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Research Report

**PARTICIPATORY RESEARCH ON
THE VULNERABILITIES OF WOMEN
WITH DISABILITIES
TO CLIMATE CHANGE**

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This participatory research, “The Vulnerabilities of Women with Disabilities to Climate Change” is qualitative evidence identifying barriers and vulnerabilities to climate resilience which women and girls have experienced. It gives recommendations on how to improve the inclusion of women living with disabilities in climate resilience projects.

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This report shall be used free of charge with appropriate references. Data from the research is also available upon request to ActionAid Cambodia. ActionAid Cambodia hopes this report could provide additional gender-sensitive evidence for policymakers, decision-makers, community leaders and practitioners to build resilient communities inclusively.

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Acronyms

PLWD:	People Living With Disabilities
WLWD:	Women Living With Disabilities
DPO:	Disabled People Organisation
NGO:	Non-Government Organisation
GDP:	Growth Domestic Product
DRR:	Disaster Risk Reduction
CCA:	Climate Change Adaptation

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Executive Summary

Purpose:

This report presented the findings of a research conducted in Kampot and Pursat to identifying barriers and vulnerabilities to climate resilience that women and girls have experienced. It gives recommendations on how to improve the inclusion of WLWD in climate resilience projects.

Context:

Cambodia is heavily reliant on climate-sensitive agricultural production but is also extremely vulnerable to seasonal flooding, drought, and rising temperatures. The poorest and most vulnerable people, including PLWD, are primarily agricultural producers. Kampot and Pursat, the locations of this research, have a very high numbers of PLWD (22,771 and 21,104 respectively), of which WLWD make up 59% and 61%, respectively.

Methodology:

The research included a desk-based review of literature, policies and studies, in-depth interviews with key informants and women with disabilities and focus group discussion with WLWD applying participatory research exercises, including resource and hazard mapping, historical timelines, visioning, Venn mapping of actors, seasonal calendar, matrix mapping of vulnerability and decision making. A virtual consultation workshop with DPOs and NGOs working on these issues was conducted to validate the findings and to collect further inputs for recommendation and communication strategy for the study.

Key findings:

Potential climate hazards: seasonal floods, storms, droughts, rising temperature, extreme weather, and saltwater intrusion have extremely impacted food security, livelihood and economic activities, welfare, and health of WLWD.

Impacts of climate change on WLWD: Climate change has physically and psychologically impacted WLWD, and they are more vulnerable to climatic hazards than any other vulnerable group because most of them are physically and mentally disadvantaged and have minimal education, economic and decision-making power related to climate change adaptation.

- **Food and water security:** Shifting season and emerging pests and diseases for crops and livestock (as a result of extreme weather) have affected their productivities, threatening the food security of WLWD. To secure their crops/improve productivity, chemical pesticides and fertilisers were applied, increasing their production cost and exacerbating their health issues. Extreme weather and drought have reduced access to clean water, sanitation, and hygiene (WASH) facilities for WLWD. They also reported to have bought water for their consumption, travelled further away to collect water, and relied on their family because the wells were inaccessible and were designed without assistive devices to anticipate the needs of people with disabilities. WLWD needs more water than normal women since they need to clean their assistive tools and maintain body and menstrual hygiene.
- **Livelihood and economic activities:** Natural fish stocks in both provinces are depleting due to deforestation, loss of habitats, drought, and rising temperature, jeopardizing the household

income of fisher folks whose livelihoods rely entirely on natural resources. During on-set disasters, the livelihoods of WLWD are worsened since they are struggling to earn daily income. Thus, they have to depend entirely on food relief from the local authority or other agencies.

- **Equitable access to resources and support:** WLWD neither received any special treatment or support for livelihood improvement nor got equitable access to take advantage of the available resources within their communities. Though WLWD is regarded as a vulnerable group, which must be prioritised during disasters and extreme weather events, there was an absence of guidelines and support intervention to handle the special needs of PLWD. The absence of accessible toilets, ramps, handrails, and poles, which are fundamental needs necessary to provide access and help navigate vision impaired and physically disabled women, presents critical barriers for them to relocate to the shelter in time of natural disaster.
- **Health-related issues:** On top of the health issues that everyone faced following floods (such as diarrhoea, fever, skin diseases, tension, stress), WLWD also faced additional health complications related to their previous impairment. They face barriers to accessing healthcare services and receiving timely public health or emergency information in an accessible format. In some cases, the service may disappear or are not sufficient to respond to the needs of WLWD. They also suffer from heat-related illnesses such as extreme headaches, fatigue, sleeping and eating disorder, and seizure, which take a serious toll on mental and physical health, including mood, energy, and ability to handle stress. They have faced difficulties to maintain body and menstrual hygiene during extreme heat and drought.

Coping strategies: Adjusting fishing and farming practices were observed in the study; for instance, WLWD reported using drought-resilience rice crops, change crops varieties, or buy storm-resilient equipment for fishing. Some women reported their families learnt to administer medication and vaccines in response to an increasingly emerging livestock disease; build strong shelters for the animals to stay during extreme heat, and clean the shelters often. Taking loans, diversifying incomes, and migration are their main coping strategies to earn supplementary income that they have loss from agricultural activities.

Existing support interventions: local government plays an active role in disseminating disaster-related information in public places, providing immediate relief and technical training on agriculture (rice and vegetable farming, and livestock rearing), especially constructing or renovating physical infrastructure, namely canal, community wells, and roads to facilitate access to services and markets. Very few NGOs in the studied locations provided direct intervention on climate change adaptation and disaster management to PLWD due to the lack of expertise to work with PLWD and limited budget to allocate for their special needs. However, DPO's mandate is mainly promoting the rights of PLWD and rehabilitation services and equal employment access (economic empowerment), and they have limited knowledge on climate change and DRR issues.

Decision making power: WLWD have exceptionally limited power to express their concerns and to influence decision making when they have limited education and less economic power. WLWD, is thus excluded from making the household decision. WLWD also play a periphery role in the household decision and likely concede the decision-making power to men, who therefore denominate and have the final say on important decisions related to adaptive capacity.

Due to communication and physical barriers, WLWD are isolated from community activities and excluded from participating in the decision-making process associated with community development, commune disaster plans, and climate change adaptation interventions. Moreover, WLWDs somehow lack representation of women with disabilities who have leadership and decision-making power to have their concerns heard by the local authority. When men possess all the decision-making power and have limited understanding of women's needs especially those with disabilities, this may aggravate women's vulnerability to the impacts of climate change.

Key influencer and drivers: The key drivers motivating WLWD to take action in response to climate change impacts include: 1) improving family's well-being, especially livelihood and economic security; 2) maintaining good health of the children and family, and 3) provide better education to their children so that they can have better future. The village chief and commune councillors are the potential key influencers that WLWD trust and can approach to access disaster-related information and supports. WLWD who have leadership roles or decision-making power are the key influencers to build the self-esteem of WLWD and to represent their voices/concerns. WLWD reported preferring face-to-face interaction, joining small group discussions, and direct interaction with their family/caregivers to receive useful information related to climate change adaptation.

Critical barriers for climate change adaptation: Due to physical, attitudinal, communication and social barriers, WLWD are always isolated and excluded from voicing their concerns and participating in the decision-making process related to climate change intervention in the community.

- **Physical barrier:** WLWD are almost invisible and are not considered in DRR and climate change adaptation planning due to inaccessible locations/venues and lack of assistive devices for physical and vision-impaired people. Moreover, prevention and mitigation measures do not effectively take disability issues into account. They also have difficulty relocating to safe areas and accessing vital emergency information. They are likely blocked out since the damage of infrastructure obstruct their mobility, and they lost assistive tools in the case of flood or storms.
- **Informational and communication barriers:** The lack of sign language interpretation, hearing aids, braille, or large print hindered disabled women from communicating with others and receiving essential information and taking necessary actions in response to climate change and disasters. Awareness campaigns on CCA and DRR mostly depended on oral communication and key information were deiminated through their family or caregivers rather than directly with WLWD.
- **Attitudinal barriers:** Stereotyping and stigmatising of PLWD can lead to overt and subtle forms of discrimination, which can permeate the policy and practice associated with climate change adaption and disaster risk management intervention—creating physical, informational, communicational, and other barriers. Knowledge about disability and their rights remains extremely limited among local authorities and communities. This belief comes from not only other people but also WLWD themselves, who have low self-esteem.

- **Resource barriers:** WLWD have very low economic power given the fact that they have insecure jobs, lack reliable income or financial resources to cope with and recover from the adverse impact of climate change. WLWD with limited education and insecure job had less economic power and relied on their family, facing risk to discrimination, domestic violence, and detrimental impacts on their capacity to take action. The lack of materials and required finance to take action are the major barriers for WLWD since they have constraint access to financial services.

Conclusions and recommendations

WLWD were more disadvantaged and more vulnerable to the impacts of climate change and disasters than non-disabled women in the same communities. Some short-term mitigation measures have been adopted but were very limited in scope. As a result of physical, attitudinal, communication, and social barriers, the findings showed that WLWD are isolated and excluded from voicing their concerns and participating in decision-making processes related to climate change interventions in the community. The research also showed that WLWD were, at best, indirect beneficiaries of development initiatives, with most NGOs and local authorities having little understanding of disability inclusion and limited resources.

Recommendations:

Programming practice:

- Employ a twin-track approach across all programs to mainstream disability inclusion in all activities and also provide specifically tailored interventions that address specific problem areas. This joint approach will increase the impact of project interventions.
- Mainstream the needs of WLWD into local and national DRR and CCA interventions related to prevention, mitigation, preparedness, and relief programming,
- Use evidence-based advocacy to ensure disability inclusion in the government's and NGO's interventions and ensure accessibility standards are applied in infrastructure construction,
- Build the capacity of existing women groups to mobilise resources and to advocate for fund allocation to include disability issues into climate change interventions.
- Empower at-risk groups, especially WLWD.
- Adapt training programs and communication tools, and materials to be accessible to WLWD.
- Provide comprehensive interventions.
- Increase WLWD's leadership and ensure representation of WLWD at local and national levels.

Communications:

- Employ/leverage existing communications platforms
- Ensure communications are accessible for a variety of disabilities
- Use key influencers/role models in the community
- Create partnerships with government and NGOs (especially DPOs) to develop high-quality communication materials in various formats
- Develop strategic communications to raise awareness of disability to address attitudinal barriers and stigma against PLWD

1 Understanding context: disability and climate change

1.1 Cambodia's vulnerability to climate change and disaster

Cambodia is extremely vulnerable to climate change and disaster, although its economic growth has been one of Asia's fastest, averaging 7.0 per cent annually between 1998 to 2018. It remains among the countries most affected by extreme weather, ranked the 14th most vulnerable in 2000-2019 (Eckstein, Kunzel, & Schafer, 2021). The ranking shows a slight decrease if compared to that in the 1998-2018 period when Cambodia was ranked the 12th most vulnerable country. Climate change could possibly shrink Cambodia's GDP by 2.5 per cent by 2030 according to an estimation using Climate Economic Growth Impact Model developed by the National Council for Sustainable Development (NCSO) and the Cambodia Climate Change Alliance (CCCA) program. Because of adverse climate impacts, estimated loss accounted for USD 1.5 billion, equivalent to 10 per cent of annual GDP in 2015 alone (US embassy in Cambodia, 2020).

Although it was classified as a medium risk country to disasters, with an overall risk score of 4.8/10 in 2020¹, Cambodia remains highly vulnerable to flooding, which was calculated to be 9.5/10, indicating the highest risk in the hazards and exposure dimension. Moreover, governance was rated as 7.2/10 in the lack of coping capacity dimension according to the Index for Risk Management (INFORM) Global Risk Index (GRI).² For instance, the latest flood in October 2020 affected 175,872 households in 18 provinces in Cambodia (CFE-DM, 2020), of which Pursat was among the top three most affected provinces. A total of 29,172 people were affected by the flood, and 1,911 families were moved to safe areas in Pursat.

The finding of the Cambodian Women's Resilience Index (WRI), conducted by ActionAid Cambodia, shows women's economic resilience capacity was lower than men due to their insecure and insufficient income. While men got a score of 0.61 in the economic resilience pillar, women received only 0.59. In terms of the infrastructure resilience pillar, which takes into account access to affordable energy, safe water, and water sanitation, men seem to perform better (0.58 score) than women, who got only 0.56. The WRI findings also confirmed the other research findings that women tended to have less voice in decision making and received less institutional support compared to men. While men received higher score of 0.61 for institutional resilience pillar (analysing access to decision making, disaster management plan, and other support mechanisms), women had only a score of 0.56. Regarding the social resilience pillar, women also got a lower score than men's (0.54 vs 0.57).

¹ "Cambodia Disaster Management Reference Handbook", by Centre for Excellent in Disaster Management and Humanitarian Assistance, 2020,p.20.

² INFORM GRI measures the risk of humanitarian crisis and disasters in 191 countries. The model calculate the risk based on three dimensions in disaster risk management—exposure to hazards, vulnerability, and institutional coping strategy. The risk score of each country is ranked from 0 (the lowest risk) to 10 (the highest risk).

Given the fact that most rural Cambodians mainly rely on climate-sensitive livelihoods and approximately 4.7 million Cambodians were employed in agriculture, forestry, and fisheries³, they are highly vulnerable to the impacts of disaster and climate change. Due to the decline of the service sector, especially in the tourism industry in the last few years, the agriculture sector is estimated to contribute approximately 32 per cent to Cambodia’s GDP in 2020. Most importantly, the global shock triggered by the Covid-19 pandemic has impacted Cambodia’s economy, and the outbreak has caused a sharp deceleration in tourism, manufacturing, exports, and construction. As a result of the decline in the main engines of growth, it is estimated that more work migrants, especially the remaining labour force from the service sector, were most likely to return to the agriculture sector for survival.

As a result of rising temperature, extreme weather, intense natural disasters (drought and floods), and an increase of pests and disease, rural Cambodia is expected to suffer significantly from low productivity, decrease in income, loss of household income, and damage to physical infrastructures and assets⁴. The same study also revealed that the impacts of climate change disproportionately affected men and women. Women are extremely vulnerable to the impact of climate change because of their dual burdens in caring work and livelihood activity.

1.2 Overview of disability

The latest Cambodian population census (2019) showed a total of 689,532 Cambodian people (5% of the total population) have been living with different types of disabilities, of which women accounted for 402,873 individuals (58%). Figure 1 illustrates the total numbers of People Living With Disabilities (PLWD) by gender in Kampot and Pursat. Among the two surveyed provinces, Kampot has the highest number of PLWD with a total of 22,771 people, versus 21,104 in Pursat. Women with disabilities comprise 61% of total PLWD in Pursat and 59% in Kampot.

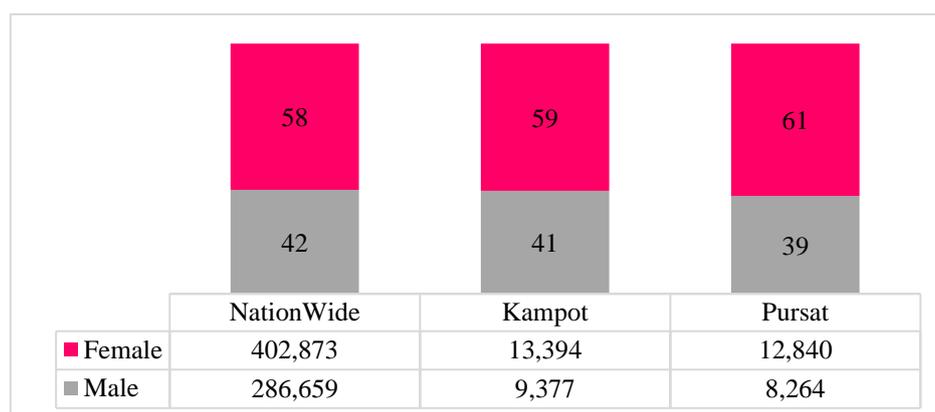


Figure 1: Disability population by gender in Cambodia
Source: Cambodia Population Census 2019 by NIS

³ “Cambodian Population Census 2019” by National Institute of Statistics, 2019.

⁴ “Participatory research on gender-based vulnerabilities to climate change in Cambodia”, Empower Women for Climate Resilient Society, 2020, p12.

The population census also categorised PLWD by their disability types and level of difficulty. At the country level, PLWD with vision impairment amount to the highest number of 502,253 people, followed by people with hearing impairment (414,468) and 393,945 people with remembering or concentration disability. At the provincial level, Kampot had a total of 17,343 PLWD with vision impairments, while people with hearing impairments amount to 14,827; and 14,312 people have difficulty walking. In Pursat, the population census indicated that people with vision impairment were the most common among the six types of disabilities. People with vision impairment consisted of 16,122 individuals, whereas people with problems remembering or concentration amounted to 14,793. Moreover, 13,983 people experienced hearing difficulty. **Table 1** provides detailed information on people with different types of disability and their level of difficulty by each surveyed province.

Table 1: Types of disability and level of difficulty of Cambodia population

Types of disability	Difficulty level	Nationwide	Kampot	Pursat
Seeing	Some difficulty	412,240	14,278	13,473
	Major difficulty	71,725	2,395	2,271
	Fully disabled	18,288	670	378
	Total	502,253	17,343	16,122
Hearing	Some difficulty	342,233	12,123	11,608
	Major difficulty	56,729	2,083	2,088
	Fully disabled	15,506	621	287
	Total	414,468	14,827	13,983
Walking	Some difficulty	304,985	10,833	10,929
	Major difficulty	71,593	2,771	2,427
	Fully disabled	16,790	708	312
	Total	393,368	14,312	13,668
Remembering/concentrating	Some difficulty	316,718	11,013	12,073
	Major difficulty	58,540	2,117	2,332
	Fully disabled	18,687	752	388
	Total	393,945	13,882	14,793
self-care	Some difficulty	253,393	9,308	10,135
	Major difficulty	55,715	1,930	2,174
	Fully disabled	19,891	689	343
	Total	328,999	11,927	12,652
Speaking	Some difficulty	256,645	9,331	10,389
	Major difficulty	51,960	1,935	2,161
	Fully disabled	18,011	705	364
	Total	326,616	11,971	12,914

Source: Cambodia Population Census 2019 by NIS

As of 2018, a total of 2,393 PLWD have been working in government agencies, and 3,475 people have been employed in the private sector, according to the National Disability Strategic Plan (2019-2023). The same report also highlights that a total of 387,658 PLWD had received free rehabilitation services, of which 137, 279 had received free physical rehabilitation service and 250,379 medical rehabilitation services. In addition to the rehabilitation service, those who had received the treatment were also given food and travel allowance from the government and partner organisations, whereas 26,703 PLWD were reported to have received community services for assistive device maintenance.

1.3 Exacerbated vulnerability of PLWD in the context of climate-related hazards and disasters

Although climate change poses a direct and indirect risk to human health and livelihood, its long-term and immediate impacts disproportionately affect vulnerable groups, especially PLWD, due to their limited access to resources, social networks, support systems, and communities (CFE-DM, 2020). In the context of natural disasters, PLWD experienced the most difficulties, especially their physical and mental health. They do not only face emergency situations like others but also encounter extra challenges in daily life since they need special treatment, access to health treatment/medication, or assistive devices such as spectacles, hearing, and mobility aids. PLWD may not be able to relocate to a secure and safe location by themselves, and they have very limited access to food, water, shelter, latrines, and health care service since most of them are living in poverty. A recent study shows that women with disabilities were severely impacted by disasters and had limited access to any formal intervention and institutional support for preparedness, response, and recovery phases of disaster events. (Gartrell, Calgaro, Goddard, & Saorath, 2020). The same report also discusses the correlation between domestic violence and natural disasters. Following disaster events, incidents or threats of domestic violence on women with disabilities commonly occurred and heightened the risk of additional harm.

2 Research Methodology

The study employed a community-based-participatory research approach by aligning the work with Participatory Rural Appraisal tools. This approach has enabled the study to collect comprehensive insights on the degree of vulnerability and potential barriers hindering a meaningful inclusion of women living with disabilities in decision-making processes. To enable comparison with other countries, the study used a wide range of methodologies and tools to understand the perspectives of women with disabilities and those of their families and communities. A key conceptual definition of “disability” was clearly defined for study, and the selection of women with disability were based on the Washington Disability Checklist Criteria, adapted to fit with the Cambodian context.

2.1 Study objective

Aiming to comprehensively identify barriers and vulnerabilities that women and girls with disabilities experience to their meaningful inclusion in climate resilience, the main objectives include the following:

1. Identify the current status (their numbers and types of disabilities), vulnerability level, and experiences of women and girls living with disability in GRACC phase II locations.
2. Identify potential impacts of climate change on women with disabilities.
3. Analyse critical barriers hindering women with disabilities to be actively engaged and included in decision-making regarding climate-resilient work.

4. Determine to what extent the Disaster Management Committee and GRACC project can ensure the inclusion of women with disabilities in response to climate change.
5. Identify strategies to support PLWD in the decision-making process to overcome those barriers.

2.2 Methodology

2.2.1 Desk review

To support primary data, an extensive review of relevant climate-related and disability literature was thoroughly conducted to inform the research design. Government policies/strategic plans related to climate change, Disaster Risk Reduction (DRR), and disability were reviewed to gain insight on supporting mechanisms for PLWD in response to climate change. Furthermore, secondary data of the disability population (2019) and Vulnerability Index by province (2019) were collected from the National Institution of Statistics and the National Council of Sustainable Development of Ministry of Environment. Lists of women with types of disability at the commune level were collected from each province for the review. The administrative data helped guide the study to select the target areas with a higher number of women with disabilities and the areas most vulnerable to climate-related hazards.

2.2.2 Qualitative in-depth interview

As a result of the strict prohibition for social gathering and the practice of social distancing for Covid-19 prevention, all stakeholders' interviews were conducted virtually and through phone calls. In total, 20 key informants (eight from NGO/ Disabled People's Organisations (DPOs) at the national level, 10 from local DPOs/community-based organisations, and two from local authorities in the two surveyed provinces) were interviewed using virtual video conferencing technologies to gain more in-depth insights on the status of PLWD especially women, potential actors supporting PLWD and existing support ecosystem, critical challenges faced by PLWD in response to climate change and DRR and future interventions needed to ensure inclusion of women with disability in the decision-making process related to climate-related interventions. The interviews helped the study team to have comprehensive knowledge of climate change context in the studied provinces.

Table 2: Numbers of key informant interviews by sectors

Respondent types	Number
NGOs—National level	8
DPOs	3
1. Disability Action Council Secretariat General (DACSG)/DAC	1
2. Cambodian Disabled People's Organization/Organisation (CDPO)	1
3. Action on Disability and Development (ADD)	1
NGOs working on disability issues	5
4. Church World Service (CWS)	1
5. Handicap International (HI)	1
6. Living with Dignity (LWD)	1

Respondent types	Number
7. ActionAid Cambodia	2
LNGO/CBO—Local level	10
Pursat	4
8. DPO Disability Development Service Program (DDSP)	1
9. Women Champion, Kampong Por, Pursat	1
10. Rural Friend for Community Development (RFCD)	2
Kampot	6
11. DPO Chum Kiri Disabled People Development Federation (CHDDF)	1
12. DPO Cambodian Agency Development of Disability and the Poor (CADDP)	1
13. DPO Women and Children with Disability Forum (WCDF)	1
14. Children and Women Development Centre in Cambodia (CWDC)	1
15. Women Champion, Troeuy Koh, Kampot	1
16. Women Champion, Krong Kampot, Kampot	1
Local authority	2
17. Deputy Governor/DCDM in Krong Kampot, Kampot	1
18. Deputy commune chief/Women Champion, Kraing Ampil, Kampot	1
Total	20

2.2.3 Focus Group Discussion

Despite an outbreak of Covid-19 in the country, the study managed to conduct seven small Focus Group Discussion (FGD) with a total of 32 WLWD in the two provinces. A maximum of four women was allowed for each FGDs except the one in Lor Lork Sor in Pursat. Measures of Covid-19 prevention such as social distancing and hygiene practices were strictly enforced in all focus group discussions.

Checklist criteria (adapted from the Washington scale statement) was developed to recruit qualified WLWD for the study prior to the fieldwork. Each research team member and local facilitators were trained to use the checklist prior to the identification of WLWD in their respective provinces. A list of WLWD's information, including educational level, types of disability, address, and employment, were collected and consolidated with the support from women champions and ActionAid's local partners—RFCD and CWDC. Then, the research team checked and verified the list against the selection criteria and finally recruited qualified participants for the study.

Table 3: number of women participants in FGDs

FGDs with WLWD	Number	Date
NGOs—National level	8	
Pursat	16	
▪ Lor Lork Sor, Krong Pursat (one group)	8	23-May-21
▪ Kampong Por, Kokor district (two groups)	8	10-May-21
Kampot	16	
▪ Kraing Ampil, Krong Kampot (two groups)	8	08-May-21
▪ Treuy Koh, Krong Kampot (two groups)	8	09-May-21
Total	32	
FGD date		

FGDs with WLWD involved the following participatory exercises:

1. **Resource and hazard mapping:** this exercise focused on existing resources available in the community and how those resources were affected by climate-related hazards and natural disasters.
2. **Historical timeline:** this tool discovered the changes over time in the community because of extreme weather events/natural disasters. This also highlighted how these changes affected their livelihood and welfare and what coping strategies had been employed in response to the changes.
3. **Visioning exercise:** The tool was combined with the historical timeline exercise. Once the participants expressed the changes and their coping strategy, they were asked to express their vision of their community in the next five to 10 years. Each note was then shared and discussed in the group.
4. **Venn diagram:** The exercise identified potential actors and support to allow them to discuss the topics and their concerns safely and with confidence. In the case of small group discussion, the study team allocated each team member to help to identify mechanisms/networks available in the community and how those actors support their coping strategies in the face of natural disaster. Each participant expressed the need for potential intervention/support from those actors in the future.
5. **Seasonal calendar:** The main sources of livelihood by different seasons in the community were identified in the exercise. Each participant actively discussed how climate-related hazards have impacted their livelihood activities and what coping strategies they have applied to adapt to these impacts.
6. **Vulnerability matrix:** This exercise allowed the participants to identify their climate-related hazard and vulnerability level that posed greater risks to their livelihood activity and day-to-day life. They were also asked to identify the most vulnerable groups and what support /interventions are needed to help build their resilience.
7. **Decision-making matrix:** the participants identified gender dynamics and power relations in making an important decision in the family and in the community. They were asked to discover who has the authority in the decision process, how decisions on key issues were made or shared among family members, especially those with disabilities and how the decisions affected their adaption strategy.

To ensure active participation from all WLWD in FGDs, the study team developed user-friendly materials and visual presentations, including pictures, maps, diagrams, symbols, and shapes. Projective techniques, including visual presentations, were applied to facilitate the discussion in each small group since most of WLWD had writing difficulties.



Figure 2: The result of historical exercise using visual aids to help WLWD in Pursat

2.2.4 In-depth phone interviews with WLWD

In-depth phone interviews were conducted to collect interesting case studies and to gain more insight on the impacts of climate change, coping strategies, and barriers to ensure social inclusion in decision-making processes related to climate resilient assistance. A total of 10 WLWD were interviewed by phone. Inform-consent issues were also discussed among all WLWD prior to the interview.

Table 4: Number of participants of in-depth phone interview

FGDs with WLWD	Number	Date
NGOs—National level	5	
Pursat	2	23-May-21
▪ Lor Lork Sor, Krong Pursat (one group)	3	10-May-21
▪ Kampong Por, Kokor district (two groups)	5	
Kampot	4	08-May-21
▪ Kraing Ampil, Krong Kampot (two groups)	1	09-May-21
▪ Ttery Koh, Krong Kampot (two groups)	10	
Total	30	

3 Legal frameworks related to disability and climate change in Cambodia

The Cambodian government had expressed its strong commitment to promoting the rights of people with disabilities, improving their lives, and ensure their inclusion in government interventions. The government’s commitment was demonstrated through the rectification of

the Convention on the Rights of Persons with Disabilities (CRPD) in 2012. A number of disability laws and strategic plans have also been enacted in recent years. This section discusses the existing policies and legal frameworks related to disability and climate change issues in Cambodia.

The Rectangular Strategy (RS) phase IV: The topmost strategy of the Royal Government of Cambodia (RGC) sets out its commitment and priority to further strengthening legal and policy frameworks, research on climate change, and institutional capacity at all levels in response to collective responses to climate change. The implementation of the National Strategic Plan on Green Growth 2013-2030; the Cambodia climate change strategic plan 2014-2023; the national environmental strategy and action plan 2016-2023; and the national REDD+ strategy are the main priorities for RGC to achieve the set goal of the policy. Most importantly, the strategy does not highlight any initiatives to ensure social inclusion, especially disability issues, in response to climate change intervention.

The National Strategic Development (NSDP) 2019-2023: This strategic document outlines key roles and responsibilities of concerned ministries to carry out the strategic policies of RS IV. Many of these ministries, namely the Ministry of Agriculture, Forestry and Fisheries, Ministry of Health, and Rural Development, have incorporated DRR into their sectoral plans. Moreover, Sectoral Climate Change Strategic Plans (SCCSPs) and Sectoral Climate Change Action Plans (CCAPs), outlining plans at the sub-national level, were developed and approved for implementation by 14 line ministries.

The Cambodia Climate Change Strategic Plan (CCCSP) 2014-2023: Unveiled in 2013, the strategic plan aims to mainstream climate change adaptation and mitigation into RGC policies and engage the public, civil society, the private sector and development stakeholders in its development and implementation. It provides a national framework to address changes in the climate and to create a ‘greener, low-carbon, climate-resilient, equitable, sustainable and knowledge-based society. The policy also sets a goal to promote public awareness and engagement in climate change responses. The main objectives of the CCCSP have been included in the NSDP and other sectoral development plans of key line ministries.

Strategic National Action Plan for Disaster Risk Reduction 2019-2023 (SNAP-DRR): the primary objective of the policy is to reduce the vulnerability of Cambodians, especially the poor, to the impacts of natural, environmental, and human-induced hazards. The plan had a specific focus on “strengthening disaster management systems, capacity building, mainstreaming DRR, creating synergies between DRR and CCA, increasing the pace of institutional reforms and highlighting the role of research and academic institutions in national disaster management”. The second priority of the policy is to enhance public engagement in DRR public forum and ensure social inclusion, including women, PLWD, youth, elderly, and other vulnerable groups in raising their concerns related to DRR.

National Disability Strategic Plan (NDSP)2019-2023: This strategic plan outlines the RGC’s commitment to enhancing the institutional capacity of concerned ministries to ensure disability inclusion in their interventions; improving social and economic infrastructure aiming to establish non-discrimination in employment, and ensuring equal and equitable livelihood opportunities for PLWD. The eighth strategic goal of this policy aims to reduce the risks and impacts of climate-related hazards and disasters on PLWD. It also outlines key DRR interventions—capacity building to PLWD and service providers on preparedness and on how to support PLWD in times of disaster; developing a database system to quickly identify PLWD to enable the service providers to distribute immediate relief and support/evacuation to a safe area during a natural disaster; improving access to rehabilitation services to enable PLWD to resume their livelihoods and to necessary services needed for their survival. Although its strategic goals do not discuss how WLWD and children are prioritised in the DRR commitment, the seventh strategic goal of the plan takes into account gender equity issues. The goal aims to build capacity for women and children with disabilities who have been affected by domestic violence and livelihood exploitation to improve their confidence and skills for equal employment opportunities and to increase networks and representation of women with disabilities in the leadership roles and in decision making at all levels.

In addition to these plans, the Cambodian government also enacted the law on the Protection and Promotion of The Rights of Persons with Disabilities in 2019. The draft amendment to the law has been undergoing revision in recent years to improve the quality of life of people with disabilities in response to the current global crisis.

4 Key research findings

While Climate change has affected all Cambodians, some groups are disproportionately vulnerable to the impacts of climate change. The finding from the PRA exercises shows that WLWD are extremely vulnerable to the impacts of climate change due to their high level of exposure, sensitivity, or susceptibility to harms and their low adaptive capacity to respond to climate change threats. The following sections will discuss potential climatic hazards and their impacts, coping strategies, critical barriers to taking actions, support interventions and a decision-making matrix to improve the climate resilience of WLWD.

4.1 Potential climate-related hazards

This section looks into what climatic hazards that WLWD have been impacted by in the respective studied location.

Kampot

Flash flood from rainwater: In Kampot, the study found that flooding has a huge impact on the economic and livelihood activities of WLWD. Flash flooding was rated as the highest risk, scoring 4 out of 5 (representing extreme impacts). The result from the PRA exercise showed

30% of the land area in Kraing Ampil were flood-prone. Among the 100 families residing in the flood area, the majority of them are poor and vulnerable families, including PLWD, women-headed households, and elderly people. The floods generally stay for several days to a week before it recedes. Due to urbanisation in Kampot, many farmers have sold their farming lands. Consequently, the surrounding lands were filled in to be developed into residential and industrial zones, while small dikes were filled up, making water passage narrower. Unfortunately, the remaining lands cannot be used for farming due to the flooding, causing some farmers to quit their agricultural activities.

Rising temperature and drought: Extreme weather and rising temperature have become severe in the last five years, according to the women's group discussion. WLWD in Kampot scored the two hazards as 4 (out of 5) due to the damage inflicted on rice yields and farming activities. They observed that the dry season had been prolonged over the last five years, while the rainy season has shortened with small dry periods frequently occurring during the rainy season. The discussion with the women's group shows that wet season rice farming has been delayed from May to June-July in recent years due to the extended period of the dry season. The delay of the rainy season has greatly affected agricultural activities (causing a remarkable decline in rice yield and emerging crop diseases and pests) and fishing activities.

Saltwater intrusion: The finding from the key informant interviews and women's group discussions highlighted saltwater intrusion as high risk given their approximation to the coast. A few cases of seawater intrusion were reported in Treay Koh, Kampot Krong. When the amount of seawater in a rice field is high, it affects the soil quality and postpones the next rice-farming activities. Farmers must wait until the seawater recedes and after several periods of rainwater to return soil salinity to normal. They also reported the delay of rice farming and a severe decrease in rice yield especially when the seawater flows into the rice field during the flowering stage.

Pursat

The findings from Pursat province share similar results to Kampot that climate change has intensified and enormously affected the health, livelihood, and economic activities of WLWD in the last five years.

Seasonal Flooding: WLWD in Lor Lok Sar scored the climatic hazards as 4 out of 5, while the one in Kror Kor district rated them as the most extreme hazard (5). From group discussions, they reported more intense and frequent flooding in the last five years, especially in 2020 when floods occurred twice and were extended for longer periods. The flood normally happens in September and recedes in October. However, the floods in 2020 started earlier in August and happened again in December. The hazard inflicted heavy casualties on the livelihood and economic activities of WLWD.

Rising temperature and drought: Drought has significantly affected the two selected districts in Pursat. WLWD rated the rising temperature, extreme weather, and drought as 5, the most extreme impacts on their health, livelihoods, and economic activities. From group discussions, they believed that the rising temperature and extreme weather had led to severe droughts. Extreme heat has prolonged from January to June in 2020, whereas droughts had severely intensified in the last few years.

Seasonal storms: WLWD, who joined the PRA exercise rated the hazard as 5, the most extreme hazards they have experienced in the last few years. They felt storms have increased in frequency, intensity, and unpredictability. The storms, including thunderstorms, have caused severe damage to their houses and threatening people's lives. They also experienced more livestock deaths, which may have been caused by emerging diseases, extreme heat, and changes in weather (unpredictable rainfall).

"I am extremely concerned and terrified when the storm strikes. My tin roof was badly damaged by last night's storm. I have to ask other people to fix the roof since we have no man to help out in the family, and I am disabled and physically weak to do this task. My elderly mother, niece, and I had run to our small hut at our front yard (which was used as a shelter during the storm). If the hut collapsed because of the storm, it would only cause us minor injuries. My family sometimes temporarily stays at my neighbour's house, which is stronger and storm-resistance." - said a disabled woman in Por Roborn village, Pursat, who is the household head of the family and who relies on selling noodles to support her family.

4.2 Impacts of climate change on women with disabilities

Climate change has increased difficulties for WLWD and has intensified the prevalence of impairment. The findings from the two provinces show that the hazards such as droughts, extreme weather and temperatures, seasonal floods and storms have negatively affected their lives. Even outside the times of crisis, disabled people, especially women, usually encounter more significant difficulties and challenges than the rest of the population, as demonstrated by more limited access to education, health and other essential services, a higher unemployment rate, and very limited access to micro-financial services.

Food and water security:

Rising temperatures and droughts have led to food and water insecurity among WLWD in the study. The shifting season (longer dry season) has affected the rice farming calendar, which consequently resulted in extreme low yield and fruitless/underdeveloped rice crops. Emerging pests and diseases for crops and animals were reported due to extreme weather. There was a report from WLWD that their families had to apply chemical pesticides to secure their crops, increasing their production cost and exacerbating their health. They were also not able to grow vegetables as a result of extreme heat and droughts. Some WLWD in Kampot also reported quitting vegetable farming because of low yield and being no longer able to make profits. The

decline of their crop yields has affected their household income and forced them to limit their choices of nutritional foods. Reduction in food security has resulted in malnutrition and deteriorating health, making them prone to illness or infectious disease.

During and after natural disasters, WLWD are the most vulnerable in terms of food security due to their limited mobility and inability to work. They also reported having requested for food relief and support from local authorities to survive since they were not able to commute to work. Most importantly, they are physically and mentally weak in struggling for resources post-disaster and for rehabilitation.

As a result of the drought and extreme heat, this has reduced access to clean water, sanitation, and hygiene (WASH) facilities for WLWD. For instance, groundwater has dried up, leading to water shortage for daily consumption and agricultural activities. Some women suffered from lacking water for their livestock. While their household income has been affected, some families, particularly women-headed households in Pursat, reported buying water for their consumption when the community pond or tube well dried up. Furthermore, WLWD encountered difficulties in collecting water since they have to travel further to get water. Without assistive tools, they must rely entirely on their family to access water.

The findings show that women need more water than men since they have dual responsibilities for caring work and agricultural activities. However, WLWD surprisingly need more water than women without disabilities since they need to clean their assistive devices (mainly wheelchairs and crutches) and to maintain body and menstrual hygiene. Thus, the health and welfare of WLWD have been remarkably affected by drought and extreme heat. In the context of the Covid-19 pandemic, WLWDs need to regularly clean and sanitize their wheelchairs and crutches, creating a great burden for this additional spending.

Livelihood and economic activities:

Because of deforestation in the two provinces, especially Kampot (due to the construction of factories in coastal areas) and rising temperature, natural fish stocks in both provinces are depleting. Consequently, this has been jeopardising the household incomes of fisher folks whose livelihood depend entirely on natural resources. Fishing activities have been greatly impacted by drought and rising temperature that were rated as 5, the most affected hazards in Kampot. The rising temperature and deforestation of mangrove forests have led to the scarcity of natural fish. Consequently, the fish have moved to deep water, causing farmers to travel farther away for fishing, resulting in increasing costs. Though WLWD do not directly get involved in fishing activities, some of their family depend on fishing for their livelihood, and they sometimes can earn some income from mending and cleaning fishing nets.

As a result of the flood, the livelihood of disabled women has greatly worsened since they are struggling to earn daily income. Moreover, they need an extra person to take care of them when

a flood occurs. During flood or disaster events, they have to entirely depend on food relief from the local authorities or other agencies since they are not able to go out to work. If food relief is not distributed on time, they have to reduce their food consumption.

Equitable access to resources and support

The findings from the two provinces show the same result that people with disabilities, especially women, neither receive any special treatment or support for livelihood improvement nor provide equitable access to take advantage from the available resources within their communities. Access to resources is extremely constrained for WLWD due to their poor health condition (mobility problems, physical and mental health) and the limited access to assistive devices and equipment.

The interview with local authorities and women groups showed that disabled people were regarded as a vulnerable group, which must be prioritised during disasters and extreme weather events. Unfortunately, there was an absence of government guidelines and support intervention to handle disabled people who have extra special needs. Thus, the practices/responses were not standardised and may vary by different communes. The stakeholder interviews also showed that some communes which have DPOs/NGOs working on disability issues seem to perform better to assist PLWD in emergency or extreme weather events than other communities that have no DPO/NGO's interventions. Due to limited mobility, disabled women are extremely vulnerable if evacuation or immediate responses are not prioritised. Group discussions with WLWD in the two provinces showed that some of them are forced to stay at their house during the flood because temporary relocation facilities were not designed to accommodate people with physical disabilities. The absence of accessible toilets, ramps, handrails, and poles, which are fundamental to provide access and navigation for vision impaired and physically disabled women, are critical barriers for them to evacuate to safe places when natural disasters strike their communities.

“The local authority has taken serious action and provides immediate support to disabled people, especially women during and after disaster events since they are considered as the most vulnerable group in the community. In the case of floods or storms, they are the priority for rescue by the first responders. We also encourage them to join any commune meeting and activities. However, we admit that we lack knowledge and skills, essential tools or equipment and financial resources to work with them given the fact they have special needs such as assistive devices and sign language and caretakers to accompany them.” - stated a female district governor in Kampot who is also the women champion of ActionAid.

Health-related deaths and illness:

Climate change is a more significant threat to the health of people, especially disabled women, more than other vulnerable groups. For example, during flooding in Pursat it was noted that in addition to the health issues that everyone faced following the floods (such as diarrhoea, fever, skin diseases, tension, stress), WLWD also faced additional health complications related to their previous impairment. They often face barriers to accessing healthcare services and receiving timely public health or emergency information in an accessible format. During disaster events, accessible basic health and other services may disappear and are not sufficient to respond to the needs of WLWD. Moreover, their social risk factors contribute to poor health, such as poverty, unemployment/insecure job, and lower education. For instance, the findings from the two provinces showed that the majority of WLWD were poor and had limited education.

Many people with disabilities rely on assistive devices that enable them to hear better, see better, achieve mobility, or that enhance physical functions in other ways. During rapid-onset disasters, these devices are often lost or damaged, leaving them with no adaptive assistance when they may need it most. Most importantly, adaptive assistive devices are not typically included in distributed relief materials.

Extreme weather events such as storms, floods, and rising temperatures are affecting not only the livelihood and food security of disabled women in the two provinces but also their physical and mental health. Rising temperatures and extreme weather events have caused heat-related illnesses such as extreme headache, fatigue, sleeping and eating disorder, and seizure, which take a serious toll on the mental and physical health of disabled women, including the mood, energy, and ability to handle stress. They also reported experiencing more frequent disease outbreaks such as diarrhea, fever, and typhoid.

Across both provinces, some WLWD were concerned about the food security of their children and families. Some stated to sacrifice their needs for other such as skipping meals or reducing food consumption, and restricting their water intake so that their children and family have enough food and water, risking their own health and experienced malnutrition. In the case of extreme heat and drought, they have to restrain themselves from taking showers to save water. Therefore, they have faced difficulties in maintaining body and menstrual hygiene.

The discussions with WLWD also showed the repeated extreme weather events have progressively eroded their mental health. Some WLWD reported feeling they have become a great burden for their family when natural disasters occur, especially floods and storms, given the fact that they must completely rely on their caretakers. They have experienced stress, panic attack, and low self-esteem and confidence. Extreme weather events have also affected children's education since they cannot go to school regularly. Some children were revealed to

quit school to help earn supplementary income when their families were worst hit by natural disasters.

“Extreme heat is incredibly harmful to my health. This year, I noticed rising temperatures and extreme heat. The weather is terrible and quite hot even at night. I have lost my appetite (cannot eat well) and suffer from a sleeping disorder. This has affected both my physical and mental health. This has led to poor productivity and made me struggle to concentrate on my work. I sometimes have to restrict my travel and reschedule community meetings when the weather is too hot.” – said a woman social worker, a wheelchair user who was diagnosed with polio in Lor Lork Sar, Krong Pursat.

4.3 Coping strategy for climate change impacts

The findings in the two provinces show that WLWD have been greatly impacted by various types of climatic hazards. This section explores various actions taken by WLWD to ensure their food and water security and to enhance household-level economic security.

The finding from PRAs in the two research locations shows that WLWD and families relied on a wide range of livelihood activities. In Kampot, the household livelihoods of WLWD mainly rely on marine fishing, rice farming, and salt farming. Some families also work as wage labourers (mainly in construction), run small businesses (grocery, food, and selling sea products), and migrate for work when they do not go to the sea for fishing. Though WLWD are less active in livelihood activities, there were some examples of them making efforts to generate additional income from mending fish nets, removing debris from nets, and taking various less-labour intensive jobs such as dishwashing work, cleaning and cutting vegetables (spring onion) and marine products.

In Pursat, the main livelihood sources of WLWD depends on a combination of rice farming and fishing, especially those in Kror Kor district. Some families also reported growing vegetables for household food security and generating extra income. Migration is another main livelihood alternative when they finish rice farming. It is true that WLWD have limited employment choices because of their disability/impairment. Group discussions raised some examples of income-generating activities for WLWD (who has less difficulties), such as weeding vegetable gardens, rearing poultry/livestock that are less labour demanding, or working in factories, and washing dishes in restaurants.

The finding from across both regions confirmed that they had taken various actions to cope with the impacts of climate change. There is evidence of adjusting their fishing and farming practices in response to these changes in the two research locations. The WLWD in Kror Kor stated to have used drought resilience rice variety for their farming, whereas some families practice dry season farming two to three times a year to earn additional income. Farmers tend to use groundwater for their dry-season farming that means the more they do the farming, the

more water they need. Consequently, this has exacerbated water shortage further in their communities. Moreover, the group discussions with WLWD also showed they also applied chemical fertilisers and pesticides to secure the yield to counter the changes of weather and extreme heat. Moreover, those who get involved in vegetable farming also described shifting to crop varieties that consume less water and are resilient to extreme heat.

Despite adjusting the agricultural practices, they expressed these coping strategies were not remarkably effective to build their resilience and enhance their economic activities. Though some of them know that there are better alternatives to improve their resilience in agricultural activities, they admitted having limited knowledge and resources to implement those strategies. They expressed the need to learn about climate-smart horticultural technologies that are less dependent on weather, require less intensive labour, and save water by using drip irrigation.

In response to an increase of emerging livestock diseases, some WLWD reported having learned from others to administer medication and vaccines, build strong shelters for the animals to stay during extreme heat, and clean the shelters often. While WLWD takes part in taking care of their livestock, they admitted to having very little knowledge to treat sick animals. They entirely rely on their husband or family when encountering the problem since they were not well trained on this matter.

In Kampot, where fishing is the main source of livelihood, the women groups reported the change of the fishing practices of their families. Because of extreme heat and deforestation of mangrove forests in the area, the fish stock has dramatically declined, making the fishermen travel further away offshore to catch the fish. Moreover, some families reported taking loans to buy new fishing tools and boat materials that are resistant to storms. The finding was similar in Pursat. Fishers who used to fish in the nearby stream have to change their fishing places to Tonle Sap lake when the nearby stream or dikes have dried up.

Diversifying income sources were reported as another coping strategy to ensure household and economic security. While the reliance on agricultural activities and natural resources is insecure, the women groups reported that their family members take seasonal jobs in their communities to earn additional income when they complete the rice farming season.

The finding from each location shows that WLWD and their families reported often lacking the resources and knowledge for climate change adaption and resilience. When the communities have been affected by extreme weather and natural disasters, migration is another alternative for them to generate additional income and alleviate family debts. In some poorer families, children often dropped out of school to help the family earn income for daily survival and to pay back the loan when they were not able to work during natural disasters and extreme events. While some of their family members have to migrate, the WLWD revealed they

struggled by themselves to help with household chores and to look after themselves when their caretakers were not around.

There is also an evidence from the two provinces that they were taking out loans or borrowing money from local lenders to pay for their survival and to adapt to climate change. Aiming to adapt to changes, their families have to spend on necessary tools/equipment for fishing, buy pesticides and fertilisers for their farming, change rice seeds, or run small businesses. In Pursat, which was relentlessly affected by severe droughts and rising temperatures, the women groups also reported that some families had taken loans to dig tube well, pumping well, or pond to retain water for their household consumption and agricultural activities.

Though taking loans is the main coping strategy, the interviews with key stakeholders showed that WLWD are less likely to have access to finance from financial institutions since they lack secure jobs to prove their stable incomes and concrete proof of collateral to be qualified for loans. The women groups also reported being reluctant to take more loans since they were worried about their inability to pay back. Thus, in some cases, they normally reduced their food consumption and cut down unnecessary spending.

While both men and women take loans together, women, especially WLWD, are more concerned and stressed over debt repayment. This has led to arguments over selling assets to repay debts or has fallen into domestic violence when their livelihood security has been affected by natural disasters and extreme weather, and they are not able to pay back the loans.

In response to the flood, some WLWD in the two locations told the research team that they had prepared food, medicine, water, and wood when they received an early warning from their local authorities. However, they also reserved some water in big jars or dug more tube well to get water when drought is approaching. In the area where storms often happen, the women group also revealed that some families had built stronger shelters or houses to protect their families from storms.

4.4 Stakeholders and existing support interventions in response to climate change

4.4.1 Stakeholders working on disability and climate change

National level

Disability Action Council (DAC): Established in 2011 as an executive body under the Ministry of Social Affairs, Veterans and Youth Rehabilitation, the Secretariat of the DAC is responsible for coordinating with concerned ministries, institutions, and NGOs to develop, promote, and implement policies, laws, and strategic plans concerning disability and rehabilitation. Moreover, this body is assigned to monitor and evaluate performances of the line ministries/NGOs concerning the enforcement of national plans, policies, and laws on disability in Cambodia. Other responsibilities of DACs include liaising with national and international communities for sharing experience, mobilising resources from inside and outside

Cambodia and functioning as a disability resource centre by managing national and international information and documents related to disability and rehabilitation.

Persons With Disabilities Foundation (PWDF): this government body, established in 2010, was assigned to provide rehabilitation services and raise funds through the establishment of donation boxes and investments in businesses supporting disabled people throughout Cambodia.

ADD Cambodia: ADD Cambodia, a rights-based organisation with headquarter in the UK, has been actively developing vibrant disability movements and supporting local DPOs/ disability activists to fight against discrimination and ensure inclusion and equal treatment of PLWD by supporting them to collectively raise their concern/voice to duty bearers in their community. The main areas of interventions of the organisation include gender-based violence, food security, and water and sanitation. Climate change is not its main focus but only a cross-cutting issue in its program intervention. ADD is one of the implementing partners of the Australia-Cambodia Cooperation for Equitable Sustainable Services (ACCESS) program (2018-2021), aiming to improve the sustainability, quality, and inclusiveness of services for persons with disabilities and for women affected by gender-based violence (GBV).

Cambodian Disabled People's Organisation (CDPO): a member-based organisation and a non-government organisation representing PLWD, CDPO was formed in 1994 as a movement of PLWD in Cambodia. Employing rights-based approaches in its core programs, the organisation represents and advocates for the rights of PLWD through awareness-raising and capacity building interventions. As one of the implementing partners of ACCESS program, CDPO's intervention focuses on improved access to inclusive employment for women and men with disabilities. The intervention mainly focuses on improving self-esteem and employability skills, enhancing disability inclusion in vocational training, strengthening employment mechanisms and information systems for PLWD identification and referrals, and raising awareness of disability rights and inclusive employment. With the support from the German Society for International Cooperation, CDPO, with its 13 partner organisations, compiled data of PLWD with mental and physical disabilities. A total of 4,304 PLWs were interviewed in eight provinces, one of which was in Kampot. The data will be compiled into an online database to help identify the location of PLWD in the studied provinces. Furthermore, CDPO also conducted joint research with Australian universities on "disaster experience of women with disabilities: barriers and opportunities for disability-inclusive DRR in Cambodia". Inclusive education for children with disabilities is another prime focus of its program intervention.

Light for the World Cambodia (LFTW): The focus of the DPO includes improving rights of PLWD, inclusive employment and entrepreneurship, innovative livelihood solutions in agriculture, Community-Based Rehabilitation, and inclusive education. LFTW also implements ACCESS program, which seeks to improve the quality of budget planning

processes and capacity of the Department of Welfare for PLWD to advocate for funding support for PLWD. Through mainstreaming the right of PLWD, one of the interventions aims to improve inclusive employment and eliminate discrimination against PLWD in accessing employment and vocational training. The main target area of LFTW comprises of Siem Reap, Pursat, Kampong Speu, Battambang, and Kampong Cham.

ActionAid Cambodia: ActionAid Cambodia, a right-based organization, set up its country program in 2004. One of its key strategic outcomes is strengthening women's leadership roles in building climate-resilient communities and livelihood and advocating for localising of disaster management. Climate change adaptation/resilient approaches are enforced throughout its program interventions. Although the main target beneficiaries of ActionAid Cambodia are vulnerable women and men, PLWD, especially women with disabilities, are not clearly highlighted or targeted in its country strategic paper and program intervention. PLWD, especially women, are prioritised as beneficiaries in ActionAid Cambodia's program interventions, yet there has been no special intervention to target the special need group.

Caritas Cambodia: The organisation has been actively working on community development in Cambodia and have broadened their core program to address wide ranges of development issues such sustainable agriculture (livelihood/food security), community health program, youth and adolescence mental health program, gender and anti-trafficking, vocational skill development, disaster management program, and climate change adaptation. The organisation have been implemented in many provinces in Cambodia, of which Pursat is one of its target provinces.

Humanity and Inclusion (HI) Cambodia: working in Cambodia since 1982, HI Cambodia has provided physical rehabilitation, improved maternal and child health, promoted road safety, and ensured inclusive employment. Climate change and DRR are not their areas of focus. As one of the key implementing partners of ACCESS program, HI aims to increase access to quality and inclusive services for women and men with disabilities. The project supports DAC to implement the National Accessibility Guideline and also PWDF to effectively manage the selected Physical Rehabilitation Centres (PRCs). Moreover, the project also works closely with DPO and sub-national level to effectively engaged in the CIP process and promote an inclusive commune investment plan.

Living with Dignity (LWD): Working through partnerships and employing empowerment approach, LWD has been working on various development programs for community development. Some key program interventions include livelihood and economic empowerment, climate-resilient and water-efficient agriculture practices, disaster risk management and emergency response. Though one of its program focuses is to ensure the inclusion of PLWD, gender and PLWD are cross-cutting issues and have been generally

mainstreamed into its program intervention. The organisation currently operates in Kampong Speu, Pursat, Battambang, Prey Veng, and Svay Rieng.

Sub-national level:

Disability Development Service Program (DDSP): DDSP, established in 2003, is locally based DPO in Pursat, who is mainly specialised in community-based rehabilitation, inclusive education, livelihood, and economic empowerment of PLWD, advocates for the rights of PLWD, and enhances equitable access to employment and vocational training. Climate change and DRR are not its areas of focus since it mainly focuses on physical rehabilitation of PLWD.

Women and Children with Disability Forum (WCDF): This DPO is mainly working in Chhouk district in Kampot province. The areas of its program intervention are essentially related to gender-based violence on women with disabilities, awareness-raising on the rights of PLWD, and livelihood improvement, mainly in the agriculture sector. The organisation only works in Chhouk district in Kampot.

Chum Kiri Disabled People Development Federation (CHDDF): This DPO primarily focuses on improving the livelihood of PLWD and raising awareness of their rights so that PLWD have improved self-esteem and confidence to participate in social activities. However, the organisation has been inactive due to no funding support. Its main target area is only in Chum Kiri district in Kampot province.

Cambodian Agency Development of Disability and the Poor (CADDP): as one of the DPOs operating in Kampot, the primary interventions of CADDP consists of inclusive education, livelihood improvement, improving equitable access to health service for PLWD, and awareness-raising on the right of PLWD. CADDP is currently working in four districts in Kampot and Takeo, namely Dorng Toung, Chhouk, Traim Kok, and Chum Kiri.

Children and Women Development Centre in Cambodia (CWDC): As one of the partner organisations of ActionAid Cambodia, CWDC, a rights-based organisation in Kampot, is actively working with vulnerable groups through livelihood and economic empowerment, natural resource management, climate change and DRR, and education. Per the organisation's policy, PLWD is regarded as a vulnerable group, which must be prioritised and included in the program interventions. However, there is no intervention to solely support PLWD.

Rural Friend for Community Development (RFCD): RFCD is a community-based organisation in Pursat, who has received funding from ActionAid Cambodia. The key themes of its project interventions include education, climate change and DRR, and food security and livelihood improvement. All interventions of RFCD have targeted poor and vulnerable groups. PLWD are encouraged to participate in the project interventions, but the target groups do not

receive any special support from the organisation since RFCD is not specialised in working with PLWD.

4.4.2 Existing support interventions in response to climate change

Local government interventions

According to key information gleaned from interviews with local authorities and community-based organisations in the two research locations, local authorities play an active role in disseminating disaster-related information in public places and have allocated commune budget to cope with climatic hazards within the villages. Major interventions of the local authorities include providing immediate relief, disseminate information related to disaster preparedness and prevention, and provide technical training on agriculture (rice and vegetable farming, and livestock rearing), and build or renovate physical infrastructure such as canals, community wells, and roads to facilitate access to services and markets. They also implement social safety net programs such as cash distribution to poor families who have been affected by the impacts of Covid-19. These government interventions are concentrated primarily on community-wide initiatives rather than anticipating the special needs of PLWD and other vulnerable groups.

NGO interventions

The study in the two locations showed that there were very few numbers of community-based organizations that provide direct interventions on climate change adaptation and disaster management to disabled people including WLWD, due to the lack of expertise to work with PLWD and limited budget to allocate for their special needs. Capacity building and training on climate-resilient agricultural practices (drip irrigation, climate-resilient rice and vegetable crops), disaster preparedness and prevention, and financial support are few examples of their interventions in the community.

Interestingly, the interviews with DPOs in Kampot and Pursat showed that their mandates specifically focus on promoting the rights of PLWD and providing rehabilitation services and economic empowerment. Only very few DPOs revealed that climate change is a cross-cutting theme among their main programs, while other DPOs have very limited knowledge on this matter. The interviews also showed that the number of DPOs and CBO have been declining and less active in recent years due to shortages of funds.

4.4.3 Capacity assessment of ActionAid and partners for disability inclusion

Persons with disabilities are more likely to experience adverse socioeconomic outcomes such as limited education, poor health, lower level of employment and higher poverty rate. Disability inclusion in the context of climate change and DRR intervention is crucially important since this will result in PLWD having equal benefits from climate change and DRR training which will help them be better prepared for, and able to respond better to, the impacts of climate

change and disasters. This can lead to improved individual and family well-being and equitable access to employment and livelihood of PLWD.

The interviews with stakeholders and GRACC project staff, and partner organisations revealed that inclusion of disability in the project's interventions were extremely constrained. PLWD are considered a vulnerable group, which is normally prioritised by the project as well as their program interventions. Unfortunately, there were no set guidelines to provide special treatment or quotas of PLWD to be engaged in the project. Among the beneficiaries of GRACC II, a very small number of PLWD were included in the project, and none of them played a leadership role or became a women's champion in the two provinces.

Disability identification is a major challenge for ActionAid Cambodia and its two organisational partners, leading to the lack of rigorous and comparable data on disability. As a result of the absence of a precise definition of disability for the project, data collection by types of disability, level of difficulty/severity, and current situations of PLWD in the target area were not comprehensively conducted, making it extremely challenging for the project to utilise useful data in its project interventions.

Limited disability awareness (national policies and legal framework related to disability) and inclusion skills are another critical challenge encountered by the project staff to actively engage PLWD in the project. PLWD require different types of support based on their disabilities, and working with them requires different expertise, patience, and strong commitment. The study showed that the project staff of GRACC were not well-equipped with the skills necessary to work with PLWD. Identification of PLWD and understanding different types of special support needed by PLWD should be carefully considered to ensure active participation of PLWD in the project implementation.

4.5 Decision-making power and key influencers

Decision-making power for climate change adaption

The study showed that WLWD have exceptionally limited power to express their concerns and to influence decision making in the family when they have limited education and less economic power. They are often excluded from making important household decisions. Some women reported to be actively engaged in household decision-making, and their spouses appreciate their ideas. Some WLWD can independently make decisions on smaller spending related to their household needs and play a peripheral role in household decision-making. However, most often, women concede decision-making power to the head of the household, which is normally men. Men, therefore, denominate and have the final say on important decisions related to adaptive capacity.

At the community level, WLWD were reported to be isolated from community activities and excluded from participating in decision-making processes associated with community

development, commune disaster plans, and climate change adaptation interventions due to communication and physical barriers. Though there is also evidence that the local authority in Kampot encouraged WLWD to participate in community development activities, some WLWD felt demotivated to join the events, and in most cases, they delegate the decision power to men since they have better knowledge and education. When men possess all the decision-making power and have limited understanding of women's needs, especially WLWD's, this may aggravate women's vulnerability to the impacts of climate change.

Key influencers and drivers for WLWD in taking actions

Improving family's well-being, especially livelihood and economic security, is the most crucial factor motivating WLWD to adapt to the impacts of climate change. The women's group discussions show that maintaining good health of the children and family is another driver to influence their decision to cope with the impacts of climate change. The third driving factor encouraging WLWD to take actions is to provide better education to their children so that they have a better future. Many WLWD, therefore, endeavour to take certain actions, including diversifying household income from agricultural activities, selling labour (for less intensive labour jobs), or running micro-businesses.

In both research locations, the study showed that WLWD had high levels of trust in their village chief and commune council. They also appreciated their support to respond to extreme weather and natural disaster events. For instance, WLWD in Kampot reported directly communicating and approaching their village chief to request food relief when they experienced flash floods and were not able to work during that time. The local authorities have played essential roles in disseminating natural-disaster related information, assessing the needs of communities, and initially evaluating support from NGOs or other government agencies in disaster situations.

WLWD who have leadership roles or power is another key influencer that can be a role model to inspire and build confidence of WLWD to take actions toward climate change. With their representatives in leadership roles, this can reduce discrimination against disabled people and influence inclusion of disability issues into commune development initiatives as well as climate change interventions.

The research findings from the two provinces revealed that face-to-face interaction was a key information source in rural communities, especially in Kror Kor district of Pursat. Community meetings, and direct interaction with friends/neighbours, are common sources of information in the communities. However, WLWD told the research team that they were less likely to participate in community meetings since they either have travel difficulties or struggle to communicate with other people. Thus, they mostly learn new information from their caregivers or family.

4.6 Critical barriers for adaptation strategy

To ensure inclusion of WLWD in climate change adaptation, the study aims to discover potential barriers impeding them from taking necessary actions and participating in the decision making process in response to climate change. Identifying potential barriers to enhance adaptive capacity for WLWD is very critical since it provides a springboard for formulating effective interventions to address each barrier.

A. Physical barriers

Although the national and sub-national governments expressed strong commitments to ensuring social inclusion of disabled people in raising their concerns related to DRR, the findings from stakeholder interviews and the PRA exercises showed PLWD, especially women, are less likely to participate in these processes. PLWD, especially women, are almost invisible and are not considered in DRR and climate change adaptation planning. For instance, public consultations to develop community disaster preparedness plans are commonly held at inaccessible locations and have no or inadequate assistive devices (hearing aids/sign language) for physically, vision and hearing-impaired people.

The findings also indicated that prevention and mitigation measures, identified as priorities to protect life and assets, do not effectively take disability issues into account. Moreover, they are often not accessible to PLWD, especially women. For example, water collection points in some communities which are vulnerable to seasonal floods in Kampot and Pursat are generally built on higher locations, or the water pumps and tube wells raised above the level of potential floods. These measures have created barriers to equitable access to water, causing an obstruction to the ability of WLWD to collect water and intensifying their exposure to and risk of contracting water-borne diseases.

The study also showed that during floods or storms, WLWD are unlikely or have difficulty to relocate to safe areas and to access vital emergency information. When a natural disaster strikes, they are often blocked out due to damaged infrastructure obstructing their mobility and loss of assistive devices such as wheelchairs, canes, or hearing aids. Accessibility issues are not effectively addressed to encourage social inclusion among WLWD to receive equitable access to public services to meet their fundamental needs.

“When a flood strikes in my community. I decided not to relocate to the safe place (which normally is at pagodas) since there is no accessible facility, especially toilets, and this creates an additional burden for my family to look after me there. When running out of water, I sometimes use flood water for washing and cleaning dishes.” – said an elderly disabled woman who suffered from a stroke and hyper blood pressure in Kampot.

B. Information and communication barriers

The study in the two locations confirms that communication barriers between local authorities/duty bearers and WLWD have restricted PLWD from receiving essential information and taking necessary actions in response to climate change and disaster. The local authorities and other key stakeholders acknowledged, in the interviews, their limited knowledge, capacity, and financial resources to provide necessary supports to WLWD for pre and post-natural disaster response and recovery.

The main intervention from the local authorities is providing immediate relief and early warning information rather than building the capacity of the community on climate change adaptation and resilience. Although PLWD, including women, are highly encouraged to participate in commune development planning or develop disaster preparedness planning, the community consultation may not benefit from the contribution of WLWD when the discussion and associated materials are inaccessible to them. For instance, the lack of sign language interpretation, hearing aids or braille or large print hindered disabled women from communicating with others, and lack of access to meeting venues restricted their mobility.

Similarly, awareness campaigns on climate change and disaster, aiming to improve adaptive capacity and informing the public about existing risks, prevention and preparedness measures, relief activities, and rehabilitation intervention, mostly depend on oral communication. Rather than working directly with WLWD, the local authorities and some NGOs convey key information to WLWD through their family or caregivers. Crucial information may therefore not be accessible to vision and hearing-impaired people, affecting their capacity to understand risk and prepare themselves accordingly.

The study conducted by Light for the World (2020) in Pursat shows that 53% of the 422 respondents reported to have not received information related to early-warning or disaster. For those reporting to have received the information, television and radio are the main access means, accounting for 28% and 13%, respectively. The finding confirms the result of the PRA exercise with the women group that access to information is the immense barrier for them to be well-prepared for the disaster.

C. Attitudinal barrier

The attitude of others, especially duty bearers/service providers, has significantly created barriers for WLWD to take action in response to the impacts of climate change and natural disasters. Stereotyping and stigmatising of PLWD can lead to overt and subtle forms of discrimination, which can permeate policy and practices associated with climate change adaptation and disaster risk management intervention. Moreover, this can perpetuate physical, informational, communicational, and other barriers.

The stakeholder interviews revealed that knowledge about disability, the rights of PLWD, and disability-inclusion approaches, remains extremely limited among local authorities and community leaders, especially in rural communities. For instance, people in some rural communities in Pursat still make some disparaging or intimidating remarks about PLWD by calling them by their types of disability. The belief that PLWD have committed a terrible sin from previous life still exists. This form of discrimination has caused negative psychosocial effects on disabled people, especially women, making them lose self-confidence and demotivating them to speak out, socialise and independently make necessary actions toward climate change impacts.

Disability stereotypes can lead to PLWD being perceived as passive beneficiaries of the interventions of others. For instance, some community people believe that some PLWD, especially women are physically and mentally weak, have limited education/knowledge and are isolated from society. Therefore, they are unlikely to be able to live independently and may need support from others, which creates an extra burden for their families. Most importantly, they probably neither make a necessary decision in the family and society nor take any actions in response to climate change. This kind of belief comes from not only other people but also WLWD themselves, who have very low self-esteem.

“I dare not make any decision (related coping strategy) on my own because I am illiterate and know very little about this matter. I always consult with my husband and let him make the decision on everything in the family because he is the household head and breadwinner.” - reported a disabled woman in Kampot who works as a seasonal wage labourer.

D. Resource barriers

The study showed that WLWD have very low economic power given the fact they have insecure jobs, and therefore a lack of reliable income or financial resources to cope and recover from the adverse impacts of climate change. WLWD with limited education or insecure job has less economic power, are reliant on their family, heightening the risk of discrimination, and domestic violence, and face detrimental impacts on their capacity to take action. Additionally, the lack of materials and required finance to take action are the major barriers for WLWD. As such, they reported having taken loans to buy necessary tools for fishing and farming, build stronger shelters, or start a micro business.

“Because my house is located below the surface of the road, it is always flooded after heavy rain. Though we want to refill the land to be at the same level of the road surface, my family does not have money to do so. We hardly make enough to survive, although both my father and I work very hard to support the family. We need to save money so that we can use it when my father, who works as a construction worker, cannot work during flooding time.” – reported a disabled woman in Treay Kor, Pursat province.

“I want to build a stronger house to protect my elderly mother from strong wind and storm. My mother and I have to evacuate to my neighbour’s house during the storm since our house is not storm-resistant. I also want to dig a tube well or buy water jars to store water so that I do not need to fetch water from my neighbour’s well. Unfortunately, I cannot afford to take these actions because I hardly earn enough to pay for food and medicine for myself.” – said a disabled woman in Kampong Por, Pursat province, who runs a small grocery shop at home.

E. Social barrier

Given the fact that WLWD have limited education and economic power and are isolated from social activities, they eventually lack influence and have less voice in decision-making in the family and community. Without their participation in disaster management planning and community development, it is no doubt that their concerns are not included or addressed.

The research in the two locations showed that WLWD have less access to health care, food and water security, social safety nets, and community supports/networks. Therefore, they may not be physically and mentally strong enough to take action against climate change. Most importantly, WLWD are almost unreachable and isolated in the community, inhibiting their opportunity to network and consult with others on coping strategies and preparedness. They also lack access to information and social networks and support that could help them gain useful knowledge on effective solutions to address the challenges they encountered.

F. Structural barriers

Even if existing laws and policies to promote the rights of disabled people have strong non-discrimination legislation or accessibility standards, the study showed that there are huge gaps between these laws or policies and actual practices at sub-national levels. The failure to effectively enforce and implement disability requirements counteracts the efficacy of those laws and regulations. For example, failure to implement accessibility requirements for schools and other public buildings, especially commune halls and safe areas for relocation during natural disasters, means that they are not able to provide services to accommodate WLWD when those facilities are used as shelters during emergencies. As a result, some WLWD are forced to stay at their house since their basic needs cannot be fulfilled at the relocated shelters.

The lack of representatives of disabled women, who can be role models or hold positions of power, is another example of structural barriers affecting WLWD to cope with climate change. Though the study shows that there are a few representatives for disabled people in the two provinces, they are mostly male and less active in participating the community meetings especially developing the commune development and investment plans. If WLWD are less likely to participate in the decision-making process at the community level and do not have their representatives in those meetings, their critical challenges and concerns will not be raised or addressed.

5 Conclusions and recommendations

5.1 Conclusion

The study showed that the majority of WLWD have limited education and have insecure jobs due to fewer job opportunities for disabled people; therefore, they are mostly poor and vulnerable. Though the study found that some WLWD have to some extent contributed to household income, they are mainly engaged in less physically demanding, low-income-generation activities such as mending and cleaning fishing nets, dishwashing, house cleaning, taking care of livestock, or weeding.

WLWD were reported to be more vulnerable to climatic hazards than any other vulnerable group owing to the fact that the majority of them are physically and mentally disadvantaged and have extremely limited education, economic power, and decision-making power related climate change adaptation. Limited education and inequitable access to necessary information associated with adaptation strategies disaster preparedness and prevention have exacerbated their economic, food and water insecurity, trapping them in debt and poverty.

There is evidence that they have taken some actions to respond to extreme weather and natural disaster. For instance, WLWD tends to prepare some food, water, and wood for seasonal floods; some women reported buying water jars or dig tube wells into reserving some water for household consumption and agricultural work when drought and rising temperature happened. Aiming to increase food and economic security, WLWD reported that their family changed rice and vegetable varieties to drought or flood-resistant varieties; however, that practice is extremely limited among them since they have little knowledge on climate-resilient agricultural practice and financial resources. Migration and taking loans are their primary coping strategy. It can be inferred from the findings that WLWD, and their families, are able to find short-term solutions for adapting to climate change rather than have long term solutions to climate change and disaster impacts on their livelihood and economic security. This is because they have limited information and knowledge related to climate change adaption and financial resources to take those actions.

WLWD in the studied locations have limited power and influence on important household decisions. Decision-making dynamics within the household is particularly men-centric when women have less economic power, useful information and networks, hands-on experience, and support. Moreover, they also concede power to men to make important decisions and lack the confidence to discuss or challenge their husbands in decisions related to livelihoods and household income.

As a result of physical, attitudinal, communication, and social barriers, the findings showed that WLWD are isolated and excluded from voicing their concerns and participating in decision-making processes related to climate change interventions in the community. Due to

the lack of WLWD in leadership/ decision-making roles, which could represent the needs of disabled people at the sub-national level, especially the commune level, the challenges and support needs of WLWD are unlikely to be discussed and effectively addressed.

The study also found that while many national and sub-national NGOs aims to support PLWD, women are primarily indirect beneficiaries of the climate change or DRR projects. The study confirms that both NGOs and local authorities have limited financial resources and knowledge to work with PLWD to ensure their inclusion in the project interventions. Disability issues are regarded as a cross-cutting issue of other key thematic programmes rather than a standalone theme. Though disability inclusion can be either cross-cutting issues or standalone matters, remarkable impacts can be achieved when it is within a single project intervention.

There is evidence that PLWD are prioritised in project interventions of NGOs, and some organisations have also set quotas for PWLDs in their interventions. Unfortunately, data of project beneficiaries by types of disabilities are not properly documented or managed to measure the performance against the set indicators for social inclusion. In contrast, DPOs, who have knowledge and experience working with disabled people, seem to have limited knowledge on climate change and are unlikely to integrate this issue into their interventions.

5.2 Recommendation for programming practice

It is widely recognised that discrimination against disabled people in society is mirrored in climate change, with WLWD more vulnerable to the effects of climate change than any other group. Projects and interventions to address the vulnerability of disabled women to climate change should aim to employ a rights-based and twin-track approach, which is commonly applied to directly empower PLWD and include disability perspectives in development projects.

Mainstreaming disability into climate change adaption interventions: The project should support and strengthen the capacity of local and national DRR and CCA stakeholders, especially local authorities, who are primarily service providers, so that they are able to include the most at-risk groups, in particular WLWD, in their interventions related to prevention, mitigation, preparedness, relief programming, and climate change adaptation. Mainstreaming disability into climate change adaptation may require specialised expertise, the most important aspects of which are the awareness, the understanding among organisations of the laws and rights of disabled people and the recognition of the vulnerability, resilience capacity, and adaptive capacity of WLWD. Mainstreaming efforts have to ensure that WLWD have access to basic needs in all interventions and on an equal basis with other groups in the communities.

Advocacy and fund allocation for disability inclusion: in addition to mainstreaming efforts, the project should disseminate key messages concerning the vulnerability of WLWD to the impact of climate change and enforce evidence-based advocacy to ensure disability inclusion

in the government and NGO's interventions and ensure accessibility standards are applied in the constructions of infrastructure. The advocacy should target government, private sector, public communities, NGOs, and DPOs. Most importantly, the interventions should build the capacity of existing women groups to mobilise resources and to advocate for fund allocation to include disability issues into climate change interventions.

Empower at-risk groups especially WLWD: Identifying and supporting WLWD and their families and representatives (DPOs) to increase their resilience to climate change impacts are critically important to empower them and facilitate their participation in mainstreaming climate change adaptation. Targeting WLWD in the project intervention helps address specific needs of the individual with disabilities in order to empower them and improve their situation, upholding equal rights and opportunities for WLWD.

Training program and communication tools and materials should be adapted and be accessible to WLWD: Initiating training and capacity building programs to include WLWD will help them to be aware of their own rights, improve their self-esteem and confidence, raise their awareness on climate change adaption; support them to negotiate effectively, and empower them to engage in discussions and decisions at household and community level. These initiatives could be enhanced through engaging communication materials to convey key ideas and introduce best practices and key actions to adapt to the impacts of climate change. Communication tools and material should be accessible to WLWD so that they can gain useful information and make informed decisions on their coping strategy. Enabling discussions between disabled and non-disabled people on the benefits of joint decision-making and training people on how to have more equal and supportive communications with disabled people will help to eliminate discrimination against PLWD.

Provide comprehensive interventions: The project should be designed to address the needs and concerns of WLWD in the project activities, most importantly to ensure equitable access to resources, to challenge root causes of discrimination and unequal power relation between non-disabled and disabled people, and to tackle physical, attitudinal, communication, social, structural, and resource barriers. In parallel, some specific adaptations and accessibility measures have to be put in place during the planning, implementation and monitoring of the emergency interventions to secure access to relief and services for persons with disabilities. The project should also leverage disabled women's informal networks to share information related to climate risks, solutions and practices and provide an open forum to discuss these issues.

Increase WLWD's leadership and ensure representation of WLWD at local and national levels: The project should identify potential disabled women who have leadership power in decision making or women networks at community levels, to be role models, who can motivate and inspire other WLWD to share their experience and concerns and encourage participation

in community activities toward mitigating climate change impacts. Moreover, the project should promote peer counsellors by selecting influential community role models to provide counselling and advice to WLWD who are physically and mentally disadvantaged. Moreover, showing cases and amplifying disabled female community role models who have taken actions in response to changes should be promoted in the project intervention. Since WLWD tend to be isolated and excluded in community activities, the project should assist them to build relationships with neighbours and the community so that they are not isolated.

5.3 Communication strategy for inclusive responses to climate change

There are various methods in which communication initiatives can improve the inclusion of disabled women in climate change response and enable them to be better equipped with useful information to deal with the impact of climate change. The communication strategy should apply research insights from the findings to design the communication strategy and framework to guide project design and implementations. The following strategy might be able to address the vulnerability of WLWD to climate change and to ensure social inclusion in the climate change adaption interventions:

- Employing existing communication platforms that WLWD access to engage them in climate-related content. WLWD in the study reported to prefer face-to-face interaction and tend to have trust in their village chief and commune council for information related to natural disasters and extreme weather. The climate-related issues they are most concerned with are rising temperature (including extreme weather), drought, and seasonal storms and floods that have affected their livelihood and economic security. The content of the communication materials should focus on these issues.
- It is critically clear that WLWD could benefit from more information about actions taken to respond to the impacts of climate change they encountered. Communication initiatives that provide concise and relevant information could help them make better actions. The communication tools and materials should therefore be adapted and accessible to WLWD by highlighting key messages related to climatic hazards and impacts and success stories associated with coping strategies to improve live of WLWD.
- Use key influencers/role models in the community, whom WLWD have trust in and can look up to, to raise awareness and disseminate key messages related to climate change adaptation strategies through face-to-face and direct communication with them in small groups. This can help WLWD to feel comfortable and safe to share and learn from other women.
- Creating partnerships with government and NGOs (especially DPOs) to develop high-quality communication materials—visual communication aids in the form of

infographics, printed posters/leaflets and short videos, to inspire discussion among their circles and enable WLWD to learn more about simple, low cost and effective solutions to climate-related issues.

- Disability stereotypes and prejudices are very entrenched and influence many areas of everyday life and decision making of WLWD. Strategic communication strategies might help to overcome this challenge. This might include multimedia initiatives such as radio programs, talk shows, public debate/discussion, and outreach initiatives on shifting this social norm around the ability of WLWD and eliminate discrimination.

Annex



Figure 3: WLWD are participating in Resource and hazard mapping exercise in Pursat



Figure 4: WLWD in Pursat are rating climate hazards in their community.



Figure 5: The local researcher is validating the finding from vulnerability matrix exercise with WLWD in Kampot



Figure 6: The local researcher and local authority are collecting information about WLWD to be assessed against the selection criteria for FGDs.

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