

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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Approach and methodology

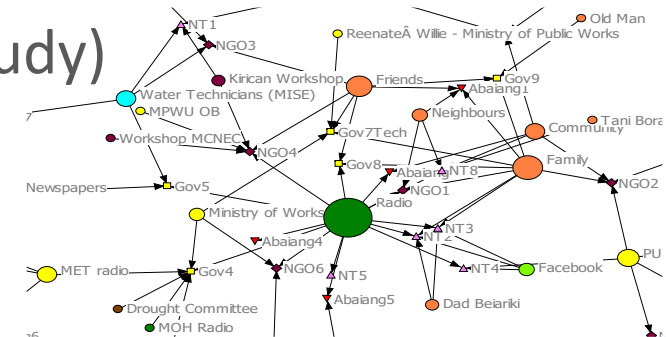
A) Adaptive Decision-making

- Impact mapping
- Water supply options selection



B) Communication – knowledge flows (pilot study)

- Getting information
- Sharing information



a) Adaptive decision making

DYNAMIC ADAPTIVE MANAGEMENT PROCESS

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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

Options identification


DYNAMIC ADAPTIVE MANAGEMENT PROCESS


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Example of a list of drinking water supply options


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

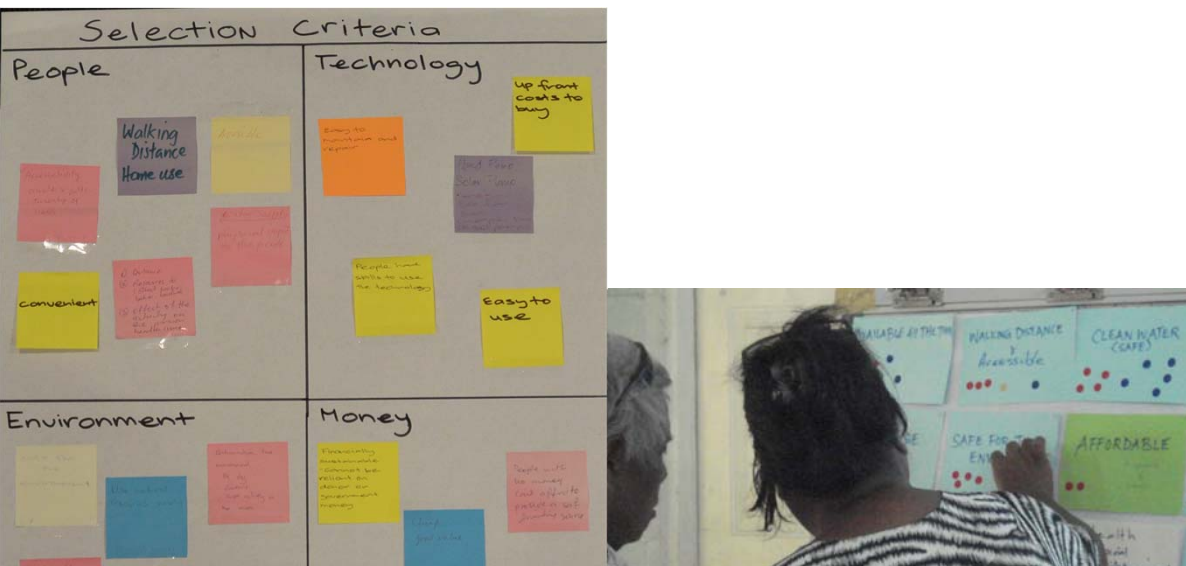
Four key categories for identifying selection criteria

 **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.



Options ranking

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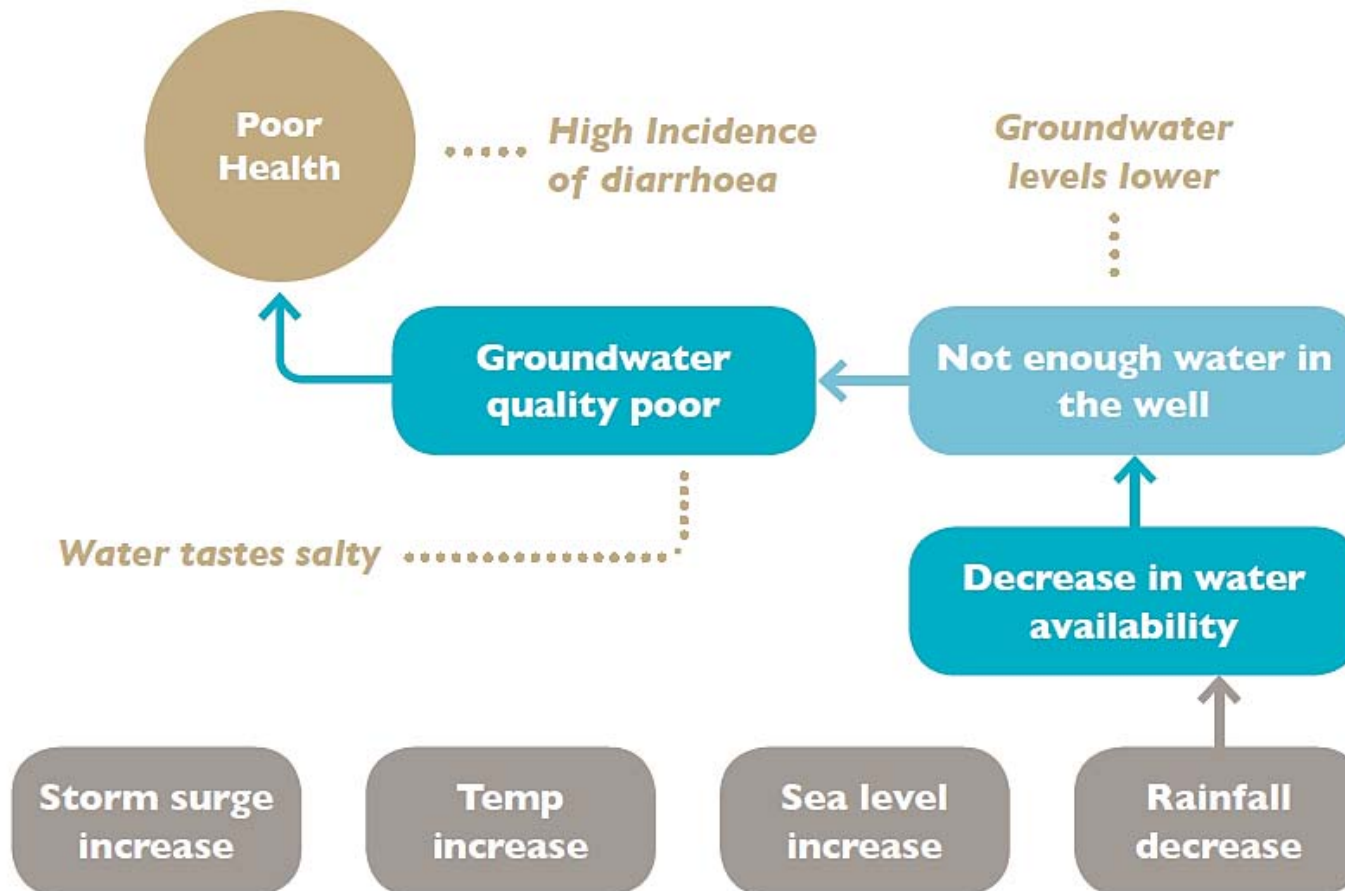
Example of Multi-Criteria Assessment with no weighting

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

Impact mapping and indicators of change

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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:

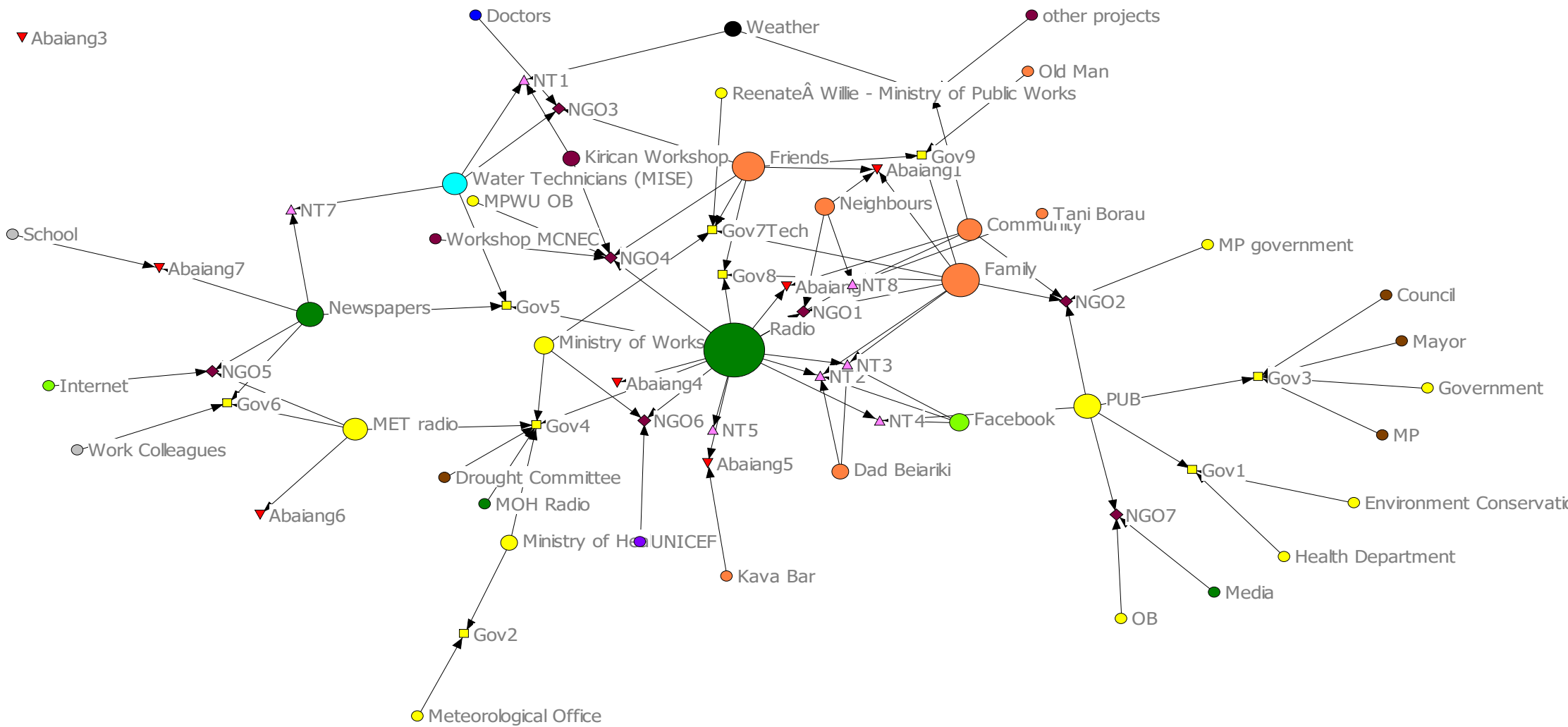
- Where do you **get** information?
- With whom do you **share** it?

Considered 3 scenarios:

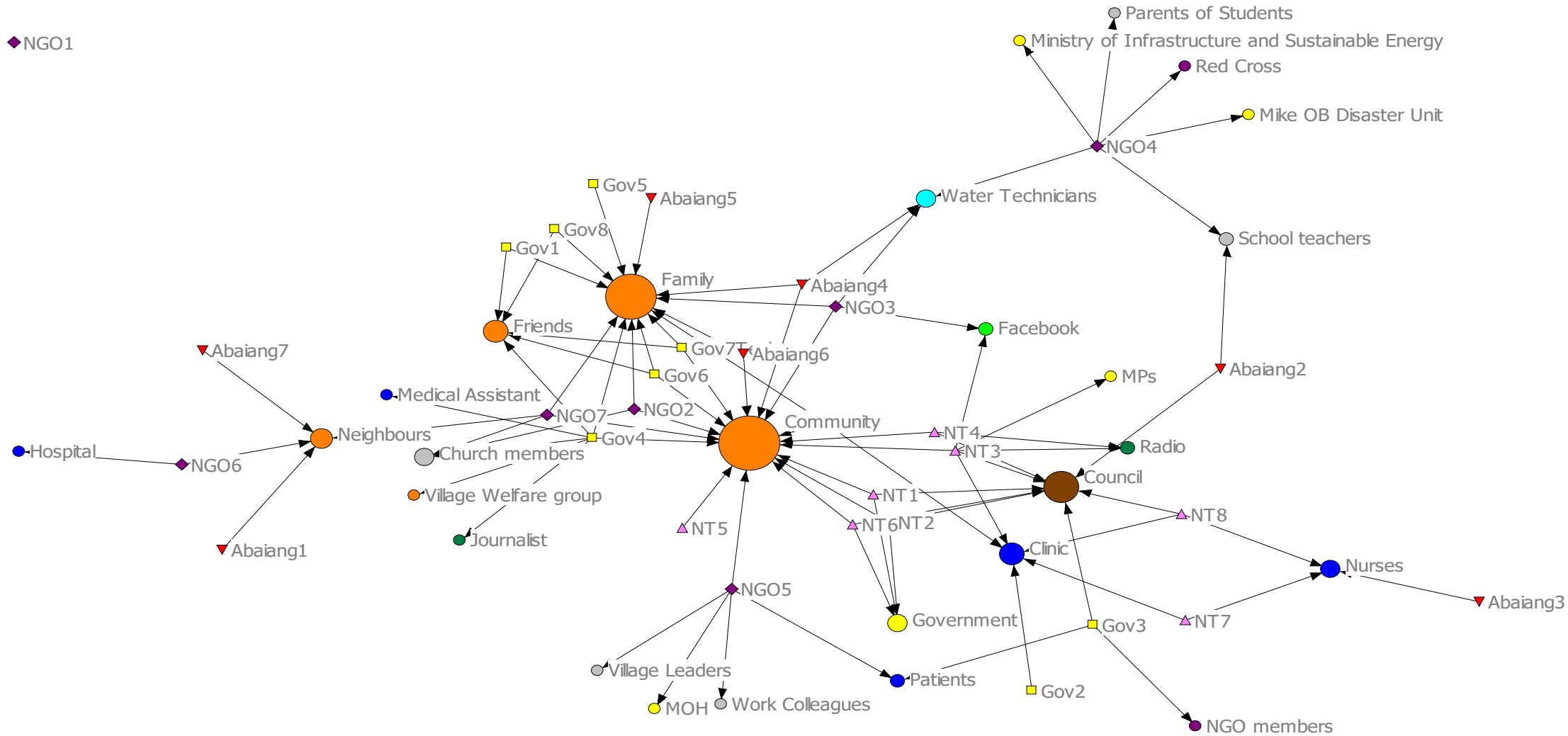
- Low rainfall - drought
- Storm surge and land inundation - flooding
- Poor water quality causing a range of health impacts

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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