GENDER AND ENVIRONMENT SURVEY PILOT 2021

Mongolia

NATIONAL STATISTICS OFFICE OF MONGOLIA

UN WOMEN | WOMEN COUNT

Acknowledgements

The Mongolia Gender and Environment Survey Pilot (2021) was implemented by the Mongolia National Statistics Office (MNSO), under the executive leadership of Ayush Ariunzaya and, later, Batdavaa Batmunkh. The survey was managed by Amarbal Avrimed, and, later, Davaatseren Davaajargal, who oversaw its planning, operations and roll out. A total of 6 supervisors and 30 enumerators rolled out the survey on the ground. A team from the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), under the leadership of Sara Duerto Valero, conceptualized the survey, designed guidance materials and co-financed the survey with the MNSO. Financial support was provided by Women Count, a UN Women initiative for the production, use and promotion of gender statistics. Davaatseren Davaajargal, Sara Duerto Valero, Sneha Kaul and Tsz Yu Chang drafted this survey report. Mary Ann Perkins edited the report and Blossom.it designed the report.

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Acronyms

CATI	Computer-assisted telephone Interview
COVID-19	Coronavirus disease of 2019
GES-P	Gender and Environment Survey Pilot
MNSO	Mongolia National Statistics Office
PHC	Population and Housing Census
PTSD	Post-traumatic stress disorder
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women

INTRODUCTION

The 2021 Gender and Environment Survey Pilot (GES-P) Mongolia is a comprehensive national household survey exploring the multidimensional relationship of women and men with the environment in the country. The survey estimates household and individual level exposure to the immediate consequences of recent disaster events and the prolonged impacts of climate change. It also evaluates the reciprocal influences of both women and men on the environment through their daily economic activities and livelihoods.

The 2021 GES-P Mongolia was implemented by the Mongolia National Statistics Office (MNSO) with support from the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women). The content of the survey was based on international guidelines provided by UN Women, including a preliminary version of the the Model Questionnaire for Measuring the Nexus between Gender and Environment[1], and adapted for the Mongolian context in consultation with national stakeholders. Estimates from this survey are expected to provide sex-disaggregated data for national and global monitoring frameworks, including the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction and the Global Set of Climate Change Statistics and Indicators.

The data collection took place during the coronavirus disease (COVID-19) pandemic, making it impossible to collect data face-to-face as planned. As a result, the survey was conducted using computer assisted telephone interviews (CATI) on a smaller sample than initially planned. Besides the pandemic, other important disaster events that took place in the year of the survey included dzud events (cold-season disasters characterized by heavy snow and severe cold) in 2020 and 2021,[2] severe sandstorms in March 2021[3] and flash floods in July 2021.[4] The survey findings reflect on the situation of the Mongolian population, particularly those in rural areas, including their vulnerability to disaster events and the long-term impacts of climate change as well as the individual experiences of women and men who are confronted daily with these impacts.

OBJECTIVE AND SURVEY SCOPE

The main objective of the 2021 GES-P Mongolia was to test the feasibility of conducting such survey in the country, to fine-tune the methodology of the global questionnaire for use in Mongolia and to obtain preliminary estimates of sex-disaggregated statistics across several thematic areas. Household-level data focus on housing characteristics while individual-level data for male and female respondents span various themes, such as personal attributes, exposure to and experience of disasters and hazards, the impact of climate change, environment-related household consumption and income, asset ownership and use, and decision making and mobility. The 2021 GES-P Mongolia largely adheres to international guidelines, as outlined in the Model Questionnaire: Measuring the Nexus between Gender and Environment, with adaptations specific to Mongolia, and modules at the household and individual levels.

1 Model Questionnaire: Measuring the Nexus between Gender and Environment.
2 See https://reliefweb.int/report/mongolia/acaps-anticipatory-briefing-note-mongolia-anticipated-impact-dzuds-15-january-2021.
3 Reliefweb (2021), Mongolia: Sandstorm – March 2021. See https://reliefweb.int/disaster/st-2021-000024-mng.
4 Reliefweb (2021), Mongolia: Flash Floods – July 2021. See https://reliefweb.int/disaster/ff-2021-000098-mng.

Table 1: Modules implemented in the GES-P Mongolia

MODULE	DESCRIPTION	LEVEL
0	Household roster	Household
1	Individual characteristics	Individual
2	Housing characteristics: Building materials, location and assets	Household
3	Housing characteristics: Water and sanitation	Household
4	Housing characteristics: Energy	Household
5	Environment-related employment	Individual
6	Disaster exposure, preparedness, and consequences	Individual
7	Asset ownership and use	Individual
8	Environment-related income and livelihood	Individual
9	Exposure to, and preparedness for, climate change related effects	Individual
10	Decision making and mobility	Individual

GEOGRAPHICAL SCOPE

In developing the sample design for the 2021 GES-P Mongolia, one of the primary goals was to achieve a wide geographic representation, including the most remote areas, to better understand the frequency and long-lasting effects of disasters and climate change. The ecological features of Mongolia are varied, with the Gobi Desert to the south and with cold and mountainous regions to the north and west. Approximately 40% of Mongolia is covered by hills, while the rest of the country consists of plains. The landscape is diverse, encompassing alpine regions, mountain taiga, forest steppe, steppe, Gobi, and desert areas. Rivers flowing to the south and west often end in inland lakes or salt lakes[5]. Each area may have unique microclimates and risks related to disasters and climate change. Therefore, the sample was designed to represent all regions of the country. A total of 21 aimag (provinces) at 9 district levels were considered. The classification of urban and rural areas in this report aligns with that of other surveys, such as the Multiple Indicator Cluster Surveys, whereby urban encompasses the capital city and aimag centrr, while rural includes the soum centre and surrounding rural areas.

Within each geographic region, the 2021 GES-P Mongolia considered all private household units as eligible and targeted individual-level interviews with adult household members age 18 years or older.

REFERENCE PERIOD

Field data collection for the 2021 GES-P Mongolia occurred from 9 August 2021 to 6 November 2021. Most data items have a 12-month reference period from the date of the interview. The questionnaire explicitly notes those data items that deviate from the 12-month reference period, such as those associated with slow-onset processes like climate change.

5 Mongolia country, Asian Disaster Reduction Center (ADRC) (2011). Available at www.adrc.asia/countryreport/MNG/2011/FY2011B_MNG_CR.pdf.

SAMPLING PROCEDURE

Sample selection for the 2021 GES-P Mongolia was conducted as part of the three-stage probability sample design from which 2,800 households were chosen. In the first stage, 140 census units were selected from the capital and 4 regions (i.e. West, Khangai, central and East) proportional to the total number of households. In the second stage, 20 households were randomly selected from each selected census units. In the third stage, one female adult and one male adult (age 18 years or older) was randomly selected from the household roster to respond to the survey. Overall, the survey was administered to 2,062 women and 1,752 men.

SAMPLING FRAME

The survey utilized a sampling frame based on listing 897,427 private households based on the 2020 Population and Housing Census of Mongolia, with no specific geographic areas being excluded. Information in the sampling frame included geographic codes relating to the location of the household and the name of the head of household.

As the sampling frame did not contain information on the individual members of the household, one random adult male and one random adult female were chosen from the household demographic table gathered during the 2021 GES-P Mongolia survey interview. Before this selection, the list of household members was narrowed down to only include adults (age 18 years and older), grouped by sex. One female respondent was randomly selected from the adult females, and one male respondent was randomly selected from the adult males. In instances where there were no eligible respondents within a specific subgroup, no interviews were conducted. In single-adult households, only one person was selected for an interview, regardless of their sex.

Table 2: Sampling frame for GESP-P Mongolia

		2020 MONGOLIA CENSUS		2021 GES-P MONGOLIA		
GEOGRAPHICAL AREAS		NO. OF HOUSEHOLDS	NO. OF ENUMERATION AREAS	SAMPLE SIZE (HOUSEHOLDS)	WOMEN INTERVIEWED	MEN INTERVIEWED
11	Ulaanbaatar (capital)	411,420	169	620	254	344
12	Aimag centre	180,307	198	1,139	403	508
22	Soum centre	110,596	367	828	348	452
32	Rural area	195,104	1074	494	196	252
No location recorded				n/a	861	196
Mongolia (Total)		**897,427**	**1808**	**3081**	**1,201**	**1,556**

To account for different probabilities of selection, sampling weights are calculated for each private household in the sample and for each randomly selected female and male respondent. The 2021 GES-P Mongolia weights are corrected for non-response and calibrated using the number of private households and individuals by region from the 2020 Mongolia Census (table 2).

FIELD OPERATIONS

Although the survey was initially planned for face-to-face data collection, the COVID-19 pandemic posed challenges in this regard. In the end, all data in the 2021 GES-P Mongolia were collected via CATI, by a group of trained enumerators and supervisors. Supervisors were recruited internally by the MNSO. Before the data collection period, all supervisors and enumerators completed training covering key concepts, definitions and field procedures.

CS-Pro was used to design the questionnaire form. The survey manager, Mr. Amarbal Avrimed of MNSO, led quality assurance and oversaw a team of enumerators.

Given that the survey was conducted over the telephone and during the pandemic, in 2021 GES-P Mongolia, the household response rate (completed interviews) was 47 per cent. From these households, 2,062 adult females and 1,752 adult males were randomly selected for individual interviews, representing 94.7 per cent of women and 92.9 percent of men within the responding households.

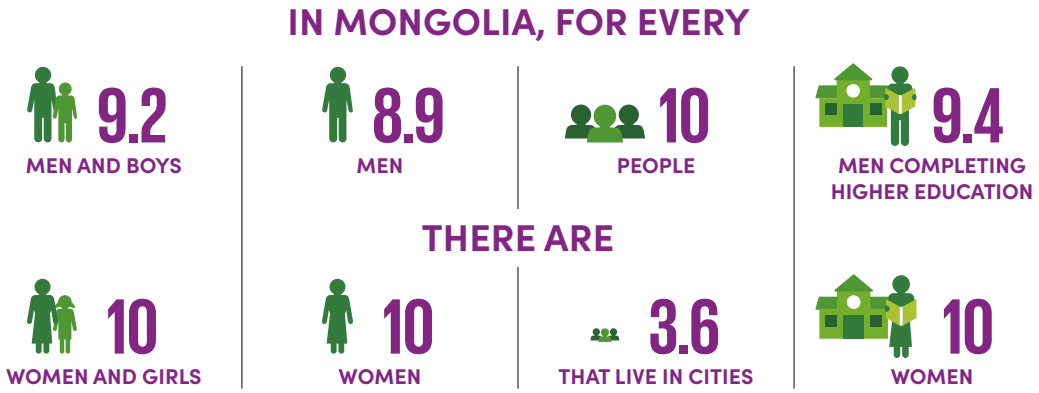
DATA PROCESSING

Data processing for the 2021 GES-P Mongolia was conducted in the STATA statistical software. These processes included steps for data cleaning and validation, internal and external coherence checks, the computation of sampling weights and the calculation of survey estimates.

Inconsistencies found during data processing were discussed between UN Women and MNSO for reconciliation and, in some cases, deletion from the survey report if the issue was associated with adjustments needed to the questionnaire after the pilot.

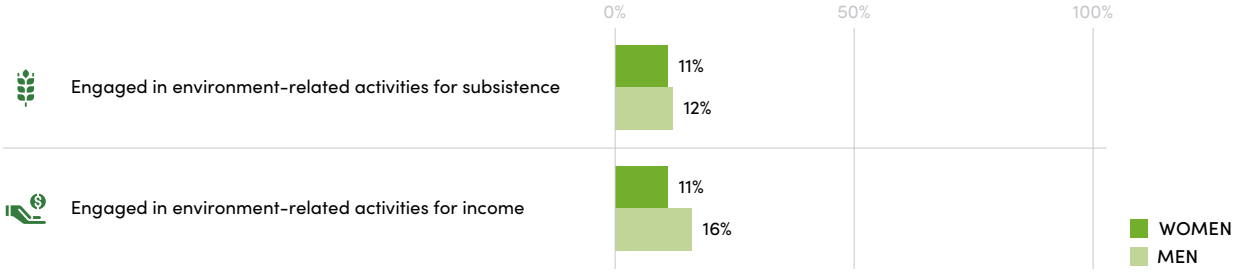
GENERAL CHARACTERISTICS OF THE POPULATION

According to the 2020 Population and Housing Census of Mongolia, there are 897,427 occupied private households, comprising a total population of 3,197,020 individuals.



The bulk of the households in Mongolia (46 per cent) are made up of two adults and children. An estimated 6 per cent of households are women living alone with children, compared to 1 per cent of households composed of men living alone with children. More than 10 per cent of the Mongolian population depends on the environment for their livelihoods. Livestock raising is the most common environment-related activity, undertaken by many women and men as the main source of income (figure 1).

Figure 1: Proportion of population who engaged on environment-related activities for subsistence or for income purposes, by sex (percentage)



Note: Respondents were classified as engaging in environment-related activities for subsistence if they engaged in the production of fruits, vegetables, poultry, and livestock; hunting; raising pigs and beekeeping; aquaculture; collection of wood, fuel, and water; mining; processing and drying of crops; and garbage picking, recycling, and management, for household consumption at least 7 days prior to the survey, and as engaging in environment-related activities for income when they earned any income form such activities. If both subsistence and income activities were performed, respondents were asked to choose the one that applied the most. Differences between women and men are not statistically significant ($p<0.05$) for the category "engaged in environment-related activities for subsistence".

All survey respondents had experienced climate change in their lifetimes. One fourth of the individuals had experienced at least one disaster in the 12 months prior to the data collection.

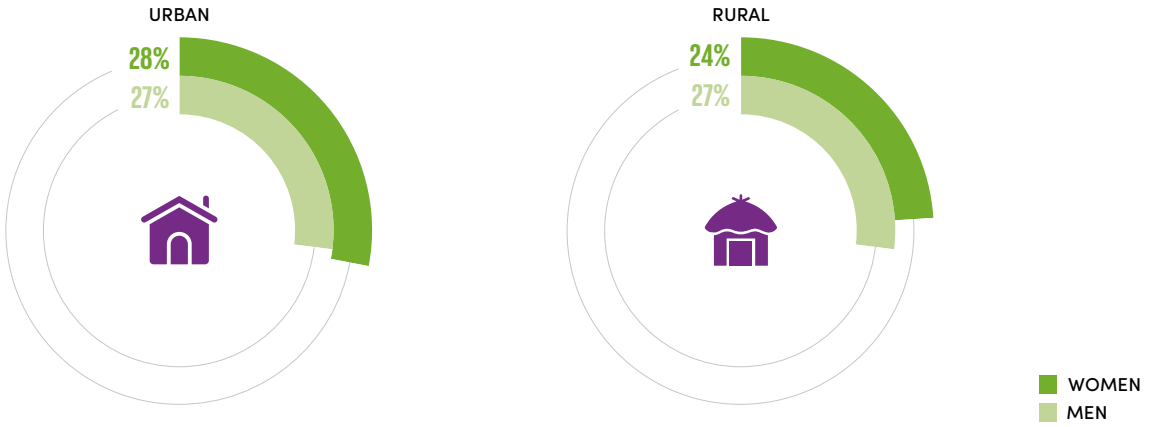
Findings

Section I. Disaster exposure, preparedness and consequences

MORE THAN ONE IN FOUR PEOPLE IN MONGOLIA LIVE IN AREAS WITH HIGH ENVIRONMENTAL RISK.

More than 27 per cent of the population in Mongolia live in areas with high environmental risk, such as proximity to water bodies, industrial production facilities, power plants or high voltage power lines, dumping sites and others. This renders people vulnerable to disasters and other harmful events (figure 2). Women in urban areas are the population group most likely to live in risky environments. Moreover, women's coping capacities in the event of a hazard or disaster are generally lower than men's, as women are less likely than men to own productive assets, have access to financing and hold high-income jobs.

Figure 2: Proportion of population whose dwelling unit or land is located in areas with high environmental-risk, by sex and location (percentage)

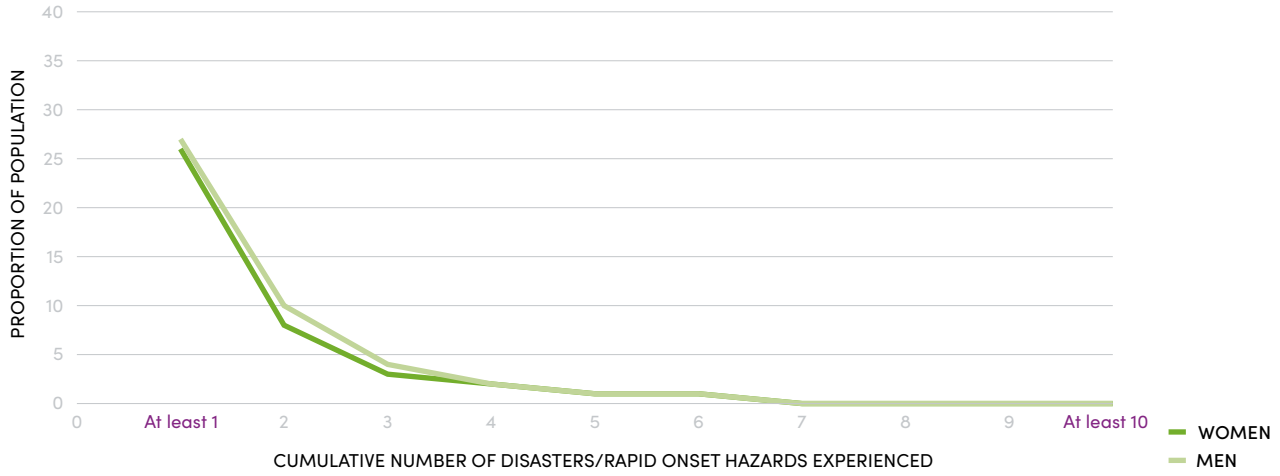


Note: Areas with high environment risk include the waterside; industrial production facilities; craft/artisanal production facilities that use dyes, paints, polishes or other chemicals; fracking locations or extractive sites; high vehicle traffic area; dumping sites or brownfield land; powerplant or high-voltage power lines; burning/cremation facilities; open defecation; medium to large scale agriculture plots; communal septic systems, underground storage tanks or underground waste storage; industrial level animal production activities; storage facilities; lowlands, swamps or flood-prone areas; active volcano, fault line/earthquake prone; cyclone/hurricane/high wind vulnerable areas; deviated river/swamp area or other area prone to flooding; and deforested area or other area prone to drought. Differences between women and men are not statistically significant ($p<0.05$).

A QUARTER OF THE POPULATION EXPERIENCED A DISASTER IN THE PAST 12 MONTHS, AND MANY EXPERIENCED MULTIPLE.

At the end of 2021, an estimated 26 per cent of the population in Mongolia had experienced at least one disaster in the past 12 months. What's more, an estimated 9 per cent of people had experienced two or more disasters or related hazards (figure 3). Severe thunderstorms, along with earthquakes, floods, snow, hailstorms and extreme cold events were experienced by many and resulted in power cuts, disruptions to water supply, and severe health and economic effects. For animal-raising population (herders) many of these cold-related events had important economic consequences, as the health of livestock may have been severely impacted.

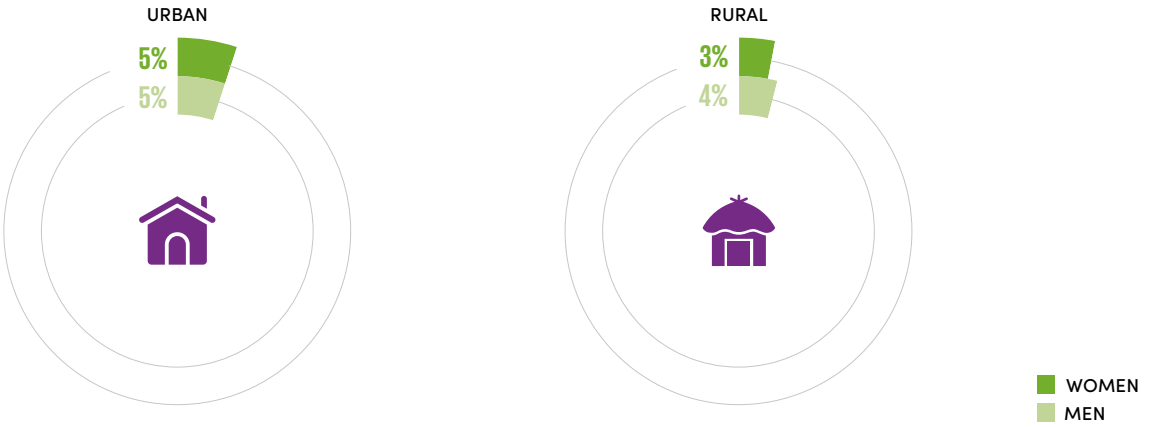
Figure 3: Proportion of the population that experienced one or more disasters or related hazards in the past 12 months, by sex (percentage)



Note: The most frequent hazards experienced by both women and men include: thunderstorm/storm, earthquake, flood, snow, hailstorm and extreme cold. Responses related to the COVID-19 pandemic were excluded from this analysis and all graphs in this report.

These disasters and related hazards resulted in approximately 4 per cent of people experiencing barriers to access medical care and hygiene products, as a result of road closures, market unavailability, limited transportation or other reasons. People in urban areas encountered slightly more challenges than those living in more remote areas. Overall, as the data collection for the 2021 GES-P Mongolia took place in amid the COVID-19 pandemic, an estimated 13 per cent of people experienced barriers to access these products and services. However, aside from COVID-19 related challenges, environmental hazards alone worsened the situation for an additional 2 to 3 per cent of people, depending on their location (figure 4).

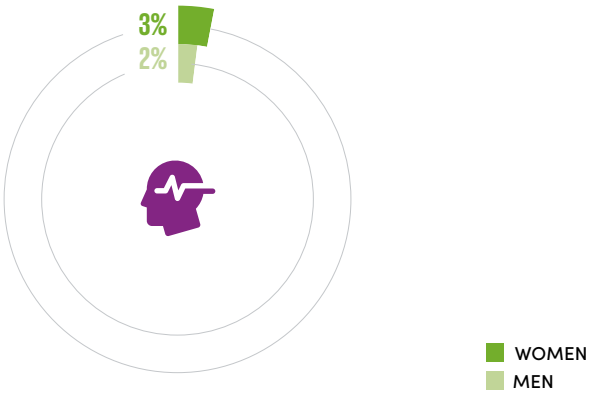
Figure 4: Proportion of the population exposed to hazards in the past 12 months who encountered barriers to accessing medical care or hygiene products as a result, by sex and location (percentage)



Note: Differences between women and men are not statistically significant (p<0.05).

When exposed to disasters or other hazards, individuals may experience mental health issues such as stress reactions, grief, depression, post-traumatic stress disorder (PTSD), or anxiety, including related to uncertainties about meeting basic needs for food, water, or medical care. In Mongolia, these effects affected only a small percentage of the population: less than 3 per cent of people exposed to disasters and related hazards experienced such feelings (figure 5).

Figure 5: Proportion of the population exposed to hazards in the past 12 months whose mental health was affected as a result, by sex



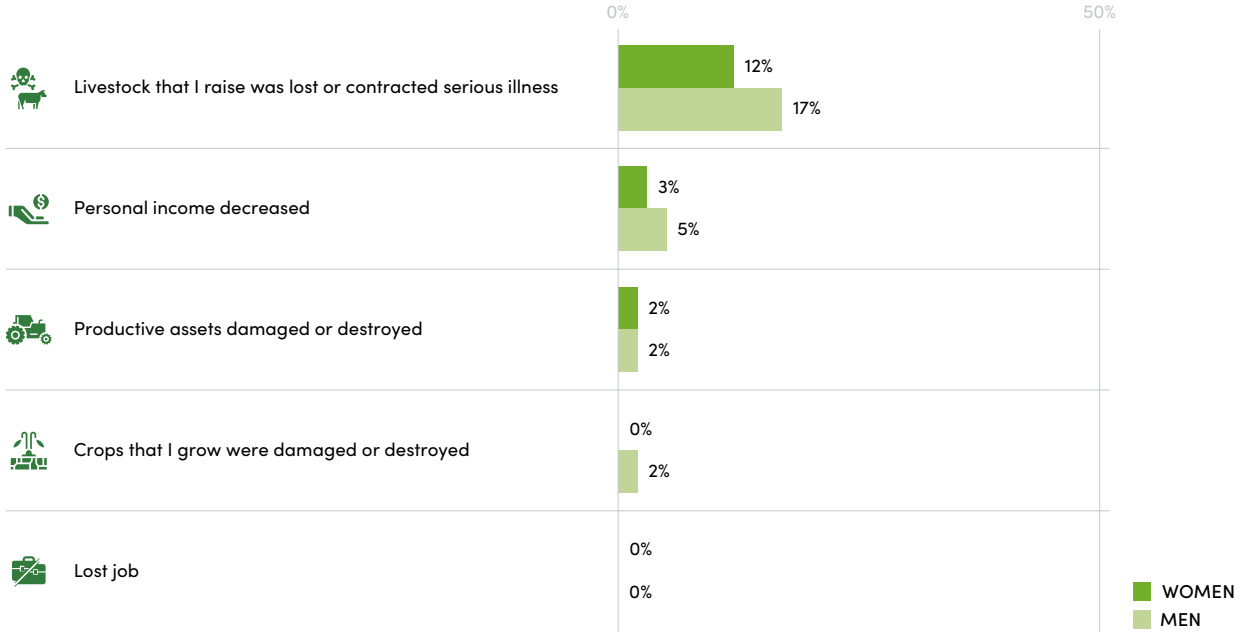
Note: Differences between women and men are not statistically significant (p<0.05).

DISASTERS CAUSED SUBSTANTIAL DAMAGE TO PEOPLE'S LIVELIHOODS, WITH WOMEN AND MEN AFFECTED DIFFERENTLY.

People that rely largely on environment-related activities as a source of income, might have suffered the effects of disasters in their livelihoods disproportionately (figure 6). Men exposed to hazards were more likely than women to see their crops and livestock affected overall, and to see reductions in their personal income. As many as 12 per cent of women and 17 per cent of men who experienced disasters or related hazards noted that the animals they raised contracted serious illness, died or were lost as a result, and for 3 per cent of women and 5 per cent of men, disasters resulted in direct income losses. A key reason could be that women's and men's incomes are substantially reliant on environmental resources (figure 7); livestock raising was the main source of income for 3 in every 10 women who lost some livestock or whose livestock contracted serious illness. In the case of men, this share is 4 in every 10, but men are the sole owners of more animals and overall own more diverse types of livestock compared to women, which offers some level of resilience and may somewhat mitigate risks.

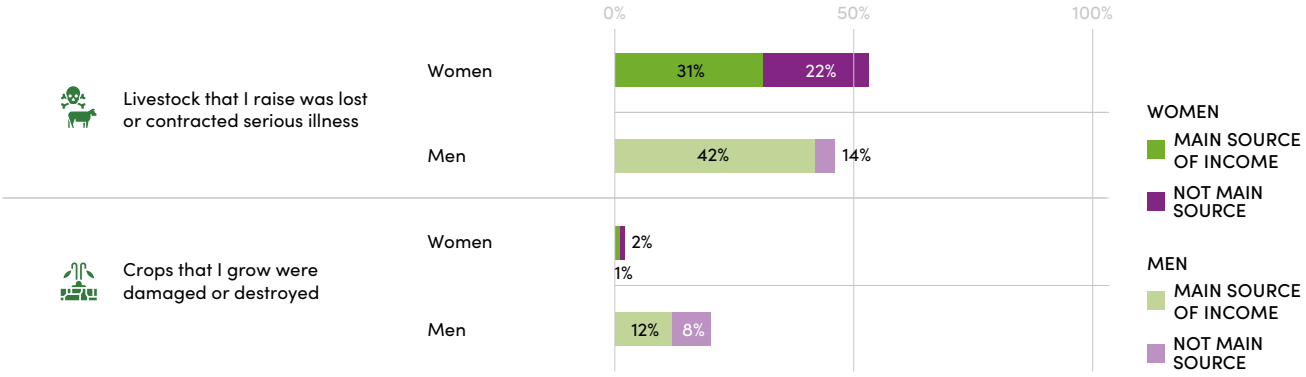
Men were more likely to note their productive assets were damaged or destroyed, as they own more assets than women overall. As asset ownership is lower among women, they are more likely to encounter barriers to access loans and other forms of credit, which reduces their coping capacities to deal with these disasters.

Figure 6: Proportion of the population exposed to hazards in the past 12 months whose livelihoods were damaged or destroyed, by sex and types of livelihood (percentage)



Note: Differences between women and men are not statistically significant ($p<0.05$).

Figure 7: Proportion of the population whose crops and livestock were damaged or destroyed, by sex and whether or not these were their main sources of income (percentage)

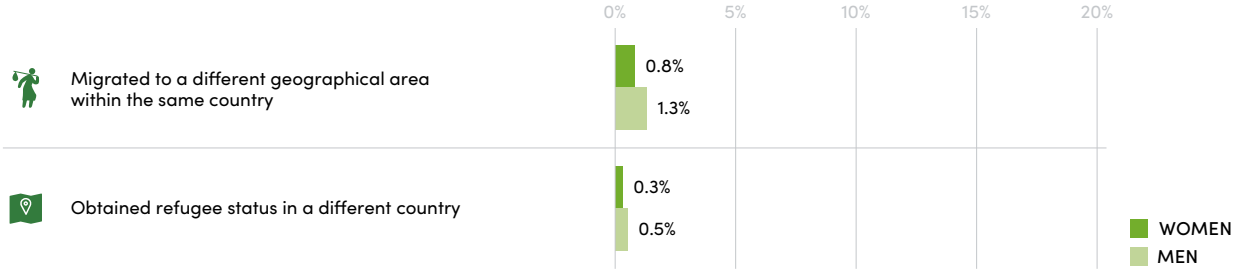


Note: Differences between women and men are only statistically significant ($p<0.05$) for the category "livestock that I raise was lost or contracted serious illness".

SOME DISASTERS PROMPTED PEOPLE TO MIGRATE, ALTHOUGH MOST WERE ABLE TO REMAIN IN THEIR USUAL AREA OF RESIDENCE.

The disasters that hit Mongolia in 2021 caused economic damage and some disruptions to transportation and supply chains in some cases, but their effects on livelihoods and human health were not large enough to prompt many people to migrate. Only an estimated 1 per cent of people that experienced these disasters migrated to a different area of the country as a result (figure 8). The nomadic nature of some herding populations in Mongolia may have contributed to this outcome, as change of location might not be seen as displacement. Furthermore, the existence of national social protection and health insurance schemes, which cover an estimated 16 per cent and 25 per cent of herders, respectively,[6] may contribute to economic stability and some resilience of those affected by disasters, thus mitigating potential effects and displacement patterns. Similarly, according to the latest available data, an estimated 15 per cent of herder households purchase private insurance, which may further help them cope.[7]

Figure 8: Proportion of the population exposed to hazards in the past 12 months who experienced temporary or permanent displacement as a result, by sex and type (percentage)



Note: No observations were recorded for categories "migrated to a different country" and "experienced another form of forced displacement". Differences between women and men are not statistically significant ($p<0.05$).

6 See www.ilo.org/resource/brief/extending-social-protection-coverage-among-mongolian-herders-closing-social.

7 Seehttps://profconso.com/index-based-livestock-insurance-mongolia/andwww.gfdrr.org/sites/default/files/publication/Index-based%20livestock%20insurance%20in%20Mongolia-%20protecting%20herders%20from%20climate%20related%20livestock%20mortality.pdf.

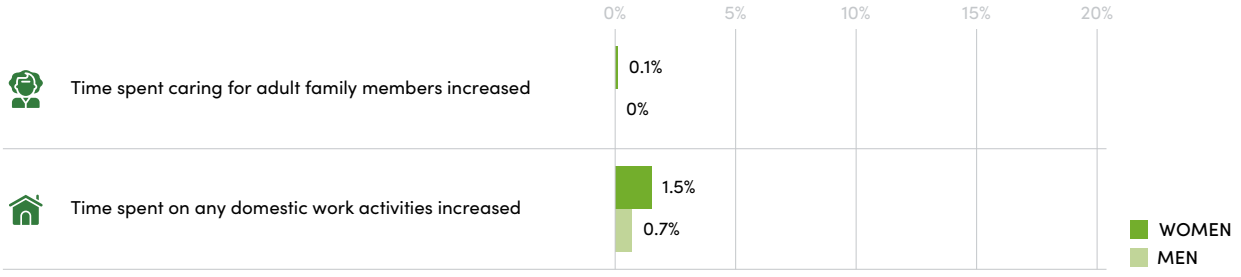
DISASTERS CAUSED SUBSTANTIAL DAMAGE IN PEOPLE'S HOUSING, BUT DIDN'T WORSEN UNPAID DOMESTIC WORK BURDENS AS MUCH AS OTHER EFFECTS OF CLIMATE CHANGE.

In Mongolia, women spend 291 minutes per day, on average, on unpaid care and domestic work; men spend 103 minutes.[8] Unpaid domestic work burdens typically multiply in the aftermath of disasters, as a result of disruptions to water sources and electricity, delays in supply chains, food and water scarcity – which prompt many to spend more time procuring these items, processing them for safe consumption, carrying out domestic tasks, and, importantly, rebuilding and reconstruction works for own households. In Mongolia, however, less than 2 per cent of women and men noted increases in their time spent on domestic work as a result of disasters in the past 12 months (figure 9). These low rates may be partly related to the nature of the disasters experienced (many of which were associated with extreme cold, which typically causes less impacts on human health than precipitation-related or wind-related hazards, for instance). In addition, the country's robust infrastructure and wide-reaching safety nets, including a comprehensive national Dzud Response Plan, may have reduced the impacts of these hazards on Mongolian women and men.

The limited impact of disasters on unpaid domestic work burdens is particularly striking, since as many as 15 per cent of people saw their homes damaged as a result of these hazards, and an estimated 4 per cent of women and 3 per cent of men noted their dwellings were destroyed altogether (figure 10). As almost 4 in every 10 people in Mongolia (38 per cent) live in gers, which can be dismantled and reassembled and even folded and packed, housing structures may have sustained less damage and needed less repair, limiting the time needed on repairs. In rural areas, where close to 85 per cent of households are gers, many people are semi-nomadic and may be able to change locations in light of a known approaching hazard.

Nobody in the sample noted the disasters affected water supply or produced power cuts, which helped limit these burdens. Furthermore, less than 1 per cent of people lost access to public transportation, largely as a result of thunderstorms and hailstorms (figure 11). Most of those who lost access lived in cities.

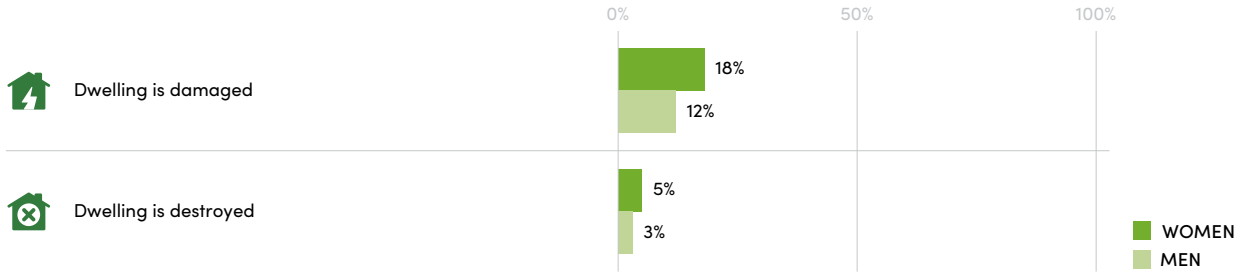
Figure 9: Proportion of the population exposed to hazards in the past 12 months whose time spent on unpaid care and domestic work increased as a result, by sex and type (percentage)



Note: No respondent noted increases on time spend on childcare. Differences between women and men are not statistically significant ($p<0.05$).

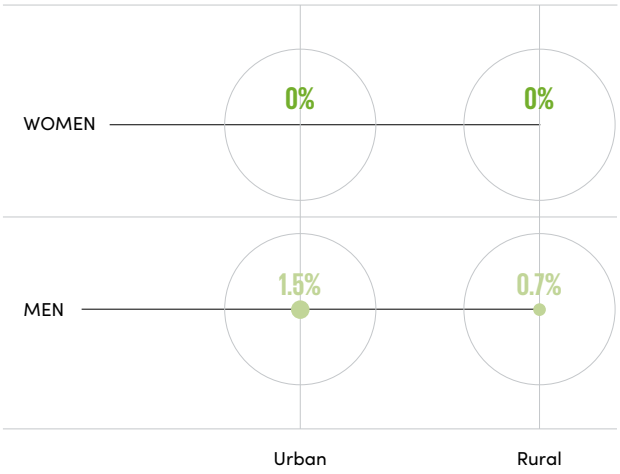
8 ADB (2022), Impact of Gender Inequality on Long-Term Economic Growth in Mongolia, p.9. Available at www.adb.org/sites/default/files/publication/850426/eawp-056-gender-equality-economic-growth-mongolia.pdf.

Figure 10: Proportion of the population exposed to hazards in the past 12 months who saw their dwellings damaged or destroyed, by sex and level of damage (percentage)



Note: Differences between women and men are not statistically significant (p<0.05) for the category "dwelling is damaged".

Figure 11: Proportion of the population exposed to hazards in the past 12 months who lost access to public transportation as a result, by sex and location (percentage)



Note: Differences between women and men are not statistically significant (p<0.05).

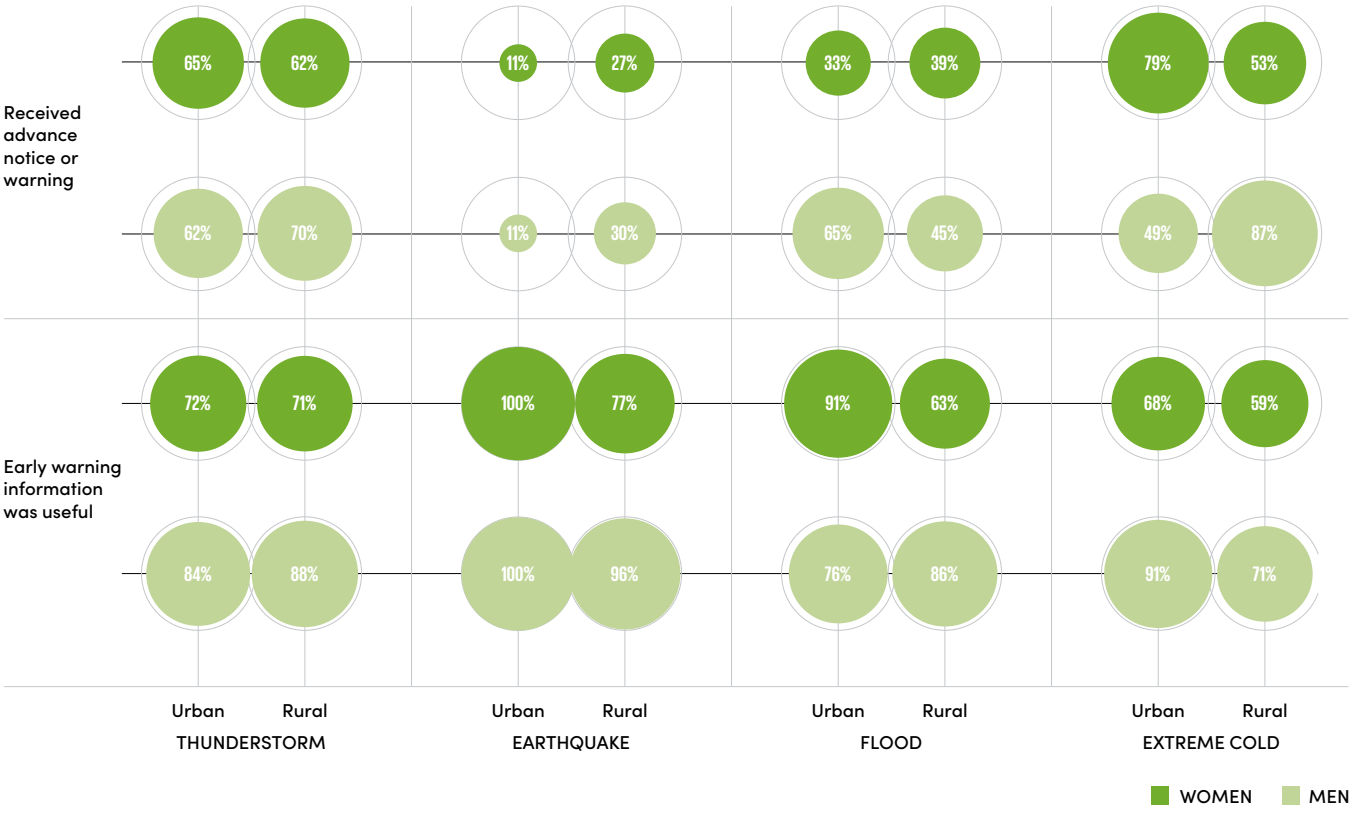
EARLY WARNING OF HAZARDS, WHEN AVAILABLE, PROVIDED VITAL PREPAREDNESS INFORMATION.

Roughly 76 per cent of women and 66 per cent of men received early warning information about extreme cold events (dzuds) that took place throughout the country in 2021, which helped them prepare. In turn, information about the earthquake that took place in Lake Hovsgol basin in January 2021 in Mongolia reached the least people, with only 13 per cent of people receiving advance information. Although women and men were similarly likely to receive early warning information for most events, the information channels varied by sex. The main information source for men was local administrations, while for women it was speakers.

Differentials also exist, in some cases, between urban and rural areas (figure 12). In urban areas, men were more likely than women to rely on local administrations and the radio, while women relied mostly on the community and speakers. In rural areas, however, women largely relied on early warning information received through their phones, but men were more likely to rely on the Internet, and their community. Men, overall, were also more likely

than women to note that the information received was useful to prepare for the disaster, with the exception of flooding events in urban areas, for which women noted the usefulness of the early warning information far more than men, despite being less likely to receive it to begin with.

Figure 12: Proportion of population exposed to hazards in the past 12 months who were able to access early warning information, by sex, location, and type of disaster (percentage)

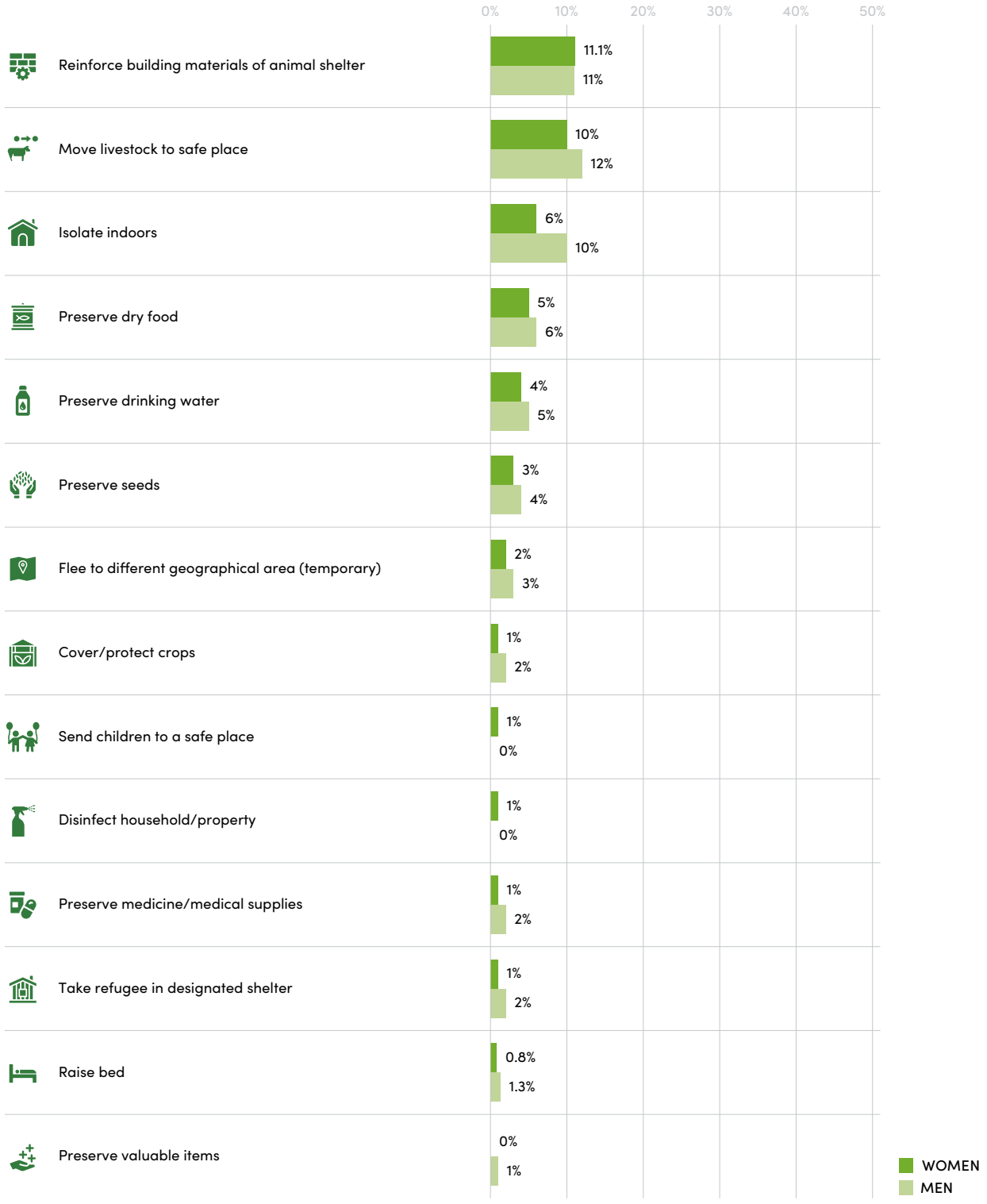


GENDER GAPS IN EARLY WARNING RESULT IN DIFFERENCES IN PREPAREDNESS FOR HAZARDOUS EVENTS.

Gaps in early warning information, translate into preparedness gaps in Mongolia. For those that received such timely information, preparedness helped protect their health and livelihoods. Social norms and other factors may dictate the different tasks that women and men undertake to prepare. Gender gaps regarding moving livestock to a safer place, are important and may be driven by men's higher likelihood to own and take care of livestock (15 per cent of men own livestock, compared to 9 per cent of women; and 40 per cent of men are in charge of livestock management in households, compared to 10 per cent of women). Given the characteristics of the Mongolian population, with 25 per cent of households engaging on herding or animal raising[9], the preparedness measures most frequently put in place were reinforcing building materials (including animal shelters) and moving livestock to a safer place (figure 13).

9 National Statistics of Mongolia (2024). Available at www.1212.mn/en/statistic.

Figure 13: Proportion of population exposed to hazards in the past 12 months who put precautionary measures in place for disaster preparedness, by sex and type of measure (percentage)



Note: Differences between women and men are not statistically significant (p<0.05).

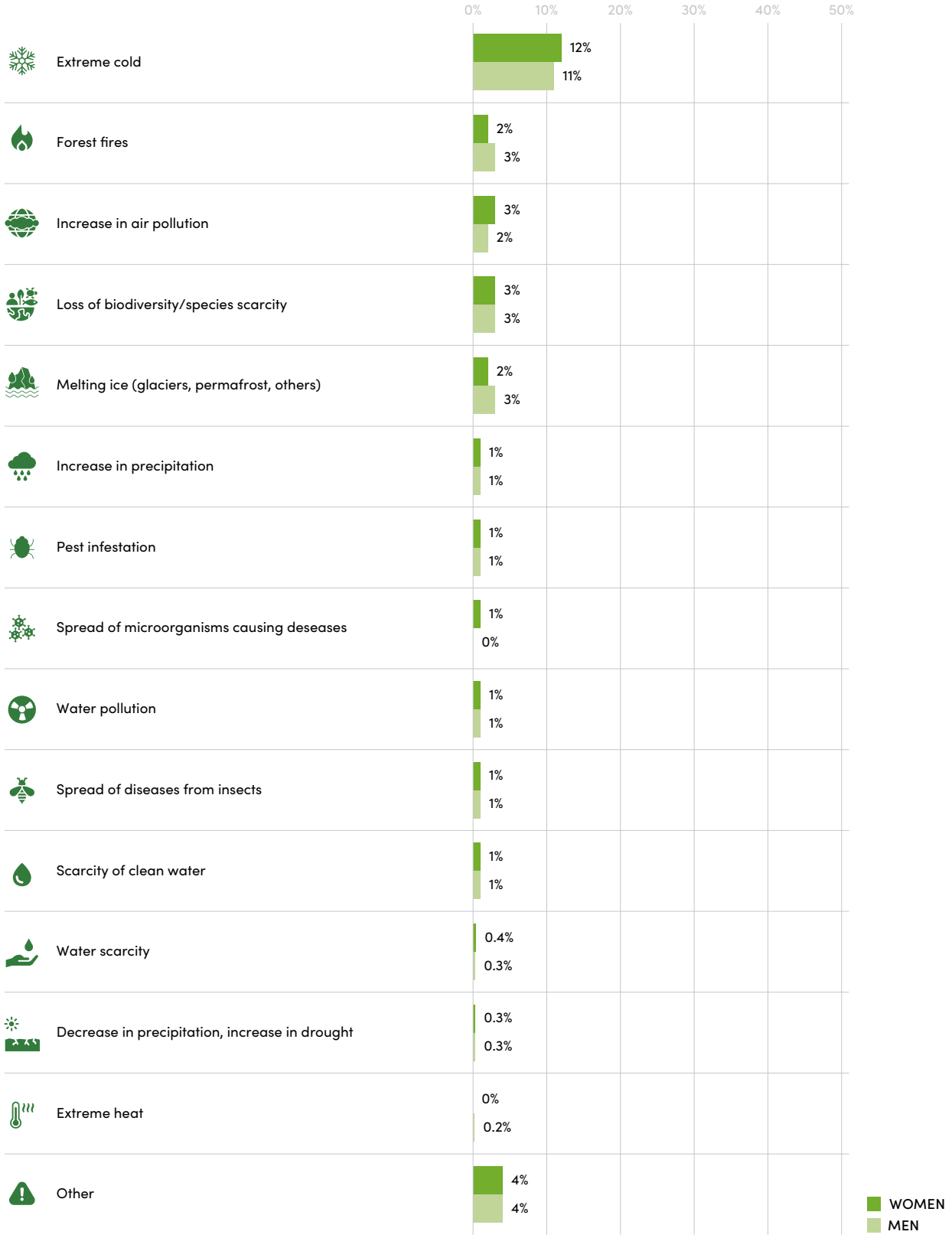
Section II. Exposure and coping strategies to deal with the effects of climate change

THE EFFECTS OF THE CHANGING CLIMATE ARE FELT BY MANY IN MONGOLIA, ESPECIALLY THOSE RELATED TO AN INCREASING FREQUENCY OF EXTREME COLD OF TEMPERATURES.

The 2021 GES-P Mongolia did not include specific questions to assess the exact number of climate change phenomena witnessed by people (such as sustained changes in temperatures, or increasing air pollution, among many others). However, respondents were asked about the specific effects of each of these slow onset phenomena in their daily lives. As shown in figure 14, the climate change phenomenon that affected most people's income was associated with cold temperatures, in this case, the overall increase in the frequency of extreme cold temperatures and the longer duration of these episodes (sustained periods of extreme cold) (this differs from dzuds, which were analysed as disasters or rapid onset hazards). In particular, 12 per cent of women and 11 per cent of men noted their personal income had decreased as a result of sustained drops in temperatures over extended periods. Although meteorological data shows that mean temperatures in Mongolia have risen by more than 2 degrees Celsius since 1940, it also shows that snowfall has increased in the same period.[10] Similarly, the number of summer days has lengthened, but colder days are reaching more extreme temperatures (the number of extreme cold days has increased by roughly 30 per cent since 2016, and winter snow has increased by 40 per cent since the 1960s[11]). Frequent forest fires, air pollution and biodiversity loss also affected the livelihoods of roughly 3 per cent of the population, indicating that these issues may also be a concern. The gender gaps were insignificant across effects, highlighting that both women and men are losing income as a result of the changing climate.

10 See www.unicef.org/mongolia/media/4921/file/English.pdf.
11 See https://e360.yale.edu/features/mongolia-dzud-climate-change.

Figure 14: Proportion of population that experienced a decrease in income or other resources in the last 5 years, by sex and type of climate change effect experienced (percentage)

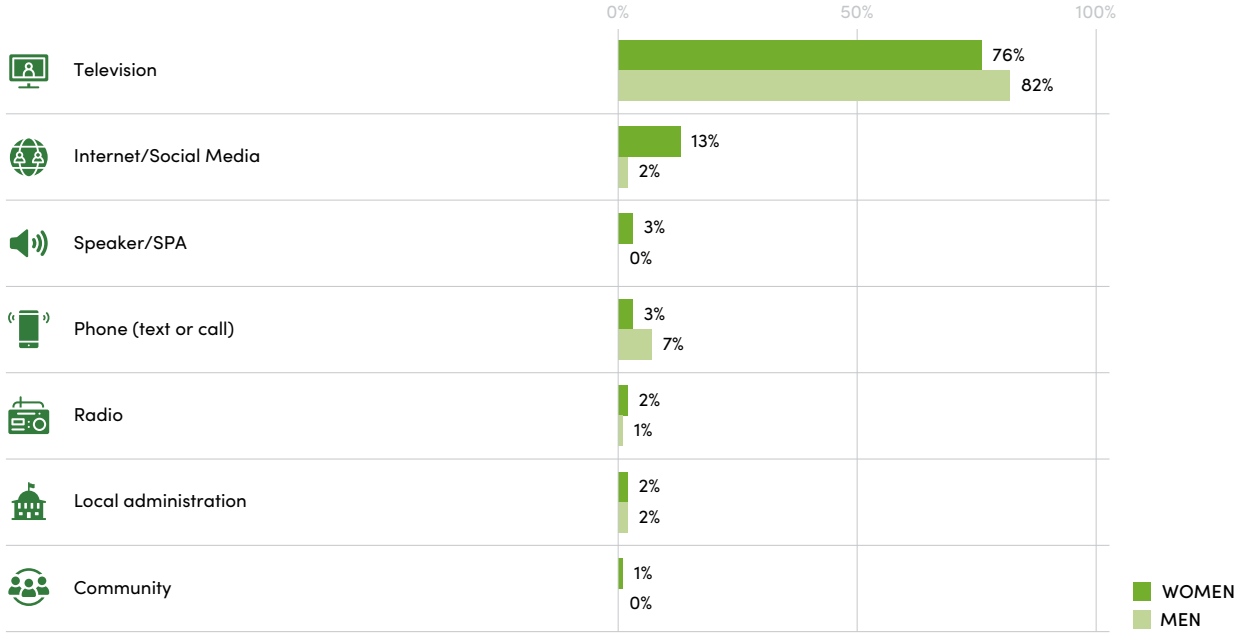


Note: Differences between women and men are statistically insignificant, except for air pollution ($p<0.05$).

ACCESSING CLIMATE CHANGE INFORMATION CAN BE CRITICAL TO MITIGATE AND ADAPT. IN MONGOLIA, ONLY 15 PER CENT OF PEOPLE HAD ACCESS TO IT FOR LOW TEMPERATURES.

The lack of easily accessible and understandable information on climate change can worsen its effects on people's health and livelihoods, and on overall environmental sustainability. In Mongolia, an estimated 71 per cent of people had access to information about extreme low temperature periods, which might have helped them prepare and adapt. For most of these people (79 per cent), the main source of information was television, followed by the Internet (figure 15). This highlights the importance of utilizing these channels to further educate the public about mitigating and adapting to the effects of climate change, and promoting overall environmental sustainability in the country. According to statistics from the Sustainable Development Goals database, children in Mongolia score highly in access to education about sustainable development, which is largely mainstreamed across national education policies (0.875 out of 1), school curricula (0.75 out of 1) and teacher education (0.85 out of 1).[12] Although this is important at an early age, it is critical to complement it with regular broadcasted information, as the climate continues to change and the challenges and urgency for action continue to grow. Men were slightly more likely than women overall to receive this information through television, which highlights the importance of broadcasting across a variety of communication channels and platforms in order to reach the entire population.

Figure 15: Proportion of the population that received information on the effects of extreme cold from different sources, by sex and source (percentage)



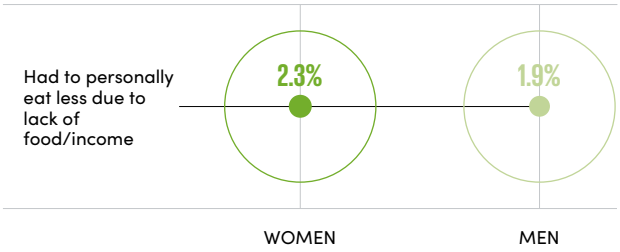
Note: Estimates for "community/friends", "local administration", and "radio" should be interpreted with caution as the number of respondents is less than 25. Differences between women and men are not statistically significant ($p<0.05$) for these three sources.

12 See: https://unstats.un.org/sdgs/dataportal.

WOMEN ARE MORE LIKELY TO SACRIFICE THEIR NUTRITION TO COPE WITH CLIMATE CHANGE.

As a result of hazards related to climate change, 2.3 per cent of women and 1.9 per cent of men ate less as they lacked food or income to buy food (figure 16). Although not a large share of the population, this coping strategy raises substantial health concerns, as people typically reduce food intake as an extreme measure, only after first attempting to cope by selecting foods that are more affordable but lower in quality and nutritional value. Many of those who had to eat less live in rural areas, where dependence on environmental livelihoods is disproportionate. In Mongolia, where the availability of vegetables and fruits is limited, climate change may be raising the costs of such important food items. Global food statistics show that the price of wheat and of potatoes, both of which are frequently consumed in Mongolia and often imported from abroad, have risen dramatically since 2007, [13] partly as a result of climate change. If these trends continue, many women in Mongolia may see their health and wellbeing affected.

Figure 16: Proportion of population who decreased food intake as a result of climate change, by sex (percentage)

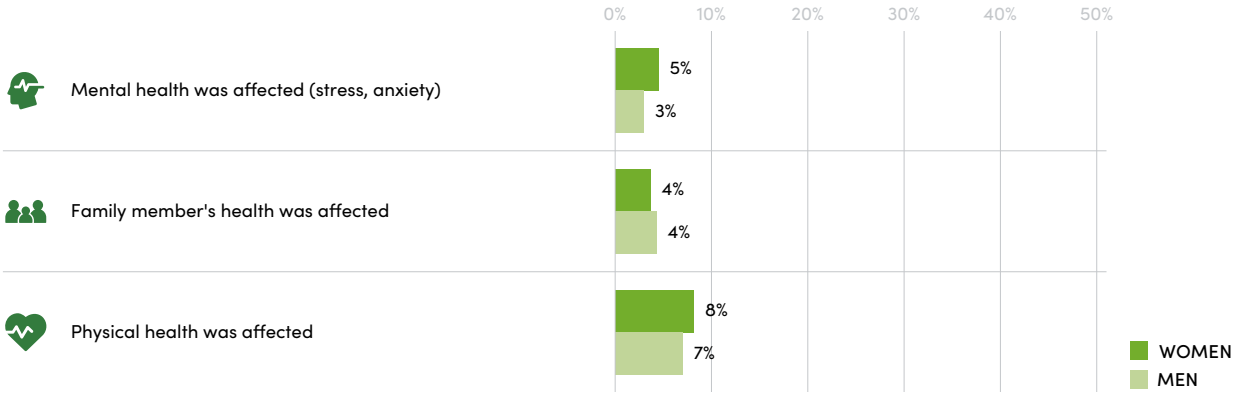


CLIMATE CHANGE PLACES A DOUBLE HEALTH BURDEN ON WOMEN.

The slow changes in temperatures, rain patterns, biodiversity, pollution, water quality and many other factors driven by the climate crisis carry important risks for human health. As a result of climate change, an estimated 8 per cent of women and 7 per cent of men in Mongolia experienced challenges with their physical health (figure 17). Climate change is known to be associated with respiratory and cardiovascular disease, musculoskeletal issues and vector-borne and water-borne diseases, among other human health concerns. In Mongolia, where low temperatures, forest fires and pollution are some of the phenomena with the largest health effects, respiratory and musculoskeletal issues are likely two of the health concerns most directly attributed to climate change by survey respondents. In addition, an estimated 5 per cent of women and 3 per cent of men saw their mental health affected by climate change, experiencing feelings of stress and anxiety. For many women, climate change places a double burden. Not only are they likely to see their health affected, but they also are the most likely to care for family members when they are ill. Roughly 4 per cent of women in Mongolia saw the health of a family member affected by climate change, thus worsening their unpaid care work burdens. An estimated 2 per cent of women saw increases in this type of work as a direct result of climate change (figure 18).

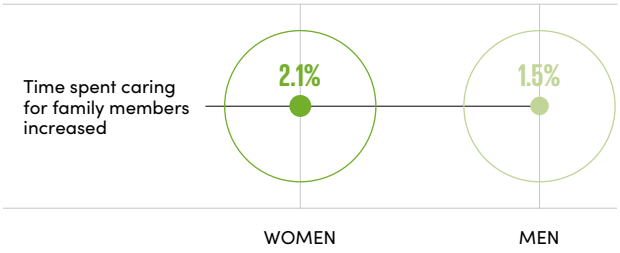
13 See: https://data.humdata.org/dataset/wfp-food-prices-for-mongolia.

Figure 17: Proportion of population who attributed health ailments to the effects of climate change, by sex and type (percentage)



Note: Differences between women and men are not statistically significant ($p<0.05$).

Figure 18: Proportion of the population whose time spent on care work (caring for children, older people, sick, people with disabilities) increased as a result of climate change, by sex (percentage)



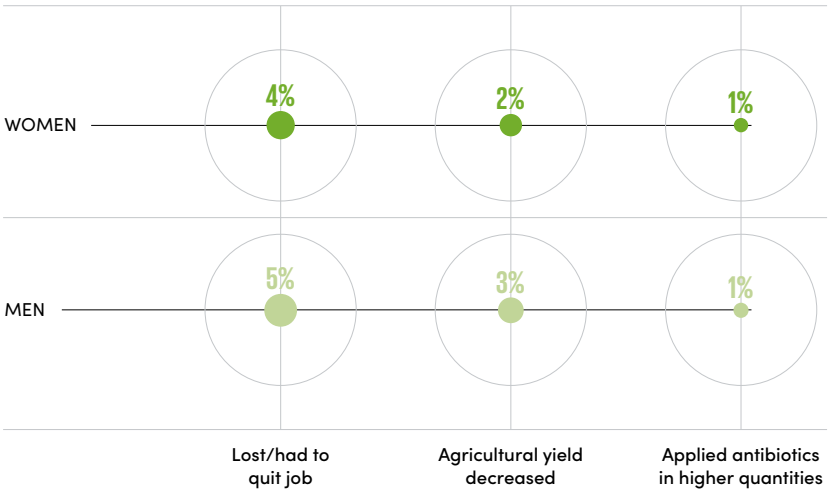
FROM JOB CHANGES TO LOWER AGRICULTURAL YIELDS, PEOPLE'S LIVELIHOODS ARE BEING AFFECTED BY CLIMATE CHANGE.

As of 2021, an estimated 4 per cent of women and 5 per cent of men in Mongolia switched jobs or lost them altogether because of the climate crisis (figure 19). Changes in the availability of natural resources, climate-related supply chain disruptions, biodiversity loss and changes in meteorological conditions may all have contributed to people switching jobs, particularly those engaged in tourism, agriculture, animal raising or other environment-related activities. Men are more likely than women to hold an environment-related job in Mongolia, but both women and men practicing agriculture or livestock raising are substantially engaged in the informal sector (roughly 93 per cent),[14] including subsistence farming. As a result, job losses may mean a lack of safety nets for them.

14 See https://ilostat.ilo.org/data/.

People growing crops or raising livestock saw important climate change impacts. An estimated 2 per cent of women and 3 per cent of men engaging in farming (either for pay or profit, or for other reasons such as subsistence, leisure, tradition, religion or others) noted climate-related reductions in their agricultural or livestock yield in the past five years. This may have led to severe impacts on their well-being, as for many of them, agricultural and livestock activities were their main source of personal income (48 and 13 per cent of people respectively). Reductions in yields are a worst-case scenario outcome that occurs when other coping mechanisms, such as applying more pesticides, using more antibiotics, or spending more time performing these activities, fail to mitigate climate effects (in Mongolia, climate change prompted about 1 per cent of farmers to use more antibiotics, further contributing to environmental degradation). Thus, many more people were likely affected by climate change, even if they were able to avoid a reduction in yields.

Figure 19: Proportion of population who noted climate-related impacts on their jobs and livelihoods, by sex (percentage)



Note: Differences between women and men are not statistically significant ($p<0.05$).

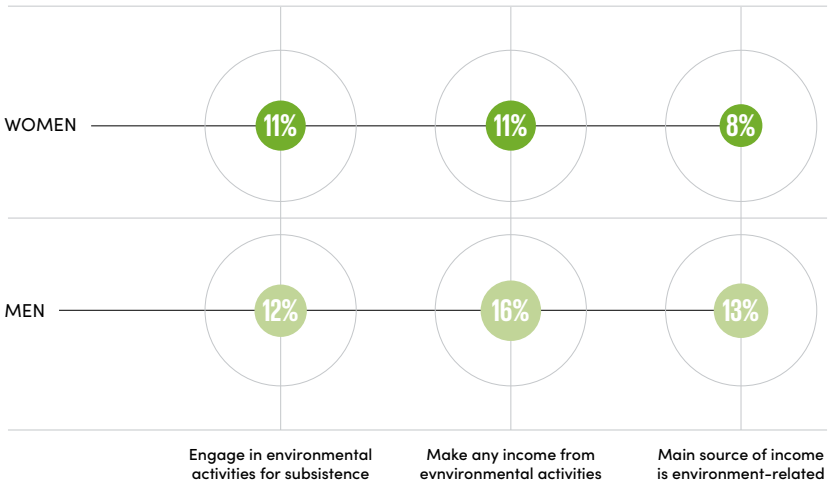
Section III. Natural resources, biodiversity loss and environment-related livelihoods

MANY MONGOLIANS ARE DEPENDENT ON NATURAL RESOURCES, HIGHLIGHTING THAT ENVIRONMENTAL DEGRADATION COULD HAVE DEVASTATING EFFECTS FOR PEOPLE.

Substantial reliance in environmental resources makes the population in Mongolia vulnerable to climate change and environmental degradation. Although many Mongolians have multiple sources of income, environmental activities still make up the bulk of the earnings for almost one in eigh people (8 per cent of women and 13 per cent of men). Furthermore, these activities provide different levels of income to 11 per cent of women and 16 per cent of men across the country. For as many as 12 per cent of people, natural resources also offer daily subsistence for themselves and their families (figure 20). For these people, natural resource degradation carries disproportionate risks.

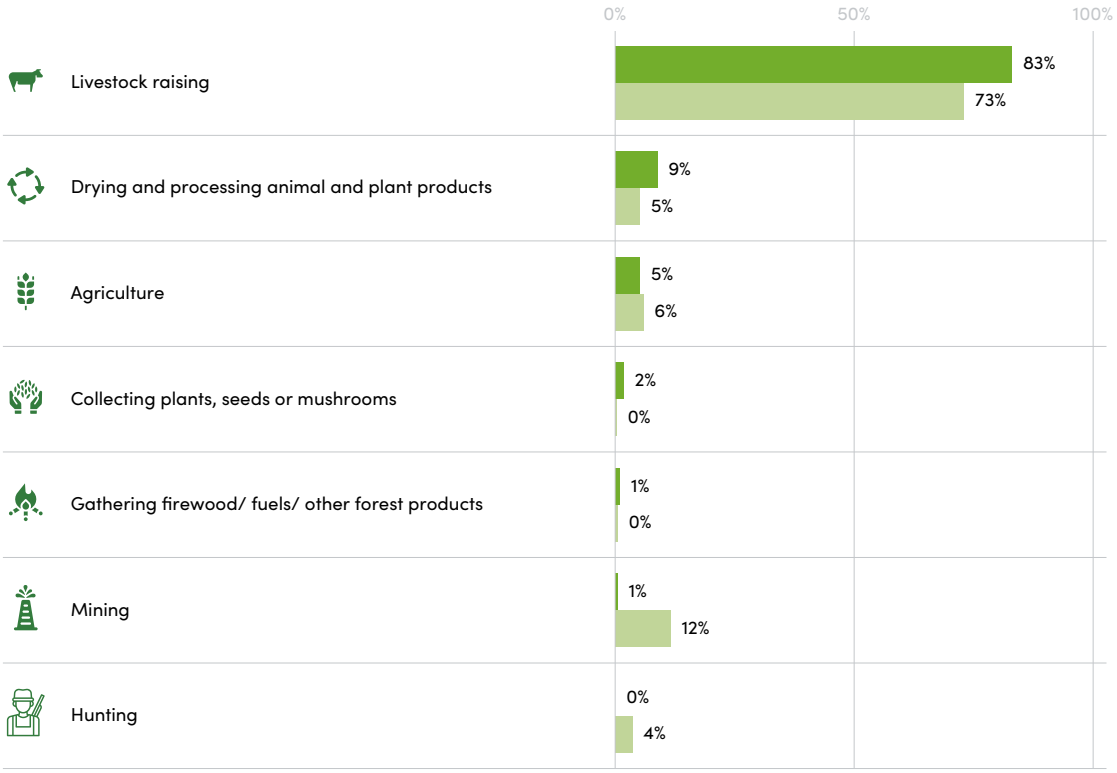
Of all environmental livelihoods, livestock raising is the most likely to make up the bulk of an individual's income (this is the case for roughly seven in ten people) (figure 21). Most herders in Mongolia practice nomadic or semi-nomadic pastoralism. However, the country's high altitude, extreme temperatures, long winters and low precipitation make it challenging to secure a livelihood through herding or other environmental activities. Because men are more likely to diversify their income sources, women are overall more likely than men to rely on a single type of environmental livelihood as their main source of income. This is particularly the case when it comes to collecting plants, firewood and other forest products, fetching water, hunting and managing waste, among others. The progressive degradation of soils, forests, water bodies and other natural resources, therefore, puts their livelihoods at stake and makes them substantially vulnerable.

Figure 20: Proportion of population whose income is environment-related, by sex (percentage)



Note: Individuals who earn an income from activities such as hunting, collecting plants, seeds, or mushrooms, agriculture, gathering firewood or other forest products, livestock raising, mining, garbage picking, recycling, waste management, water collection, or drying and processing animal and plant products are considered to have environment-related income. A source of income has been classified as a "main source of income" if it makes up at least 50 per cent of individual income. Differences between women and men are not statistically significant ($p<0.05$) for the category "Engage in environmental activities for subsistence".

Figure 21: Proportion of the population engaging in environmental livelihoods for whom these represent their main source of income, by sex and type of environmental livelihood (percentage)



Note: Percentages are calculated among people who earn a personal income only and their main source of income is environment-related. Differences between women and men are not statistically significant ($p<0.05$) for the categories "agriculture", "mining", and "drying and processing animal and plant products".

HIGH RATES OF SUBSISTENCE FARMING MAKE MONGOLIANS VULNERABLE TO THE TRIPLE PLANETARY CRISIS. AS WOMEN ARE LESS LIKELY TO OWN ASSETS, THEIR RESILIENCE MAY BE FURTHER CHALLENGED.

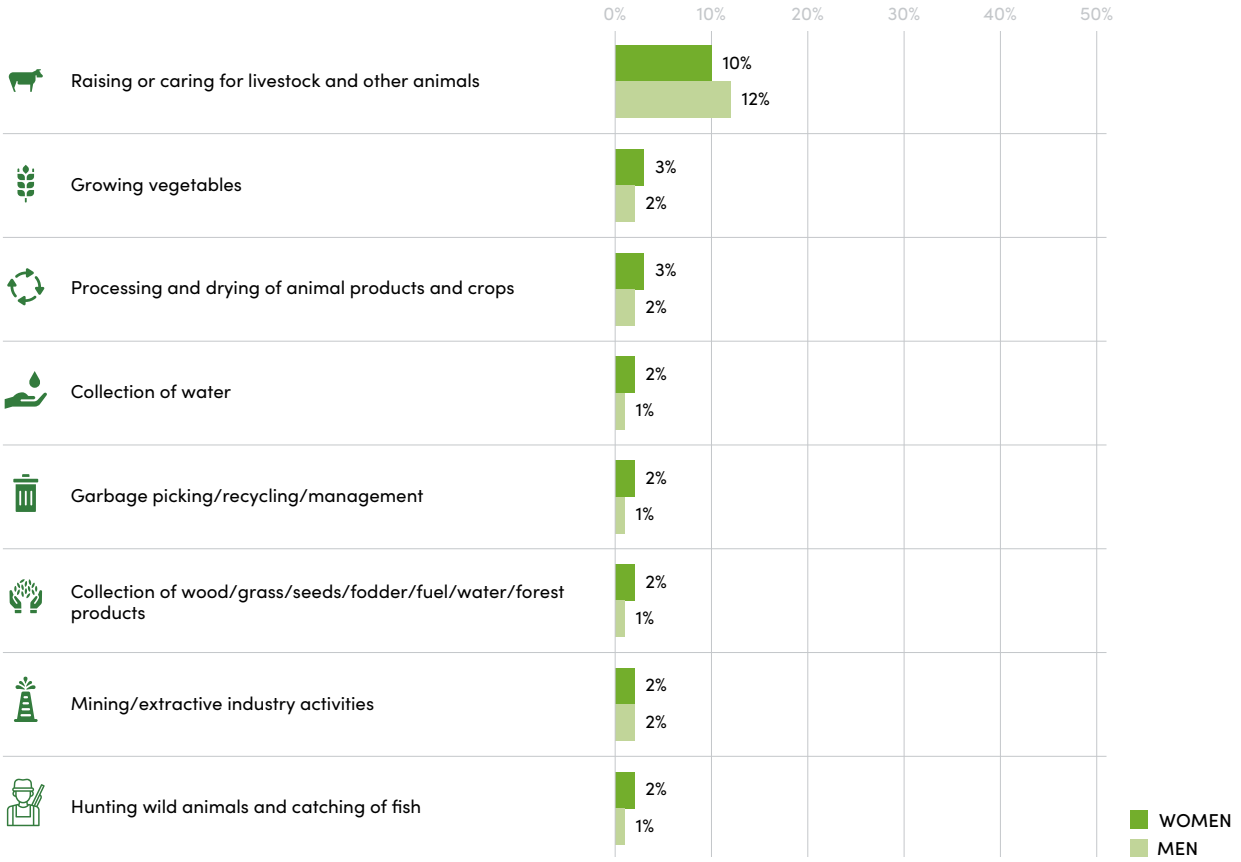
An estimated 11 per cent of Mongolians rely on livestock raising for income or subsistence. Similarly, 2 per cent rely on food processing and almost 3 per cent on growing vegetables. Women are more likely than men to rely on processing and drying of animal or crop products, but men are more likely than women to rely on livestock raising (figure 22), for instance. For almost everyone practicing these and other environmental activities, a share or all of their yields and harvests contributes to their subsistence. Every person who collected forest products and hunted animals noted that they do so, at least partially, for subsistence purposes. Similarly, almost everyone who collected water, grew vegetables or collected and sorted waste in the past 12 months noted that these activities contribute to their subsistence and that of their household members. Again, for subsistence, men are more likely than women to raise livestock and women are more likely than men to process animal products (figure 23).

For the many people that engage in environmental activities for subsistence or through small farming, the on-going environmental degradation caused by the triple planetary crisis of climate change, biodiversity loss and pollution raise concerns about vulnerability. Women, in particular, who are less likely than men to own agricultural land and other assets, may see their opportunities to access loans and other forms of financing particularly challenged in the event they need to cope with climate-driven disruptions to their farming and other environmental operations. For instance, although comprehensive land ownership data is unavailable for Mongolia, gender gaps are known to exist in this regard. According to a study conducted in 2018, an estimated 2 per cent of women own agricultural land, compared to 8 per cent of men[15]. Similarly, gender gaps exist among 2021 GES-P Mongolia respondents: 43 per cent of women and 63 per cent of men who practice agriculture noted they have ownership of land and individual rights to sell their agricultural land, either alone or jointly with someone else. When asked whether they had rights to bequeath this land, 41 per cent of women and 52 per cent of men noted they do.[16]

15 Pilot survey on Asset Ownership and Entrepreneurship in Mongolia, 2018. Available from: https://unstats.un.org/edge/publications/docs/Results%20of%20Pilot%20Survey%20in%20Mongolia.pdf.

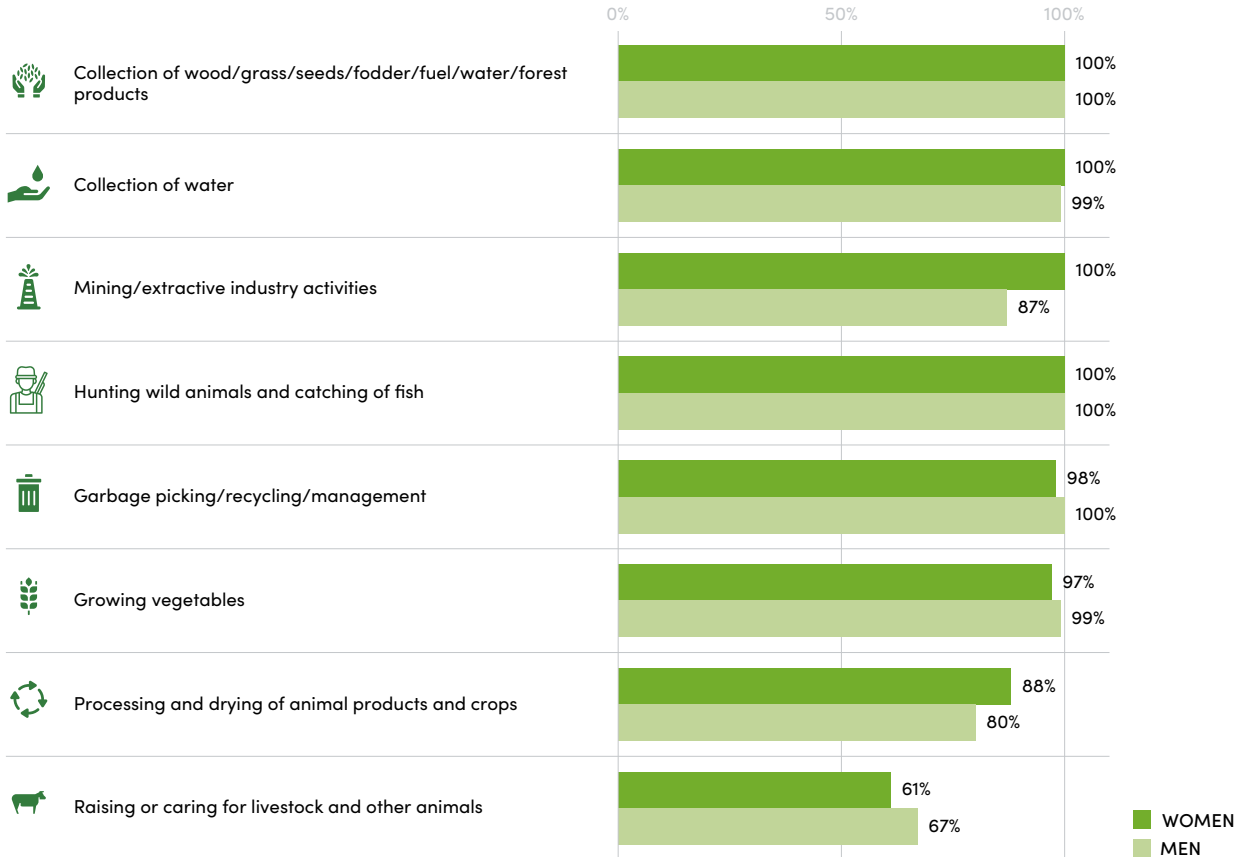
16 The questions about land ownership were asked to a sample of less than 200 respondents and therefore these estimates should be interpreted with caution.

Figure 22: Proportion of the population engaging in environmental livelihoods, by sex and type of production activity (percentage)



Note: The figure showcases those who rely on environmental livelihoods for income or subsistence. Differences between women and men are not statistically significant ($p<0.05$) for the categories "growing vegetables", "hunting", "collection of wood/grass/seeds/fodder/fuel/water/forest products" and "collection of water".

Figure 23: Proportion of people relying on environmental livelihoods that do so for subsistence purposes, by sex and type of production activity (percentage)



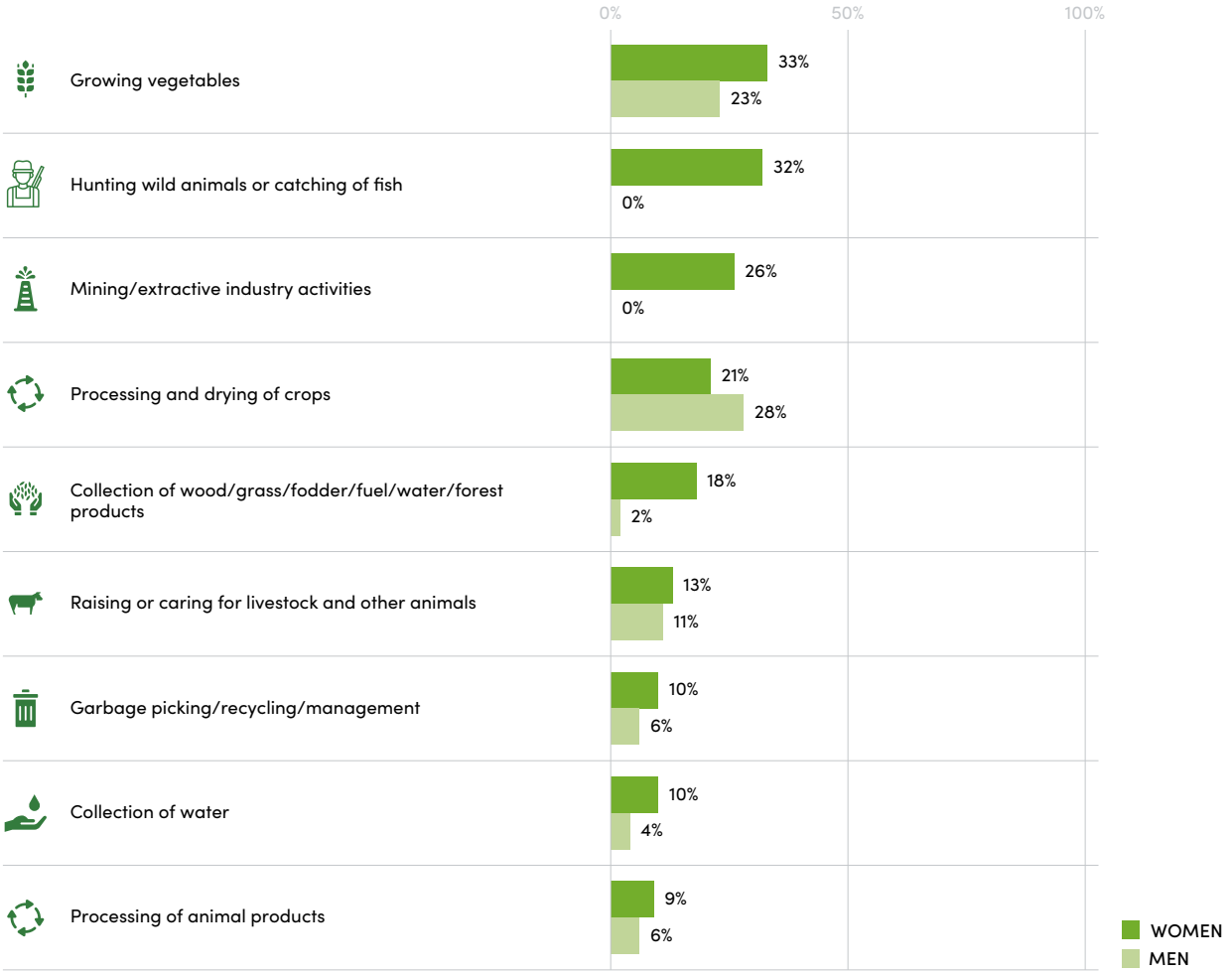
Note: The reference period for engagement in each of these activities is at least one hour over the seven days preceding the survey. Differences between women and men are only significant ($p<0.05$) for the categories "raising or caring for livestock and other animals" and "processing and drying of animal products and crops".

CLIMATE CHANGE IS LENGTHENING THE TIME NEEDED TO MAINTAIN ENVIRONMENT-RELATED LIVELIHOODS.

By increasing the unpredictability of rains, the intensity of storms, and the likelihood of experiencing extreme temperatures, climate change is substantially affecting the time people spend on environmental livelihoods. This is particularly noticeable for those engaging in growing, drying and processing crops for subsistence purposes. Roughly one for every three women performing these activities noted that the time they now spend on them has increased over the past 12 months (figure 24). Spending more time on these activities is a coping mechanism to maintain yields.

Time increases have been notable across numerous environmental related activities practiced for subsistence purposes. Women, in particular, have been far more likely than men to note increases in the time allocated to the collection of wood, grass, fodder, fuel, water and other materials from forests. As the forests of Mongolia are experiencing quick degradation due to forest fires, land transition and climate change, related biodiversity loss may be contributing to this outcome. Furthermore, the increased frequency and intensity of extreme cold events in Mongolia is also contributing to lengthening the time people spend caring for animals, including both reinforcing animal shelters, moving animals to safer places, and treating disease when needed.

Figure 24: Proportion of population whose time spent in environment-related activities increased over the past 12 months, by sex (percentage)



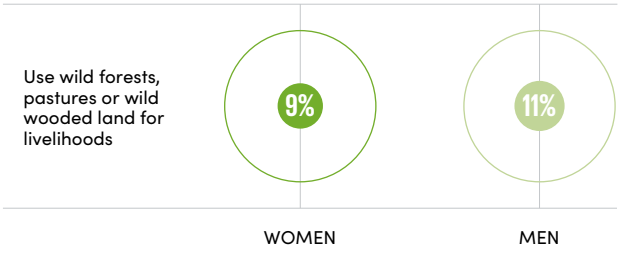
Note: The figure refers to population who engaged in these activities for subsistence purposes, either fully or partially. The reference period for engagement in each of these activities is at least one hour over the seven days preceding the survey; while the reference period for seeing someone's time increase is the past 12 months. Differences between women and men are not statistically significant ($p<0.05$), except for the category "collection of wood/grass/fodder/fuel/water/forest products". Estimates for the categories "mining/ extractive industry activities" and "hunting wild animals and catching fish" should be interpreted with caution as the number of respondents is less than 25.

WILD FORESTS PLAY A CRITICAL ROLE IN MAINTAINING PEOPLE'S LIVELIHOODS.

About 1 in 10 people who practice foraging, logging, hunting or livestock raising in Mongolia use primary forests, wild pastures or other forms of wild wooded land for their harvesting and livestock grazing activities (figure 25). These areas play a critical role in maintaining people's livelihoods, but also in sustaining biodiversity. Mongolia's forests occupy roughly 12 per cent of the country's land area, and include more than 140 species of trees and shrubs, 13,000 species of insects, 372 bird species and 138 species of mammals, as well as various species of amphibians and reptiles.[17] This biodiversity sustains the lives of the many people that harvest eggs, honey, plant products or hunt for meat. For instance, it is estimated that more than 80 plant species are intensively used for food and other purposes.[18] Biodiverse forests are also a better barrier against the effects of climate change, as they are better regulators of rain and temperatures.

As a result of hunting, overgrazing, mining, climate change and land transition, forest area is decreasing in Mongolia, water sources are deteriorating and soil quality worsening[19]. To maintain the health and prosperity of Mongolia's population and ecosystems, the protection of wild forests, steppe and other wooded land remains a key priority. Although both women and men in Mongolia utilize wild forests in similar numbers, more men than women own agricultural land in Mongolia according to a pilot survey conducted in 2018 (men are also more likely to own dwellings and other assets),[20] which may render women more vulnerable as they likely rely on wild forests alone to maintain their livelihoods.

Figure 25: Proportion of the foraging, logging, hunting or livestock grazing population using wild forests, pastures or wild wooded land for their livelihoods, by sex (percentage)



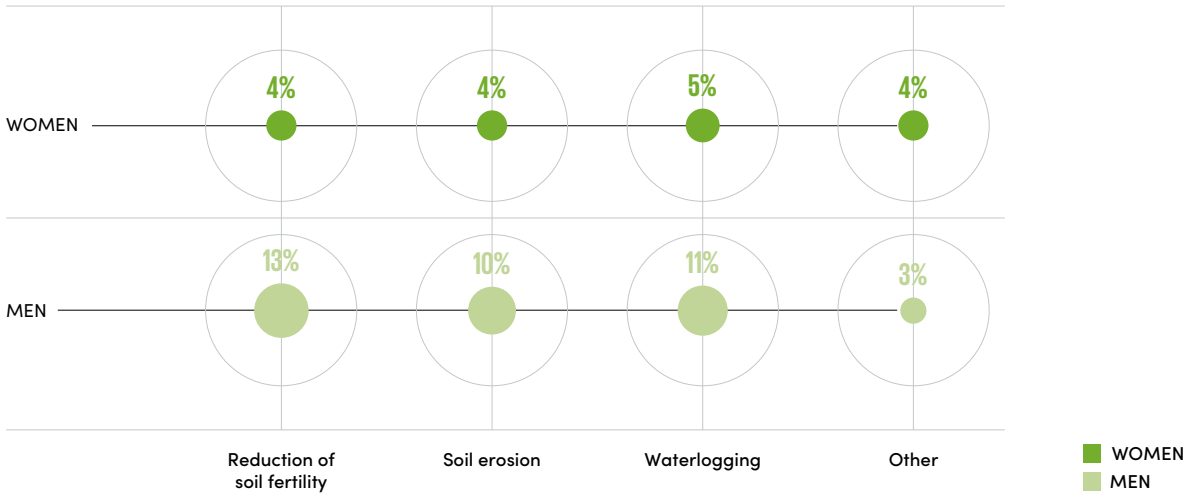
Note: Differences between women and men are not statistically significant (p<0.05).

17 See https://www.cbd.int/doc/world/mn/mn-nr-04-en.pdf
18 See www.cbd.int/countries/profile?country=mn.
19 Convention on Biological Diversity, 2020. Available from: https://www.cbd.int/countries/profile?country=mn#:~:text=The%20area%20of%20Mongolia's%20forest,of%20insects%20discovered%20every%20year.
20 ADB and Mongolia NSO, Measuring asset ownership and entrepreneurship from a gender perspective: Mongolia, Available from: https://unstats.un.org/edge/publications/docs/Results%20of%20Pilot%20Survey%20in%20Mongolia.pdf .

SOIL DEGRADATION AND WATER SHORTAGES ARE INCREASINGLY NOTICEABLE AND AFFECTING PEOPLE'S LIVELIHOODS.

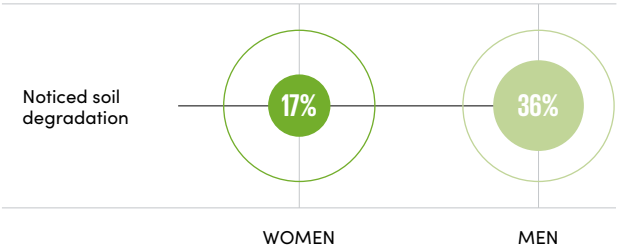
Along with climate change, pollution, and biodiversity loss, some farmers in Mongolia are noticing that the land they use for agriculture and livestock grazing is increasingly being degraded (figure 26). Key markers of soil degradation may include fertility decline, changes in the soil acidity or alkalinity, vulnerability to erosion, increased susceptibility to hosting pests, loss of organic matter, and overall biodiversity loss. These may have substantive impacts on agricultural and livestock yield and the health and quality of agricultural and livestock products. Because men in Mongolia engage in agricultural operations professionally more often than women, they were also slightly more likely to notice soil degradation, including reductions in soil fertility, erosion and water logging (figure 27). Although the differences are not significant, a total of 17 per cent of women and 36 per cent of men noticed any form of soil degradation. This likely also contributed to the increased time burdens on agricultural operations showcased in figure 24. To manage soil degradation, many farmers resort to using fertilizers, which may damage the soil further if not applied properly and according to soil characteristics and might affect the quality of nearby waterways and contribute to biodiversity loss.

Figure 26: Proportion of population currently using, owning, or holding use rights for agricultural land who saw soil degradation, by sex and type of soil degradation (percentage)



Note: Differences between women and men are not statistically significant (p<0.05).

Figure 27: Proportion of population currently using, owning, or holding use rights for agriculture land who noticed soil degradation, by sex (percentage)



Note: Differences between women and men are not statistically significant (p<0.05)

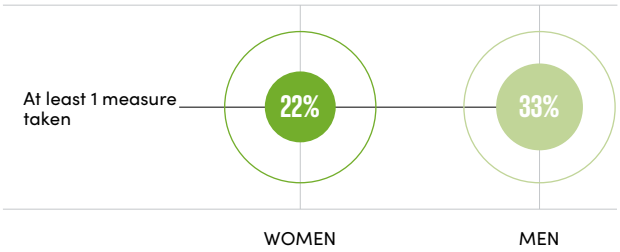
Section IV. Environmental conservation, degradation and decision-making

MEN ARE MORE LIKELY THAN WOMEN TO APPLY MEASURES TO REDUCE THE ENVIRONMENTAL FOOTPRINT OF AGRICULTURE AND LIVESTOCK RAISING.

Understanding the nature, frequency and intensity of human interactions with the environment is essential to recognize the important roles that women and men can play in environmental conservation or further environmental degradation. Gender differentials in access to natural resources, decision-making power and access to assets overall, dictate the behaviour of men and women concerning the conservation or degradation of natural resources.

The use of synthetic pesticides, fertilizers and growth promoters may cause biodiversity loss, pollution, and human health concerns such as neurological and reproductive disorders. Thus, it is essential to handle these substances carefully, and put in place measures to mitigate these risks, but not everyone follows the right protocols, and there are differentials in the behaviour of women and men (figure 28). Although most people growing crops or raising livestock in Mongolia do not use these substances, when they do, only about one in every four people apply measures to mitigate risks, such as adhering to label directions, considering local regulations, not exceeding recommended doses, using organic sources of nutrients, utilizing legumes as a cover crop, using buffer strips along water courses, and considering soil type and climate to inform their pesticide use behaviours.

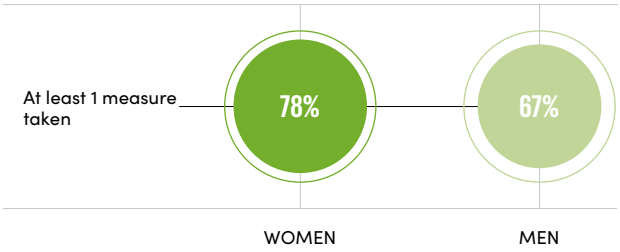
Figure 28: Proportion of the population currently using, owning, or holding use rights for agricultural land that applied measures to mitigate fertilizer-related risks, by sex (percentage)



Note: Figures represent aggregated categories of available measures to mitigate fertilizer-related risks, including 1) Follow protocols (as per extension service/ retail directions / local regulation; 2) Use organic source of nutrients (e.g. manure or composting residues), 3 Use legumes as a cover crop, or component of a multicrop or pasture system; 4) Consider soil type and climate in deciding fertilizer application doses and frequency; 5) Use buffer strips along water courses. Differences between women and men are not statistically significant ($p<0.05$).

The implementation of other measures to reduce the environmental footprint of agriculture and livestock grazing, such as limiting pesticide concentrations, application of mixed-cropping, and adopting pasture rotation is more common among women than among men in Mongolia. Roughly three in every four people who practice agriculture or animal raising put in place at least one of these measures regularly. These practices contribute towards environmental conservation and it remains important to continue promoting them in a sustainable manner. (figure 29).

Figure 29: Proportion of the population currently using, owning, or holding use rights for agricultural land undertaking measures to reduce the environmental footprint of agriculture and livestock grazing, by sex (percentage)



Note: Figures represent aggregated categories of available measures to mitigate fertilizer-related risks, including: 1) Adherence to label directions for pesticide; 2) Adjustment of planting time; 3) Application of crop spacing; 4) Application of crop rotation; 5) Application of mixed cropping, 6) Perform biological pest control, 7) Use of biopesticides, 8) Adopting pasture rotation to suppress livestock pest population; 9) Systematic removal of plant parts attacked by pests; 10) Maintenance and cleansing of spray equipment after use; and 11) Use of pesticide no more than two times (or in mixture) in a season to avoid pesticide resistance. Gender differences are not statistically significant ($p<0.05$).

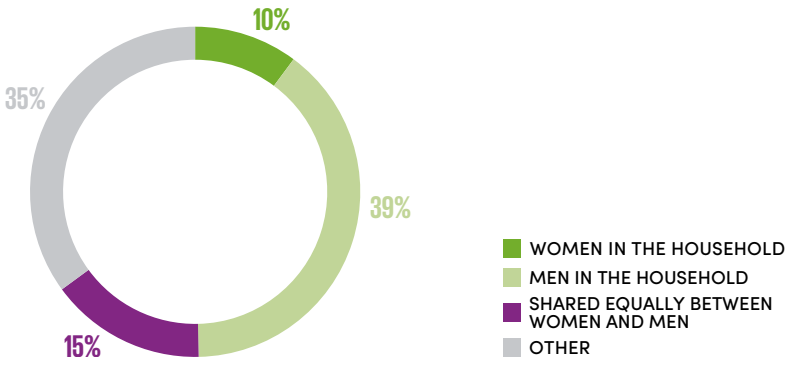
MOST PEOPLE MANAGE LIVESTOCK SUSTAINABLY IN MONGOLIA, AN ENCOURAGING SIGN FOR ENVIRONMENTAL SUSTAINABILITY.

In roughly 40 per cent of households in Mongolia, men are in charge of taking care of livestock and other household animals, while this figure is only 10 per cent for women (figure 30). In only 15 per cent of households is this task shared between women and men. Involving women in livestock management decisions is important for women and men to jointly contribute towards environmental conservation practices.

Common environmental protection practices related to livestock grazing in Mongolia include fencing off areas of the pasture, and allowing rotation of animals on several locations to prevent overgrazing. An estimated 41 per cent of women and 44 per cent of men raising livestock use measures such as pasture rotation to suppress livestock pest populations and prevent destruction from overgrazing. More women than men use an overall combination of practices that allow for their livestock yield to be certified organic. When asked whether their animal management practices conserve natural resources and biodiversity, 74 per cent of women and 71 per cent of men responded that they do (figure 31). This may be because they forego use of antibiotics, growth hormones or other feed ingredients (52 per cent of women, 56 per cent of men).

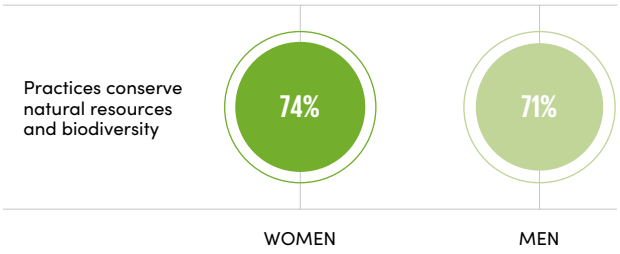
Organic livestock raising is widespread in Mongolia, with four in every five farmers yielding organic products. Women are more likely than men to follow protocols for organic certification, such as foregoing the use of growth hormones or antibiotics; while men are more likely to provide their livestock with shade, a shelter with sufficient space for animals to lie down, space for exercise, clean drinking water, sheltered pits/heaps to collect manure, direct sunlight and clean, dry bedding. The likelihood of feeding livestock an organic diet is similar between women and men, with an estimated 80 per cent of farmers avoiding the use of genetically modified crops or other non-organic products, except for trace minerals and vitamins necessary to meet the livestock's nutritional requirements (figure 32). The extensive use of these practices in Mongolia is encouraging, as it is an indicator of overall sustainability and it may help limit environmental degradation associated with livestock production.

Figure 30: Proportion of population that typically take care of animals they own alone or jointly, by sex (percentage)



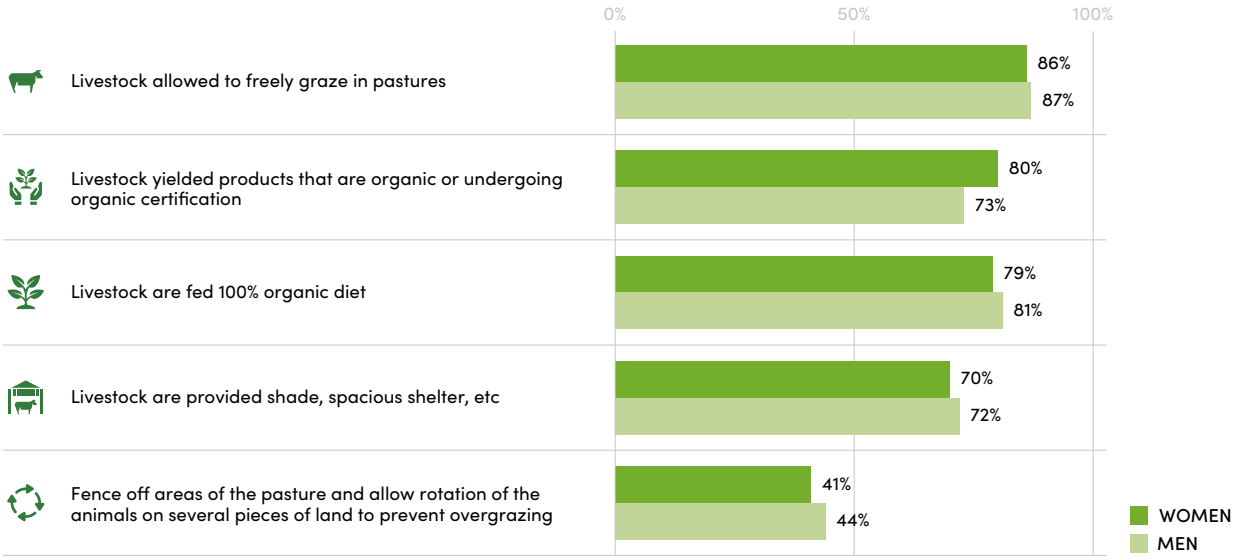
Note: "Women in the household" refers to a clustered category of women respondents who reported being primarily in-charge of the activity and respondents of any sex who reported a female household member was primarily in-charge of the activity. "Men in the household" refers to a clustered category of men respondents who reported being primarily in-charge of the activity and respondents of any sex who reported a male household member was primarily in-charge of the activity. "Shared equally between women and men" refers to respondents who reported an activity is equally undertaken by women and men in the household.

Figure 31: Proportion of the population whose animal management practices conserve natural resources and biodiversity, by sex (percentage)



Note: Differences between women and men are not statistically significant (p<0.05).

Figure 32: Proportion of the population whose animal management practices conserve natural resources and biodiversity, by type of practice and sex (percentage)



Note: Differences between women and men are not statistically significant (p<0.05).

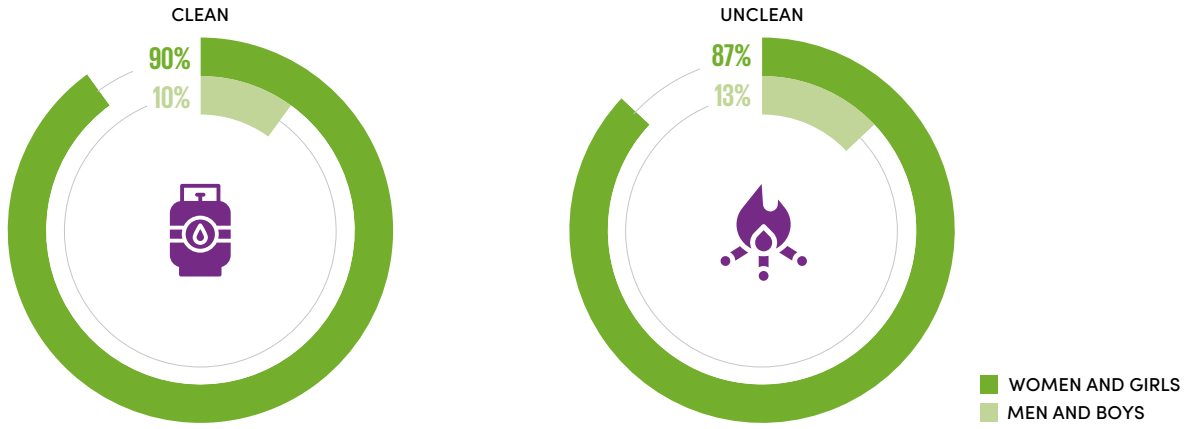
HOUSEHOLD PRACTICES ALSO CONTRIBUTE TO ENVIRONMENTAL CONSERVATION AND DEGRADATION.

The use of different power sources, cooking fuels and heating fuels all contribute to environmental degradation at different levels. In Mongolia, where the whole population has access to electricity, the electrical grid is powered mainly by non-renewable sources. According to the International Renewable Energy Agency (IRENA), 81 per cent of the total energy supply relies on coal and 16 per cent on oil, with the remaining 2 per cent coming from renewables.[21] As such, household use of electricity contributes to environmental degradation.

For cooking, roughly three in ten households (29 per cent) rely on unclean fuels, such as gasoline, kerosene, coal, charcoal, wood, straw or other solid residue, which pose threats to human health. Women, who are in charge of cooking in 90 per cent of households in Mongolia, are overly exposed to the harmful effects of indoor air pollution when unclean fuels are used. In an estimated 90 per cent of households using clean cooking fuels, and 87 per cent of those using unclean fuels, women perform cooking tasks the most (figure 33).

When households do not have access to piped gas or electricity for cooking, women and men often have to fetch fuels. As shown in figure 34, men are more likely than women to collect cooking fuels in Mongolia (men typically go in 64 per cent of households, while women do it in 36 per cent of households). The use of sustainable forest management practices among those in charge of fuel collection is of outmost importance to preserve ecosystem production and forest health.

Figure 33: Proportion of households where women and girls / men and boys are in charge of cooking, by type of fuel (percentage)



21 IRENA: Energy Profile, Mongolia. See: https://www.irena.org/-/media/Files/IRENA/Agency/Statistics/Statistical_Profiles/Asia/Mongolia_Asia_RE_SP.pdf?rev=043f5c4c85054e179be1ae1b397e5972 .

Figure 34: Proportion of households by person in charge of gathering cooking fuel, by sex (percentage)

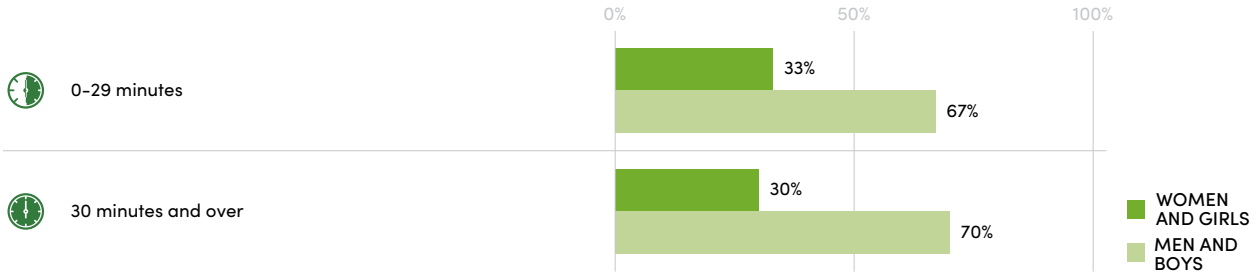
MORE THAN HALF OF THE POPULATION COLLECTS DRINKING WATER REGULARLY. THEIR PRACTICES ARE IMPORTANT FOR CONSERVATION.

An estimated 63 per cent of households in Mongolia lack safe drinking water piped to the household or its yard or plot. For these people, water collection is an essential routine task, which is largely performed by men in Mongolia: men are in charge of water collection in more than 3 in every 5 households without water on premises. What's more, the further the water source the higher the likelihood of men being the ones collecting water – a chore that requires physical strength and may worsen individual physical health (figure 35). As water quality and availability are reduced by pollution, unpredictable precipitation patterns, industrial activity and climate change, procuring water may take increasingly longer. For those who are unable to walk further distances, the time allocated to treating the water available from nearby sources to make it safe for cooking and cleaning, tasks typically performed by women, may also increase. Worsening time burdens related to all of these water-related activities will impinge on paid work or leisure time for those in charge of performing them.

In addition, women's and men's water collection and use behaviour may also impact the quality and availability of freshwater. Although in Mongolia an estimated 36 per cent of freshwater withdrawals are industrial,[22] households are important users of freshwater, particularly those engaged in farming. Since a large share of the population rises livestock, the places where people take their livestock to graze, or the water sources used to produce livestock feed and discard manure, can impact the quality and availability of freshwater substantially. To promote a sustainable management of available water resources, rules must be established and enforced, including limitations for extraction and penalties for solid, liquid, as well as chemical and organic pollution of water sources. For those extracting water and contributing to wastewater substantially, information campaigns can complement legislation to limit extraction, land transition, and waste dumping on waterways.

22 World Bank, 2024. World development indicators database, available from: https://data.worldbank.org/indicator/ER.H2O.FWIN.ZS.

Figure 35: Proportion of households where women and girls / men and boys are in charge of water collection, by distance to water source (percentage)

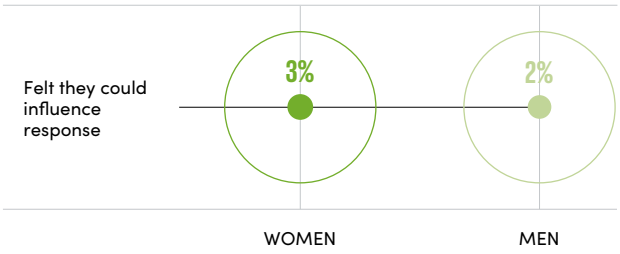


Note: Differences between women and men are only statistically significant (p<0.05) for "0–29 minutes".

INCLUSIVE PARTICIPATION IN ENVIRONMENTAL DECISION-MAKING IS ESSENTIAL FOR ENSURING THAT CLIMATE CHANGE MITIGATION AND ADAPTATION PRACTICES RESPOND TO THE NEEDS OF WOMEN AND MEN.

The National Climate Committee of Mongolia is a body that coordinates across government sectors, headed by the Deputy Prime Minister of Mongolia. It is responsible for monitoring and evaluating the implementation of climate-related actions within the National Development Strategy. Furthermore, the Climate Change Research and Cooperation Centre supports both the Committee and the Ministry of Environment and Tourism. Beyond government-related organizations, multiple entities perform climate-related actions at a local or grassroot levels. Thus, when asked whether they were part of any committee or institution where they felt they could influence responses to resolve or mitigate the effects of climate change, almost 3 per cent of people responded they do (figure 36). Promoting more extensive participation in climate-related decision-making, as well as other environment-related decision-making, is essential to ensure mitigation, adaptation and natural resource management decisions benefit both women and men, in all their diversities. For a country where so many depend on the environment for their livelihoods, this is an essential next step.

Figure 36: Proportion of population that were part of any committee or institution where they felt they could influence responses to resolve or mitigate effects of climate change, by sex



Note: Differences between women and men are not statistically significant (p<0.05).

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