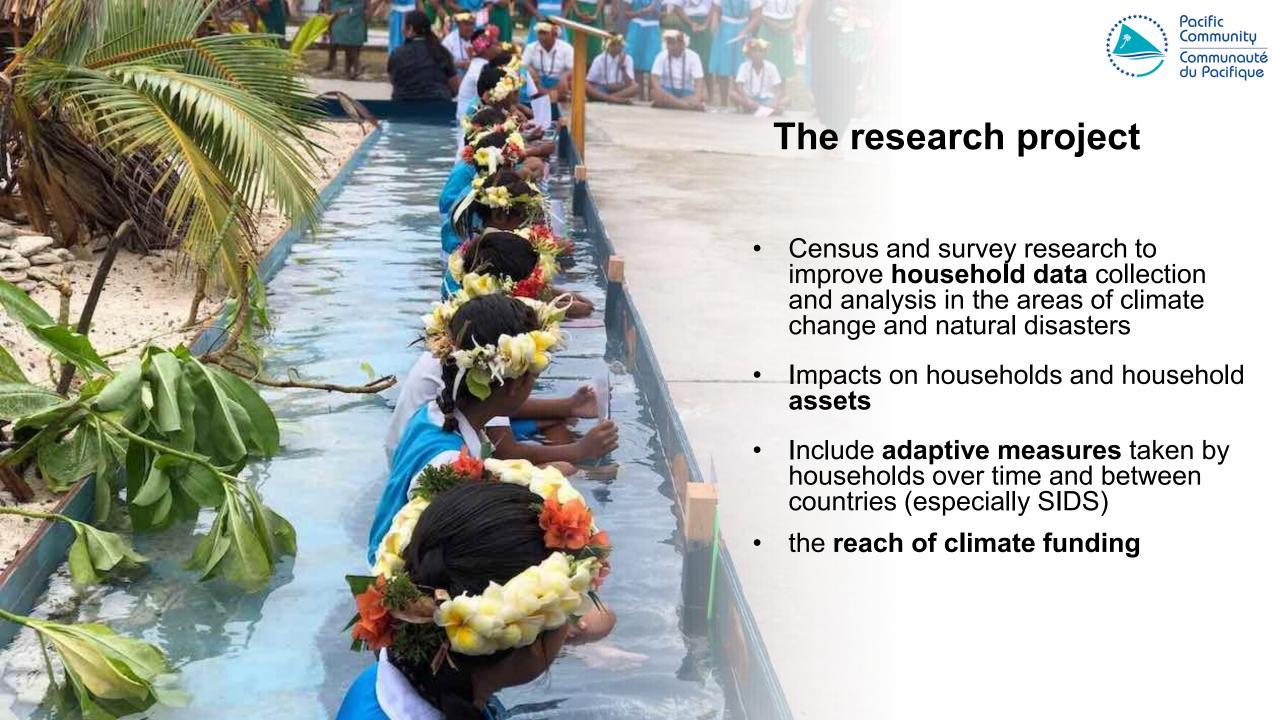# Advancing Climate Change Monitoring in Pacific Island Countries and Territories through Household Surveys

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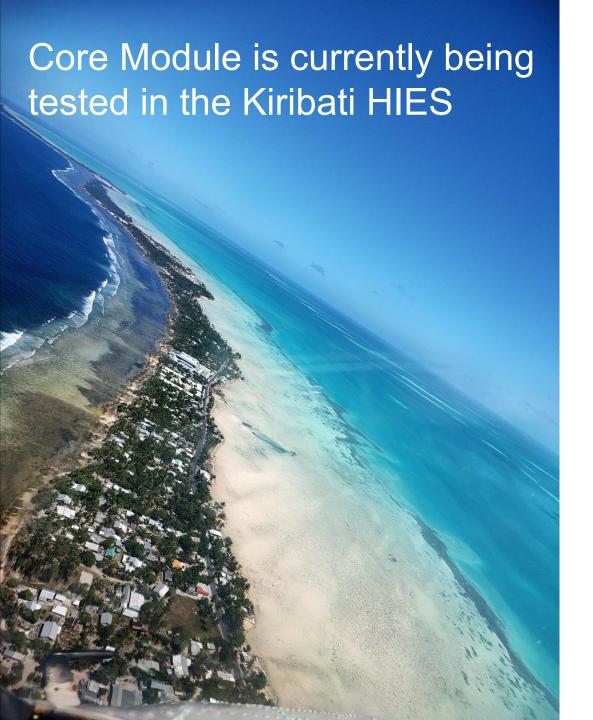
**Pacific Community
Communauté du Pacifique**

With thanks to:

Monica Madrid, Consultant Climate Change Statistician

Andrea Borlizzi, Statistics Advisor, PACSTAT

The research project

- Census and survey research to improve **household data** collection and analysis in the areas of climate change and natural disasters

- Impacts on households and household **assets**

- Include **adaptive measures** taken by households over time and between countries (especially SIDS)

- the **reach of climate funding**

The Core Module - selected from a set of 30 questions from Section 4, Climate Change and Natural Disasters Survey Household Questionnaire

N A T U R A L D I S A S T E R	1	2	3	4	5	6	7	8	9	10	11
	In the last 12 months, was your household impacted by the following natural disasters? YES ___1 NO ___2	Have these natural disasters damaged, destroyed or impacted your household's: Dwelling 1 Agricultural/Livestock/Fishery assets 2 Other productive assets (specifiy) _____ 3 Health 4 Acces to work facilities 5 Access to school 6 Access to basic services (water, electricity, internet) 7 Other (specifiy) _____ 8	(If Q2 = 1) What is the estimated value of the damages inflicted on your dwelling?	(If Q2 = 2) What is the estimated value of the damages inflicted on your agricultural, livestock or fishery assets?	(If Q2 = 3) What is the estimated economic value of the damages or destruction inflicted on your other productive assets?	(If Q2 = 4) How many people in your household were injured, missing or died as a consequence of these natural disasters?	(If Q2 = 4) How many people in your household got sick as a consequence of these natural disasters?	(If Q2 = 5) How many work days did you and your household members lose, as a consequence of these natural disasters?	(If Q2 = 6) How many days of school did your children lose, in total, as a consequence of these natural disasters?	(If Q2 = 7) Which basic services were disrupted as a consequence of these natural disasters? Electricity 1 Water/Sanitation 2 Internet, TV, Mobile Phone connection 3 Transport 4 Garbage collection 5 Other _____ 6	How many of your household members were forced to relocate elsewhere as a consequence of these natural disasters, either temporarily or permanently?
	CODE	CODE	($)	($)	($)	No. of persons	No. of persons	No. of days	No. of days	CODE	No. of persons
1 Flood											
2 Drought											
3 Storm											
4 Landslide											
5 Extreme temperature											
6 Wildfire											
7 Tropical cyclone											
8 Tsunami											
9 Other, specify											
10 NONE											

Core Module is currently being tested in the Kiribati HIES

2,300 households

The government is interested in understanding changed household spending habits due to drought

Climate Change and Natural Disasters Survey Household Questionnaire: Sections

Section 1: Household roster

Section 2: Housing conditions

Section 3: Climate change perceptions

Section 4: Impact of natural disasters and climate-induced events at household-level

- 4a. Impacts of natural disasters and climate change on households
- 4b. Impact of slow-onset climate and climate induced events on household
- 4c. Impacts on crops, livestock, aquaculture and forestry
- 4d. Impacts on fisheries

Prevention, response + climate change adaptation at the household level

Climate Change and Natural Disasters Survey Household Questionnaire: Sections

Section 5: Climate change adaptation options adopted at the household level

5.1: Retreat adaptation measures

5.2: Defensive adaptation measures

5.3: Co-existing adaptation measures

5.4: Institutional support

[Climate Change and Natural Disasters Sourcebook](#)

Example Section 3: Climate Change Perceptions

1 According to you, what best defines climate change?

(Select all that apply)

```
Rise in terrestrial temperatures.................1
Rise in sea temperatures.........................2
Increase in the number of extreme events........3
Growth in the intensity of extreme events.......4
Increase in sea level............................5
Changing of seasons..............................6
Melting of mountain glaciers.....................7
Melting of polar ice.............................8
Other (specify)..................................9
I do not know...................................10
```

2 According to you, what are the leading causes of climate change?

(Select all that apply)

```
Use of fossil fuels (used for transport, industries..1
Deforestation........................................2
Cattle raising.......................................3
Non-human causes (natural climate variability).......4
Other (specify)......................................5
I do not know........................................6
```

3 Do you feel concerned about climate change and its impacts?

```
Yes...........1
No............2
Indifferent...3
```

4 Which ecosystems you use for livelihood are threatened by climate change?

(Select all that apply)
(Ecosystems to be customised per country)

```
Natural forest........................1
Managed forest........................2
Mangroves ............................3
Wetlands..............................4
Coastal reefs ........................5
Outer reefs...........................6
Open ocean............................7
Dunes.................................8
Salt marshes..........................9
Lagoons..............................10
Rivers...............................11
Grasslands...........................12
Agricultural lands...................13
Other (specify)......................14
None of the above....................15
```

selected questions from Section 4, Climate Change and Natural Disasters Survey Household Questionnaire

18.	19.	20.	21.	22.	23.	25.
(If Q17>0): In total, how many work days did you and your household members lose due to the [natural disaster]?	(If Q2=10): How many of the household members have **permanently** lost their jobs as a consequence of the [natural disaster]?	(If Q2=11): How many children in your household did not attend school due to the [natural disaster]?	(If Q20>0): How many days of school did children in your household lose, in total, as a consequence of the [natural disaster]?	(If Q2=12) For how many days was access to hospitals prevented due to the [natural disaster]?	Which service was disrupted due to the [natural disaster]? Local administration services.1 Markets.................2 Churches...............3 Child care facilities..4 Cooperatives...........5 Libraries..............6 Health centres.........7 Nursing homes..........8 Sport complexes........9 Communal halls........10 Legal offices........11 Transport terminals...12 Airports.............13 Ports................14 Other(specify)____....15	(If Q2=14): Which essential services were disrupted as a consequence of the [natural disaster]? (Select all that apply) Electricity............1 Water..................2 Sanitation.............3 Public transport.......4 Internet, TV, Mobile phone connection.......5 Garbage collection.....6 Other (specify)........7 None...................8
No. of days	No. of persons	No. of days	No. of persons	No. of children	No. of days	CODE
1. Flood						
2. Drought						
3. Storm						
4. Landslide						
5. Extreme temperature						
6. Wildfire						
7. Tropical cyclones						
8. Tsunami						
9. Other (specify) _____						
10. None --> **END OF MODULE**						

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Example Section 4A: Impacts of Natural Disasters and Climate Change on Households: Displacement

For the household members forced to displace (either temporarily or permanently) in the last 12 months due to these natural disasters, please provide the following information:

ID CODE of the household member in the roster	For how long did [hh member] displace? A few days...............1 A few weeks..............2 A few months............3 Several months..........4 Permanently.............5	Where did [hh member] go? To another locality on the same island...1 To another island in the same country....2 Abroad (AU or NZ)........................3 Abroad (other)..........................4	What type of facility hosted the household member? *(Select all that apply)* Government facility ....1 Friend's home...............2 Family or relative's home.....3 Bought/rented a new place.....4 Other (specify) _____..5
	CODE	CODE	CODE
1			
2			
3			
4			
etc.			

Example Section 5: Climate Change Adaptation options adopted at the Household level

8.2.1. Retreat adaptation measures

3. In the past 12 months, which of the following measures have your household implemented for responding to the threats of natural disasters and climate change?
(Adaptation options to be customised per country)

```
I relocated my house in other locality in the same island without a managed retreat approach.......1
I relocated my house in other island in the same country without a managed retreat approach........2
My house was relocated in other locality in the same island under a managed retreat approach.......3
My house was relocated under in other island in the same country under a managed retreat approach..4
Other (specify)_____.........................................................5
I do not know.............................................................................6
```

8.2.2. Defensive adaptation measures

4. In the past 12 months, which of the following measures have your household implemented for responding to the effects of natural disasters and climate change?
(Select the three most important adaptation options for each subheading) *(Adaptation options to be customised per country)*

```
Options for responding to the impacts of flooding on housing
Building levees around the house........................................1
Improving drainage system...............................................2
Improving gardens to safely redirect water..............................3
Improving roofs using impact and moisture resistant materials.........4
Reinforcing house structures............................................5
Maximizing use of water-resistant materials.............................6
Raising floor heights...................................................7
Other (specify) _____  .................8
I do not know....................................................... 9
None of the above.......................................................10
```

Example Section 5: Household adaption to CC – Institutional Support

7. In the past 12 months, has your household received any support for designing or implementing climate change adaptation measures?

```
Yes..............1
No...............2
I do not know....3
```

8. In the past 12 months, what type of support have you received for implementing adaptation measures?
(Select the three most important supportive actions) (Supportive actions to be customized per country)

```
Subsidies, credit, grants, insurance, etc..............................1
Support for women to have access to land tenure.......................2
Programs and projects aimed at women, children and elderly..........3
Technical assistance to adapt economic activities ..................4
Support to improve food security....................................5
Technical assistance to improve the dwelling's infrastructure ......6
Support to community strengthening and organisation.................7
Other (specify) _____....8
I do not know ......................................................9
None of the above..................................................10
```

9. In the last 12 months, from which organisation/agency did the household receive financial/technical/assistance support?
(Select all that apply)

```
Local/regional government agencies.........1
National government agencies...............2
Private company............................3
International organizations.................4
NGOs.......................................5
Social welfare organizations...............6
Cooperatives...............................7
Local/civil society organizations..........8
Faith-based groups.........................9
Other(specify) _____ ......10
```

What will we be able to report?

- **Estimated economic value** of the damage inflicted
  - on dwelling and household assets;
  - to agriculture and forest areas, farm animals, farm assets, fisheries assets, etc.;

- Number of **persons, missing, injured, ill, or dead**;

- **Impact on the access to**
  - local transportation;
  - Work, education and health facilities: number of people affected and number of days lost or no access;

- **Disruptions to basic services** (electricity, water/sanitation, internet, etc.) + time involved;

- **Displacement of household members**: number of people forced to leave their locality (evacuated or displaced) – either temporarily or permanently – and destination (within or outside the country).

- **Other consequences affecting households after a natural disaster** e.g. loss in non-farm income, increased time spent on collecting water or firewood etc