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GENDERED DIFFERENCES IN ACCESS TO FINANCIAL AND SOCIAL ASSETS IN SEMI-ARID REGION OF THE PUNJAB, PAKISTAN

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ABSTRACT

This study was conducted to identify and analyze livelihood assets and livelihood strategies of farming households in the study areas in context of gender disparities. The main causes of people being vulnerable to climate change include poverty, gender inequality, unstable land rights, a strong reliance on agriculture, and limited access to information and education. The limited asset base, social exclusion, lack of mobility, and exclusion from catastrophe response decision-making processes further compound the risk. This paper investigates the access to the semi-arid areas of the Punjab, Pakistan from a gender perspective. A cross-sectional survey of the male and female respondents was conducted from 24 villages of semi-arid areas of the Punjab, Pakistan. Multistage random sampling technique was used to select a size of 360 households. Both male and female members of the households were interviewed to have a gender perspective. A total of 720 respondents (30 from each selected village: 15 Males and 15 Females) were taken as the study sample. To determine whether the two groups of data were correlated, chi-squared test was used. The male respondents were having significantly better access to government subsidy as compared to female respondents, because most of government programs approach to male for provision of any subsidy .Overall analysis indicate that male farmers had significantly better access to financial assets as compared to female. For "Any kind of emergency help (Non-cash) from relatives/ friends", $\chi 2$ value (14.935) reveal a highly significant difference indicates that both male, and female respondents have different the access to any kind of emergency help (Non-cash) from relatives/ friends and to cope with the climate change related challenges at household level. It is clear from the analysis that, male respondents were having significantly better access to opportunities to receive cash help from government institution as compared to female respondents.

Keywords: *Gender disparities, financial capital, social capital, semi-arid region, Punjab*

INTRODUCTION

Societies have a long record of adapting to climate risks and climate changes. Household asset portfolios and livelihood choices are shaped by the need to manage climatic risks, especially in rural areas and for low-income households. The most adverse impacts are predicted in the developing world because of geographic exposure, reliance on climate sensitive sectors, and low incomes. The literature lacks attention to micro-level impacts, and how risks associated with climate change affect household assets, liveli hoods, and well-being. Households also use their assets to cope with shocks but this interferes with their ability to maximize productivity (Schipper et al., 2022) At times of need, households often have few coping options apart from drawing down their assets (although their ability to do depends on

the structural context as mentioned above). In order to preserve the ability to use assets for short-term coping, households often prefer relatively secure and liquid asset portfolios to the detriment of expected returns and long-term adaptation (Lovell et al., 2021).

Research conducted in developing nations has demonstrated that access to resources for livelihood is greatly impacted by gender disparity, particularly in rural areas (Ankrah et al., 2020). According to published research, gender disparity in resource access has existed for many generations (Singh and Naz 2025). In addition to making women more susceptible, gender norms, and disparities in access to productive resources also have an impact on women's capacity to become resilient to climate change's effects (Ampaire et al., 2019). Women typically have less access to the productive assets and resources which are much needed to effectively cope climate change. These involve productive inputs, assets, financial, social resources. Women are particularly discouraged from investing in more long-term, climate-resilient agricultural practices due to their lack of access to and control over assets. (Bryan and Garner, 2022) .

Financial assets are linked with the avability of money and jewelry, livestock, income from work, pensions that are highly reliable and highly dependent. Lack of access to these resources may impact on both men and women differently. Mersha and Laerhoven, (2016) stated that gender-based differences in the choice of adaptation measures at the household level are driven by financial and institutional barriers. In addition, the fifth assessment report of the IPCC (2014) listed eight types of barriers, among which financial and barriers are more important. Financial capital is the most versatile; as it can be easily converted into other types of capital or it can be used to achieve livelihood outcomes. In a previous study Ghasemi *et al.*, (2021) stated that household having more participation in social networks, institutions linkages, and memberships in various social groups are more capable of carrying out different livelihood strategies. An increase in social assets gives more chance to an individual to enhance its livelihood strategies and overcome poverty.

Gender differences in human and social capital also contribute to gender differences in adaptive capacities. Social networks and groups are especially important to access information, resources and economic opportunities needed to respond to climate change and they provide an important platform for women's capacity development and agency (George et al., 2021). Social resources (networks, membership, trust, relationships, and contacts with wider social institutions) are the basis that many households rely upon for their livelihoods (Huyer et al., 2021). Like many other types of capitals, social assets can be considered legitimate. Mutual trust can also improve this situation and direct affect other types of capitals. Social capital improves the economic conditions of the individuals and helps reduce their social problems through the exchange of information and thoughts in their social assets.

1.2 Research Objective

a) To assess the extent to which**, gender inequality, unstable land rights, and limited mobility** contribute to differential access to financial and social resources

b) Access to financial assets affects household ability to cope with financial challenges

c) Access to social assets, including relatives and social network in providing financial support to make and female respondents

d) Access to credit facilities and social safety net in semi-arid regions

1.3 Problem Statement

In semi-arid regions of Punjab, Pakistan, farming households are highly vulnerable to environmental and economic stresses, particularly those intensified by climate change. The ability of these households to adapt and sustain their livelihoods largely depends on their access to financial and social assets, such as credit facilities, subsidies, social networks, and institutional support. However, access to these resources is not distributed equally across gender lines. Women farmers, despite playing a significant role in agricultural activities and household management, often face barriers such as limited mobility, cultural constraints, low literacy rates, and exclusion from decision-making forums. Consequently, they experience restricted access to formal financial institutions,

government schemes, and influential social networks, while men tend to enjoy greater opportunities and institutional support. This gender disparity not only deepens existing socio-economic inequalities but also undermines the overall adaptive capacity of rural communities in the face of climate change and resource scarcity. Despite the critical importance of financial and social assets in strengthening resilience, there is limited empirical research in the semi-arid regions of Punjab that systematically investigates gendered differences in access to these resources. Without such understanding, policies and interventions may continue to overlook the unique challenges women face, thereby perpetuating their vulnerability. Therefore, it is essential to explore and analyze the gendered dimensions of access to financial and social assets in this context to inform more equitable and inclusive strategies for sustainable rural development.

2. REVIEW OF LITERATURE

2.1 Climate change and livelihood vulnerability

In the 21st century, the interaction between climate change and human activities has triggered intense debates on global climatic hazard and people's safety. Climate change not only creates pressure on the natural resources and ecosystem, it also produces serious danger or creates threat to livelihood of mankind who depend upon these natural resources (Chidakwa et al., 2021). The global livelihood vulnerabilities are expected to increase day by day and become complex and more systematic, for government and research scholars who are trying to reduce the livelihood vulnerability of socio and financial to improve the adaptive capacity (Gupta et al., 2020). In recent years, issues related to vulnerability must be applied to socio- ecological society and their main focus on small level of livelihood vulnerability analysis which is also important for policy making that create balance between livelihood vulnerability development and environment protection (Pour *et al.*, 2018).

Past studies related to livelihood vulnerability at different scale and space have shown that livelihood vulnerability at household level is due to relation between external factors livestock and agriculture policies, government interventions, climate change, ecological degradation and different livelihood system, educational level, health, skill and language etc (Das and Ansari, 2021; Giri *et al.*, 2021). Due to different social, cultural and economic norms, men and women adopt different livelihood activities (Habib, 2021).

Many studies (Turner *et al.*, 2003; Jones *et al.*, 2016; Mamrutha *et al.*, 2020; Melvani *et al.*, 2020) have highlighted the fact that climate change is not only a function of biophysical outcomes but also concern with changes and variations in precipitation, soil and topography, temperature, drought, floods, heat wave, but also it is related with socio-economic and political perspective and deal with the different institutional factors group characteristic and structure such as caste, race, affiliation gender, age etc (Fellmann, 2012; Vogel *et al.*, 2012). Vulnerability is closely related with cultural specific and location factors. Although, vulnerability related to climate change is the most significant global phenomena and climate change adaptation and its impacts are unavoidable (Agrawal, 2010).

2.2 Gendered aspect of vulnerability to Assets

Climate change related risks are major threat to the socio-economic development of the country (Eckstein *et al.*, 2019). Different regions of the world have different type of the vulnerabilities related to climate change; so that Asia is the mainly vulnerable areas of the world due to highly depend upon the agriculture and limited resources (Field and Barros, 2014). In Asia, because of the region's dense population and agriculture-based economies, climate change-related hazards have posed a particular danger to its livelihoods and food security. In Asia, studies (Aryal *et al.*, 2020) show a large decrease in the production of the main food crop by 2099, despite the fact that it should have doubled by then to accommodate the region's expanding population.

Gendered vulnerability to climate change is elaborated through exposure to two types of impacts and severe events, such as temperature, extreme rainfall, drought, and heatwave events, and their implications on livelihoods as a result of seasonal fluctuations in temperature and precipitation patterns. There is more awareness regarding which gender is more vulnerable to

natural disasters (Fordham, 2003). Contextual and in-depth analyses of gender and the construction of vulnerability have recently become more common. Women are more susceptible to the effects of climate change in inequitable societies, according to Neumayer and Plümper (2007), who also give empirical data connecting women's socially constructed gender-specific vulnerabilities to their social and economic rights. Morton, (2007) argues that living conditions are "based in intra-household social ties, especially gender relations, as well as inter-household relations. In comparison to the literature on gender, environment, and development (GED) and livelihoods traditions, this form of gender analysis of inter- and intra-household connections is less explored in the literature on climate adaptation (Ellis *et al.*, 2000)

The studies pay attention to how gender dynamics affect individual and household adaptation to climate change. For instance, Eriksen *et al.*, (2005) discussed how gender roles affect how smallholders in Kenya and Tanzania respond to climatic stress. Carr and Thompson, (2014) investigated how gender roles affected rural communities' tactics for diversifying their sources of income in central Ghana. Terry, (2012) investigates how discriminatory gender norms limit men and women's adaptive potential and, as a result, household adaption possibilities. Nielson and Reenberg (2010) studies demonstrate how gender roles in the home and community influence and are influenced by livelihood diversification as a household adaptation strategy. They also emphasized gender, ethnicity, and culture are crucial factors in determining to diversify your sources of income in order to adapt to climate change. New gender issues and climate change Discourse increasingly acknowledges that women's vulnerability and capabilities for adaptation to climate change differ from men (Barnett and Adger, 2007; Denton *et al.*, 2004; Arora-Jonsson, 2011). Some of the studies indicate that socio-economic variables, as well as poverty and limited access to resources as compared to male members, are critical contributing factors for different coping capabilities and vulnerabilities of male and female farmers (Mersha and Van Laerhoven, 2016; Mehar *et al.*, 2016).

It is important to emphasize the socioeconomic factors that make women increasingly vulnerable to the effects of climate change in order to address the challenges that can arise from women's participation in agriculture, whether as landowners or as workers (Demetriades and Esplen, 2010). Same concept, which is applicable for farmer's at small and large scale land owner, small farmer at more risk due to climate change effects as compared to marginal farmers. Social class, cultural norms and cast system common in different parts of the world, such as India, that influence the copping capacity of the farming community related to climate change effects, especially women are more affected to climate change stresses (Ray-Bennett, 2009; Sugden and De Silva, 2014).

In the recent decades, climate change has affected the social and economic condition farmers and they have become concerned to adopt changing environment conditions (Kurukulasuriya and Rosenthal, 2003). Nonetheless, it is not clear if farmers are able to keep up with the remarkable speed at which climate is likely to change in the coming years (Hyland *et al.*, 2016). Due to the detrimental effects of climate change on farmers who depend primarily on agriculture for their means of subsistence, those who have little access to insurance and financing, as well as those who are cut off from local and national markets, the situation has become more urgent (IFAD, 2016; Castells-Quintana *et al.*, 2018). To overcome these harmful impacts of climate change, public policies are trying to facilities farmers and also provide guidance to them (Chhogyel *et al.*, 2020).

Globally, semi-arid regions constitute nearly 30% of the total land area; these areas are extremely sensitivity to climate change related effects due to their delicate ecosystem (Rotenberg and Yakir, 2010., Huang *et al.*, 2016). According to Intergovernmental Panel on Climate Change (IPCC) climate change is a real phenomenon and due to climate change variations the intensity, duration and severity drought has increased. Climate change risk is a more complex phenomenon that damage the agriculture related livelihoods which are highly dependent on water and also disturb the social and financial cycle. In both developing and developed countries, drought is a main threat to

livelihood of people and their food security. Semi-arid areas are the most vulnerable areas of the world because these areas are prone to flooding and drought (Ashraf *et al.*, 2022).

3. MATERIALS AND METHODS

Data collection was conducted during 2022 in two semi-arid districts of the Punjab, Pakistan (Layyah and other from Bhakkar districts). These semi-arid regions of Punjab Pakistan categorized as a most drought and heat wave prone, flood and other climate change vulnerable areas (Farooqi *et al.*, 2005). Multistage sampling technique was used to select the villages from union council. Data were collected from total four tehsil of selected districts e.g. Layyah, Chobera, Mankara, Bakhar, then from each tehsil, three administrative units, Union Councils (UCs), were randomly selected, and then two villages from each UC were randomly taken. Thus in total 24 villages were selected. The sample size calculation procedure created by Yamane (1967) was used to determine a suitable sample size with a 95% confidence level and 5% margin of error. This table was used to select a sample of 360 household, evenly distributed among the villages. A total of 720 respondents (30 from each selected village: 15 Males and 15 Females) were taken as the study sample. In order to collect the qualitative data, key informants' interview and field observations were used by the researcher. For comparison, the independent samples chi-sq was used to compare the mean scores of two groups in a given variable, that is, two mean scores of the same variable, whereby one mean represents the average of that characteristic for one group and the other mean represents the average of that specific characteristic in the other group.

4. RESULTS AND DISCUSSION

One of the specific objectives of this research was to identify and analyze different livelihood assets of male and female. Livelihood assets are the resource bases of households which are divided into different categories such as human, social, natural, physical and financial. The respondents (male and female) were asked about their access to livelihood assets. Sustainable livelihood framework used to analysis the livelihood assets and strategies. The sampled respondents were asked about the access to financial and social the results are presented in the following sub-sections. Assets on a 5-point (likert scale)

(Scale: 1= No accessibility, 2= Low accessibility, 3= Medium accessibility, 4= Good accessibility, 5= Very good accessibility)

Asses to Financial Assets

Financial asset consist of different types of financial resources used at the households to achieve their livelihood goals (DFID 1999). Various researchers have used cash, access to credit, subsidy, and savings as indicators of financial asset (Chowdhury, 2021; Soini, 2005). Financial resources include all the resources; households can use (savings, credit, foreign, remittances, or regular pensions) to meet their needs. Financial assets include those resources which are used to meet daily life goals and these assets are least available to the poor, indeed, financial capital is the most needed assets for the rural household (Larson and Ribot, 2004).Table 1 describes bi variant analysis of male and female respondents, access to the financial assets.

Table 1 Gender based access level to financial assets

Financial assets		Access level					Total
		No accessibility	Low accessibility	Medium accessibility	Good accessibility	Very good accessibility	
Bank loans	Male	55	164	117	24	31	360
		15.3%	45.6%	32.5%	6.7%	8.6%	100.0%
	Female	52	144	111	22	0	360
		14.4%	40.0%	30.8%	6.1%	0.0%	100.0%
Total		107	308	228	46	31	720
		14.9%	42.8%	31.7%	6.4%	4.3%	100.0%
Chi=square = 32.628 p-value = .000** Gamma = 11.057							
Borrow money from relatives and friends	Male	19	74	155	97	73	360
		5.3%	20.6%	43.1%	26.9%	20.3%	100.0%
	Female	19	69	111	83	20	360
		5.3%	19.2%	30.8%	23.1%	5.6%	100.0%
Total		38	143	266	180	93	720
		5.3%	19.9%	36.9%	25.0%	12.9%	100.0%
Chi=square = 38.746 p-value = .002* Gamma = 9.252							
Loans from middle men (arhti)	Male	29	5581	124	9102	87	360
		8.1%	22.5%	34.4%	28.3%	24.2%	100.0%
	Female	12	55	114	92	24	360
		3.3%	15.3%	31.7%	25.6%	6.7%	100.0%
Total		41	136	238	194	111	720
		5.7%	18.9%	33.1%	26.9%	15.4%	100.0%
Chi= square = 48.712 p-value = .000* Gamma = 35.010							
Government based subsidy	Male	121	126	5	90	66	360
		33.6%	35.0%	1.4%	25.0%	18.3%	100.0%
	Female	110	78	26	40	58	360
		30.6%	21.7%	7.2%	11.1%	16.1%	100.0%
Total		231	204	31	130	124	720
		32.1%	28.3%	4.3%	18.1%	17.2%	100.0%
Chi= square = 45.791 p-value = .023* Gamma = 5.158							

Table 1 represents the analysis regarding access to the financial assets for both male and female respondents. For access to "Bank loans", $\chi 2$ value (32.628) reveal a highly significant (p = .000**) difference indicates that both male and female respondents had different the access to bank loans. λ value (11.057) showed a significant and positive relation between above discussed variables. It is clear from the above analysis that, male respondents were having significantly better access to the bank loans as compared to female respondents. Bank loans procedure and requirement are time consuming, and due to lack of education females could not fulfill these requirements. For "Borrow money from relatives and friends" $\chi 2$ value (38.746) reveal a highly significant (p = .002**) difference indicates that both male and female respondents

have different the access to borrow money from relatives and friends and to cope with the climate change related challenges at household level. A λ value (9.252) showed a significant and positive relation between above variables.

It is clear from the above analysis that, male respondents were having significantly better access to borrow money from relatives and friends as compared to female respondents. Because the male members feel free and comfortable to get loan from friends due to social relations they can return whenever they have money.

For access to "Loans from middle men (arhti)" χ2 value (48.712) reveal a highly significant (p = .000**) difference indicates that both male and female respondents have different the access to loans from middle men (arhti) and to cope with the climate change related challenges at household level. λ value (35.010) showed a significant and positive relation between above discussed variables. It is clear from the above analysis that, male respondents were having significantly better access to loans from middle men (arhti) as compared to female respondents. Because the male members had more social interaction with middle men and get loan in the form of commodities and cash. For access to "Government based subsidy" χ2 value (45.791) reveal a highly significant (p = .023*) difference indicates that both male and female respondents have different the access to government provided subsidy and to cope with the climate change related challenges at household level. χ2 value (45.791) showed a significant and positive relation between above discussed variables. It is clear from the above analysis that, male respondents were having significantly better access to government provided subsidy as compared to female respondents. Because most of government programs approach to male for provision of any subsidy .Overall analysis indicate that male and farmers had significantly better access to financial assets as compared to female. Lack of education and culture norms restrict female empowerment in the rural areas of Pakistan. In previous Based on the research finding it can be summed-up that access to financial capital female respondents was less than those of the male. These results were in line with some previous research findings (Ubisi et al., 2017) who elaborate that females of rural area do not spend good quality of life as compared to male member of the society, when the financial assets of household affected than the women suffer a lot. Phan et al., (2019) stated that gender equality related initiative must be taken by the government and non- government organizations to help women to develop their business, so that they can also led money from bank and different government loan scheme at low interest rate, they have really positive impact on the financial assets. Financial assets enhance the capacity of farming household to adopt climatic shocks technologies through improved seed verities, fertilizer and climate change resistance to overcome the climate change losses which also required more financial support. Farmers can change their current practices for responding to climate conditions and enhance their resilience level.

Access to Social assets

Social assets as the institutions, relationships, networks, and values that govern people interactions with each other, which contribute to economic growth and social development of any society (de Haan and Quarles van Ufford, 2002). Social capitals amidst climate change vulnerability determine whether the two groups of data are correlated, chi-squared test was used. The following table (2) describes the bi variant analysis regarding gender based access level to the social assets.

Table 2 Gender based access level to social assets by using chi square analysis

Social assets		Access level					Total
		Never	Rarely	Sometimes	Often	Always	
Opportunities to receive help (cash) from relatives and friends	Male	21	61	99	116	71	360
		5.8%	16.9%	27.3%	32.2%	19.7%	100.0%
	Female	54	77	91	106	24	360
		15.0%	21.4%	25.5%	29.4%	6.7%	100.0%
Total		75	138	190	222	95	720
		10.4%	19.2%	26.4%	30.8%	13.2%	100.0%
Chi=square = 40.415		p-value = .000**				Gamma = 33.916	
In case of emergency get help in cash from relatives and friends	Male	38	107	96	105	49	360
		10.6%	29.7%	26.7%	29.2%	13.6%	100.0%
	Female	32	78	93	88	34	360
		8.9%	21.7%	25.8%	24.4%	9.4%	100.0%
Total		70	185	189	193	83	720
		9.7%	25.7%	26.3%	26.8%	11.5%	100.0%
Chi=square = 9.316		p-value = .005**				Gamma = 7.824	
Any kind of emergency help (Non-cash) from relatives/ friends	Male	27	73	95	123	42	360
		7.5%	20.3%	26.4%	34.2%	11.7%	100.0%
	Female	38	107	93	88	34	360
		10.6%	29.7%	25.8%	24.4%	9.4%	100.0%
Total		65	180	188	211	76	720
		9.0%	25.0%	26.1%	29.3%	10.6%	100.0%
Chi=square = 14.935		p-value = .001**				Gamma = 12.021	
Opportunities to receive cash help from government institution	Male	38	107	99	111	41	360
		10.6%	29.7%	27.5%	30.8%	11.4%	100.0%
	Female	31	78	93	88	34	360
		8.6%	21.7%	25.8%	24.4%	9.4%	100.0%
Total		69	185	192	199	75	720
		9.6%	25.7%	26.7%	27.6%	10.4%	100.0%
Chi=square = 8.755		p-value = .010*				Gamma = 6.664	

Table 2 represents the analysis regarding access to the social assets for both male and female respondents. "Opportunities to receive help (cash) from relatives and friends", $\chi 2$ value (40.415) reveal a highly significant (p = .000**) difference indicates that both male and female respondents had different the access to opportunities to receive help (cash) from relatives and friends and to cope with the climate change related challenges at household level. λ value (33.916) showed a significant and positive relation between above discussed variables. It is clear from the above analysis that, male respondents were having significantly better access to the opportunities to receive help (cash) from relatives and friends as compared to female respondents. Because male were having more social interaction with in community and it easy borrow money from the relatives and friends female have less social contacts due to cultural barrier. "In case of emergency get help in cash from relatives and friends", $\chi 2$ value (9.316) reveal a highly significant (p = .005**) difference indicates that both male and female respondents have different the access to in case of emergency get help in cash from relatives and friends and to cope with the climate change related challenges at household level. λ value (7.824) showed a significant and positive relation between above discussed variables. Male

respondents were having significantly better access help in cash from relatives and friends as compared to female respondents.

For "Any kind of emergency help (Non-cash) from relatives/ friends", $\chi 2$ value (14.935) reveal a highly significant (p = .001**) difference indicates that both male and female respondents have different the access to any kind of emergency help (Non-cash) from relatives/ friends and to cope with the climate change related challenges at household level. λ value (12.021) showed a significant and positive relation between above discussed variables. It is clear from the above analysis that, male respondents were having significantly better access to any kind of emergency help (Non-cash) from relatives/ friends as compared to female respondents. "Opportunities to receive cash help from government institution", $\chi 2$ value (8.755) reveal a highly significant (p = .010*) difference indicates that both male and female respondents have different the access to opportunities to receive cash help from government institution and to cope with the climate change related challenges at household level. λ value (6.664) showed a significant and positive relation between above discussed variables. It is clear from the above analysis that, male respondents were having significantly better access to opportunities to receive cash help from government institution as compared to female respondents. Because the female respondents were less educated. Data indicate that during the difficult times households got help from the relatives, friends, and neighbors in case of any disaster or any emergency, the male members got loans from the shopkeeper and female prefer to get help from relatives. Male member also applies for different loans schemes. Some of the households feel more comfortable with borrowing money from relatives, friends, rather than the other community members, better social network also overcome the climate change impact in the society or on the individual household (Tewari and Bhowmick, 2014). In a previous study Ghasemi et al., (2021) stated that households having more participation in social networks, institutions linkages, and memberships in various social groups are more capable of carrying out different livelihood strategies. An increase in social assets gives more chance to an individual to enhance their livelihood strategies and overcome poverty. Household having more linkages with NGOs and local organizations have more opportunities for employment and access to well-paid labor market (Rakodi, 1999).

Gendered access to Credit and Social safety net

At household level financial resources and availability of credit facilities are the very important factor to cope with the adverse affects of the climate change risk and shocks (Davies *et al.*, 2017). The access to credit is important to cope with the climate change impacts. To measure access to credit both male and female respondents were asked different questions on a Likert Scale = 1 = Not at all, 2 = Very low, 3 = Low, 4 = High, 5 = Very high. The results in this regard are given in table 3.

Table 3. Distribution of respondents according to their access to credit / social safety net

Access to credit and Social safety net		Mean	S. D.	t-value	p-value
Access to borrowing money from bank during disaster	Male	3.01	1.19	5.026	.000**
	Female	2.62	0.86		
Help from money lender	Male	3.14	1.31	5.563	.000**
	Female	2.66	0.97		
Borrowing money from middle men	Male	3.00	1.08	2.464	.014*
	Female	2.81	0.96		
Loan from shop during need	Male	2.78	1.10	2.103	.036*
	Female	2.62	0.86		
Access to zakat or charity	Male	3.00	1.08	2.056	.040*
	Female	2.84	0.97		
	Male	3.00	1.28	0.359	.719^{NS}

Any help from ehsaas program (social safety net)	Female	2.98	1.20		

During disaster "Access to borrowing money from bank" had mean values 3.01 and 2.62 for male and female respondents respectively. The tendency for male respondents was low, while for female respondents it was between very low to low and there was significant difference between male and female respondents with t-value 5.026. "Help from money lender" got values 3.14 and 2.66 for male and female respondents respectively. The tendency for male respondents was low, while for female respondents it was between very low to low and there was significant difference between male and female respondents with t-value 5.563. "Borrowing money from middle men" had mean values 3.00 and 2.81 for male and female respondents respectively. The tendency for male respondents was low, while for female respondents was between very low to low and there was significant difference between male and female respondents with t-value 2.464. "Loan from shop during need" had mean values 2.78 and 2.62 for male and female respondents respectively, The tendency for male respondents was between very low to low, while for female respondents it was between very low to low significant difference between male and female respondents with t-value 2.103. For "Access to zakat or charity" had mean values 3.00 and 2.84 for male and female respondents respectively, The tendency for male respondents was low, while for female respondents was between very low to low and there was significant difference between male and female respondents with t-value 2.056. "Any help from ehsaas program (social safety net)" had mean values 3.00 and 2.98 for male and female respondents respectively, The tendency for both male and female respondents was low so there was no significant difference between male and female respondents with t-value 0.359. Overall low access to credit for male but very low for female respondents respectively.

During interview a female from sampled household told *"Most of the time we don't have cash to fulfill our needs our household head only have access to credit facility they get loans from bank and other private institutions because their loan procedures are long and time consuming so male members of the household not allow us to go to the offices for any credit scheme and other most important factor we are not educated to fulfill their documentation which is necessary for getting loans. Sometime we get access to the credit whenever sell the animals or get loan from the shopkeeper in the form of household commodities"*

The qualitative data indicate that during and after disasters getting loans from the bank is not easy and bank loans procedure and requirement are very time consuming. Due to lack of education they do not fulfill these requirements so, most of the time they prefer to get loan from the middle men or the local shopkeeper in the form of commodities. Sometime they have to sell animals to pay the deposits. Female, sometime borrow loans from the shopkeeper to fulfill the household basic needs. Several studies showed the positive impact of formal credit availability during disaster at household level (Quach and Mullineux, 2007). Credit and transfers can help households who are affected by natural disasters to fulfill their basis needs (Nguyen *et al.*, 2013). Easy access to the credit can help to overcome the adverse effects of natural disasters at household level.

5. Conclusion

According to the results, men and women respondents have differ to level of access to the resources that support their primary sources of income. The results have shown that access to and uses of different resources are influenced by gender. Households headed by men have greater access to natural, human, and financial resources, which gives them an edge in lessening the effects of floods and unpredictable rains. The disparities between male and female member of household households' access to livelihood assets and resilience outcomes are caused by a combination of macro-level factors, such as gender-insensitive resource allocation for resilience interventions, and micro-level factors, such as cultural traditions and norms. Given that farming is the primary source of income, interventions are necessary to boost the productivity of financial and social assets in order to strengthen the resilience of families headed by women. Given that women have fewer connections to larger financial networks,

intentional interventions can also focus on enhancing women's access to financial assets, including loans. At the macro level, research indicates that unequal resource allocation for climate change resilience interventions is the primary cause of the disparate climate change resilience results between households led by men and women.

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