## Wotje

Wodmej Community

# Hazard Vulnerability Capacity Mapping Report

Wednesday October 26, 2022



The contents of this publication are that of Wodmej, Wotje members that participated.

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This project would not have been possible without the leadership and support of the Wotje Local Government. Special thanks to the World Bank for funding IOM, MICS, WUTMI, and Jo Jikum to implement the project in Wodmej, Wotje.

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## **Acronyms**

IOM	International Organization of Migration
WUTMI	Women United Together in the Marshall Islands
MICS	Marshall Islands Conservation Society
HVCM	Hazzard Vulnerability Capacity Mapping
NAP	National Adaptation Plan
CBDRM	Community Based Disaster Risk Management
WWWC	Wotje Wodmej Women's Club

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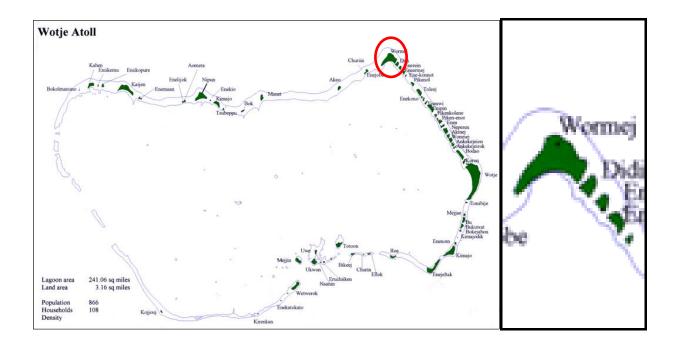
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#### **Context**

#### **Background of study**

Wotje Atoll is known to be one of the most developed outer Island in the RMI which can is a semi urban area. Stretching over 3.16 sq mi in the Pacific Ocean. Wotje is accumulated of more than 40 islets, but there are only two main communities Wotje, Wotje and Wodmej. Wotje has a total population of 802 people which, 104 total on Wodmej and 698 on Wotje, Wotje. This atoll is unique because in WWII it was used by the Japanese as base and some of the infrastructures during the war are still visible and operational today. On Wotje, Wotje there is a lot of services provided which includes primary, secondary, and college education. There is cellular and internet access as well as a bank, post office, hotel, stores, police station, fish markets, and medical center. Wotje also has two main entry docks and one of the longest airports in the RMI.

Wodmej is approximately 8 miles away from Wotje which is about a 20–30-minute boat ride. It is not as developed as the main center which causes people to travel back and forth between the two communities due to the lack of services or opportunities.



The impacts of climate change within Wodmej, Wotje are severe droughts, coastal erosion, and coastal inundation during king tides. During the drought events people would often get sick with pink eye, diarrhea. Longer periods of droughts also affect natural resources mainly food crops. With coastal erosion and inundations people face the problem of losing land and homes.

This report articulates the results of IOM's Hazard Vulnerability and Capacity Mapping (HVCM) exercises that took place in two communities Within Wotje. Each community report highlights the community's profile, key hazard risk concerns and maps. The reports can be used by community members to then plan a full Community Based Disaster Risk Management (CBDRM) Plan.

#### **Targeted Community Wodmej**

#### **Community Profile Questions**

Γ <u>-</u>					
Community Profile Questions					
Questions					
About how many people					
live in your community?	104				
What are the major	-Educator (teachers/principal)				
occupations of	-Copra				
community members?	-Handicraft				
(Income and subsistence	-Farming				
activities)	-Fishing				
What local resources					
does your community	Terrestrial				
depend on? Explain why.	<ul> <li>Main crops are breadfruit, coconut/copra, and pandanus.</li> </ul>				
	<ul> <li>Other crops include papaya, banana, pumpkin and lime.</li> </ul>				
	Main Livestock includes chicken and pigs				
	Coconut crabs				
	Marine				
	Main marine resources are fish, turtle, clams, and lobster.				
How are decisions made					
in your community?	Government leader, traditional leaders, the local government, and church				
Who has the authority?	leaders.				
What social groups are					
active and what purpose	Wotje Wodmej Women's Club (WWWC): Is a women group consist of				
do they serve?	both communities on Wotje. Their purpose to serve as a welcoming				
	committee. They are also involved with church activities and serve as the				
	main women's group in Wotje atoll. They also do clean-ups though out				
	the communities as well as plant crops and gardens.				

What natural hazards	
affect your community?	-Drought
	-Coastal erosion
	-Coastal Inundations and flooding during king tides.
What are the main	
strengths of your	1. The Local government and how they take care of the communities.
community?	2.Another strength in the community is the copra and handicraft
	business.
Are there any new	
community improvement	
projects planned?	N/A
Is the community	N/A
participating in programs	
to improve natural	
protective barriers?	
(Mangrove, Steep slopes,	
rivers)	

## Methodology

#### **Hazard Vulnerability and Capacity Mapping with Early Warning Systems**

#### Introduction

The IOM Community Vulnerability and Capacity Mapping Exercise and Assessment (CVM) Project created the Community Hazard Vulnerability and Capacity Mapping (HCVM) to assist communities and facilitators in conducting HVCM exercises and generating HVCM reports. The objectives and actions taken enable the facilitators to implement in a manner that ensures the communities lead the process. Even though it acknowledges that every community is unique and that modifications to the methodology may be necessary, the three sessions included are considered the bare minimum for conducting the exercise successfully. Facilitators must always be well-prepared, efficient, and mindful of not wasting community members' time, which is both valuable and voluntary. If all community service activities are completed, the HVCM can be completed in six-seven hours. No member is required to attend the entire six-seven hours of the exercise.

#### **Objectives and Process**

Under the objective of the National Adaptation Plan, the International Organization of Migration and its partners conducted the HVCM exercises in two communities in Wotje, Wotje and Wodmej, Wotje.

The specific objective of the HVCM is to increase community members' awareness of disaster risk and the impacts of climate change in their community and help them to plan activities to reduce vulnerability and

increase resilience to both slow and fast onset disasters as well as impacts of climate change. HVCM is a participatory, community-led series of activities that provides essential context-specific information on the local impact of climate change and community vulnerability and existing capacities.

In addition to assessing existing disaster preparedness capacity, HVCM can also help us to better understand the communities we work to address their unique concerns. HVCM is an effective entry point to the community and offers an opportunity to allow community members to share their opinions on what is important to them. The results of the exercise can help us to focus on future climate adaptation and disaster risk management plans, pieces of training, and disaster mitigation measures to address the specific concerns of the community.

Where feasible, it is preferable for the activities to be conducted in Marshallese.

The HVCM exercise will generally require three sessions:

- 1. Sensitization and Community Profile
- 2. Physical Mapping and Hazard Vulnerability Matrix
- 3. Summary and Action Plan Generation

In all sessions, we should emphasize to participants that we are here to learn from them; we need them to teach us about their community. Much of the success or failure of the exercise hinges on input and active engagement among participants. In all sessions, it is important to ensure the participation of diverse groups in the community including people of all ages and genders as well as people who may be marginalized or 'outsiders' in that community such as immigrants, people living with disabilities, or other under-represented groups. It is essential that the community feel ownership of this process with facilitators only providing structure and guidance. As with all community engagement, it is also important to be very clear at the outset as to what the role of MICS, WUTMI, and JoJikum is and not to set realistic community expectations. Sessions 2 and 3 will require snacks and drinks for all participants. Where possible community contributions such as coconuts or other refreshments should also be encouraged.

Throughout the HVCM, it is important that special consideration be provided to ensure the participation and engagement of traditionally under-represented groups. Ensuring women and youth are actively encouraged to participate is a critical ingredient to the success of the process. Disasters have the capacity to disproportionally affect vulnerable groups in society and the mapping exercise should assist the community in appreciating that physically and mentally disabled persons will require additional support in protecting them from the identified hazards. It is therefore a critical outcome of the mapping exercise that these people be identified, and their locations identified on the map. If possible, ensure their participation in the HVCM exercise.

The following report is the output of the HVCM exercise.

## Community 2: [Wodmej]



#### **Community Profile Statement**

#### **Background**

The HVCM exercise was held at Wotje Wodmej elementary school on Wednesday October 5, 2022. There was a total of 22 participants and 12 were females and 10 were males.

In Wodmej the total population is about 104 people. The HVCM was conducted during a National Adaptation Plan (NAP) community consultation trip. There were two total communities that the NAP team visited and introduced the Marshall Islands National Adaptation Plan. Migration is not entirely due to climate change but for better opportunities in the States, Majuro, or Ebeye. If you are not a teacher, principal, local government official, or a church leader then the primary source of revenue or livelihood is copra harvesting, handicraft, farming, and fishing.

#### **Main Hazards**

1.Drought
 2. Kingtides/coastal inundations/flooding

#### Impact of Hazards on the Community

The community members from Wodmej identified drought, coastal erosion, and inundation/flooding due to king tides as the main disasters that impacts homes and livelihoods.

#### **Capacities**

The community in Wodmej have started to do dig more inland for wells because due to kingtides and severe droughts their wells close to the lagoon have high salinity. Shoreline replanting is also being done by the women's group throughout Wodmej and Wotje.

#### **Hazard Vulnerability Risk Mapping**

The method of mapping hazard vulnerability risk begins by dividing the society into multiple categories, often men and women separately, as well as children. Using flip chart paper, they design a map of their neighborhood, highlighting essential sites and infrastructure facilities such as churches, evacuation centers, and docks. Then, they determine the risk, such as flood-prone and disaster-prone places. The groups then exhibit their maps to one another, debate their similarities and differences, and make any required adjustments. The hand-drawn maps (from all groups) can then be converted to a digital format using Google Earth.

On the map below, you can see which portions of the neighborhood and which residences have been classified as vulnerable to floods or coastal erosion. In addition, they drew inspiration from essential communal locations like the hospital and evacuation points.



Hazard	Impact/Risks	Weaknesses	Adaptive Capacities/Strengths	Short Term	Long Term
Drought	-Hunger -Thirst -Sicknesses	-No storage for water -Not enough medicine -Not enough yield from crops -No means to purify water (filter buckets, RO units, etc)	-Community replanting -Community fishing -conservation measures on livestock	-Dig wells -water management trainings -	-farming drought resistant crops -Have more and improved rainwater harvesting systems -Have water purifying stations (water filter buckets, R.O. Units)
Hazzard	Impact/Risks	Weaknesses	Adaptive Capacities/Strengths	Short Term	Long Term

Kingtide	-Households destroyed	-no means of	-Use schools and churches		-Seawalls
	-crops destroyed	transportation	for storm shelters	-Emergency go to kits	-Emergency Evacuation
	-coastal inundation	-lack of communication	-build raised houses	(flashlights, medicine,	shelters
	-coastal erosion	-lack of storm shelters		water and food	-Evacuation routes
	-floods			supplies)	-transportation

### **Hazard Vulnerability Matrices**

As part of the hazard prioritization process, the Wodmej community recognize drought and typhoon as threats. Participants recognized the community's strengths and weaknesses in respect to its susceptibility to these threats and recommended both long-term and short-term solutions.

The community of Wodmej has created preparedness measures. They have devised solutions for each of these potential problems. Who is accountable within the community, who is accountable from outside the community, whether funding is required and how, whether technical support is required and how, and who is accountable within the community and when action will be taken. The entire community action plan is presented in the table that follows.

Identified	Proposed Solution		Who is responsible?		When are tasks to be
Hazards/Risks	What has been done or started?	What can be done? Short Term Long Term	(Within Community)	(Outside Community)	implemented?

		ı	l	
-There is access to R.O. units	-Water management trainings -dig more wells -clean wells and provide covers	-Local government -community members	-Government -IOM -ACWA project/EPA	-Within the next 3 to 5 years
	-install better rainwater harvesting systems (catchments, gutters, downpipes) -equip more R.O. unitshave more aquaculture and agricultural projects			
-Using schools and	-install storm	-Local	-Government	- Within the next
churches for evacuation shelter	shutters -evacuation plans -Build raised houses -raised garden beds	government -community members	-IOM -National Disaster Management Office	3 t0 5 years
	-build better more equipped evacuation sheltershave more aquaculture and agricultural projects -build seawalls at most vulnerable areas.			
	-Using schools and churches for	R.O. units  - dig more wells -clean wells and provide covers  -install better rainwater harvesting systems (catchments, gutters, downpipes) -equip more R.O. unitshave more aquaculture and agricultural projects  -using schools and churches for evacuation shelter  -using schools and churches for evacuation shelter  -using schools and churches for evacuation shelter  -using schools and agricultural projects -build better more equipped evacuation sheltershave more aquaculture and agricultural projects -build seawalls at most vulnerable	rainings -dig more wells -clean wells and provide covers  -install better rainwater harvesting systems (catchments, gutters, downpipes) -equip more R.O. unitshave more aquaculture and agricultural projects  -build raised houses -raised garden beds  -build better more equipped evacuation shelters -build better more equipped evacuation sheltershave more aquaculture and agricultural projects -build seawalls at most vulnerable	R.O. units  -dig more wells -clean wells and provide covers  -install better rainwater harvesting systems (catchments, gutters, downpipes) -equip more R.O. unitshave more aquaculture and agricultural projects  -vacuation shelter  -build better more equipped evacuation sheltershave more aquaculture and agricultural projects  -build better more equipped evacuation sheltershave more aquaculture and agricultural projects -build seawalls at most vulnerable

#### **Summary Wodmej Wotje**

The top two hazards identified were drought and typhoons. Drought makes the community vulnerable because there is limited storage for water, not enough yield from crops, no means to purify water, and lack of medicine for any illness like pinkeye or diarrhea. The short-term goals for drought are to dig wells and train in water management. The long-term goals are farming drought resistant crops, have more and improved rainwater harvesting systems and have water purifying stations (water filter buckets, R.O. Units). Typhoons are more unpredictable and does cause many problems in the community. Wodmej is vulnerable to king tides because they of its location. Due to strong winds and current, coastal inundations happens mostly during September and November.