Improving climate adaptation communication and decision making between government and communities in Kiribati

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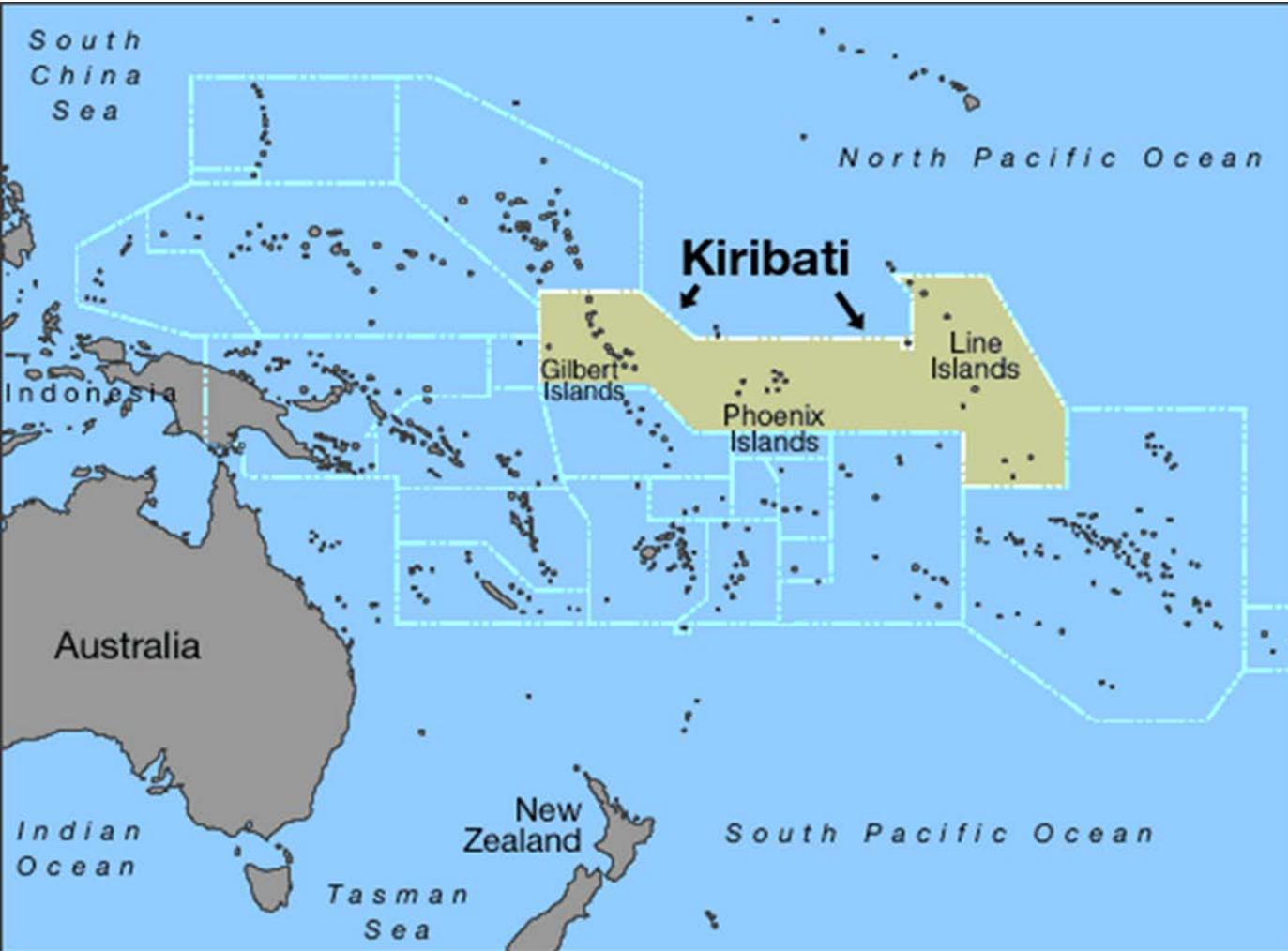Water, Sanitation & Hygiene Conference 2018

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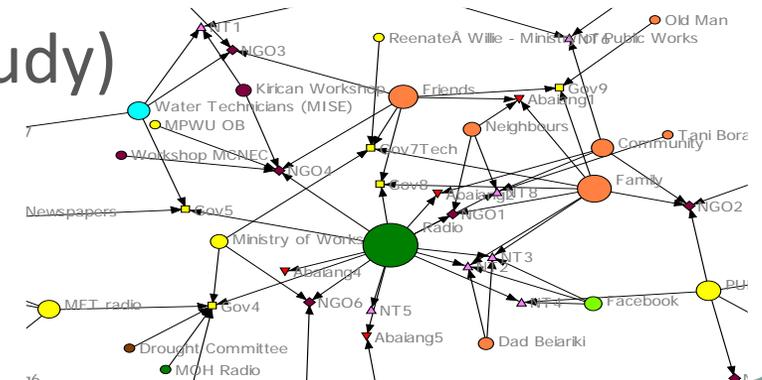# Kiribati

Approach and methodology

A) Adaptive Decision-making
- Impact mapping
- Water supply options selection

B) Communication – knowledge flows (pilot study)
- Getting information
- Sharing information

a) Adaptive decision making

Day 1: Options Selection

What water supply options are best

- Identifying water supply options

- Processes and tools for assessing against multi-criteria

Day 2: Responding to change

When to plan for the next best option

- Understanding triggers and thresholds for doing something

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Options identification

Example of a list of drinking water supply options

- Communal rainwater tanks
- Water pumped from an inland source
- Desalination plant
- Buying bottled water
- Household rainwater tank
- Solar disinfection bottle (SODIS)
- Hand/solar pump
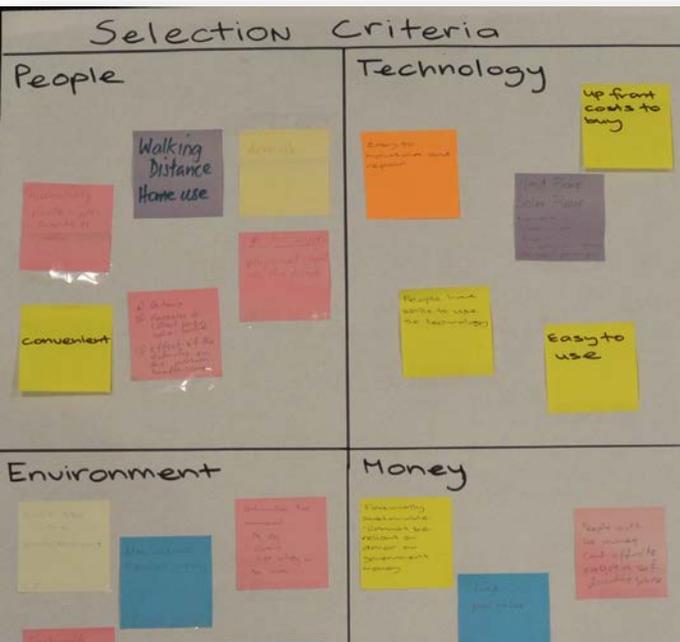- Household wells

Four key categories for identifying selection criteria

People: The social impacts of the water supply option such as reliability under changing weather conditions, accessibility (distance to access water) and safety considerations when accessing the water.

Technology: Technological considerations of the water supply option such as: Is the technology easy to operate and maintain? For example, a hand pump. How much training or knowledge would a person need to operate, maintain or repair the water supply technology and are spare parts available locally?

Environment: Do the different sources of water have a positive, neutral or damaging impact on the surrounding environment? (e.g. Does the water supply option require high energy inputs to operate? Does it pollute the air?)

Money: This is the cost to buy and install the option (up-front costs) as well as costs to operate and maintain (ongoing costs) or the costs of buying water.

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Options ranking

Example of Multi-Criteria Assessment with no weighting

Criteria	Reliable	Cost	Easy to maintain	Score	Ranking
Ranking of the options shown below					
Communal RWT	2	5	4	11	4
Desalination	7	1	1	9	
Household RWT	3	4	5	12	3
Inland well	6	6	3	15	2
Water pump	4	3	2	9	
Buying bottled water	1	2	7	10	
Household well	5	7	6	18	1

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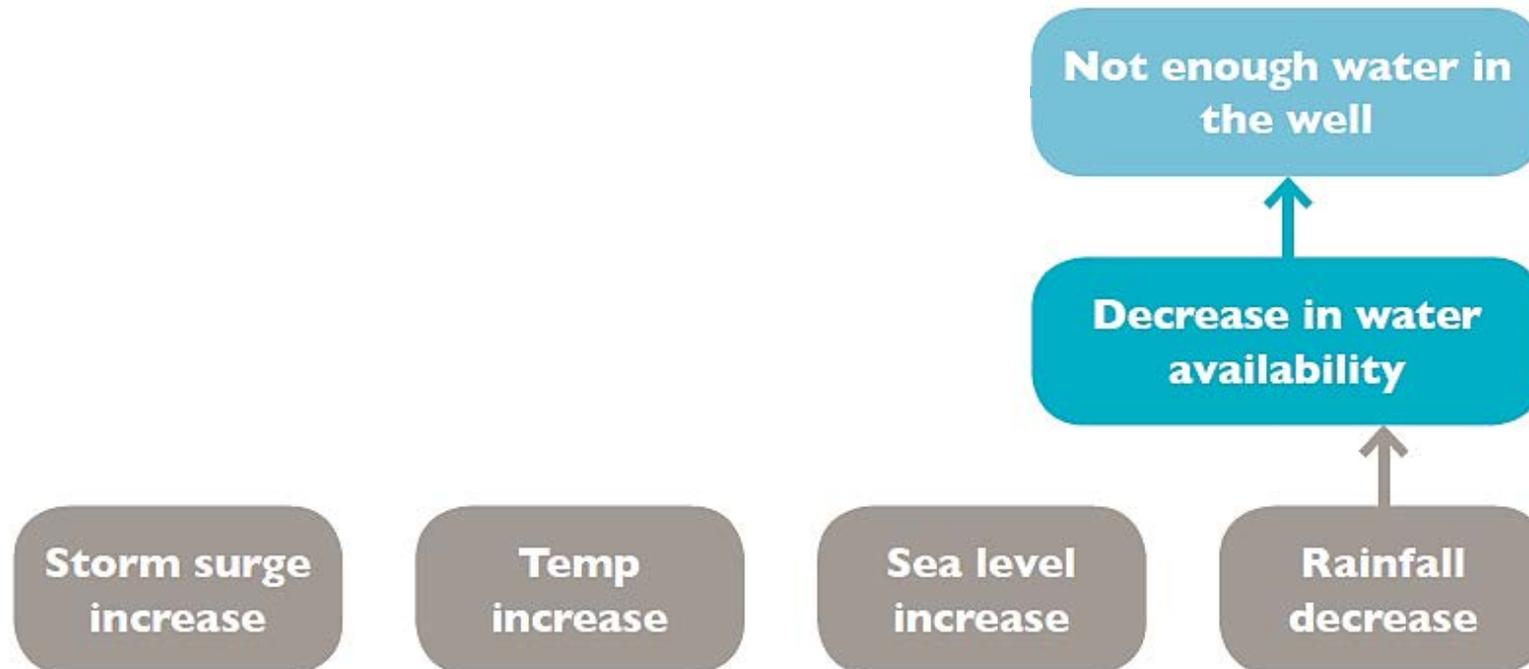Collaboration for Universal WASH

Impact mapping and indicators of change

Storm surge increase

Temp increase
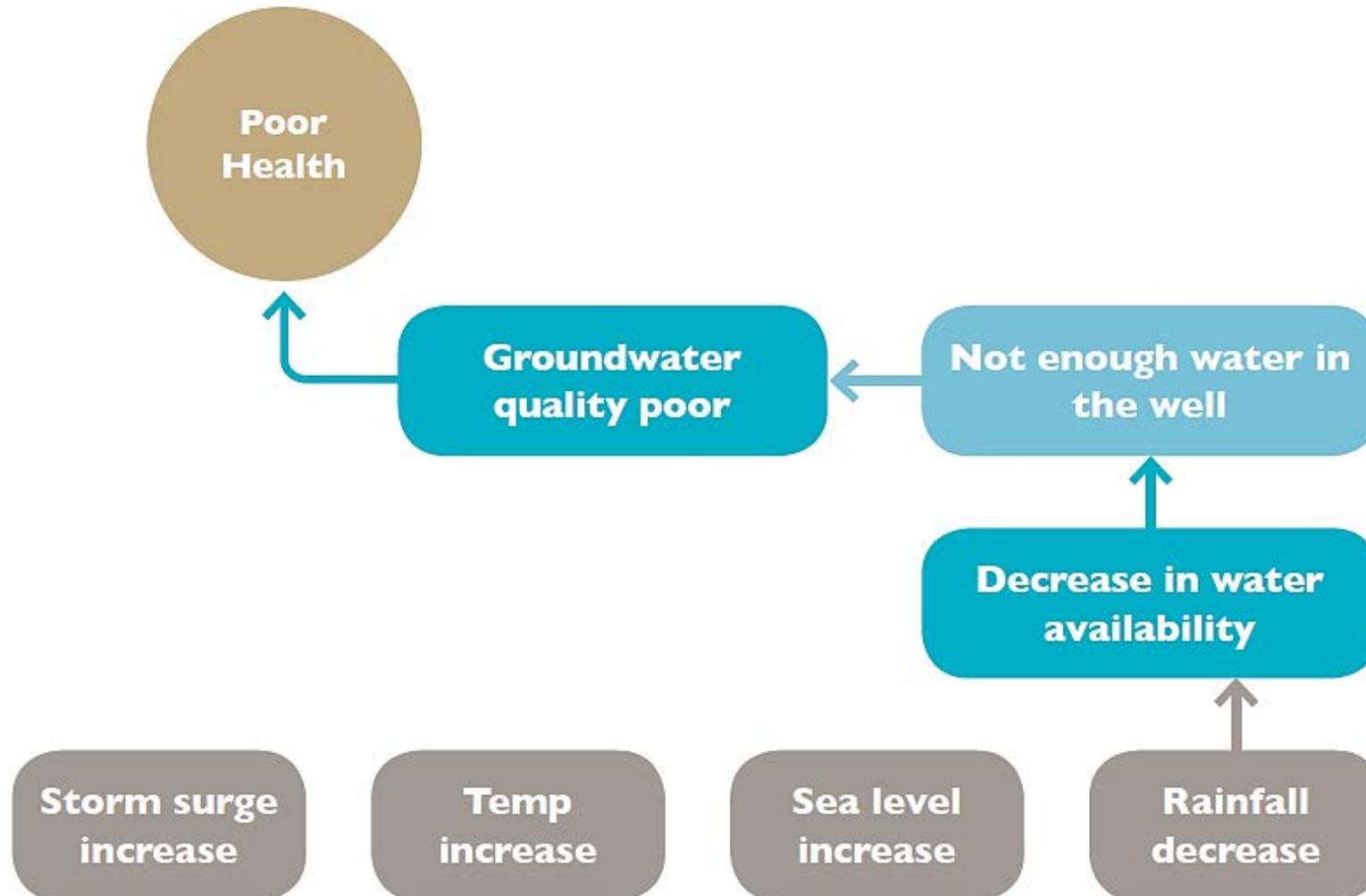
Sea level increase

Rainfall decrease

Impact mapping and indicators of change
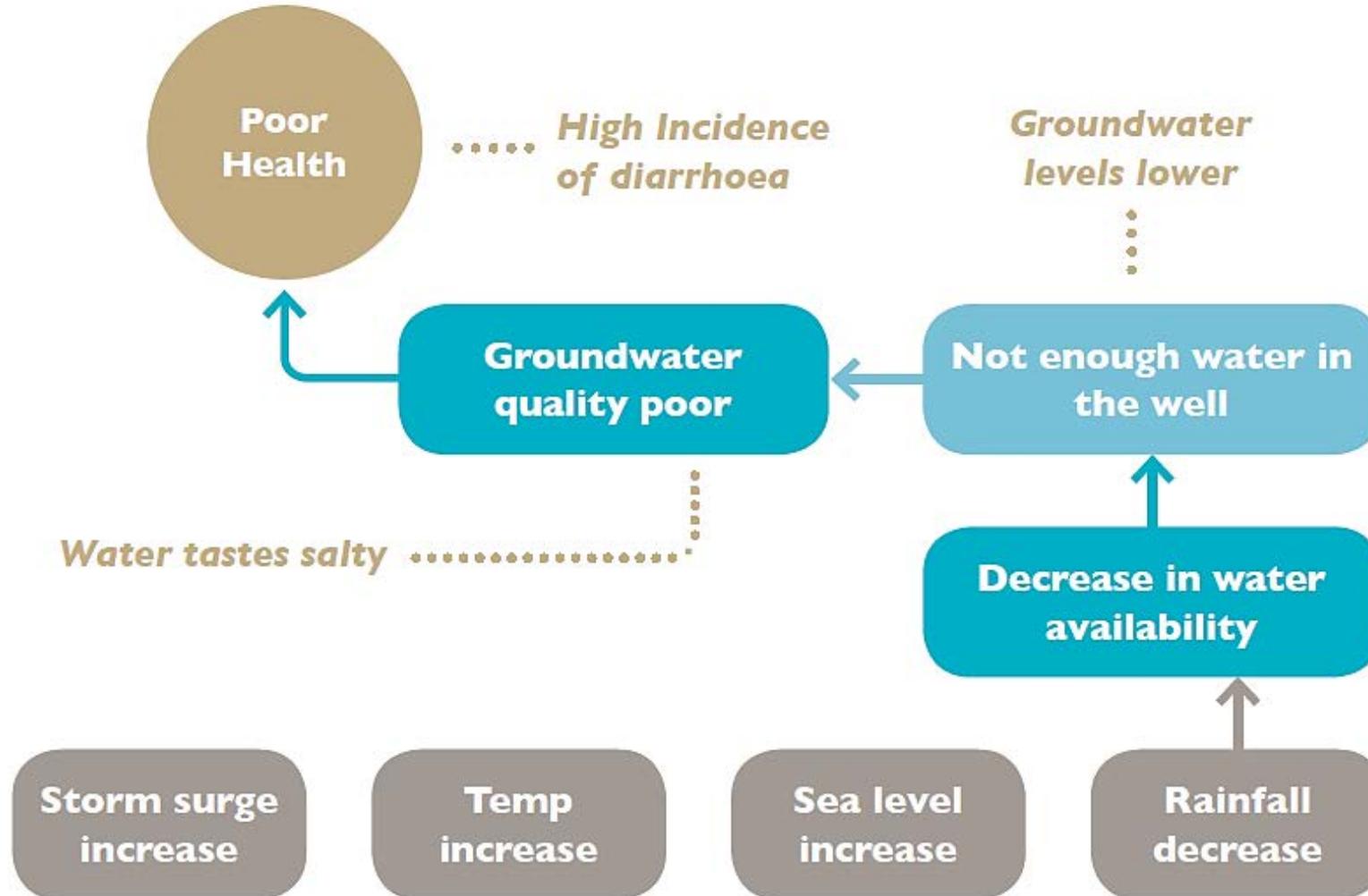
Impact mapping and indicators of change

b) Knowledge flow - approach

To explore the formal and informal processes by which community members and government receive information, and then share it.

Representatives from 3 sectors:
- Village / community representatives (15)
- NGO's and CBO's (12)
- Government departments (10)

Activities carried out individually and in groups.

b) **Knowledge flow** - approach

Asked two questions:

- Where do you **get** information?
- With whom do you **share** it?

Considered 3 scenarios:
- Low rainfall - drought
- Storm surge and land inundation - flooding
- Poor water quality causing a range of health impacts

Using *Social Network Analysis (SNA)* to map the linkages

Where do you get information about decreasing rainfall?

With whom do you share information about poor water quality?

Key insights and lessons

Insights:

- Highly fragmented networks

- Information is shared after the event, and not pre-emptively based on early indicators (as identified in the impact mapping exercise).

Lessons:

- Pilot Study – ideally all the nodes mentioned should be surveyed

- The survey structure may have inhibited responses

Thank you

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