

2023

NATIONAL ADAPTATION PLAN COMMUNITY ENGAGEMENT SUMMARY REPORT

Wotje Atoll



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OVERVIEW

The International Organization for Migration (IOM) was engaged by the Government of the Republic of the Marshall Islands (RMI) to lead community engagements on the National Adaptation Plan (NAP) in eight Atolls. The engagement team was comprised of IOM staff and three Non-Governmental Organization partners; Jo-Jikum focusing on youth, Women United Together Marshall Islands (WUTMI) focusing on women and inclusion, Marshall Islands Conservation Society (MICS) focusing on livelihoods. This Summary Report reflects the results of all agencies engagements that elevate and articulate the community members voices.

COMMUNITY BACKGROUND

Part of the Ratak Chain, Wotje Atoll comprises 72 islands and has a fairly stable population of 821 people (based on 2021 preliminary census). Wotje Atoll is one of the largest atolls in Republic of the Marshall Islands (RMI) and one of the most developed with two inhabited islands Wotje and Wodmej (community specific profiles gathered during consultation available in Annex 1 and 2). Prior to travel to the community, the team collected and learned as much as possible about the community, this information can be found in Annexes 3-10. Wotje Atoll is considered a semi-urban community. The main economic activity in Wotje Atoll is government employment. Alternative income sources come from fishing, small businesses, handicrafts, and agriculture (breadfruit, copra, pandanus). The atoll was used as a Japanese base during WWII and some of this infrastructure is still visible and operational today. Wodmej, is the smaller of the two islets in Wotje Atoll, has less infrastructure, development and a steadily declining population.

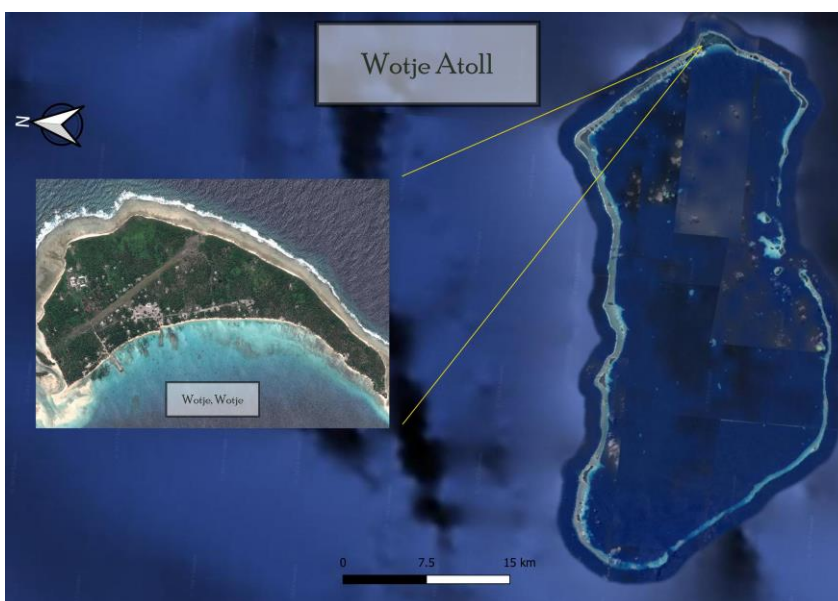


Figure 1: Map of Wotje Atoll (from IOM Community Profile)

THE CONSULTATION PROCESS

The National Adaptation Plan (NAP) consultation in Wotje Atoll was undertaken over one week in October 2022 and involved communities in the islets of Wotje and Wodmej. The consultation involved eight methods: introduction meeting where the purpose of the National Adaptation Plan; a transect walk/naturalistic observations to identify local observations of environmental change; a Hazard Vulnerability Capacity Mapping (HVCM) exercise; a Day in the Life (DIL) activity where participants were asked about their observations of environmental change, social impacts and how they anticipate daily activities to be affected in the future; focus group discussions; semi-structured interviews with community members from targeted groups (community leaders, farmers and fishers, women and youth); a baseline survey to capture views on current and future adaptation; and Youth and Arts Engagement discuss climate change through art. Some individuals participated in more than one methodology.

| Method | Female | Male | Youth | Middle aged | Elderly | Undisclosed |
|---------------------------|-----------|-----------|-----------|-------------|----------|-------------|
| Baseline survey | | 5 | 1 | 4 | 0 | 0 |
| Day in Life | 20 | 20 | 26 | 13 | 1 | 0 |
| HVCM - Wotje | 13 | 7 | n/a | n/a | n/a | n/a |
| HVCM- Wodmej | 12 | 10 | n/a | n/a | n/a | n/a |
| Transect walk | 1 | 2 | 0 | 3 | 0 | 0 |
| Focus groups | 26 | 14 | 13 | - | - | 37 |
| Interviews | 2 | 5 | n/a | n/a | n/a | n/a |
| Youth and Arts Engagement | | | | | | |
| TOTAL | 74 | 63 | 40 | 20 | 1 | 34 |

Figure 2: Participant demographics by research method

GUIDING VALUES FOR ADAPTATION

Community members said how they valued living in a community where they worked together in a respectful and caring way. Whilst some expressed concern that this community spirit was declining over the years, many participants described their aspirations to help the community in the future through being a good community leader, becoming a teacher or planting trees to help the community. Consistent with this, participants expressed a high level of attachment to their community and home.



Figure 3: Participant completing the Day in Life activity

“Our home is very valuable to us. I have been here since I was born. So I would be very sad and heartbroken to see this island I call home gone. I would try everything and avoid what it is necessary to keep it from sea level rise or other climate change when it occurs.” (SSI82 female)

When asked about their daily activities (DIL survey) participants demonstrated strong values related to spending time with family and friends (25 out of 40 participants); having access to natural resources to support livelihoods and recreation (11 out of 40 participants); and being able to practice their religion and attend church activities in their community (4 out of 40 participants). These values are relevant to adaptation in that they demonstrate the community’s aspirations to continue living in Wotje Atoll. Whilst a few participants shared thoughts about leaving Wotje Atoll in the event of amplifying climate impacts, they also expressed preference and a commitment to staying in Wotje Atoll.

“I choose to stay even if it means swimming in my own home.” (FGD34 youth)

CLIMATE CHANGE EXPERIENCES

The climatic change most frequently reported by Wotje Atoll participants was increased air temperature (n=37, DIL), followed by sea level rise (n=25, DIL) and drought events (n=20, DIL). Everyone felt that they had observed changes to the climate. Several participants referred to drought events in early 2000s and in 2015.

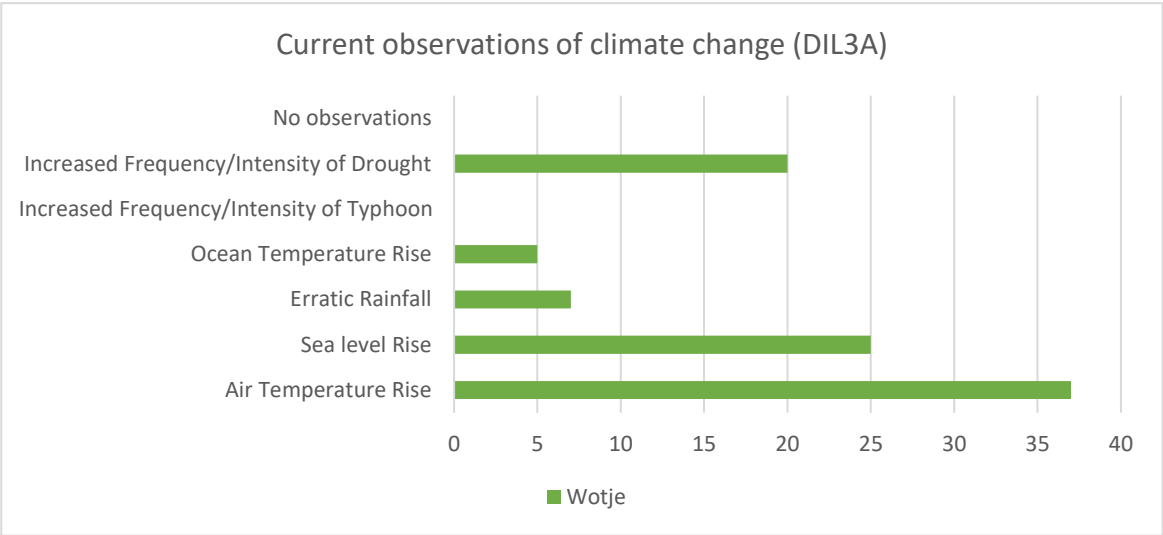


Figure 4: Observations of climate change in Wotje Atoll

During the Youth and Art Engagement, youth depicted their experiences on the island today, vs their ideas of what the future might be. In the future they saw corals bleaching and islands being submerged if no action is taken to combat climate change today.

In the HVCM exercise (see Figure 5) participants identified with red lines the parts of their coastlines particularly vulnerable to coastal erosion.

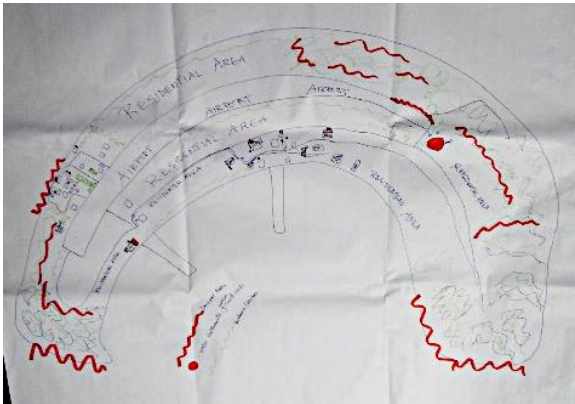
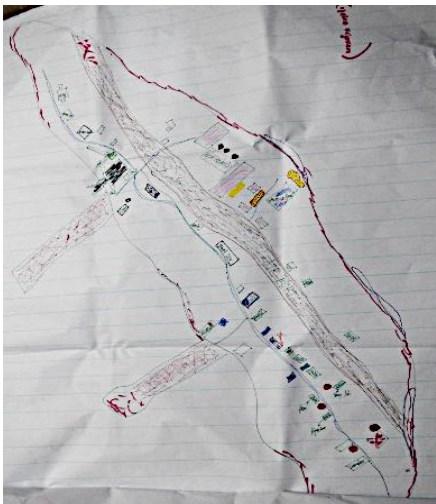


Figure 5: HVCM Map in Wodmej, Wotje

SOCIAL IMPACTS OF CLIMATE CHANGE

Participants reported many social impacts stemming from these climatic changes. The impacts on livelihoods, food and water security were widely discussed. Participants explained how drought was having a significant impact on the health and yield of crops (limes, coconuts, tomatoes), that trees have been dying due to heat stress, and that ground water and soils have become salty. This has reduced agricultural yield and created water security issues for the community (with participants saying they had to drink well water). These impacts mean that communities are now more reliant on imported foods, with growing competition for seed stock and water resources. In addition to these impacts, many participants said that their fish yields had decreased. Decline in the growth of natural resources has also meant that people (particularly women) are needing to travel further to collect materials for making handicrafts, with some handicrafts no longer made as they felt it was too hot to collect the materials.

Participants explained how higher temperatures and drought were impacting their health: dust in the air caused by low rainfall has increased cases of pink eye; a lack of good drinking water had increased cases of diarrhea; and participants described higher rates of heat stress, where people were feeling dizzy and weak. One participant said that cases of dengue had increased. Many participants explained that climate change was impacting their social activities where participants were staying indoors more to avoid the high heat.

For the most part, the impact participants described related to drought. A few participants described infrastructure damage following king tide events with several houses destroyed and impacts near the high school.

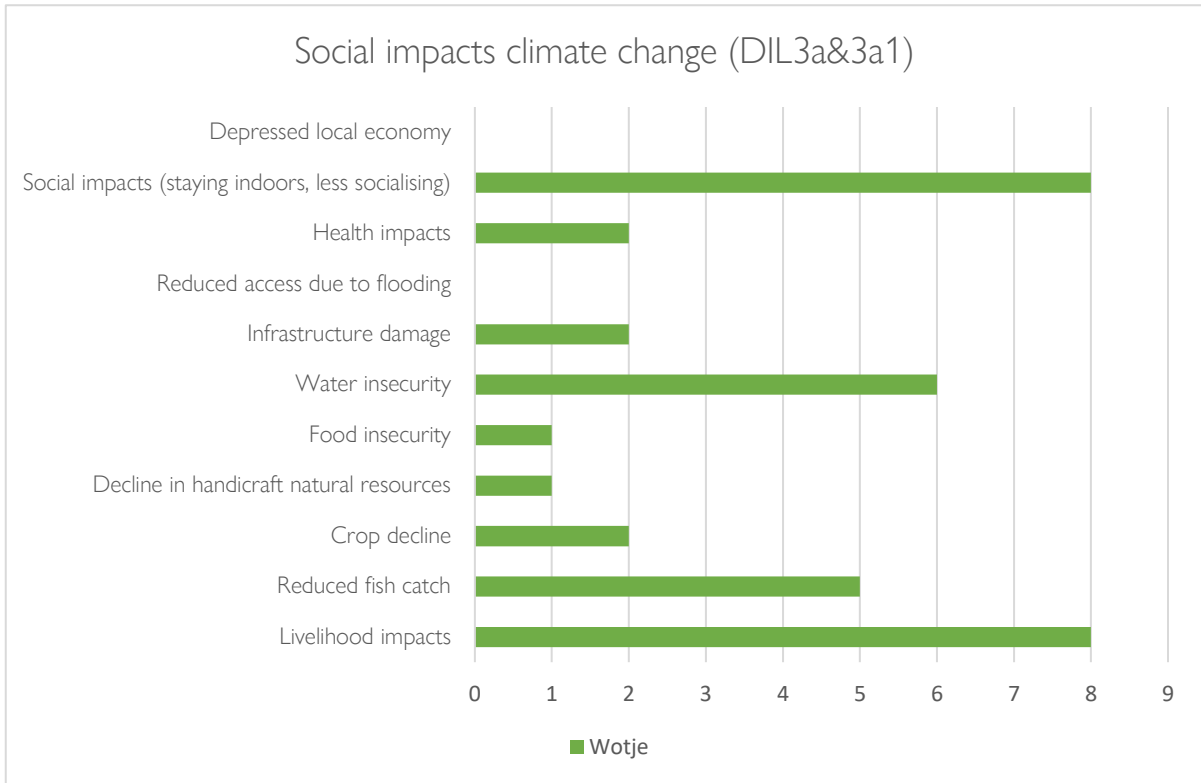


Figure 6: Social impacts climate change in Wotje Atoll

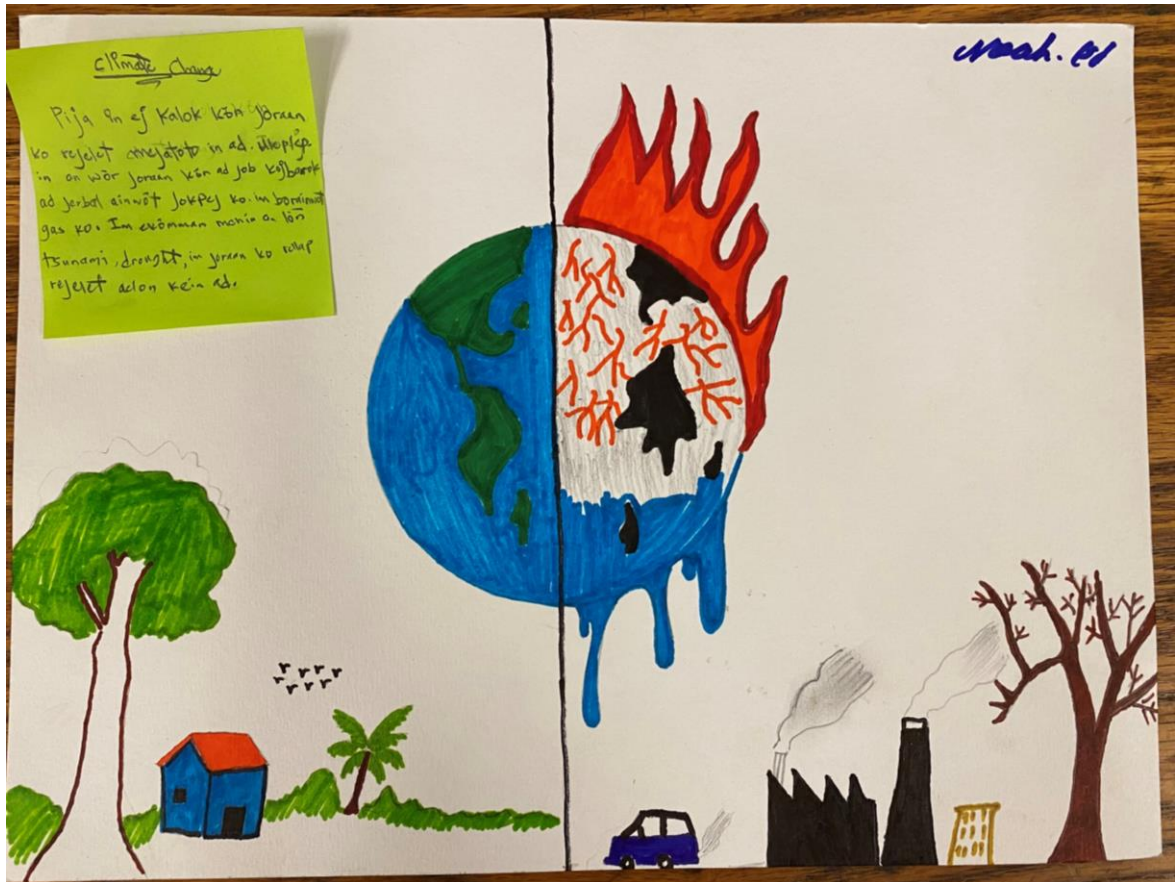


Figure 7: Youth Art depicting concerns about the future

OTHER COMMUNITY EXPERIENCES AND CONCERNS

Participants reported several other challenges within the community that exacerbate climate change impacts and vulnerability (co-drivers). These are:

- Increased population density and insufficient space to plant trees
- Infrastructure challenges (heat stress exacerbated by concrete infrastructure left over from Japan in WWII; also challenges due to uneven roads and the elementary school needs renewal)
- Services insufficient (internet, fuel shortages, lack of reliable off-island transport in health emergencies, lack of frequent transport to ship copra, low supply of medication at health service)
- Governance challenges (slow response times, lack of trust in the local government, distant mayor reduces understanding of local issues)
- Economic challenges (low incomes alongside fish and agriculture decline leading to food insecurity for some families, greater reliance on cash economy but lack of local employment opportunities, increase in living costs but no rise in income)

Social challenges (domestic violence, alcohol and betel nut consumption, outmigration)

Environmental challenges (over-fishing of bait fish and coconut crabs, pollution and poor waste management, burning of plastics)

ADAPTATION PRACTICES AND IDEAS

Few participants shared their current adaptation practices. This is not to say that adaptation is not occurring, but rather that it was not discussed in detail. One participant mentioned that a seawall had been built by the community, led by the Northern Islands High School in Wotje, Wotje. Another mentioned that the community had water catchments and Reverse Osmosis (RO) units, and that aquaculture training was available through Marshall Islands Marine Resources Authority (MIMRA) .

DIL participants shared their ideas about future adaptation. Notably, no participants discussed migration as an adaptation idea. Most related to infrastructure, followed by coastal protection measures, water security actions, and livelihood adjustments.

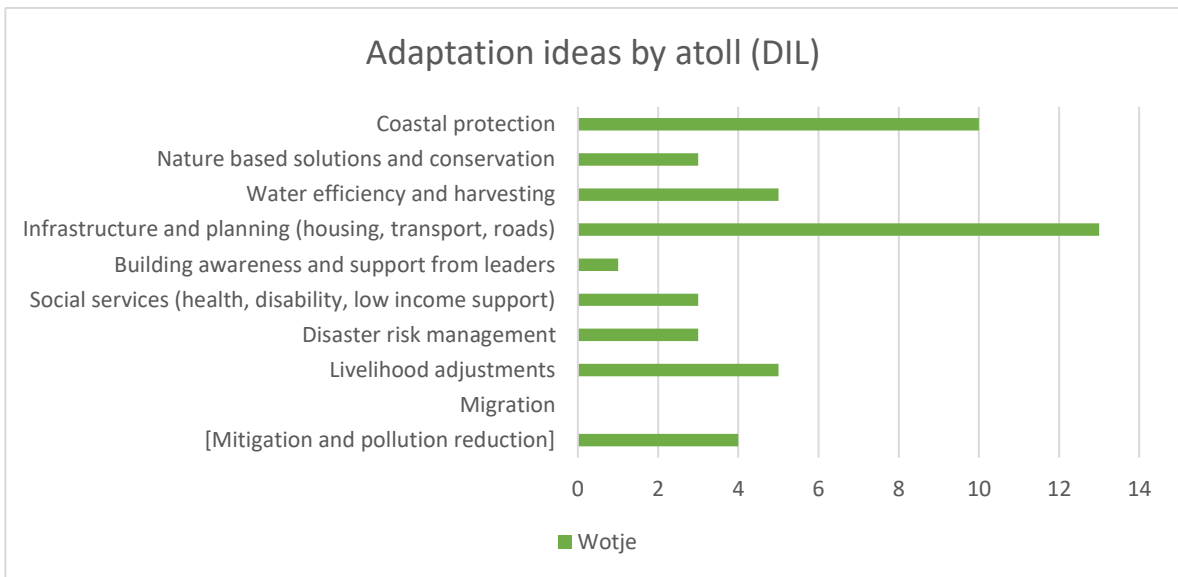


Figure 8: Adaptation ideas in Wotje Atoll

During the Youth and Arts Engagement, participants composed works that reminded youth of today to do their part in making sure that the islands stay above water.

Ideas related to infrastructure included:

- avoid new buildings which increase housing density
- avoid construction with high concrete content due to pollution concerns
- build stronger housing to withstand strong winds
- elevate buildings to withstand flooding
- build cool huts for people to avoid heat stress
- build a large evacuation building to accommodate the community during extreme events
- consider elevating islands, including the option of dredging from within the atoll to safeguard the community

From the DIL participants whose adaptation ideas included coastal protection measures, were mostly in favour of seawalls (n=8). One participant however expressed concern that seawalls would damage the ocean.

With regards to livelihoods adjustments and food and water security, participants suggested:

- Community garden and greater support for local foods to support livelihoods and also so they aren't reliant on food imports in times of disaster
- Improved farming techniques
- More water harvesting facilities (so they are not reliant on just one source) and greater storage capacity
- Improved water conservation

Several participants suggested social services and welfare related to disaster risk management:

- information on how to prepare for typhoons
- evacuation drills
- improve and diversify health care options and ensure consistent stocks so there is no need to ration
- sanitary pads provided to women and girls in extreme events
- a community bulletin board for communicating risks and initiatives
- door to door disaster information and response service for people with disabilities
- reduced cost for basic goods so that vulnerable people within the community can cover basic needs
- extra fuel supply on island for emergency purposes
- women in the community requested a gather house or hut to be constructed for learning, handcraft making and socializing to promote social cohesion

Several participants wanted a greater focus on nature-based solutions, particularly tree planting. Others wanted to see greater efforts to protect and conserve marine life.

These adaptation ideas are extensive and demonstrate a good local understanding of the varied impacts of climate change on the community. The ideas demonstrate the need for a cross-sectoral approach to climate change. Many of these ideas are low-cost and relatively easy to implement.



Figure 9: Adaptation ideas in Wotje Atoll

BARRIERS, OPPORTUNITIES, AND IMPLICATIONS FOR ADAPTATION

The consultation in Wotje Atoll has demonstrated the strengths of the community: people working together for a common goal (such as building the community seawall near the high school), people aware of the climate risks and having good ideas for a suite of adaptation options (food and water security, social services, land-use planning and agricultural support). The consultation also identified several factors that impede adaptation, particularly related to infrastructure (heat exacerbated by concrete structures, damaged infrastructure) and services (unreliable transport, fuel, medical supplies).

A preliminary analysis of these findings suggest several low-cost, no regret-sense options for the community: increase the number and capacity of water tanks, introduce a community bulletin board for sharing adaptation ideas/initiatives and disaster preparedness, introduce a community garden and seed bank to support local food production, introduce tree planting community project, introduce disaster preparedness workshops so that communities have greater awareness of how to prepare and what to do during extreme events. Adaptation options that require more consideration and investment include ideas to adjust land-use planning and infrastructure, and engagement on coastal protection measures.

| Adaptation activities that could begin immediately (identified by community and low risk of regret) |
|--|
| Increase the number and capacity of rainwater tanks |
| Increase the capacity and sustainability of water production through reverse osmosis units |
| Introduce a community bulletin board for sharing information about adaptation ideas, new initiatives and disaster preparedness |
| Introduce a community garden, improved plant varieties and practices, and a seed bank to support local food production |
| Tree planting to help protect shorelines, reduce heat, and increase food supply |
| Disaster preparedness workshops |
| Improve waste disposal systems and increase composting |



Figure 10: Youth Engagement in Wotje Atoll

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|---|
| Adaptation activities that could begin in the next five years (identified by community and require further consultation and planning) |
| Site assessments to determine the causes of erosion and the most appropriate adaptation response |
| Building community facilities that can serve as shelters in times of disasters and cool refuges for people experiencing heat stress |
| Consultations on future land uses, including to: <ul style="list-style-type: none"> • relocate houses near eroding coasts, • relocate the high school • locate new disaster shelters / cool refuges • plan locations for future houses and developments • determine the best locations for community gardens |
| Double the frequency of shipping services without increasing the cost |
| Pilot new housing systems that are elevated, cooler, and able to withstand strong winds |
| Site assessments to develop aquaculture in the lagoon to harvest fish for local consumption |

KEY OBSERVATIONS FROM FIELD ENGAGEMENT TEAM

During a final debrief and workshop session with project team members shared their naturalistic observations that were observed in the field. These are key takeaways from each community and key action points for each community provided by IOM, Jo-Jikum, WUTMI, and MICS.

Key Takeaways Observed from the Field Engagement team

- Community member statement: “I choose to stay even if it means I’m swimming in my own home”
- The youth were not confident in their leadership in terms of climate change
- Medicine is rationed, health care provider and services are lacking

Key actions request observed from the Field Engagement Team

- Handicraft facility for women, where they can invest money from what they earn for themselves to reinvest in themselves. This is required because they (the women) are now expected to provide for the family (people say from every location)
- Access to better health care, better facilities, more options of health care providers and female options.
- Coastal protection (sea walls main request – when talking about natural they want sea wall)
- Safe house for women in Wotje Atoll, somewhere they can go to if they experience domestic violence.
- Want roads to be paved.

For more information contact

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Annex

1. Wotje, Wotje Community Profile (NAP Consultation)
2. Wodmej, Wotje Community Profile (NAP Consultation)
3. Gender Based Violence Directory
4. Wotje Atoll Drought Management Plan
5. Wotje Atoll SEM Survey Results
6. Wotje HVCM 2018
7. Wotje, Wotje Community Profile (NAP Consultations)
8. Wotmej, Wotje HVCM (NAP Consultation)
9. Youth Art work from Jo-Jikum engagement
10. Wotje Atoll Resource Management Plan