

# The Cambodia Women's Resilience Index

## Hitting harder and hitting home:

The Kingdom of Cambodia is ranked the 19<sup>th</sup> most impacted country among 181 countries between 1998-2017.<sup>1</sup> Estimated loss and damage from climate change was USD1.5 billion in 2015 alone.<sup>2</sup> The impacts of El Niño hit the household level harder, with 13 per cent of households reporting taking additional loans averaging at USD1,282 each.<sup>3</sup> Moreover, it is projected that climate change impacts will continue increasing and could victimise 61% of the rural Cambodian population; in particular, it will impact about 7 million smallholder farmers and 25,000 workers in construction industry.<sup>4</sup>

The Royal Government of Cambodia has acknowledged that the rural poor population, of which a majority are women, are the most affected by climate change impacts. Women in this population have livelihoods that predominantly depend on agriculture and natural resources.

**The Cambodia Women's Resilience Index (WRI) identifies areas that need to be strengthened in both policy and practice, and where women can advocate for positive change to build their individual and community resilience at the local level. It compares women's and men's resilience to disaster risks along four pillars of resilience: Economic, Infrastructure, Social, and Institutional.** This index builds upon the South Asia Women's Resilience Index. It also builds upon ActionAid's Human Rights-Based Approach and Resilience Framework.



**Economic**  
Measure income and access and management of natural resources as a source of income as well as access to loans and market.



**Infrastructure**  
Measure infrastructure and location, access to energy, water and sanitation, input for livelihoods, communications technology, early warning system, and physical structure to protect natural hazards.



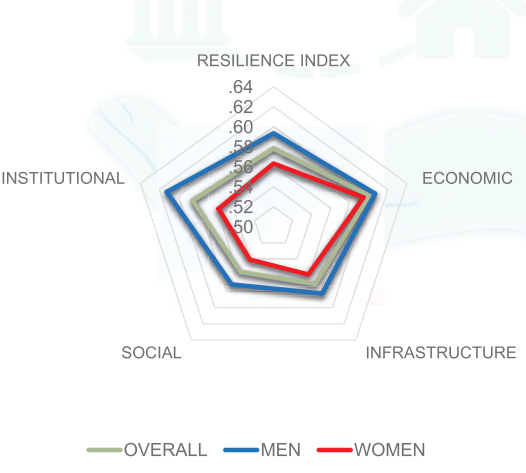
**Social**  
Measure access to education, information, health care, food/nutrition security, social mobility, migration, social safety net, GBV and preparedness.



**Institutional**  
Measure participation in decision-making process, response by public institutions, disaster management plan and actions, and roles of media.

**Methodologies**

- Literature review** (international and local sources)
- Household Survey** (696 households, Confidence level: 96%, Margin error: .04)
- Focus Group Discussion** (15 groups)
- Key Informant Interview** (23 interviews)
- In-depth Interview** (12 interviews)

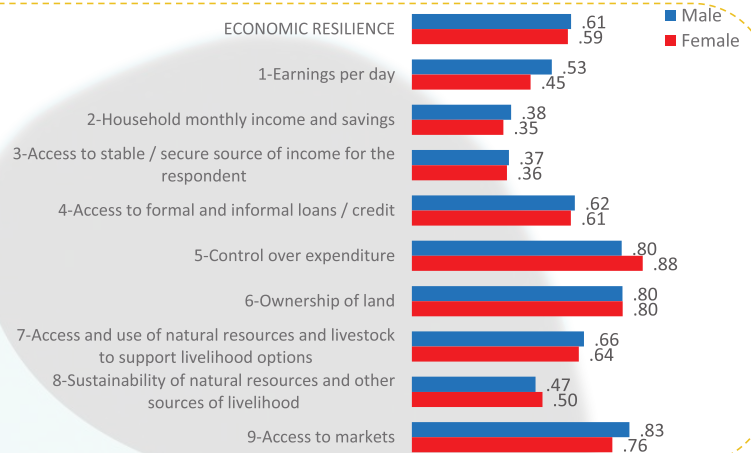


Region	Overall	Economic	Infrastructure	Social	Institutional
Phnom Penh	.56 .56	.59 .60	.58 .62	.58 .54	.49 .48
Coastal	.62 .59	.65 .65	.60 .56	.57 .54	.67 .59
Plain	.60 .57	.62 .60	.60 .56	.57 .54	.60 .57
Tonle Sap	.57 .55	.57 .56	.57 .56	.57 .55	.57 .52
Mountainous	.60 .55	.59 .57	.56 .53	.58 .53	.66 .59

Note: 0.00 = lowest, 1.00 = highest  
 1. Global Climate Change Risk Index, 2019 2. ADB in Khmer Times 3. WFP in Phnom Penh Post 4. ODC, 2016

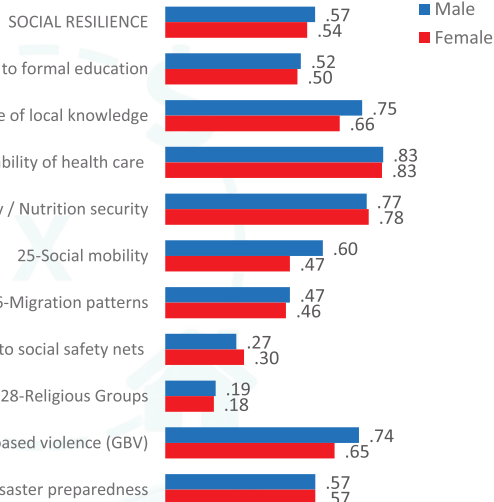
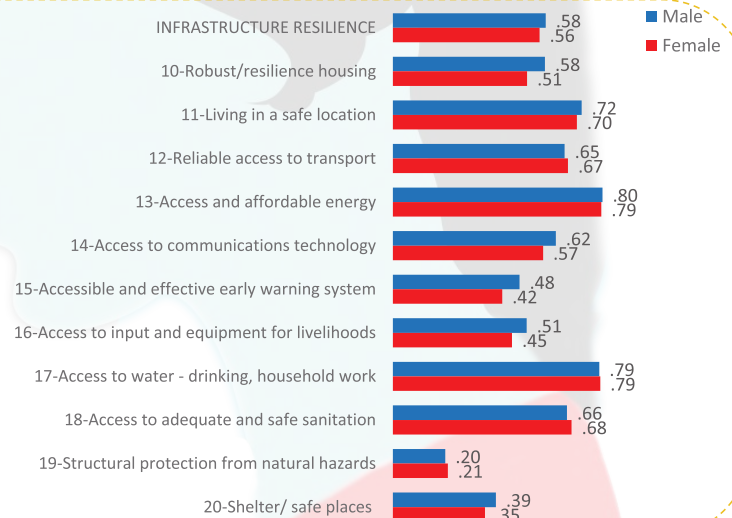
## Economic Resilience

Most Cambodian women stand at the margin of vulnerability. While men have withstanding capacity at 0.61, women's economic resilience is only 0.59. The study found that women have almost equal roles in managing own finance, but their incomes are not stable and sufficient to be resilient. Women's income is 0.08 lower than men. Access to stable sources of income is scored only at 0.35. Access to formal and informal loan is quite accessible (women: 0.61). Even access to market is relatedly high, women have less capacity to access to market compared to men. Constant decrease in access to natural resources as sustainable livelihoods creates greater challenges for rural population and migrant workers to be resilient to disasters, climate change impacts and economic crisis.



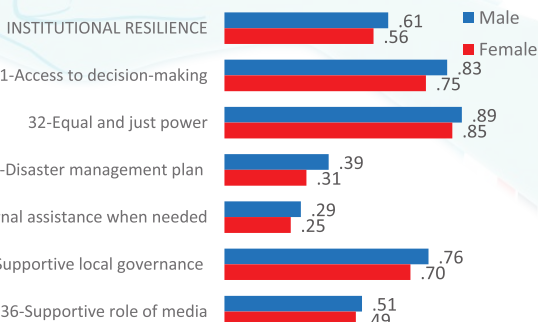
## Infrastructure Resilience

Infrastructure supports resilience of Cambodia women and men at 0.56 and 0.58 respectively. Access to affordable energy for household consumption and adequate and safe water and sanitation are relatively moderate. However, the greatest challenges for Cambodians in building their resilience are lack of structural protection from natural hazards, access to safe areas, access to effective early warning system, access to input and equipment for livelihoods, and access to resilient housing. Access to reliable transport and communications technology were marked low.



## Social Resilience

Cambodian women's social resilience is 0.54; while men is scored 0.57. Access to basic health service is high, equally for men and women. Food and nutrition security is moderate. The index shows men fear less of gender-based violence compare to women whom reported they fear and/or have seen an increase in GBV during and post-disaster. Gender-based violence is scored 0.65 for women, 0.74 for men. Access to formal and informal education, migration, and preparedness are low. Access to social safety/protection and supportive religious group are among the focuses to take action to improve resilience of Cambodian population.



## Institutional Resilience

The Institution index is 0.56 for women, and 0.61 for men. Women have less participation and decision making compared to men. This score is drawn from indicators on access to decision making, equal and just power, knowledge on disaster management plan and access to humanitarian assistance, supportive governance and supportive roles of media. The access to external assistance during and post disaster is very low. Disaster management plans are not mostly known by local people. The supportive roles of media in disaster management and climate change adaptation are also limited.



### Economic

- 29% Daily income less than \$1.90
- 68% Manage own finance
- 60% Manage family finance
- 74% Own current property

### Infrastructure

- 87% Access to phone
- 53% Access to the Internet
- 35% Access to radio
- 74% Access to TV
- 42% Have no access to early warning information
- 72% Do not know safe places

### Social

- 12% Not able to access to school
- 76% Can read and write
- 88% Access to local news
- 27% Access to health insurance
- 56% Seek permission before leaving the village
- 36% Need an accompany when leaving the village
- 28% Feel unsafe when traveling out of the village
- 17% Fear the chance of rape or sexual harassment
- 22% Report gender-based violence increase during/after disaster

### Institutional

- 67% Make decision in community
- 71% Equal leadership opportunity as household member
- 59% Not aware of DM mechanism
- 67% Not aware of DM plans at provincial level
- 57% Not aware of DM plans at commune/Sangkat level



- 43% Household income less than \$220/month
- 83% No stable income for more than 6 months
- 77% Difficult in accessing natural resources needed
- 72% Report the quantity of natural resources for livelihood is decreasing
- 56% Report the quality of natural resources for livelihood is decreasing

- 85% 40% Feel their house is unsafe
- 47% 29% Feel their house is not in safe location
- 26% 41% Feel they are vulnerable to disasters
- 70% 7% Report their house is in illegal area
- 49% 20% Cannot travel out of the village throughout the year
- 77% 16% Have no safe water for household uses
- 14% Travel more than 500m to collect water
- 17% No access to toilet
- 14% Travel more than 500m to collect water
- 70% Report no structural protection from natural hazards

- 25% 18% Report children were taught about disaster at school
- 59% 45% Use traditional/local knowledge for disaster preparedness
- 75% 15% No access to sufficient food throughout the year
- 22% 81% Access to balance diets (3 categories of food)
- 63% 29% Family member has to migrate to work
- 62% 21% Religious group supports during disaster
- 31% 54% Report GBV is still a problem in their village
- 59% 13% Access to social safety net programme

- 54% 30% Access to external assistance during disaster
- 57% 95% Have voted with their own choice
- 67% 31% Feel media provide adequate information about disaster
- 75% 38% Feel media can help advocating their needs
- 65% 81% Not experience being asked to pay more to civil servants



## Recommendations

The Cambodia WRI draws the following recommendations for support building local resilience of women and men in Cambodia:

### 1. Invest in building resilience at local level:

All stakeholders, particularly the Government, should allocate resources in building resilient community and sustainable economy of vulnerable farmers and fisherfolk. Building self-reliant economy requires investing in protection, conservation and regeneration of natural resource including productive land, fishery and forestry to optimize the sustainable food security and income generation from those resources. Green development must be prioritised on top of mass development projects. Such investments can improve sustainable livelihoods and climate change adaptation and mitigation simultaneously.

### 2. Invest in building institutional knowledge:

- Build capacity of government disaster management and climate change adaptation structures to improve the development and implementation of disaster management plan, humanitarian assistance, public services delivery in sustainable agriculture and natural resources management, including scientific and technological knowledge at local and sub-national level.
- In partnership with CSOs, enhance knowledge and resilience capacity of the most marginalised groups at grassroots level.

### 3. Invest in institutional transformation:

- Ensure equality between men and women in disaster management and climate change adaptation mechanism, as well as women's meaningful participation and leadership in those actions. For example, determine woman's quota in the disaster management committees.

- Development partners and government should prioritise developing and resourcing disaster management plans and Sectoral Climate Change Strategic Plans implementation at commune and sub-national levels.
- CSO should focus their limited resources in building women leaders at local and sub-national levels and facilitate their engagement to influence planning process and resources allocation at local to national levels.

### 4. Enhance institutional governance:

- Provide spaces for women to engage meaningfully in planning, resource allocation and policymaking starting from commune/Sangkat development planning process.
- Government should invest in building disaster management and climate change infrastructure at the local level. This infrastructure uplifts capacity of local stakeholders in preparedness, response, recovery as well as adaptation.
- The existing Early Warning System should be scaled up (expand its coverage) and scaled out (cover multiple hazards) and must be ensured that most vulnerable groups are reached.
- Development partners and government must realise their efforts in building resilience from human rights angle instead of humanitarian assistance. This could be done through considering consciousness raising, empowering women and men to advocate, and government officials to be more accountable and responsive in supporting women and men to access basic services including sustainable agriculture, natural resources management, social protection, and climate change adaptation.

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Please contact us for more information or data about the Cambodia Women's Resilience Index

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## Annex 1 – Survey Questionnaire

### Introduction

My name is.....I am a data collector for ActionAid Cambodia, an organization based Phnom Penh. We are conducting a study on the way people's experiences of disasters in ..... [Insert district in Cambodia]. The purpose of this study is to understand the factors that help people in this community to protect themselves from the impacts of natural hazards. All of your personal information will be kept as confidential. If you have any questions concerning to this interview, you can ask me now or contact the research manager through phone number: 086339967.

Questionnaire No.	
Date of interview (dd/mm/yy)	
Time of interview:	
Province/city	
District//Krong/Khan	
Commune/Sangkat	
Village:	
Interviewer's name and ID:	
Supervisor's name and ID:	

### CATEGORY - GENERAL

	Question	Response options/codes
1	Sex of respondent	<input type="checkbox"/> Female=0 <input type="checkbox"/> Male=1
2	How old are you? [The respondent must be 18 or over]	Number _____ Years
3	What is your current marital status?  (Single / Married/ Divorced-separated/ Widow)	<input type="checkbox"/> Single = 0 <input type="checkbox"/> Married = 1 <input type="checkbox"/> Divorced = 2 <input type="checkbox"/> Widow = 3 <input type="checkbox"/> Separated =4
4	How long have you lived in the village? (if less than 1 year, record "0 year")	Number _____ Years
5	How many people live in your household? [A household is one or more people who live in the same dwelling and also share meals from same kitchen ].	Number _____
6	What is your relationship to the head of household in the	<input type="checkbox"/> Head of household = 01, <input type="checkbox"/> Spouse = 02,

	family (i.e. Wife, husband, son, daughter, grandparent etc.)	<input type="checkbox"/> Son = 03, <input type="checkbox"/> Daughter = 04, <input type="checkbox"/> Mother or father=05 <input type="checkbox"/> Grandparent= 06, <input type="checkbox"/> Uncle/Aunt =07, <input type="checkbox"/> Nephew = 08, <input type="checkbox"/> Niece = 09, <input type="checkbox"/> Others = 10
7	What is your main occupation?	<input type="checkbox"/> Jobless=01 <input type="checkbox"/> Farmer (own land) = 02 <input type="checkbox"/> Sharecropper farmer=03 <input type="checkbox"/> Farmer (own land & sharecropper) =04 <input type="checkbox"/> Housewife= 05 <input type="checkbox"/> livestock rearing=06 <input type="checkbox"/> Day labour (in agricultural sector) = 07 <input type="checkbox"/> Day labour (non-agriculture sectors) = 08 <input type="checkbox"/> Fisherman= 09 <input type="checkbox"/> Housekeeper=10 <input type="checkbox"/> Skilled labour (Blacksmith, fuller, shoemaker, weaver, carpenter, mason) =11 <input type="checkbox"/> Businessman (small size) =12 <input type="checkbox"/> Businessman (large and medium- size)=13 <input type="checkbox"/> Tailor=14 <input type="checkbox"/> Tuk Tuk driver/Motor taxi/boatman=15 <input type="checkbox"/> Bus/ Auto driver /helper=16 <input type="checkbox"/> School teacher=17 <input type="checkbox"/> Student=18 <input type="checkbox"/> Dependent person (age 65+ years) =19 <input type="checkbox"/> Beggar=20 <input type="checkbox"/> Forest dependable people=21 <input type="checkbox"/> Service = 22 <input type="checkbox"/> Others( please specify )= x
8	What is your household's main source of income?	<input type="checkbox"/> Farmer (own land)= 01 <input type="checkbox"/> Sharecropper Farmer=02 <input type="checkbox"/> Farmer ( own land & sharecropper) =03 <input type="checkbox"/> Day labour(in agricultural sector)=04 <input type="checkbox"/> Day labour(others sectors)= 05 <input type="checkbox"/> Livestock rearing=06 <input type="checkbox"/> Fisherman= 07 <input type="checkbox"/> Businessman (small size)=08 <input type="checkbox"/> Businessman (large and medium size)=09 <input type="checkbox"/> Service=10 <input type="checkbox"/> Skilled labour(Blacksmith, fuller, shoemaker, weaver, carpenter, mason)=11 <input type="checkbox"/> Housekeeper=12 <input type="checkbox"/> Tailor=13 <input type="checkbox"/> Tuk Tuk driver/Motor taxi /boatman=14 <input type="checkbox"/> Bus/ Auto driver /helper=15 <input type="checkbox"/> School teacher=16 <input type="checkbox"/> Beggar=17 <input type="checkbox"/> Forest dependable people=18 <input type="checkbox"/> Remittance = 19 <input type="checkbox"/> Others( please specify )=x
9	What are the main materials your house is made of?	<input type="checkbox"/> Concrete made=1, <input type="checkbox"/> Semi-concrete=2, <input type="checkbox"/> Tin/CGI made=3 <input type="checkbox"/> Hut=4 <input type="checkbox"/> Wood=5

	Indicator	Definitions	Question	Coding
<b>ECONOMIC</b>				
1	<b>Earnings per day</b>	<i>Amount of money earned by an individual on average per day (e.g. selling vegetables, dairy, handicrafts)</i>	10. Do you earn some cash on average per day?	Yes = 1 No = 0
			11. How much do you earn on average per day?	Below 1.90 USD=0 Between 1.9 – 4.2 USD =1 Above 4.2 USD = 2
			12. What is your average household income per month?	Below 220 USD = 0 Between 220USD-487USD = 1 Above 487 USD = 2  Don't know =99 (Before choosing this code, please triply probe respondents about their average household's income and show the answer choice 0-2)
			13. Are your family able to save money during a month?	Yes every month = 2 Sometimes = 1 Never = 0
3	<b>Access to stable / secure source of income for the respondent</b>	<i>Looking at the stability and diversity of livelihood options</i>	14. How many sources of income does your household have?	Write the number down for the number of sources they provide
			15. Does your personal income remain stable throughout the year?	Yes = 2 Stable for at least 6 months = 1 No/unstable for more than 6 months = 0
4	<b>Access to formal and informal loans / credit</b>	<i>Access: Right and ability to use the loan / credit</i>	16. Do you think you will be able to access a loan if you need one?	Yes = 1 No = 0
			17. Who have you taken these loans from? / From whom can you take these loans?	Not applicable=0 From a private institution and person with high interest =0, From multiple sources = 1 Banks/Micro Finance/Credit Agent=2, Self-help group or relatives=3 For now, I managed to not have to take a loan = 4

			18. Are you able to repay your loans on time?	Yes = 1 No = 0  Not applicable = 1
			19. Are you able to access a credit/grant from the government if you want to?	Yes = 1 No = 0 / don't know = 0
5	<b>Control over expenditure</b>	<i>To measure how much say the respondent has in terms of spending his/her income and the household income</i>	20. Do you decide how your personal income is spent?	Yes, I have final say or I have equal say= 2  Yes, I have partial say = 1  No = 0
			21. Do you decide how the household income is spent?	Yes, I have final say or I have equal say= 2  Yes, I have partial say = 1  No = 0
6	<b>Ownership of land</b>	<i>To measure respondent's access and control over land</i>	22. Do you own the land/house you live on?	Yes = 1 No = 0
			23. Do you have to pay to use the land/house you use?	Yes = 0 No = 1
7	<b>Access and use of natural resources and livestock to support livelihood options</b>	<i>To measure respondent's access and use of any natural resources that they need (including land, forest, water, livestock and biodiversity) to support their livelihoods</i>	24. Do you have difficulties to access natural resources needed for your livelihoods?	Yes = 0 No = 1
			25. Do you have to pay to access land, forests or water bodies needed to sustain your livelihood?	Yes = 0 No = 1
			26. Do you have any livestock?	Yes = 1 No = 0
8	<b>Sustainability of natural resources and other sources of livelihood</b>	<i>To measure the sustainability / long-term viability of the natural resources in terms of quality and quantity (including land, forest, water and biodiversity) and livestock used to sustain livelihood options</i>	27. Is the quality of the natural resources you need for your livelihood changing for the better or the worse? (E.g. is the water more polluted? Is the land less productive?)	Changing for the better = 2  Same=1  For the worse = 0
		<i>Competition over natural resources means that community members are</i>	28. Is the quantity of the natural resources you need for your livelihood changing for the better or the worse? (E.g. does the amount of water decreasing? Does the	Changing for the better = 2  Same=1  For the worse = 0



		<i>competing among themselves or with outsiders to access natural resources (e.g. high demand for limited resources)</i>	number of livestock decrease)	
			29. Is there competition over natural resources that affect your livelihood?	Yes = 0 No = 1
			30. Do you experience increased risk as a result of development or management project (land/water/forest) management carried out elsewhere?	Yes = 0 No = 1
9	<b>Access to markets</b>	<i>Right and ability to get to a market both for selling and buying goods and services</i>	31. Do you have access to one or several markets?	Yes, to several = 2 Yes, to one = 1 No = 0
			32. Can you decide where to sell your products?	Yes = 1 No = 0
			33. Can you decide where you buy your products?	Yes = 1 No = 0
			34. Is your access to the market disrupted when there is a disaster?	Yes = 0 No = 1
<b>INFRASTRUCTURE</b>				
10	<b>Robust/resilience housing</b>	<i>To measure how well the respondent thinks his/her house has been made, including whether it will be able to withstand and recover quickly from an event</i>	35. Do you feel your house is safe?	Yes = 1 No = 0
		<i>By hazard or event, we mean both slow onset events (droughts) and rapid events (floods, earthquake, etc.)</i>	36. Are there any building codes in place and are these enforced?	Yes and they are enforced = 3 Yes (but doesn't if they are enforced) = 2 No = 1 Don't know = 0
11	<b>Living in a safe location</b>	<i>To measure whether the respondent thinks his/her house is located in an area which is not at risk of hazards or in danger</i>	37. Do you feel your house is located in a safe area?	Yes = 1 No = 0
			38. Has your house become prone to disasters?	Yes = 0 No = 1

			39. Is your house located in an illegal area?	Yes = 0 No = 1
			40. Are there land use regulations in place here?	Yes and they are enforced = 3 Yes (but doesn't if they are enforced) = 2 No = 1 Don't know = 0
12	<b>Reliable access to transport</b>	<i>To measure the respondents ability to get from one place to another, on a route which is trusted and has been maintained to a good standard</i>	41. If you need to leave your village by road or water, are you able to throughout the year?	Yes = 1 No = 0
			42. Do you feel safe using these routes?	Yes = 1 No = 0
			43. What are the conditions of the roads like?	Good = 2 Depends on the weather = 1 Bad = 0
13	<b>Access and affordable energy</b>	<i>To measure respondent's access to different sources of energy and their ability to access these safely throughout the year</i>	44. Do you have access to electricity?	Yes = 1 No = 0
			45. How many sources of energy do you have? (example: Electricity, Solar power, Firewood, cow dung, fossil fuel, LPG)	Write number down for the number of sources mentioned
			46. Can you cover these costs throughout the year?	Yes = 1 No = 0
			47. Does your energy source pose any health risks/issues (respiratory problems, burning yourself, dodgy connection)?	Yes = 0 Sometimes = 1 No = 2
			48. Do you have access to energy (you needed) throughout the year?	Yes = 1 No = 0
14	<b>Access to communications technology</b>	<i>The ability to access the Internet, wireless networks, mobile phones, and other means of communication technology</i>	49. Do you have access to a phone you can use?	Yes = 1 No = 0
			50. Do you have access to internet?	Yes = 1 No = 0
			51. Do you have access to a radio?	Yes = 1 No = 0
			52. Do you have access to a TV?	Yes = 1 No = 0

15	<b>Accessible and effective early warning system</b>	<i>To measure whether the respondent receives an early warning on time that they can understand and trust</i>	53. Please think about the last weather event/hazard that affected your household. Did you know about it in advance?	Yes, I received the warning and understood it = 2  Yes, I received it but I didn't understand it = 1  No, I did not receive it or know in advance = 0
			54. Do you trust these warnings and act when you receive them?	Yes = 1 No = 0
16	<b>Access to input and equipment for livelihoods</b>	<i>To assess the different inputs (such as fertilizer, pesticides and seeds) and equipment (or machinery such as a tractor) to support the respondents' livelihood</i>	55. Do you have access inputs, equipment (machinery) that you need to support your livelihood?	Yes = 1 No = 0
			56. Are these inputs and technology environmentally friendly?	Yes = 1 No = 0
17	<b>Access to water - drinking, household work</b>	<i>To assess the access and use of water for drinking, washing and household work</i>  (Safe drinking water is boiled water, filtered water, fresh water, bore holes water, tap (only in Phnom Penh))	57. Do you have access to safe water for drinking?	Yes = 1 No = 0
			58. Is it available throughout the year?	Yes = 1 No = 0
			59. Do you have access to clean water for cooking and household work?	Yes = 1 No = 0
			60. Do you have to walk further than 500 metres to get water?	Yes = 0 No = 1
			61. Do you fetch water for your household?	Yes = 0 No = 1
18	<b>Access to adequate and safe sanitation</b>	<i>To measure a person's ability to use sanitation which is satisfactory in terms of quality, accessibility and safety</i>	62. Does your house have a sanitary toilet?	Yes = 1 No = 0
			63. Do you have a toilet you feel safe using?	Yes = 1 No = 0
			64. Do you defecate outside?	Yes = 0 No = 1
			65. Do you have a functional sewage system in the village?	Yes = 1 No = 0
19	<b>Structural protection from natural hazards</b>	<i>Structural adaptation measures - such as an embankment, flood barriers, sea walls etc. -</i>	66. Are there any structural measures (i.e. embankment, flood barriers etc.) in place to	Yes = 1 No = 0

		<i>that are in place to protect a person from natural hazards, and the condition within which these are in</i>	protect you from natural hazards?	
			67. Are they in good condition?	Yes = 1 No = 0
			68. Do you think they are adequate?	Yes = 1 No = 0
20	<b>Shelter/ safe places</b>	<i>To measure the respondents knowledge of a safe place that they can go to before, during or after an emergency, and the condition within which this is in in terms of accessibility, safety etc.</i>	69. Do you know if a shelter/safe place exists for people to seek refuge in before, during or after an emergency?  [If answer = 0 please code 0 for questions 70, 71]	Yes = 1 No = 0  I don't know = 0
			70. Is this shelter/safe place accessible? (distance, disability, women friendly, child friendly spaces, older people)	Yes = 1 No = 0  I don't know = 0
			71. Do you feel safe staying in the shelter/safe place?	Yes = 1 No = 0  I don't know = 0
			72. If you get an early warning would you go to the shelter?	Yes = 1 No = 0

### SOCIAL

21	<b>Access to formal education</b>	<i>To assess what level people are achieving within predominantly formal education and if there is equal attendance for boys and girls</i>	73. Do/ did you go to school and if yes, which level did you complete?	Did not go to school = 0 Kindergarten= 1 Level 01-06 = 2 Level 07- 9 = 3 Level 10 – 12 =4 Graduation = 5 Post-graduation = 6
			74. Have you received any informal education (e.g. literacy class, religious teaching, reflect centre)?	Yes = 1 No = 0
			75. Do you have a primary school that is accessible in your area/village?	Yes = 1 No = 0



			76. Do you have a secondary school that is accessible in your area?	Yes = 1 No = 0
			77. Do you know if children learn about disasters at school?	Yes, they do = 1 No / I don't know = 0
22	<b>Access to information and use of local knowledge</b>	<i>To assess what kind of information people are receiving, how they are receiving it, and the use of local or traditional knowledge (knowledge which has been developed and continues to develop over time based on experience, the local culture, context and environment)</i>	78. Can you read and write?	Yes = 1 No = 0
			79. Do you read/watch/listen to local news?	Yes = 1 No = 0
			80. Do you receive general information from a formal source (from the government)? (e.g. prices of crops, government schemes, announcements, news)	Yes = 1 No = 0
			81. Do you receive general information from an informal source (others like relatives, neighbours)?	Yes = 1 No = 0
			82. Do you rely on traditional or local knowledge for preparing, coping with and responding to a disaster?	Yes = 1 No = 0
23	<b>Access and affordability of health care</b>	<i>To assess what kind of health care people are able to access; whether it is affordable, i.e. if households can pay for it with their own incomes/savings; and whether or not health care is adequate to meet their needs i.e. to recover from illness and injuries.</i>	83. What kind of healthcare can you access in your area?	Multiple sources including traditional healthcare and more formal health care= 3  Government /Basic Health Unit = 2  Private (non-government) / Paramedical staff = 1  Traditional only = 1  Could not access to any healthcare at all= 0
			84. Are you satisfied with the health services that are provided to you? [If 83=0, please code 0 in 84]	Yes = 1 No = 0
			85. Are you/or your family members able to receive skilled birth attendance in your area?	Yes = 1 No = 0

			86. Are you /or your family members able to receive reproductive health, Antenatal Care (ANC), Post Natal Care (PNC) and other health care services as appropriate?	Yes = 1 No = 0
			87. If you need to go to hospital can you get there by your own means (e.g. cash, vehicles)?	Yes = 1 No = 0
			88. Do you need to use a middle man to access healthcare?	Yes =0 No=1
			89. Do you have health insurance/equity fund/NSSF/ID Poor and private insurance?	Yes = 1 No = 0
24	<b>Food security / Nutrition security</b>	<i>Measuring the respondent's access to sufficient /reliable quantity and nutritious food.</i>	90. Is there enough food in the household to feed everyone adequately throughout the year?	Yes = 1 No = 0
			91. Do you think your diet is balanced (during a week do you eat grain, vegetables/fruits, meat/fish/egg) 4 categories?	Yes, I eat all 3 categories = 2  Yes, I eat 2categories = 1  No, I eat 1 categories = 0
			92. Has your diet improved over the last 5 years?	Yes/improved = 2  Same = 1  No/decreased = 0
25	<b>Social mobility</b>	<i>To measure the respondent's freedom and ability to move around</i>	93. Do you need to ask permission from a household member in order to go outside of the village both day and night?	Yes = 0 No = 1
			94. Do you have to be accompanied when you leave the house when you go outside the village both day and night?	Yes = 0 No = 1
			95. Do you feel safe to go outside of the village whenever you want?	Yes = 1 No = 0

26	<b>Migration patterns</b>	<i>To measure the movement of people within a household from one place to another with the intention of settling temporarily or permanently in the new location, and the implications of this on the rest of the household</i>	96. Do you or does someone in your house have to go out of the district/province/outside the country for work?	Yes = 0 No = 1
			97. Does migration help you and your family have a better income?	Yes = 1 No = 0 Not applicable = 0
			98. Do you feel safe in the household, when this person migrates?	Yes = 1 No = 0 Not applicable = 0
			99. Do emergencies force members of your household to migrate?	Yes = 0 No = 1
27	<b>Access to social safety nets</b>	<i>To measure a person's access to programmes/community groups that aim to support them, and help prevent them from becoming more vulnerable to shocks</i>  <i>Safety net programmes include Food for Work, Cash for work, 100 days work and other special allowances ID poor, SHG account, Saving Groups, Revolving Fund, Rice/Cow bank etc)</i>	100. Are you aware of social safety net programmes that exist in your area and are you a part of any of these programmes?	Yes and I am part of a safety net programme = 2 Yes they exist, but I am not currently a member = 1 No they do not exist = 0 Do not know = 0
			101. Is anyone else in your family a member of a social safety net programme?	Yes = 1 No = 0 Don't know = 0
28	<b>Religious Groups</b>	<i>To assess whether religious groups play a supportive or unsupportive role</i>	102. Do you find religious groups to be supportive of your daily needs?	Yes = 1 No = 0
			103. Do religious groups support you before, during and after a disaster?	Yes = 1 No = 0
29	<b>Prevalence of gender based violence (GBV)</b>	<i>To assess if violence exists on the basis of gender, this could include physical, sexual, economic and psychological abuse. Such acts could include (but are not limited to) domestic violence, sexual violence, rape, forced marriage including child marriage</i>	104. Is domestic violence a problem in your village?	Yes = 0 No = 1
			105. Is child marriage practiced in this community/village?	Yes = 0 No = 1
			106. Do you fear the chance of rape or sexual harassment in your village?	Yes = 0 No = 1

		<i>and female genital mutilation</i>	107. Does gender based violence increase during and after a disaster? (for instance sexual abuse, rape, sexual harassment, verbal or emotional abuse)	Yes = 0 No = 1
			108. Would you report cases of gender based violence to the police/village leaders/authority/CWCC?	Yes = 1 No = 0
30	<b>Personal disaster preparedness</b>	<i>To measure if the respondent feels prepared and knows in advance what to do if there is a disaster, including whether they feel that they part of the disaster preparedness planning process</i>	109. If a disaster occurs, how likely is it that your household would be well prepared in advance?	Extremely likely =3 Very likely =2 Not very likely = 1 Not at all = 0
			110. Do you know what to do during a disaster and did you receive training?	Yes, and received training = 2 Yes = 1 No = 0
			111. If a disaster occurs, how likely is it that your household could change its source of income and/or livelihood, if needed?	Extremely likely =3 Very likely =2 Not very likely = 1 Not at all = 0
			112. If a disaster occurs, how likely is it that your household could recover fully within 6 months?	Extremely likely =3 Very likely =2 Not very likely = 1 Not at all = 0
<b>INSTITUTIONAL</b>				
31	<b>Access to decision-making</b>	<i>To assess if there is equal participation of men and</i>	113. Do you take part in decisions in your household?	Yes = 1 No = 0



		<i>women in the decision-making process</i>	114. Do you take part in decisions in your community?	Yes = 1 No = 0
32	<b>Equal and just power</b>	<i>To assess if there is equal access (i.e. ability and right to use) between men and women to resources, training (which could be formal or informal means of enhancing skills and/or knowledge), information (both formal and informal) and leadership opportunities (opportunities to be community leaders, commune councils, disaster management committee). 'Some access' means that respondent may use resources in theory but in reality they have lesser abilities or rights to use resources and control them.</i>	115. Do you have the same access to financial resources as your husband/wife/other family members?	Yes, equal access = 2 I have some access = 1 No = 0
			116. Do you have the same access to training as your husband/wife/other family members?	Yes, equal access = 2 I have some access = 1 No = 0
			117. Do you have the same access to information as your husband/wife/other family members?	Yes, equal access = 2 I have some access = 1 No = 0
			118. Do you have the same access to leadership opportunities as your husband/wife/other family members?	Yes, equal access = 2 I have some access = 1 No = 0
33	<b>Disaster management plan</b>	<i>To assess whether the respondent is aware of a disaster management committee or plan, whether this is operational and what this means for their preparedness</i>	119. Do you know if there is a Village Disaster Management Group (VDMG) /Commune Committee for Disaster Management (CCDM)?	Yes = 1 No / don't know = 0
			120. Do you know if there is Contingency Preparedness Plan at provincial level?	Yes = 1 No / don't know = 0
			121. Is there a disaster management plan at the commune level?	Yes = 1 No / don't know = 0
34	<b>External assistance when needed</b>	<i>To assess if the respondent receives money, goods, services and/or relief to support them in disaster risk reduction or response activities from an external actor</i>	122. Do you have access to external assistance following a disaster when needed?	Yes = 1 No = 0
			123. Who provides this external assistance?	Multiple sources = 4 Governmental support = 3 NGO = 2 Others = 1 I don't receive the support I need = 0

35	<b>Supportive local governance</b>	<i>Looking at the government structures and services that are in place to support the respondent in terms of their needs, interests, rights and security</i>	124. Are you allowed to vote according to your own choice?	Yes = 1 No = 0
			125. Do you understand what the role of the commune councils are?	Yes = 1 No/ Don't know = 0
			126. Do you feel listened to by the commune councils?	Yes = 1 No = 0
			127. Have you ever had to pay an official representative (including civil servants) for them to support you?	Yes = 0 No = 1
36	<b>Supportive role of media</b>	<i>To assess the role that journalists play in supporting people's needs, interests and rights by influencing or reaching out to others through radio, television and/or newspapers</i>	128. Do you feel journalists can help advocate for your needs?	Yes = 2 No = 1 Don't know = 0
			129. Do you feel that the media report your needs enough?	Yes = 2 No = 1 Don't know = 0
			130. Do you have any of following conditions?	ID poor =1 Disabilities = 2 LGBT = 3 Indigenous People = 4 HIV/AIDS =5 Not at all = 0 Can not ask due to presence of other people = 99

## I. Appendix. Key Questions for Qualitative Data Collection

### Discussion Guide for FGD

#### **General Questions**

1. Within the last 5 years, have you or your family suffered from any disaster? What are they?
2. What do you think is needed to make you (women, men, boys and girls, marginalised people - people with disabilities/HIV/AIDS/LGBT) more resilient to disaster or adapt to climate change? What are the key challenges to become resilient?

#### **Economic**

3. Do you access to natural resource (water resource, land and fishery and non-timber products...etc)? Does competition (e.g. conflicts/exploitations) exist over access to those natural resources?
4. What do disasters affect to your livelihood or income?

#### **Infrastructure**

5. If you need to leave your village by road or water, are you able to throughout the year, and what type of transport do you use?
6. How do you find out if there is going to be a disaster? How do you rely on those sources?
7. Do you feel your house is safe from natural hazards (for example, would it stand if a hazard strike? If not, what could you do to change it?

#### **Social**

8. What is the general attitude towards women in the community and is this changing (both positive and negative)?
9. Do women and marginalized people (disable people, people living with HIV/AIDs ....) have equal access to resources and decision making? Why or why not?
10. Do women and men suffer from violence in this community? Please list down.
11. Does gender-based violence increase during and after a disaster? (probe – which type of violence)
12. Do you fear of the violence when going out at noon or night alone?

#### **Political**

13. So far, what did local government have done in your area? Do you find their activities to be adequate to address your needs? How much do you trust the local government (village and commune level)?
14. Do government, development agencies and private sectors response to women needs in general or emergency? What type of response materials? Please list down.

#### **Environment**

15. What is the environmental condition in the areas? Is it helping you or not to be more resilient?

## **KII Guiding Questions**

### **A3.1. Questions linked to environment and risks:**

1. What are the major environmental concerns in the area you live in?
2. What changes have you seen in terms of the use of natural resources? Urban: what about waste management, waters and air?
3. Is there any competition over natural resources?
4. How have local communities responded to recent disasters?
5. What changes have you seen in the community in response to recent disasters (in the last 10 years)?
6. Do you feel that communities are learning and changing to better prepare/cope with disasters?
7. How do you find out if there is going to be a disaster? If you receive an early warning, who do you receive the warning from?
8. Do you think the local government is prepared in case a disaster strike?
9. Do you know if children learn about disaster preparedness at school?

### **A3.2. Questions linked to economic resources:**

1. Is it challenging for people in this area to access a stable income throughout the year? Why?
2. Why and when do people take a loan?
3. In general, do women and men have equal access to financial resources?

### **A3.3. Questions related to differences between women and men:**

1. What do you think is needed to make women and men more resilient to disaster risks?
2. In general, do you think that women and men have equal status in this area?
3. What is the general attitude towards women in your community?
4. Do you think this has changed since you were young?
5. Do you find that women and men have equal access to resources (e.g. financial resources, employment opportunities, decision making, ownership of assets like land or house)?
6. Do women or men suffer from violence in this area (e.g. domestic violence, sexual violence, physical violence, emotional/verbal abuse)?
7. Do you know/do you find that violence increases during and after a disaster event?

### **A3.4. Specific questions for government representatives and members of disaster committees, Cambodian Red Cross:**

1. What services do you provide to people? What resource (budget) allocated for disaster management? Is there any challenge?
2. How do you assess disaster risks?
3. What are the priorities for addressing natural hazards, in order to prevent them from becoming a disaster?
4. Do you feel that there is a cycle of learning and changing which takes place among local communities?
5. Do you feel that there is a cycle of learning and changing which takes place in terms of government practice?
6. Do religious groups and leaders have a role to play in terms of disaster preparedness and recovery? If so, how do they enhance people's capacities?

### **A3.4. Specific questions for local NGOs:**

1. What intervention have you done to support local people? Is there any challenge?
2. How do you assess disaster risks?
3. What are the priorities for addressing natural hazards, in order to prevent them from becoming a disaster?
4. Do you feel that there is a cycle of learning and changing which takes place among local communities?



5. Do you feel that there is a cycle of learning and changing which takes place in terms of government practice?

### **In-depth Interview Guiding Questions**

1. How is your daily life? Is your household/community support you? government or NGOs?
2. Do you have access to market, education, health, natural resource? Is there any mechanism (infrastructure, social safety net etc) making you become comfortable?
3. Do you feel excluded or faced some challenges because of your condition?
4. Within the last 5 year, did any disaster impact you so far? What are they? How did you cope with them?
5. What intervention would you think make your everyday lives more inclusive/better/easier?