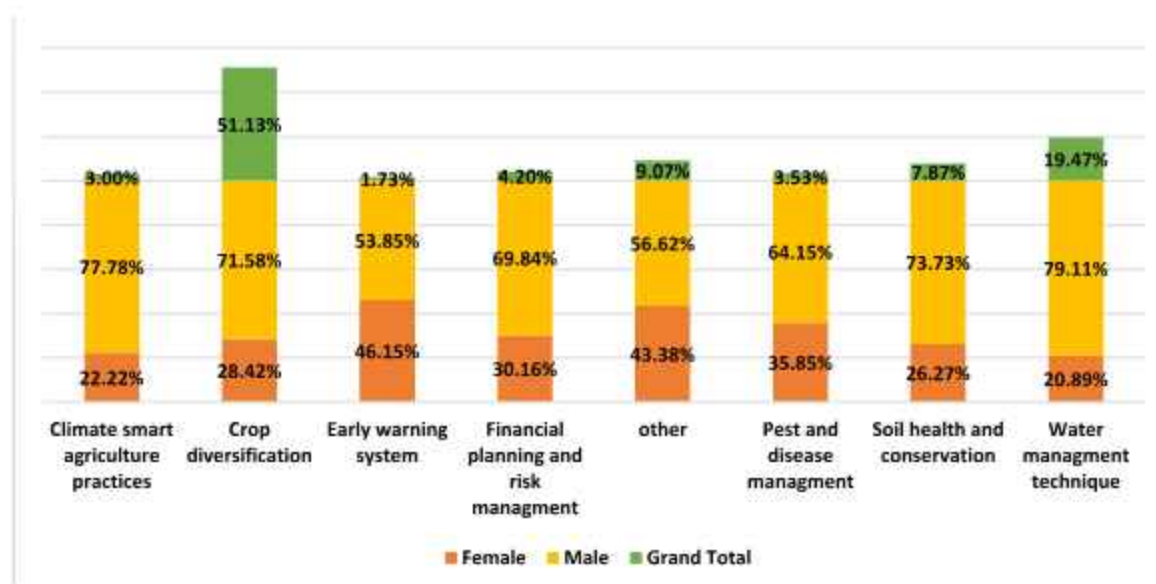
In the Eastern region, the largest share of respondents, 28.16%, indicated that training in specific skills would help improve their climate-resilient farming. This reflects a clear understanding that developing new skills is essential for coping with climate challenges. However, the region also had 24.51% of respondents recognizing the need for another type of training, highlighting a broader recognition that multiple strategies should be adopted to enhance resilience. The relatively higher percentages of respondents in the Eastern region seeking climate-resilient training may reflect greater awareness or access to agricultural support systems.

For the Northern region, 24.51% of respondents emphasized the need for a certain type of training, suggesting that farmers here are more focused on a specific skill set to build climate resilience. Additionally, 14.73% of respondents in this region noted the importance of gaining training in another area, indicating that while there is interest in developing a focused set of skills, there is also recognition of the need for broader training approaches to tackle diverse climate risks.

The Southern region sees a more balanced distribution of responses across different types of training. With 39.62% of respondents highlighting the need for a specific skill, it is clear that a significant portion of farmers in the Southern region see a particular set of skills as critical for adapting to climate change. The need for additional training, reflected by 27.74% of responses, suggests that Southern farmers are aware of the need to diversify their skills to build resilience. This broad interest may stem from the region's vulnerability to environmental challenges, pushing respondents to seek training in multiple areas to address the diverse impacts of climate change.

Across all regions, it is clear that there is a widespread recognition of the need for training in skills that will improve climate resilience, but the priorities differ by region. The Grand Total of 51.13% highlights that a substantial portion of respondents believe certain types of training are crucial, underscoring the broad consensus that building climate resilience requires new skill sets. Other categories with notable percentages indicate a widespread understanding that specific areas of farming require adaptation in order to handle changing environmental conditions.

Overall, the data reveals that climate resilience is viewed as a multifaceted challenge, with different regions prioritizing different skill sets based on their unique agricultural and environmental conditions. Farmers in regions like the Central and Southern regions seem to place a greater emphasis on specific types of skills, while those in the Eastern and Northern regions recognize the need for broader, more diverse training to address a wider range of climate impacts. This highlights the importance of region-specific training programs tailored to the unique needs and challenges of each area, ensuring that farmers have the skills and knowledge required to build resilience and adapt to the changing climate.



### Gender-wise climate-resilient farming techniques

The data shows a clear gender-based distribution of the skills or training that respondents believe would help improve their climate-resilient farming practices. It indicates that men are generally more likely to report the need for specific skills and training, but women are also identifying crucial areas where they could benefit from learning more. The overall trend suggests that while both genders acknowledge the importance of gaining new skills, men tend to dominate the responses across most areas. In the first category, Climate Smart Agriculture Practices, 77.78% of the responses come from men, while 22.22% come from women. This indicates that men are more likely to seek training in climate-smart agricultural practices, suggesting that women may face more barriers to accessing this kind of training or may not have as much exposure to these sustainable farming practices. This trend reflects broader challenges in the accessibility and inclusivity of climate resilience training for women, particularly in areas where these practices are newer or less widely promoted.

The next category, Crop Diversification, shows a more balanced distribution, with 71.58% of responses from men and 28.42% from women. Crop diversification is an important technique



for building resilience to climate change by reducing dependency on a single crop. While the majority of interest in crop diversification comes from men, the higher percentage of women compared to some other categories suggests that there may be a growing awareness among women of the benefits of diversifying crops to enhance climate resilience. For Early Warning Systems, 71.58% of the responses come from men, and 28.42% from women. This again suggests that men are more likely to engage with early warning systems, which are critical for managing climate risks and preparing for extreme weather events. The lower percentage for women suggests that there might be a gap in access to information or resources that could help women in rural farming communities benefit from such systems, which could reduce their vulnerability to climate-induced disasters.

Financial Planning and Risk Management sees 69.84% of responses from men, with 30.16% coming from women. This highlights a similar trend: while both genders recognize the importance of managing financial risks, particularly in the face of climate change, men are more likely to engage with this type of training. Financial planning can be a crucial skill for farmers to ensure that they can cope with the economic challenges posed by climate risks, and the lower percentage of women suggests that more targeted financial literacy programs are needed to support women in this area. In the category of Other training, 56.62% of the responses are from men, while 43.38% are from women. This indicates that men are more likely to express the need for various types of training not specifically listed, but there is still a significant portion of women who recognize the importance of gaining skills in other areas. This may reflect the diverse and evolving needs of farmers as they adapt to climate change, where different regions or communities have different training needs.

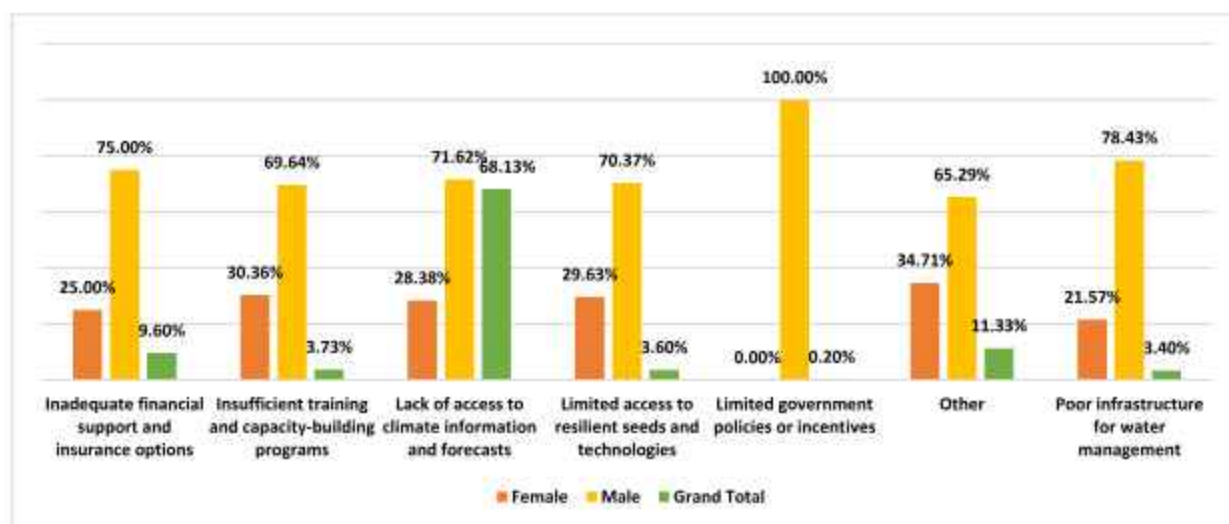
Pest and Disease Management shows a more pronounced gender disparity, with 73.73% of responses from men and 26.27% from women. This reflects the broader trend where men are more likely to receive or seek training in pest and disease management, which is crucial for maintaining healthy crops and preventing losses due to pests. The gender gap here suggests that women might not be as involved in pest management practices, possibly due to traditional gender roles or limited access to training programs.

In Soil Health and Conservation, 64.15% of responses come from men, with 35.85% from women. This indicates that men are more likely to seek knowledge about soil health, even though women's participation is still relatively significant. Soil health is critical for maintaining long-term agricultural productivity, and the data suggests that more inclusive programs are needed to ensure that women can also access this vital training. Finally, in Water Management Techniques, 79.11% of responses come from men, while 20.89% come from women. This is one of the most notable gender disparities, indicating that men are overwhelmingly more likely to receive or seek training in water management, a skill that is essential for coping with water scarcity and optimizing irrigation practices. The low percentage of women seeking this training might point to a lack of access or opportunities for women to engage with water management techniques.

In conclusion, the data reveals that, across the board, men are more likely to identify the need for training in most areas related to improving climate-resilient farming. However, women are also actively recognizing the need for skills and training, particularly in areas like crop diversification and soil health and conservation. The gender disparity in some categories, especially water management and pest and disease management, highlights the importance of making agricultural training more accessible and inclusive for women. Targeted programs and policies are needed to ensure that both men and women have equal opportunities to acquire the skills required to enhance their climate resilience. By addressing these gender gaps, it is

possible to foster a more equitable approach to climate-resilient agriculture that benefits entire farming communities.

### 99. What gaps do you perceive in current efforts to support farmers in managing climate risks?



### Gender-wise climate-resilient farming techniques (Gaps)

The data reflects the perceived gaps in current efforts to support farmers in managing climate risks, with distinct gender-based differences in how these gaps are viewed. It suggests that men tend to feel more strongly about certain gaps in support compared to women, but there are also areas where women express concern about specific challenges that may not be as widely recognized by men. The various gaps listed in the data highlight the diverse and complex challenges that farmers face in adapting to climate change, from financial barriers to limited access to technology and information.

One of the most significant gaps identified by both genders is lack of access to climate information and forecasts, with 71.62% of responses from men and 28.38% from women. This category stands out with the highest overall percentage of 68.13%, indicating a widespread recognition that farmers need better access to accurate climate information and forecasts to make informed decisions. Both men and women see this as a critical gap, suggesting that improved access to climate data and early warning systems is vital for all farmers to manage climate risks effectively. The disparity in gender distribution here is less pronounced compared to other categories, reflecting a shared understanding of the importance of climate information for both men and women.

In terms of inadequate financial support and insurance options, 75.00% of the responses came from men, while 25.00% came from women. This gap of financial support is viewed as a major challenge by farmers, with 9.60% of the overall responses indicating that financial constraints are limiting farmers' ability to adapt to climate change. Men are significantly more likely to point to this issue, which may reflect gendered differences in access to financial resources or decision-making power within households. The need for stronger financial safety nets and more accessible insurance options is clear, particularly for men, who might feel more directly impacted by the financial risks associated with climate change.



When it comes to insufficient training and capacity-building programs, 69.64% of responses came from men, and 30.36% came from women. This gap highlights a concern that while both genders see training and capacity-building as important, men are more likely to recognize the need for additional programs to help farmers build the necessary skills to manage climate risks. With 3.73% of the total responses indicating a lack of adequate training, it is clear that many farmers feel they do not have access to the knowledge or resources required to implement climate-resilient farming practices. This gap suggests that expanding and improving training programs would help bridge the knowledge divide between different farming communities.

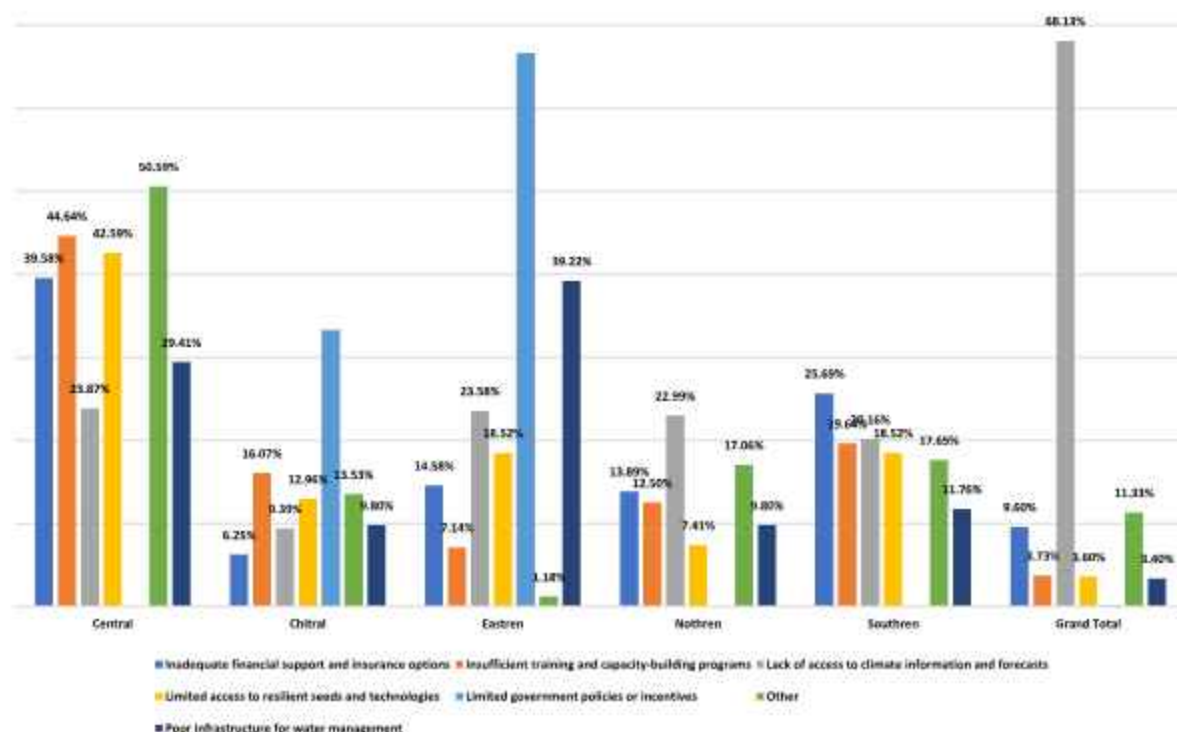
In the area of limited access to resilient seeds and technologies, 70.37% of responses were from men, and 29.63% were from women. With 3.60% of the total responses pointing to this gap, it indicates that farmers, especially men, feel that they lack access to the seeds and technologies necessary to adapt to changing climate conditions. Resilient seeds and innovative technologies are crucial for maintaining crop productivity in the face of changing weather patterns, and increasing access to these resources could greatly improve farmers' ability to adapt to climate variability.

Interestingly, limited government policies or incentives is a gap that was only pointed out by men (100% of responses in this category), with only 0.20% of the overall responses. This low percentage suggests that farmers, particularly men, feel that government support in the form of policies or incentives is lacking, although the overall perception of this gap is relatively minor. The absence of responses from women in this category might reflect the fact that women have limited access to decision-making processes regarding policy advocacy or that they may not always be included in broader policy discussions.

The "Other" category, where 65.29% of responses came from men and 34.71% came from women, points to additional gaps that were not explicitly mentioned in the other categories but are still relevant. This suggests that there are other unaddressed challenges or concerns that farmers perceive in managing climate risks. These could include issues related to access to markets, lack of credit facilities, or other community-level concerns that are important for ensuring farmers' resilience to climate change.

Finally, poor infrastructure for water management is seen primarily as an issue by men, with 78.43% of responses in this category coming from them, compared to 21.57% from women. This gap, accounting for 3.40% of the total responses, highlights the inadequate water management systems that many farmers face. Given the critical role of water in farming, particularly under climate stress, improving water infrastructure and irrigation systems is crucial for supporting farmers in regions vulnerable to water shortages or flooding.

Overall, the data highlights several key gaps in efforts to support farmers in managing climate risks. The lack of access to climate information and forecasts is the most significant gap across both genders, indicating that better access to weather data and early warnings is critical for farmers' adaptation strategies. Financial barriers, including inadequate financial support and insurance options, are also a major concern, especially for men. Additionally, insufficient training and capacity-building programs and limited access to resilient seeds and technologies are recognized as challenges that need to be addressed to improve climate resilience. While men are more likely to highlight financial, policy, and infrastructure issues, women are more focused on the need for training and technology access. These findings suggest that tailored solutions are needed to address the specific gaps perceived by both genders, ensuring that farmers have the tools and support required to adapt to a changing climate.



### Region-wise climate-resilient farming techniques (Gaps)

The data presents regional variations in the perceived gaps in current efforts to support farmers in managing climate risks. The regions have different views on what is lacking in their ability to adapt to climate change, with some areas highlighting financial and infrastructure issues, while others focus on access to knowledge and technology. The responses reflect the unique challenges faced by farmers in each region, as well as the disparities in access to resources and support.

The gap identified by the highest proportion of respondents across all regions is the lack of access to climate information and forecasts, with 68.13% of the total responses indicating this as a major concern. This gap is particularly prominent in the Central region (23.87%), Eastern region (23.58%), and Northern region (22.99%), suggesting that farmers in these areas are keenly aware of the need for better weather and climate forecasting. The inability to access reliable climate data leaves farmers vulnerable to unexpected weather events, such as droughts



or floods, which significantly affect their productivity. Improving access to timely and accurate climate information is seen as a key step in helping farmers better manage climate risks across the board.

Inadequate financial support and insurance options is another significant gap that many farmers feel needs to be addressed. This issue is most strongly identified in the Central region (39.58%) and the Southern region (25.69%), where farmers are particularly concerned about the lack of financial safety nets and insurance schemes to cope with climate-related losses. The percentage of respondents from these regions suggests that financial resilience is a critical issue. With 9.60% of the total responses pointing to inadequate financial support, it is evident that many farmers feel exposed to financial risks due to the lack of sufficient funding, credit facilities, or insurance options that could help them recover from climate-related shocks.

When it comes to insufficient training and capacity-building programs, the Central region stands out with 44.64% of respondents identifying this gap. This suggests that farmers in the Central region feel there is a significant need for skill development and education on climate-resilient practices. The Southern region (19.64%) also highlighted this issue, indicating that while training is available, it may not be reaching all farmers or may not be comprehensive enough to address the variety of challenges they face. The Grand Total of 3.73% reveals that, overall, insufficient training remains a key challenge that hinders farmers' ability to adapt and implement climate-resilient farming techniques.

Limited access to resilient seeds and technologies is also a notable concern, particularly in the Central region (42.59%), where farmers are most likely to express frustration with the availability of suitable seeds and technologies that could help them withstand the impacts of climate change. The Southern region (18.52%) also identified this gap, emphasizing the need for access to more resilient crop varieties and technologies that are better suited to changing weather patterns. With 3.60% of the total responses, it is clear that farmers are seeking improved access to innovations that can enhance productivity and reduce vulnerability to climate risks.

The issue of limited government policies or incentives is addressed almost exclusively by respondents in the Chitral and Eastern regions, with 33.33% and 66.67% of responses respectively, suggesting that these regions feel the absence of policies or incentives that could support farmers in their efforts to adapt to climate change. The Grand Total of 0.20% suggests that this is not a widespread concern across all regions, but it still highlights the need for stronger government support, such as subsidies, grants, or policies that promote sustainable farming practices and help farmers cope with climate risks.

The Other category, which received 11.33% of the total responses, shows that there are additional, unlisted gaps that farmers perceive in efforts to support climate resilience. The Central region (50.59%) particularly highlighted this, indicating that there are more specific or localized issues not covered by the other categories. These could include barriers such as lack of market access, difficulties with labor, or issues related to land tenure or property rights that prevent farmers from implementing climate-resilient practices effectively.

Finally, the gap identified by poor infrastructure for water management appears to be a notable concern in the Central region (29.41%) and Eastern region (39.22%), where farmers point to inadequate irrigation systems, poor water storage facilities, and a lack of infrastructure to manage water resources effectively. This is particularly relevant in regions that are prone to droughts or where water scarcity is an issue. Improving infrastructure for water management

is crucial for ensuring that farmers have reliable access to water, which is essential for maintaining agricultural productivity in the face of changing climatic conditions. The Grand Total of 3.40% underscores the importance of this issue in certain regions.

In conclusion, the data underscores several key gaps in efforts to support farmers in managing climate risks. The most widely recognized gap is lack of access to climate information and forecasts, which affects farmers across multiple regions and is seen as essential for adapting to climate change. Inadequate financial support and insurance options also stand out as significant barriers, particularly in the Central and Southern regions. Insufficient training and capacity-building programs and limited access to resilient seeds and technologies are also major concerns, particularly in the Central region. Additionally, farmers in some regions feel that government policies are lacking, while infrastructure issues, especially related to water management, are seen as significant barriers in regions prone to water scarcity. Addressing these gaps through targeted interventions and support can help enhance climate resilience and improve the ability of farmers to adapt to climate change effectively.

## **Qualitative insights**

### **Institutional Support Services: A Pillar for Agribusiness Growth**

Institutional support services play a critical role in the success of Producer-Farmer Organizations (PFOs), Public-Private Producer Partnerships (4Ps), and Food Supply Chains (FSCs). These services provide essential networking opportunities, access to financial resources, and policy frameworks that facilitate market participation. However, their effectiveness is often hindered by bureaucratic inefficiencies, weak coordination among stakeholders, and a lack of targeted interventions for key challenges such as climate change, food security, and nutrition. To better meet market demands and ensure long-term sustainability, institutional support services must integrate sectoral interventions that address climate resilience, enhance food security, and promote nutrition-sensitive agriculture. Strengthening farmer cooperatives and associations, investing in climate-smart agricultural practices, and improving market infrastructure are essential strategies to mitigate the impact of climate change on agribusiness. Additionally, reinforcing agricultural research and extension services can drive innovation and adaptation to evolving environmental conditions.

A gender-sensitive approach is also critical to fostering inclusive growth in agribusiness. Women, who play a vital role in food production and rural economies, often face barriers to accessing land, finance, and training. Institutional support services should prioritize interventions such as tailored financial programs for female entrepreneurs, capacity-building initiatives focused on women-led agribusiness ventures, and policies that promote gender equity in decision-making processes. Expanding access to finance, enhancing technical training programs, and implementing policy reforms aimed at supporting rural entrepreneurship—especially for women—can significantly improve the overall agribusiness environment. By strengthening institutional support with climate-smart solutions and gender-focused initiatives, agribusiness stakeholders can foster resilience, increase productivity, and contribute to food security and nutrition for vulnerable populations.

## **Major Findings**

- 54% of the study participants were not aware of any kind of development program or services in their area. Further, the finding shows that 33.53% of the male community is not aware of any kind of awareness program across five targeted regions.



- Region-wise data indicates that a high number of male youths are aware of the development program or services across all the regions, southern 54.67%, northern 55.43%, eastern 23.19%, Chitral 22.38% and central 50.35%.
- 64.31% of the respondents are aware of the health services, followed by education in the survey population.
- The largest disparities exist in health (80.85% male vs. 19.15% female) and education (81.82% male vs. 18.18% female).
- Young males (15-29 years) are the most active group in the Chitral region, particularly in Agribusiness (48.28%) and Education (38.64%), indicating an inclination toward skill-based and knowledge-oriented professions.
- Women of reproductive age (15-49) face significant nutritional deficiencies, particularly in the Southern, Central, and Chitral regions.
- Men aged 30-45 years are notably active in agribusiness (22.22%) and livelihood support (16.67%), reinforcing their economic role in the northern region.
- Males (30-45) play a very significant role in agribusiness (83.33%) and livelihood support (77.27%) in the southern region.
- 29.60% of the respondents shared that community meeting is the primary source of information for them, followed by word of mouth in the survey population.
- Youth males aged 15-29 are the most engaged in community meetings. This is particularly evident in the Eastern (15.09%) and Northern (8.78%) regions.
- 30% of the respondents across five regions share that the information in the community is shared effectively and in well-managed way.
- 50.33% of the respondents across five regions shared that community meetings are accessible for them.
- The gender gap is particularly evident in Chitral, where 75.33% of participants are male, leaving women with a much lower engagement rate of 24.67%. A similar trend is seen in the Eastern region, where male participation stands at 73.33%, compared to just 26.67% for females.
- In the Eastern Region (20% participation), the gender gap remains wide, with men at 73.33% and women at 26.67%. While digital communication works well for youth (38% young men), older adults remain disengaged.
- 30% of the respondents in the central region, with the highest percentage, shared that the information in the community is not being shared effectively.
- 50.3 % of the respondents in the central region, with the highest percentage, shared that they participated in community meetings regarding the services.
- 40.3% of the respondents shared that their preferred communication is community meetings in the locality.
- 46.5% of the respondents were of the view that they are satisfied to some extent with these channels of information, however, they are not fully satisfied.
- 56.33% of the respondents shared that their HH member hasn't had access to the services since last year in the five regions.
- 53.9% of the respondents shared that they are not facing any kind of significant barriers to avail services.
- 31.1% of the survey participants opined that lack of information is the key barrier to service, followed by financial constraints.
- Agribusiness support is one of the most male-dominated services, with 72.01% of men reporting an interest in accessing it, compared to only 27.99% of women.
- 44.7% of the respondents opined that they need agriculture services and training, which shows the importance of agriculture and nutrition in the targeted areas.

- 41.33% of the respondents shared that both genders don't have equal access to services and information, which prioritize separate communication channel and implementation modalities.
- 47.9% of the respondents shared that those services and information are not accessible to persons with disabilities
- 59.47% of the respondents shared that transportation is the key barrier to service access in the surveyed population.
- 95.2% of the respondents across five regions shared that the services are not accessible for person with disabilities.
- In the Central region, transportation barriers are reported by 29.04% of the population, the highest among all regions.
- 51.7% of the respondents shared that their primary source of income is agriculture, followed by small business
- 49.2% of the respondents shared that they have 5-10 Kanal rented agriculture cultivated land
- 7.4% of the respondents shared that they have cultivated agriculture own land, followed by 5-10 kanals (4.8%)
- 63.4% of the respondents don't have an additional source of income and they are relying on farming and agriculture, followed by small business
- 48.3% of the respondents shared that they are selling the agricultural products directly to the market or self, followed by a middleman (23.5%)
- 50.2% of the respondents opined that lack of market awareness is a significant barrier to them, followed by access to market (21.3%)
- 35.9% of the respondents shared that they don't have stability throughout the year
- 73% of the respondents were of the opinion that they don't have any additional source of income, followed by loans (17%)
- 84.6% of the respondents shared that there are insufficient opportunities for income generation
- 29.9% of the respondents shared that they have farming skills, followed by traditional food processing at the domestic level
- 82% of the respondents are not aware of the vocational training skills program
- 29% of the respondents shared their view that tailoring is the most valued skill in the locality, followed by digital skills (26%).
- 74.3% of the respondents across five regions shared that they are not involved in the decision-making process.
- Central region (32.10%) reports the highest male participation in the decision-making process, followed closely by the Northern (24.38%) and Southern (18.52%) regions.
- 81% of the respondents are not aware of the governance structure in the survey targeted areas
- 64.1% of the respondents shared that they are excluded from the community decision-making process
- Among those who lack knowledge of community structures, 69.07% are male, and 30.93% are female.
- Among those who are unaware of formal community structure (80.44% of respondents), men form a significant proportion, with 12.67% of males aged 30-45 and 12.44% of males aged 46-60 lacking awareness.
- The Central Region stands out with strong agricultural and professional networks, as seen in the high presence of Farmer Committees (57.45%) and PFOs (50%).
- 44.3% of the respondents were somewhat satisfied with the community decision-making, followed by not satisfied (38.9%)



- 69% of respondents shared that due to a lack of awareness, they are not involved in the community decision-making process.
- 45.73% of respondents never participate in community discussions, indicating a lack of engagement.
- 67.26% are male, while 32.74% are female, opined that their voices are in community is not heard in the community decision-making process.
- 67.76% are male, while 32.24% are female shared that local authorities don't consider their needs in the community decision-making process.
- 51.6% of the respondents are taking two meals a day, which shows the extreme poverty and poor nutrition status.
- In the Central region, the majority of households, about 54.89%, report consuming only one meal a day.
- 70.65% of males report eating just one meal per day across the five regions.
- Only 26.73% of females report consuming these food groups on a daily basis.
- Chitral reports the lowest daily consumption at just 4.74%, indicating that daily access to food groups is less common in this area
- The most consumed food groups are grains and tubers (81%), followed by vegetables 70%
- 53% of people don't have access to a variety of food and they rely on just one food.
- 61.13% of respondents shared that their 30% to 40% are consumed on notorious food.
- 94.5% of the respondents shared that they are not aware of the food and nutrition security program and nor are they benefiting from it
- 89.20% of respondents shared that they never received training or capacity building sessions on food, nutrition and security
- 71.1% of the respondents shared that due to a lack of awareness, they are facing food and nutrition-related issues, followed by price hiking (22.3%).
- Dairy access seems to be a notable concern, particularly in the Southern region, where 45% of respondents identified it as a challenge.
- Distance from the market also emerges as a significant barrier, especially in the Central region (32.76%) and the Southern region (41.38%).
- Lack of awareness about nutrition is a challenge that affects both genders, with 70.38% of males and 29.62% of females recognizing it as a barrier.
- 46.40% of respondents across the five regions shared that they don't have access to a variety of foods in the last week.
- 84.4% of respondents across five regions shared that they don't have awareness of 4Ps.
- 86.1% of respondents opined that they are not aware of the government-led 4Ps and never utilized these services.
- The Northern region shows a higher percentage (28.85%) of respondents receiving frequent support from 4Ps, with an additional 32.11% indicating occasional services.
- 51.6% of the respondents were found neutral under the government process of 4Ps, followed by not effective (22%).
- In the Central region, 34.29% of respondents are aware of government programs supporting producers, which is the highest percentage among all regions.
- A significant portion of respondents (51.60%) remained neutral, indicating either a lack of direct experience with government programs or uncertainty about their impact.
- 95.3% of respondents across five regions shared that they never attend capacity-building sessions at the locality.
- The Southern (22.54%) and Central (43.66%) regions report higher engagement in training and capacity building sessions.
- In agri-business training, 75.64% of participants are male, while only 24.36% are female.

- Livestock farming shows strong engagement in the Northern region at 47.80%, followed by the Southern region at 23.63%.
- 86.53% of respondents indicated they are unaware of such collaborations between producers and private companies
- 78.8% of the respondents shared their interest in agriculture-related training, followed by skills-based training and agri-business
- 64.1% of the respondents shared that they have never benefited from the 4Ps
- 72.3% shared that lack of trust is the main barrier in 4Ps, followed by sustainability
- 58% of the respondents shared that 4Ps can be strengthened through awareness and followed by development of trust (52%)
- 62.2% of the respondents are not using climate-resilient farming techniques across five regions.
- 53.3% of the respondents are not aware of climate and risk management across five regions.
- Among those who do not use climate-resilient practices, 71.05% are male, while 28.95% are female.
- 53.33% of respondents indicated they are not aware of climate or environmental risks affecting their farming,
- Crop Rotation stands out with the highest overall representation (23.53%) among modern farming techniques.
- Irrigation systems, including drip and sprinkler systems, are heavily concentrated in the Central region (70.59%), with marginal representation in the Eastern and Northern regions (11.76% each), and a small share in the Southern region (5.88%).
- 28% of respondents shared that their major challenge is drought, followed by floods (10%)
- 45% of the respondents opined that they use crop rotation as climate change adaptation, followed by water conservation
- 65% of respondents shared that they don't have access to climate change and risk management information
- 68% of the respondents shared that they don't have access to the climate resilient services and information
- Flood protection measures are highly concentrated in the Central region (69.23%), followed by Southern (23.08%) and Northern (7.69%).
- 46% of respondents shared that financial resources is a barrier to climate resilient practices
- 88.5% of respondents are not members of the farmer and they do not receive any benefits from them
- 81% of respondents shared that they don't take any institutional support for climate change adaptation
- 75.6% of the respondents shared that they don't receive any training on climate change adaptation
- 68.1% of the respondents shared that they are facing issues in climate change adaptation information

## Conclusion

The situational analysis of the five regions—Central, Southern, Northern, Chitral, and Eastern—reveals significant gaps in awareness, accessibility, and participation in development programs and essential services. Over 54% of the respondents are unaware of any development programs, with gender disparities persisting across sectors. Male youth exhibit relatively higher awareness levels, particularly in the Southern (54.67%) and Northern (55.43%) regions, yet the inclusion of women remains critically low.



Health and education services are the most recognized, yet disparities persist, with male respondents dominating access (80.85% in health and 81.82% in education). Limited access to agricultural services (44.7% demand) and livelihood opportunities underscores economic vulnerabilities, particularly in agribusiness, where men significantly outnumber women (72.01% vs. 27.99%). Market awareness remains a key challenge, affecting 50.2% of respondents, limiting economic stability and income diversification.

Community engagement remains low, with only 30% of respondents believing in effective information dissemination. The gender gap in participation is stark in Chitral (75.33% male vs. 24.67% female) and the Eastern region (73.33% male vs. 26.67% female). Digital communication serves younger males (38%) but is ineffective for older populations. Decision-making participation remains limited, with 74.3% excluded, and governance awareness is critically low (81%).

Food security remains a pressing issue, with 51.6% consuming only two meals daily. The Central region has the highest proportion (54.89%) of households with just one meal daily. Nutrition awareness is lacking (94.5% unaware of nutrition programs), and barriers include price inflation (22.3%) and market inaccessibility.

Climate resilience remains inadequate, with 62.2% not employing climate-adaptive techniques, while financial constraints (46%) and information gaps (65%) further limit adaptation. Institutional support is minimal, with 81% receiving no formal assistance. Strengthening governance structures, enhancing awareness programs, and ensuring gender-inclusive strategies are critical to addressing these systemic challenges across the five regions.

## Recommendations

**Based on primary data, the following recommendations were made;**

### **Enhancing Community Awareness and Information Dissemination**

To ensure community members in the five regions are well-informed about services, programs, and training opportunities, community information hubs should be established within Union Councils and local markets. These hubs will provide awareness sessions on climate-resilient farming, agribusiness opportunities, and food security while distributing IEC materials and digital content, especially in Chitral and southern regions. Besides, social hubs for gathering should be established for females in the houses as per the local norms.

A Social and Behavior Change Communication (SBCC) strategy should be developed with a gender-inclusive approach, emphasizing modern agricultural techniques, climate adaptation, and Public-Private-Producers Partnerships (4Ps). Special focus should be placed on youth and women-led agribusinesses to promote active participation in economic development.

### **Increasing Service Accessibility and Utilization**

Community mobilization campaigns should be introduced to educate residents on nutrition, climate change, and agricultural services. Gender-responsive communication methods, such as radio programs in Pashto and Hindko, should be utilized to enhance outreach. To increase inclusivity, support programs should provide tailored assistance to youth and persons with disabilities, enabling their participation in agribusiness and rural economic activities. Women's cooperatives should be strengthened to facilitate direct market access and improve agricultural service utilization.

### **Improving Agricultural and Economic Stability**

Agricultural extension services should be expanded with a focus on climate-smart techniques, value addition, and mechanization. Strengthening Professional Farmer Organizations (PFOs) will enhance collective bargaining power and access to financial resources. Direct market linkages should be created by promoting Farm Services Companies (FSCs) as intermediaries to bypass middlemen. The government should introduce subsidized credit schemes for modern

farming technologies, and agribusiness incubation centers should be established to support small-scale enterprises.

#### **Addressing Food and Nutrition Security Issues**

Nutrition-sensitive agriculture initiatives in terms of nutrition education and agriculture practices should be integrated into community programs, promoting kitchen gardening, food processing, and preservation training, particularly for women. Market linkages should be strengthened to ensure affordable access to nutritious foods. Targeted subsidized food programs for vulnerable populations should be introduced alongside educational campaigns promoting balanced nutrition, diverse diets, and food fortification. Women of reproductive age should be actively engaged in decision-making processes for household food security.

#### **Increasing Participation in Governance and Decision-Making**

A Community Leadership Training Program for Youth should be launched to equip individuals with advocacy, civic engagement, and governance awareness skills. Structured inclusion mechanisms for women and marginalized groups should be introduced to ensure equitable representation in policy-making and agricultural development planning.

#### **Strengthening Public-Private-Producers Partnerships (4Ps)**

Public awareness campaigns should educate farmers and agribusinesses about the benefits of Public-Private produces Partnerships (4Ps) in agricultural infrastructure and service delivery. A transparent policy framework should be established to foster trust between farmers, government, and the private sector. Investment incentives and financial support mechanisms should be developed to encourage private sector engagement in farm-to-market initiatives, facilitating value addition and improved market efficiencies.

#### **Climate Resilience and Sustainable Agriculture**

Training programs should be developed on climate-resilient farming techniques, including water conservation, drought-resistant crops, and organic farming. Partnerships with research institutions should enhance farmers' access to climate adaptation resources.

Financial incentives for adopting climate-smart agriculture should be introduced, including subsidies for solar-powered irrigation systems and climate risk insurance. Youth engagement in climate action programs should be prioritized to develop future climate leaders.

#### **Capacity Building and Skills Development**

Vocational training centers should be expanded in KP's rural areas to offer courses in agribusiness, digital technology, and entrepreneurship. Training institutions must align curricula with modern agribusiness trends and market needs, ensuring practical exposure through internships and apprenticeships.

Public-Private Internship Programs should be structured with mentorship opportunities, financial stipends, and job placement services. These initiatives should particularly target youth and women, ensuring their participation in emerging agribusiness opportunities.

#### **Institutional Support for Agribusiness Growth**

To strengthen the agribusiness ecosystem, institutional support should focus on:

- Enhancing the financial sustainability of PFOs and FSCs
- Expanding access to credit and financial literacy training for farmers
- Reforming policies to promote rural entrepreneurship and SME development
- Developing agricultural research and extension services to improve productivity

#### **Empowering Women and Youth in Agribusiness**

Women and youth face barriers in agribusiness due to limited access to finance, cultural norms, and skills gaps. To address these challenges:

- Women-led agribusiness cooperatives should be supported through targeted financial assistance and training programs.
- Youth-focused entrepreneurship programs should promote innovation in high-value crops, livestock, and dairy farming.



- Value chain integration should prioritize youth and women in agri-processing and food fortification industries.