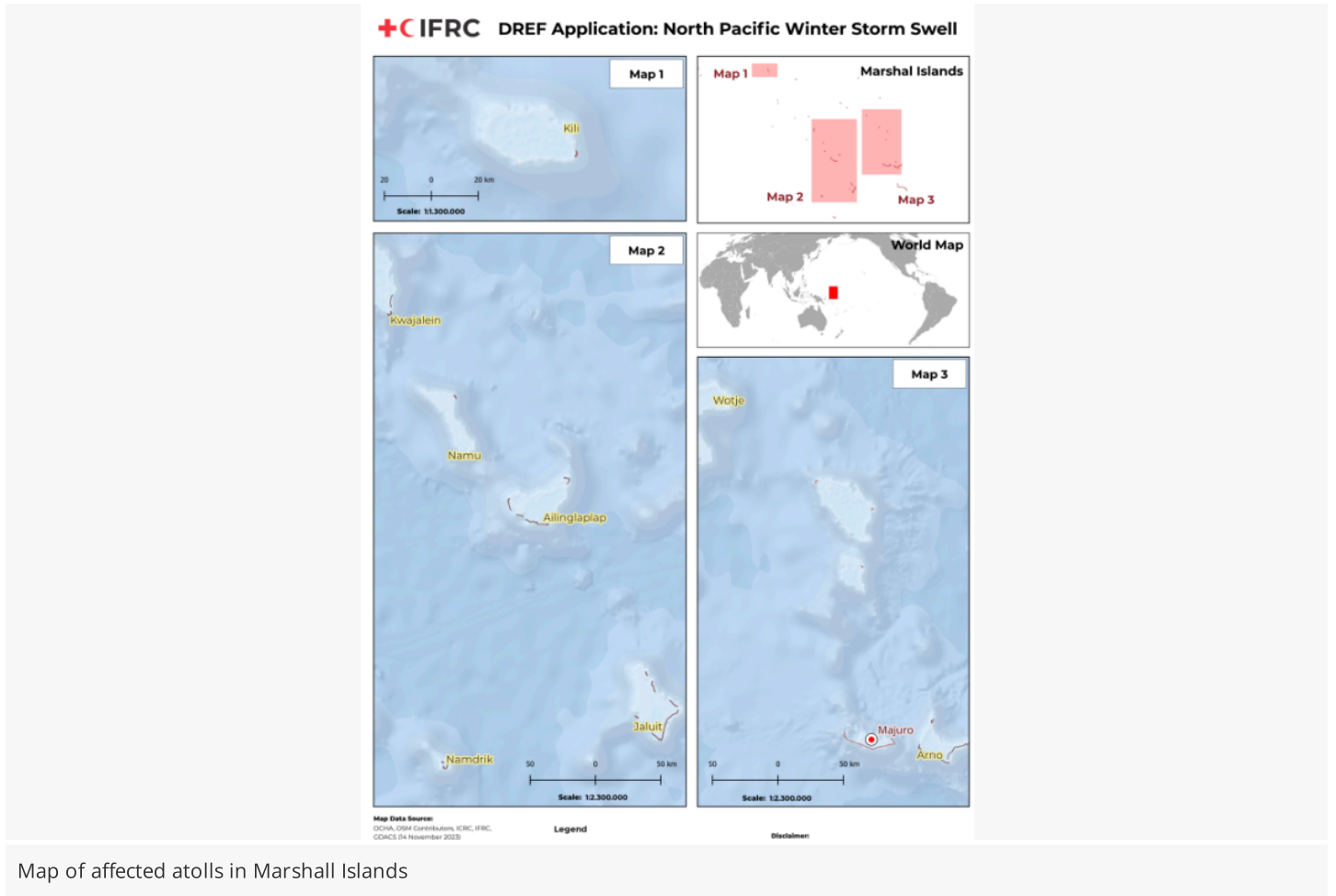




The storm surge has caused damages to shelters and infrastructures in multiple atolls and islets across Marshall Islands. MIRCS visited nine atolls and islets to assess the situation. (Photo: MIRCS)

Appeal: MDRMH003	Total DREF Allocation: CHF 50,024	Crisis Category: Yellow	Hazard: Storm Surge
Glide Number: 2024-000006	People Affected: 19,532 people	People Targeted: 19,532 people	
Event Onset: Sudden	Operation Start Date: 30-01-2024	Operational End Date: 30-09-2024	Total Operating Timeframe: 8 months
Targeted Areas: Ratak Chain, Ralik Chain			

Description of the Event



Map of affected atolls in Marshall Islands

Date of event

22-01-2024

What happened, where and when?

On 20 January 2024, a strong winter storm formed in the northern Pacific Ocean and caused major inundation event in the Marshall Islands. The first impact of the storm was seen in Roi Namur, an islet in the Kwajalein Atoll. The storm brought large waves and strong winds, leading to significant inundation in the atoll. It continued to cause damage across the country, affecting two islets in the Arno Atoll on the same day. The islets in Arno faced additional damages as a second wave of inundation impacted them in the early morning the next day, exacerbating the vulnerabilities of the population in the respective islets.

Several atolls in the Marshall Islands, including Alinglaplap, Arno, Jabot, Jaluit, Kili, Kwajalein, Likiep, Mejit, Namdrik, Namu, and Wotje, also experienced inundation. Most of these atolls suffered from flooding and agricultural damage. Arno and Kwajalein atolls were the hardest hit. Roi Namur in Kwajalein and the islets in Arno experienced severe infrastructural damage and disruptions to livelihoods in addition to the flooding and agricultural damage.

According to the National Oceanic and Atmospheric Administration (NOAA), this recent flooding event in the Marshall Islands was more severe than the major flooding event that impacted the country in December 2008. NOAA also highlighted that the impact of the inundation was comparable to the devastating King Tide event in December 2021 that affected the Federated States of Micronesia (FSM).

In 2008, the floods caused significant agricultural damage and displaced many residents. However, the event in January 2024 had caused damages to infrastructure and livelihoods and the impact was even more profound. Entire communities in Kwajalein and Arno atolls were left in disarray, with homes, schools, and vital infrastructure severely damaged or destroyed. The frequency and intensity of such events appear to be increasing, raising concerns about the long-term resilience and sustainability of these vulnerable island communities.

The analysis by NOAA also provided crucial context in understanding the magnitude of this disaster, emphasizing the need for immediate



and sustained humanitarian and infrastructural support. The comparison to previous incidents highlights an alarming pattern of growing environmental difficulties that the Marshall Islands and other low-lying Pacific islands are facing.

Due to time constraints and frequent flight cancellations, MIRCS was only able to conduct needs assessments in nine out of the eleven impacted atolls and islets. The following are atolls and islets that was assessed: Alinglaplap, Arno, Jabot, Jaluit, Kili, Likiep, Mejit, Namu, and Wotje. This limited MIRCS ability to fully gauge the extent of the damage across the entire region.



MIRCS team assessing the Impact of the Winter Storm Swell (Photo: MIRCS)

Source Information

Source Name	Source Link
1. Radio New Zealand	https://www.rnz.co.nz/international/pacific-news/507233/freak-waves-cause-damage-at-us-army-base-shut-airports-in-remote-islands

National Society Actions

Have the National Society conducted any intervention additionally to those part of this DREF Operation?	Yes
Please provide a brief description of those additional activities	At the completion of this DREF operation, MIRCS launched another DREF operation on 27 February 2024, in response to the drought that affected the country. The drought operation focuses on providing WASH services to the affected communities with a focus on providing clean water. MIRCS has the capacity now to operate three reverse osmosis (RO) machines to provide clean water for the communities. MIRCS also has a trained group of volunteers in hygiene promotion.

IFRC Network Actions Related To The Current Event

Secretariat	<p>The IFRC provided in-country support through the IFRC North Pacific sub-office, assisting the National Society with planning and assessment. The IFRC Pacific country cluster delegation in Suva, Fiji, offered remote technical assistance, coordinating updates and information to regional partners, and providing technical support.</p> <p>Key areas of support included:</p> <ul style="list-style-type: none">• Technical assistance in adapting disaster needs assessment and initial damage assessment tools, aiding in data collection, and reviewing analysis methods and approaches.• Guidance to MIRCS for planning and mobilization efforts.• Coordination of information dissemination to partners locally and regionally.• Review and submission of financial acquittals. <p>MIRCS actively participated in the National Emergency Operational Center (NEOC), coordinating efforts under the leadership of the NDMO in partnership with local governments throughout the response. Additionally, the IFRC supported the MIRCS communications officer in disseminating information and executing communication plans during the response.</p>
Participating National Societies	Australian Red Cross is informed and communicated on the impact of the disaster.

ICRC Actions Related To The Current Event

No presence in the country.

Other Actors Actions Related To The Current Event

Government has requested international assistance	No
National authorities	The government, in collaboration with MIRCS, conducted a swift evaluation of Arno Atoll, uncovering substantial damages in the first few days after the inundation. A strong foundation for collaboration was established through the coordinated efforts of National Emergency Operation Centre members under the leadership of the National Disaster Management Office.
UN or other actors	None
Are there major coordination mechanism in place? NDMO coordinated the response through regular meetings.	

Operational Strategy

Overall objective of the operation

The objective of this IFRC-DREF operation was to complete a comprehensive multi-sectoral assessment of the impact of the storm surge in January 2024. Subsequently, the aim was to formulate a detailed plan to address the gaps in humanitarian needs. Lifesaving needs, such as food and water, would also be addressed during these assessments, considering the hard-to-reach communities in multiple atolls and islets.



Operation strategy rationale

The operational strategy prioritized needs assessments across the atolls and islets that was impacted by inundation and associated events in the Marshall Islands. Due to the significant logistical needs required to reach the far-flung atolls and islets, MIRCS also prioritized in bringing in essential items for the affected population to support their immediate needs following the inundation events.

The actions were conducted through the network of MIRCS volunteers and staff, totaling to 38 individuals. MIRCS coordinated with various stakeholders, including NDMO, Republic of the Marshall Islands (RMI) relevant authorities, and embassies for the response. It was done in collaboration with the IFRC North Pacific Sub office.

The operation was implemented over two months, with an assessment report produced by the end of the IFRC-DREF operation.

Targeting Strategy

Who was targeted by this operation?

The primary objective of the IFRC-DREF Operation is to conduct a multi-sectoral assessment and providing essential items in the impacted areas. The people targeted are the people directly impacted by the storm surge across 11 atolls and islets with specific attention directed towards individuals with special needs.

Explain the selection criteria for the targeted population

This approach ensures that the assessment was conducted with focus on the unique challenges faced by the most vulnerable population. Additionally, an inclusive outreach strategy was implemented to cater for the diverse needs within these communities, ensuring a comprehensive and equitable response.

Total Targeted Population

Rural	100%	Urban	0%
People with disabilities (estimated)	1%		
Total targeted population	19,532		

Risk and Security Considerations

Please indicate about potential operation risk for this operations and mitigation actions

Risk	Mitigation action
High fuel prices and unavailability of boats may delay the assessment	MIRCS organized the fuel and boats through coordination with various stakeholders and sharing of resources with the stakeholders involved in the assessment process.
High waves in the ocean and weather condition	MIRCS staff and volunteers were advised not to take unnecessary risks. They are not allowed to do sea travel during unfavorable water conditions. While travelling, the staff and volunteers were always wearing life jackets and follow IFRC security guidelines.

Please indicate any security and safety concerns for this operation

The usual risks while commuting through the Pacific Ocean remained. The National Society's security framework applied to its staff and volunteers for the duration of the operation.

All IFRC and RCRC staff and volunteers were encouraged to complete the IFRC Stay Safe e-learning courses. The field missions undertaken



by IFRC personnel followed the IFRC travel and security regulations. All personnel that were deployed to the operational areas were made aware of the security and safety situation and briefed prior to their deployment.

Has the child safeguarding risk analysis assessment been completed?

No

Implementation



Livelihoods And Basic Needs

Budget: CHF 1,203

Targeted Persons: 500

Assisted Persons: 225

Indicators

Title	Target	Actual
# of households reached with food assistance	100	42

Narrative description of achievements

Through this IFRC-DREF operation, and with the support of dedicated volunteers, MIRCS provided essential assistance to 42 affected households (225 people) across six communities located in various atolls/islands. Each household received one packet (24 pieces) of ramen, four cans of tuna fish, and one packet (20 pounds) of rice as immediate food aid.

In addition to food supplies, MIRCS extended support to meet other basic needs by distributing non-food items (NFIs) to the affected populations of these atolls/islands. The distributed NFIs included buckets, blankets, brooms, toilet paper, Pine-Sol, and soap. These items were crucial for maintaining hygiene and comfort for the affected families during the disaster. Furthermore, MIRCS supported the schools in these communities by providing toilet paper, cleaning and disinfecting products, and soap.

To address shelter needs, MIRCS distributed shelter toolkits to help families repair their houses, ensuring they had a safe and secure living environment. Kitchen sets were also distributed to facilitate cooking and meal preparation during this challenging time.

This comprehensive support package, which combined food aid and essential non-food items, aimed to address the immediate and diverse needs of the affected households. The coordinated efforts of MIRCS and its volunteers were instrumental in delivering this assistance efficiently, alleviating the suffering of the affected communities and enhancing their resilience in the face of the disaster.

Lessons Learnt

- Travel to the atolls and islets is both time-consuming and costly. By combining assessments with the distribution of relief items, MIRCS effectively addressed the essential needs of the population in a timely manner. This approach enabled MIRCS to sustain its operations while adapting to the unique context of the country.

Challenges

- Travel to the affected communities incurs high logistical costs due to their remote and dispersed locations, requiring careful planning.



Water, Sanitation And Hygiene

Budget: CHF 3,425

Targeted Persons: 500



Indicators

Title	Target	Actual
# of households reached with safe drinking water	100	93

Narrative description of achievements

Water and sanitation needs were among the key areas assessed during the multi-sector assessment conducted across nine atolls and islets in the Marshall Islands.

During the assessment, the following gaps in water resources were highlighted:

1. Quality of Water: The quality of water is a significant concern, with untested and potentially contaminated sources posing serious health risks.
2. Water Catchments: Water catchments are either insufficient or inadequately maintained, leading to severe shortages during drought periods.
3. Salinity Issues: High salinity levels in water sources render them unsuitable for drinking without treatment. The need for clean water had been a persistent issue in the communities due to prolonged drought conditions experienced in the months leading up to the storm surge. The storm surge exacerbated the situation by damaging some of the water catchments, further increasing concerns about water quality.

Travel to the atolls and islets was challenging due to limited transportation options and the time-consuming nature of the journey. To maximize the efficiency of their efforts, MIRCS took advantage of the trips to distribute clean water and jerry cans to communities while the assessment was ongoing. This proactive approach was based on the anticipated severity of clean water shortages in these areas.

A total of 2,500 liters of clean water and 389 jerry cans were distributed across seven communities in the atolls of Kwajalein and Arno. This initiative reached 93 households, benefiting an estimated total of 465 people.

Each household received three jerry cans, ensuring they had a reliable and convenient means of storing water. The distribution of water and jerry cans was a critical component of the response, providing immediate access to safe drinking water while supporting ongoing hygiene and sanitation needs by enabling families to store water safely.

Volunteers played a pivotal role in the success of this initiative. They were actively involved in every stage of the process, from assessing household needs to the actual distribution of water and jerry cans. Their dedication ensured that support reached the most vulnerable and that the distribution was carried out efficiently and effectively.

The provision of safe drinking water had a profound impact on the well-being of the affected communities. It helped prevent the outbreak of waterborne diseases, a common risk in the aftermath of natural disasters. By ensuring access to clean water, MIRCS contributed to improving the overall health and resilience of the affected populations.

Lessons Learnt

- Travel to the atolls and islets is both time-consuming and costly. By combining the assessment with the distribution of water and jerry cans, MIRCS effectively meets the essential needs of the population in a timely manner. This approach allows MIRCS to maintain its operations while considering the unique context of the country.

Challenges

- Travel to the affected communities incurs high logistical costs due to their remote and dispersed locations, requiring careful planning.





Secretariat Services

Budget: CHF 0

Targeted Persons: 0

Assisted Persons: 0

Indicators

Title	Target	Actual
# of monitoring visits conducted	1	1

Narrative description of achievements

IFRC, through its sub-office for North Pacific based in Marshall Islands, provided support to MIRCS in response to the storm surge. Additionally, the head of the sub-office participated in the assessment in a few atolls together with MIRCS and provided technical support in ensuring the assessments capturing the overall needs in the affected areas.



National Society Strengthening

Budget: CHF 45,395

Targeted Persons: 50

Assisted Persons: 9

Indicators

Title	Target	Actual
# of assessment report developed and disseminated	1	1
# of volunteers insured for the operation	50	9
# of multi-sectoral assessments conducted	1	1
# of Lessons Learned workshop conducted	1	1

Narrative description of achievements

MIRCS conducted a comprehensive briefing session for their staff and volunteers to outline the operation and the multisectoral assessment process. Following this training and briefing, they assessed 643 households across eleven different atolls to identify the most vulnerable individuals and households. The data collected from these assessments were analyzed and compiled into detailed reports, which were subsequently shared with the government and other relevant agencies involved in supporting the operation.

To ensure the safety and security of their volunteers, MIRCS confirmed insurance coverage for nine volunteers participating in the operation. This measure was essential in providing protection and peace of mind to those working on the ground in challenging conditions.

The thorough approach to training, assessment, and volunteer safety underscores MIRCS's commitment to delivering effective and coordinated support to the communities in need, while also prioritizing the well-being of their volunteers.



Lessons Learnt

1. Planning for High Tide:
 - Lesson: Recognize the critical role of tidal schedules in accessing islets.
 - Action: Develop a detailed tide schedule and incorporate buffer times to minimize waiting periods. This includes planning departure times to coincide with high tides to ensure timely access.
2. Weather Monitoring and Preparedness:
 - Lesson: Adverse weather can significantly impact travel and safety.
 - Action: Implement continuous weather monitoring and establish contingency plans for bad weather. Equip teams with appropriate gear and safety protocols to handle rough conditions.
3. Safety Protocols:
 - Lesson: Navigating rough waters poses safety risks to the team
 - Action: Conduct regular safety drills and provide thorough training on navigating challenging marine environments. Ensure all boats are well-maintained and equipped with emergency supplies.
4. Negotiating Flight Access:
 - Lesson: Overbooked and infrequent flights require strategic negotiation with local authorities.
 - Action: Build strong relationships with local leaders, such as the Mayor and Senator, to advocate for flight access. Develop a system for prioritizing critical personnel and supplies on flights.
5. Contingency Planning for Flight Delays:
 - Lesson: Flight cancellations and delays are common and disrupt schedules.
 - Action: Establish backup plans, including alternative travel dates and methods. Ensure flexibility in the program schedule to accommodate delays and cancellations.
6. Communication with Local Communities:
 - Lesson: Effective communication with local communities is essential for smooth operations.
 - Action: Maintain regular contact with community leaders to keep them informed of any delays or changes in plans. This helps manage expectations and fosters cooperation.
7. Resource Allocation:
 - Lesson: Delays impact the timely delivery of aid and services.
 - Action: Pre-position supplies in strategic locations to ensure they are readily available when needed. This minimizes the impact of travel delays on service delivery.
8. Flexibility and Adaptability:
 - Lesson: Unpredictable conditions demand flexibility.
 - Action: Cultivate a culture of adaptability within the team. Encourage creative problem-solving and quick decision-making to address unforeseen challenges.
9. Community Involvement:
 - Lesson: Engaging local communities provides valuable support and insights.
 - Action: Involve local community members in planning and execution to leverage their knowledge of the area as early as possible. This can improve efficiency and safety.
10. Documentation and Evaluation:
 - Lesson: Systematic documentation helps in evaluating and improving processes.
 - Action: Keep detailed records of each mission, including challenges faced and solutions implemented. Conduct regular reviews to identify areas for improvement and update protocols accordingly.

Challenges

- Reaching smaller communities on the islets of an atoll is challenging due to the necessity of boat transportation. These islets are only accessible during high tide, adding complexity and unpredictability to the journey. On multiple occasions, the assessment team had to wait over two hours on the boat until the tide was high enough to proceed.
- During these periods of inundation, worsening weather conditions created hazardous situations. The adverse weather delayed travel and increased the risks of providing aid. Navigating through rough waters and unpredictable tides made it difficult to ensure the safety of the assessment team and the communities they aimed to assist, requiring careful planning and constant assessment of weather and tidal



conditions.

- Accessing outer islands was hindered by infrequent flights, often only once per week. On several occasions, assessment team members were bumped off flights due to overbooking. Despite efforts to negotiate with local authorities, including the Mayor and Senator, flight cancellations and delays were common. When canceled, the team had to wait until the following week for another opportunity, disrupting their schedule and delaying the delivery of essential aid.



Financial Report

DREF Operation

Selected Parameters			
Reporting Timeframe	2024/1-6	Operation	MDRMH003
Budget Timeframe	2024/1-3	Budget	APPROVED

FINAL FINANCIAL REPORT

Prepared on 21/Oct/2024

All figures are in Swiss Francs (CHF)

MDRMH003 - Marshall Islands - Storm Surge

Operating Timeframe: 30 Jan 2024 to 31 Mar 2024

I. Summary

Opening Balance	0
Funds & Other Income	50,024
DREF Response Pillar	50,024
Expenditure	-50,024
Closing Balance	0

II. Expenditure by area of focus / strategies for implementation

Description	Budget	Expenditure	Variance
AOF1 - Disaster risk reduction			0
AOF2 - Shelter			0
AOF3 - Livelihoods and basic needs	1,130	861	269
AOF4 - Health			0
AOF5 - Water, sanitation and hygiene	3,216	860	2,356
AOF6 - Protection, Gender & Inclusion			0
AOF7 - Migration			0
Area of focus Total	4,346	1,721	2,625
SF11 - Strengthen National Societies	45,678	48,303	-2,625
SF12 - Effective international disaster management			0
SF13 - Influence others as leading strategic partners			0
SF14 - Ensure a strong IFRC			0
Strategy for implementation Total	45,678	48,303	-2,625
Grand Total	50,024	50,024	0

[Click here for the complete financial report](#)

Please explain variances (if any)

A total of CHF 50,024 was allocated to MIRCIS to conduct needs assessments and deliver essential items to support immediate needs in the atolls and islets affected by inundation in the Marshall Islands. The operation recorded 100 per cent expenditure (zero balance) at the end of the operation.

In moving into Enterprise Resource Planning (ERP), expenditures that are completed by the National Society, including the sectoral level expenditures are captured in the financial report as one line under National Society Expenses (SFI 1). This therefore cause variances under other budget groups where NS expenditure was initially budgeted.

Contact Information

For further information, specifically related to this operation please contact:

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[Click here for reference](#)

