

**Republic of the Marshall Islands**



*Empowered lives.  
Resilient nations.*

**United Nations Development Programme  
Fiji Multi-Country Office  
Drought recovery and resilience  
in the Republic of Marshall Islands (RMI)**

**Related UNDAF Sub-regional Project Document Outcome:**

UNDAF Outcome 3 - By 2017, inclusive economic growth is enhanced, poverty is reduced, sustainable employment is improved, livelihood opportunities and food security are expanded for women, youth and vulnerable groups and social safety nets are enhanced for all citizens, and

UNDAF Outcome 1 – By 2017 most vulnerable communities across the PICTs are more resilient with particular focus on communities, through integrated implementation of sustainable environmental management, climate change, and adaptation/mitigation and disaster risk management

**Expected Country Programme Outcomes:**

RMI UNDAF Outcome 3.1 – Enhance self-reliance and resourceful livelihoods for poverty reduction, increase food and water security for inclusive social economic development, and

RMI UNDAF Outcome 1.1 – A functional regulatory system with a high degree of compliance at all levels to achieve sustainable development of natural resources and protection of the environment through strengthened gender inclusive climate change adaptation and disaster risk reduction.

**Expected Country Program Output:**

RMI UNDAF Output 3.1.3 – Increase community empowerment for local food production and consumption, and

RMI UNDAF Output 1.1.1 - Strengthened national capacity to coordinate and implement the climate change policy framework and joint national action plan

RMI UNDAF Output 1.1.3 - Strengthened capacity of communities in climate change adaptation practices and issues.

**Implementing Partner:** UNDP (Direct Implementation)

**Responsible Parties:** SPC and FAO

**Government Cooperating Agencies:** Ministry of Resources and Development (MRD)  
and Office of Chief Secretary

## Project Summary

The Republic of the Marshall Islands (RMI), a nation of low-lying atolls and small islands scattered across the northern Pacific, is facing severe water shortages and food scarcity because of a devastating drought that has parched islands for months. Some parts of the country have had no rainfall since November, and weather forecasts predict upcoming precipitation. The government recently moved from a state of emergency to declaring a state of disaster, noting that an estimated 6384 people -- particularly in the most remote northern atolls with few services -- are in danger. International Organization for Migration assessments show that some families have been living on a gallon of water per day, less than half the international standard for emergency water requirements. Meanwhile, the scarce water still left in the wells has become saline and unsafe to drink. A rapid assessment of two islands revealed minimal food crops and plants withering and dying off, as well as extensive fire hazards due to dry vegetation.

The project will support the Government of RMI with the following: (1) introduction of drought-resilient and saline-tolerant staple crops, which are already available on a pilot basis; (2) capacity building for improved water management and soil conservation techniques, including training of male and female youth; and (3) Knowledge sharing and communications for integrated drought mitigation practices.

<p>Programme Period: 2013 – 2017</p> <p>Project Title: Drought recovery and resilience in the Marshall Islands</p> <p>Atlas Award ID: To be inserted</p> <p>Start Date: August 2013- End Date: July 2014 PAC date: 27<sup>th</sup> June 2013</p>	<p>Total resources required US\$120,000</p> <p>Total allocated resources:</p> <ul style="list-style-type: none"><li>• UNDP BCPR US\$100,000</li><li>• UNDP TRAC US\$20,000</li></ul> <p><b>Other:</b></p> <ul style="list-style-type: none"><li>◦ <b>Government</b></li></ul> <p>Unfunded budget: NIL</p> <p>In-kind Contributions: FAO US\$25,000</p>
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Agreed by:



Chief Secretary, Office of the President, Mr Casten Nemra

Agreed by:



Ministry of Resources and Development

Agreed by:

UNDP:

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## I. SITUATION ANALYSIS

The 29 low-lying coral atolls and 5 islands that make up the Republic of the Marshall Islands (RMI) group are among the most remote places on earth. While the capital Majuro is somewhat developed with services and infrastructure, the outer islands are isolated and undeveloped. The outer islands are heavily dependent on the capital for assistance during times of disaster. Transportation and communication systems between the outer Islands and the capital are weak and this, together with prevailing weather conditions, constrains the ability of the capital to respond in a timely manner. The country is at constant risk of a range of disasters, including drought, cyclones and sea level rise. The food security has been one of the critical issues affecting populations in atoll islands in particular due to not only the climate change impacts directly but also to the marine processes that cause coastal erosion and increases frequency of storm over wash. The capacity of atolls to support populations is related to the rainfalls and to the existence of a permanent ground water system.<sup>1</sup> The modern trend of urban migration and changes in diet and traditional family and village cultures affected agricultural production and increased vulnerability of food security in atolls.

With a drought situation worsening over the last few months, RMI is now facing severe water shortages and food scarcity. Some parts of the country have had no rainfall since November, and weather forecasts predict no upcoming precipitation. On April 19<sup>th</sup> the government issued a declaration of a state of emergency for the country's northern atolls, and a week later officially requested assistance from the United Nations. As the situation became increasingly desperate, on May 6<sup>th</sup> the government declared a State of Disaster, noting that as many as 5000 people are directly affected in the most drought affected islands, with an additional 11,000 individuals affected by crop loss (16,000 total affected). The National Disaster Committee established an Emergency Operations Centre on 9 May.

A brief from the national weather service confirmed that the drought will persist for the immediate future, with no precipitation forecasted. There is a high likelihood that RMI will remain in drought conditions through July based on El-Nino Southern Oscillation (ENSO) Pacific updates.

Assessments are on-going, however, water tanks are empty and wells are unsafe for drinking. Most of the seven reverse osmosis units used for purification of drinking water are operating below-capacity. Additional reverse osmosis units<sup>2</sup>, spare parts, delivery of water bladders, immediate and long-term assistance on food security, and a crisis support plan for communicable health issues related to water security are needed.

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<sup>1</sup><http://www.fao.org/climatechange/170002529d2a5afee62cce0e70d2d38e1e273.pdf>

<sup>2</sup> A process by which a solvent such as water is purified of solutes by being forced through a semipermeable membrane through which the solvent, but not the solutes, may pass.

One large ship has been deployed and 1 large ship is currently being loaded with supplies (multiple stops). Smaller ships may also be required. The ships are loaded to capacity. Cost is about \$100,000 per large ship and between \$30,000 and \$50,000 for the smaller ships. Supplies are aimed at the household level (10 days of supplies) and include staple items such as water, rice, tinned food and vegetables. Airlines are being deployed to carry water to those most affected. The Government has limited food and funds are depleting rapidly, therefore it is looking at shutting down some government services to finance the drought response. A minimal water supply is a concern.

The government has expressed its concern about the timing of the deployment of the donated reverse osmosis units; those promised may not arrive for another 2 weeks, while the situation remains dire. There is a rapid decrease in the production rates of the reverse osmosis units, despite filter changes. The reverse osmosis units are being overused and some component parts are breaking down. The RMI Government is primarily working with the local governments that administer the atolls. There is limited information on the gap between what is being provided and what is required to meet actual needs. In Ailuk (est. pop 339) a school has requested to relocate to another island which has a reverse osmosis unit.

The Secretary of Health has reported on the health implications of the crisis, as the water scarcity leads to greater concentration of bacteria and higher salinity in well water. The biggest health impacts so far are incidence of diarrhoea with vomiting, influenza, gastritis and conjunctivitis. Medication has been sent to five islands, and more medications being dispatched by boat to the outer islands.

A rapid assessment of two affected islands – Mejit and Utrik - showed necrosis of banana, taro and breadfruit leaves, and even hardy traditional trees such as coconut and pandanus wilting and stunted due to the extreme dry conditions. Many home gardens have been decimated by the drought, and extensive parched grass areas are considered fire hazards. The recovery prospects are complicated by hesitation to plant root crops due to suspected radioactivity levels in the soil as a result of nuclear testing decades ago.

In terms of donor coordination, the Emergency Operations Center (EOC) is the critical platform for coordination with key government entity representatives and cluster leads based in the center. International actors are actively coordinating with EOC on all matters relating to the response. Four clusters (Food Security, Health, Logistics and WASH) have been established at the EOC. Four Government cluster leads have been appointed. The cluster leads finalized draft cluster response plans for Food Security, Health and WASH on 20 May, with support from the United Nations Disaster Assessment and Coordination (UNDAC) Team. The cluster response plans include details of cluster objectives, response activities, outputs and basic costs to guide coordinated and strategic cluster response. The UNDAC team continues to work in support of the EOC in Majuro.

### **Preliminary Needs:**

In the “Immediate and Near-Term Drought Response Plan” released in May by RMI government, the Food Security Cluster led by Ministry of Resources and Development has indicated the following needs:

<b>Activity</b>	<b>Description</b>	<b>Estimated budget \$USD</b>
A 1.1.	Provision of food rations	249,478
A 1.2	Provision of seeds, seedlings, improvement of farming methods through training, soil rehabilitation and local seed banks and nurseries	190,781
A 1.3	Capacity development activities, technical support and training	37,500
	<b>Total estimated budget –food cluster</b>	<b>477,759</b>

Given that the most immediate and urgent needs in the current drought emergency situation include: water delivery and purification; logistical costs for assessments and delivery of aid; and food rations, the UN Resident Coordinator has secured Central Emergency Response Fund (CERF) funding in the amount US\$1 million to expediently address those urgent needs. Therefore this request to BCPR is complementary and leverages UNDP’s comparative advantage by focusing on drought recovery and resilience over the medium term.

The following needs in relation to other sectors are also noted: water and food (USD 964,760); hygiene kits as a preventative measure against diarrheal and skin diseases (USD 60,000); reverse osmosis (RO) units and maintenance of RO units (USD 20,000); distribution of pharmaceuticals to treat diseases such as diarrhea and conjunctivitis (USD 208,000); transportation cost for shipping essential commodities from the urban centers to the affected islands and for deploying personnel for the distribution of commodities, repair maintaining the RO units and medical teams to assess health situation (USD 878,362); medical evacuations that may occur from the affected atolls to the urban centers (USD 60,629).

### **Other donor support:**

The following support for drought response is pledged or has been provided so far:

7 reverse osmosis machines donated and deployed in Feb/March (USAID)

-Logistics for assessment, US\$ 100,000 (USAID)

-NFI/ Hygiene kits (IOM)

-1 Water expert and 1 Food/Agriculture expert (USAID)

-UNDAC team deployed and assessment still on going

-SPC Food Security expert (deployed with assessment teams)

OCHA Emergency Cash Grant of US\$ 50,000 was provided to assist with immediate response efforts

-UNICEF WASH technical expert (1) under consideration

-WASH Cluster (UNICEF chair) and PHT mobilised

-Desalination unit under consideration, US\$ 100,000 value (AusAID)

-ADB grant under consideration

This project will address recovery needs on food security as a result of the drought. UNDP in collaboration with SPC and FAO will use the lessons learned from past and on-going programmes and build upon the successes. Prior UNDP assistance to RMI includes: support for increased rainwater catchment capacity through the UNDP/SPREP managed PACC programme; introduction of new skills and technologies in renewable energies through the ADMIRE and PIGGAREP projects; and addressing sustainability of atolls through the Integrated Atoll Development Project in the past. Key strategies of this project include: strengthening of existing traditional and formal institutions by introducing new innovations such as resilient crops and technologies to establish plantlets, seedlings and vegetable seeds on a demonstration atoll and introducing water and soil conservation practices for drought mitigation. This project will provide a working example and communicate lessons learned to enable future transfer of crops, skills and knowledge to drought affected islands. Throughout the implementation, the specialized skills and comparative advantage of UNDP, FAO and SPC will be utilized.

According to FAO's assessment of the situation, it may be up to a year before the drought-stricken northern atolls can plant any crops at all, although this is somewhat dependent on the ensuing rainfall patterns. In the meantime, their technical advice recommends that crops should be planted on the non-affected islands, so that these can be propagated in larger numbers and eventually planted on the drought-affected locations once the latter have recovered minimally suitable soil conditions. The scope of this project is to set up a "demonstration atoll" as a basis for replication on drought affected atolls once conditions become conducive for cultivation. **For this reason, it is essential that priority be given to the selection of the demonstration site.**

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## II. STRATEGY

The project will assist the Government of RMI to support the communities on drought-resistant staple crops which are already available on a pilot basis in the region. The project will also support the communities through strengthening of water and soil conservation practices. Additionally the project will contribute to the strengthening of national institutions to improve drought resilience measures. Furthermore, UNDP will capitalize on partnership with SPC and FAO by ensuring that the project is managed and monitored effectively. This initiative will be in line with recommendations of the National Action Plan for Disaster Risk Management and will support better land utilisation and improve drought resilience of local communities at the same time assisting the government of RMI to fulfil its obligations to relevant international convention.

Recovery support will comprise of medium term re-establishment of key staple crops and introduction of new drought resistant crop varieties for food security. Resilience to chronic and future droughts will be pursued through technical assistance for integrated and eco-friendly farming and water conservation practices which mitigate against drought.

Gender equality concerns will be mainstreamed in this project, to ensure the active involvement of, and equal benefits for both men and women. Capacity-building opportunities carried out under the project will stipulate balanced participation of both men and women, and this will be monitored through sex-disaggregated reporting.

Involvement of schools will be pursued as a critical partnership with regards to development of capacities at community level. School teachers and children will be trained in drought-resistant planting practices and management of demonstration sites. Time will be dedicated under the school curriculum for children to have hands-on practice in a range of sustainable agricultural practices. Boys and girls will be equally involved in these activities and the children will be instrumental as champions advocating more sustainable and drought resistant approaches to agriculture. This will also be linked to the new Food Security Policy that FAO is supporting the Government to develop. It is noted there is high level Government support for the strategic engagement of schools in this initiative.

As the Joint Presence Office in RMI has limited capacity for implementation, the project will be managed by the UNDP Multi-country Office (MCO) in Fiji, with in-country liaison provided by the UN Joint Presence Office. For the timely implementation of this project, and to ensure proper technical expertise, UNDP has been engaged in the process in collaboration with FAO, and Secretariat of the Pacific Community (SPC). Possibilities for sourcing South-South expertise from countries such as Fiji will be explored.

### **Activity Result 1: Introduction and care of drought-resistant staple crops in RMI**

This activity is to facilitate the establishment of drought resistant food crops on a demonstration atoll. It involves the support of SPC, whose main role in this partnership is the introduction of drought-resistant and saline-tolerant crops which have previously been field tested in similar atoll conditions across the Pacific.

SPC maintains in Suva the Centre for Pacific Crops and Trees (CePACT)<sup>3</sup>. CePaCT has developed since 2009 a 'climate ready' collection under AusAID's International Climate Change Adaptation Initiative project comprising of varieties which have shown demonstrated resistance to drought and/or salinized soil conditions in the Pacific. In April 2013 SPC transferred some plantlets to Majuro, the capital city of RMI, where they have since been in a greenhouse getting stronger and adapting to local conditions. Given the severe drought situation in RMI, as in the drought-affected northern atolls most current crops are failing, SPC proposes to transfer selected fast-growing crops -- such as sweet potatoes and cassava from these greenhouses to other islands in RMI, so that within six-nine (6-9) months they will be providing a yield for local consumption. As part of this project, SPC will establish these crops

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<sup>3</sup> CePaCT is the only Pacific gene bank established as a long term investment by the Secretariat of the Pacific Community in response to the Heads of Agriculture and Forestry Meeting (HOAFS, 1996) recommendation to put in place policies to conserve, protect, and best utilize plant genetic resources in countries and through regional cooperation.

and provide training on the “demonstration atoll”, as well as deliver training of trainer (TOT) courses to extension officers in Majuro.

At the same time, as part of a medium term strategy, under this project SPC technical specialists will travel to Majuro with additional varieties of plantlets and seeds, including several varieties of banana, taro, and others, so that these can begin the process of adaptation in the main greenhouse and then be transferred to other islands a few months later. These important staple crops for the population will be introduced to the demonstration atoll, however, they will require 9 months or longer before they produce a first yield.

**Activity Result 2: Establishment of water and soil conservation practices and training**

The “demonstration Atoll” for integrated drought mitigation techniques, will undergo a field training initiative to “train trainers” that will include a pool of extension officers in Majuro as well as local farmers, schools, and community leaders, to serve as a model for other atolls in the region which face similar challenges. The selected island, possibly Arno, is situated near Majuro and not affected by the drought. There is already interest indicated by the government of RMI and the atoll island is located strategically with a favorable environment to showcase the initiatives. This will “set the stage” for integrated drought mitigation techniques to be replicated in drought affected atolls as mid- long term interventions to ensure sustainability.

FAO will also provide guidance on integrated drought resilience, through a combination of techniques such as composting, mulching, tree canopy management, inter-cropping and other conservation techniques focusing on drought mitigation as part of an action-oriented training agenda to establish a demonstration site showcasing drought resistant techniques on atoll islands. This will also be linked to an upcoming FAO project anticipated for 2014-2015 on strengthening capacity of women and vulnerable groups for local food production. FAO is also in the process of assisting formulation of a national Food Security Strategy for RMI, which will provide a framework for sustainability of the interventions initiated under this project.

Essential technical assistance and follow-up will be secured through a strategic partnership with FAO under this project. This will include the provision of FAO technical assistance. A technical mission will take place within the next few months for a hands-on “Train the trainers” (national, sub-national & outer islands) staff including those in the RMI agricultural department on water and soil conservation practices for effective propagation and dissemination of the varieties dispatched by SPC, once these are hardened.

**Activity Result 3: Knowledge sharing and communication for community drought resilience.** . A communication strategy will be developed and implemented over the life of the project. The activity will support the government to effectively implement the National Action Plan for Disaster Risk Management<sup>4</sup> (2008-2018) which includes communication strategy and implementation program matrix.

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<sup>4</sup> National Action Plan for Disaster Risk Management 2008-2018, Government of RMI with the support of Pacific Disaster Risk Management Partnership network, Pacific Islands Applied Geosciences



UNDP in collaboration with partners, SPC and FAO will lead the development of a guidance note on drought resilient recovery in atoll contexts based on lessons learnt from the RMI experience and this will involve both field visits to document stories from the community. .

The project attempts to model and build on a successful project such as UNDP's former 'Integrated Atoll Development Project (IADP), and lessons learnt from the Atoll agriculture Centre of Excellence in Kiribati, (SPC) and will document the process for future knowledge management. The concept is that the project will strengthen the communities and local government by introducing new skills (climate resilient crops and other techniques) to the existing customary institutions (families, village leaders etc).<sup>5</sup>

#### **Activity Result 4: Project Managed and Monitored Effectively**

The project will be managed by UNDP, in close consultation with the Ministry of Resources and Development. All activities will be coordinated by the UNDP MCO in Fiji in collaboration with MRD, SPC, FAO and the UN Joint Presence Office. The UNDP Project Coordinator will ensure smooth implementation of the project components, through timely recruitment, procurement, review and reporting processes.

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Commission, Pacific Island Forum Secretariat, UNDP Pacific centre, SPC and East West Centre, 2007.

<sup>5</sup> The key lessons learned from IADP are found in: <https://docs.google.com/file/d/0Bx-hQ>

### III. RESULTS AND RESOURCES FRAMEWORK (RRF) (2013 -2014)

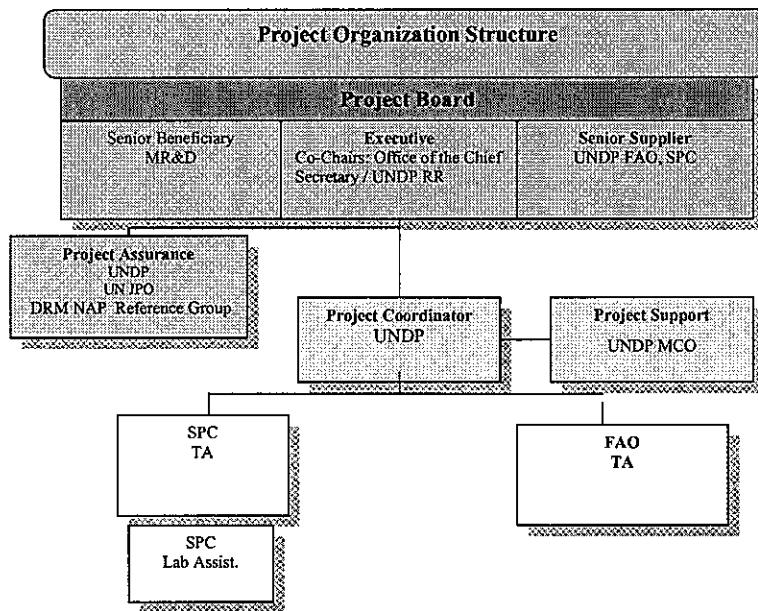
INTENDED OUTCOME AS STATED IN THE REPUBLIC OF MARSHALL ISLANDS COUNTRY PROGRAMME (UNDAF COUNTRY MATRIX)					
<p><b>Outcome 3.1.</b> By 2017, inclusive economic growth is enhanced, poverty is reduced, sustainable employment is improved, livelihood opportunities and food security are expanded for women, youth and vulnerable groups and social safety nets are enhanced for all citizens.</p> <p><b>Outcome 1.1.</b> By 2017, the most vulnerable communities across the PICTs are more resilient and select government agencies, civil society organizations and communities have enhanced capacity to apply integrated approaches to environmental management, climate change adaptation/mitigation, and disaster risk management.</p> <p><b>OUTCOME INDICATORS AS STATED IN THE RMI COUNTRY PROGRAMME (UNDAF COUNTRY MATRIX):</b></p> <p><b>RMI UNDAF Outcome 3.1:</b> Enhanced self-reliance and resourceful livelihoods for poverty reduction, increased food and water security for inclusive socio-economic development.</p> <p><b>Indicator:</b> Poverty gap ratio <b>Baseline:</b> No ratio established <b>Target:</b> TBC</p> <p><b>Indicator:</b> Strategic Plan 2012-2015 reflects development issues of vulnerable groups <b>Baseline:</b> Consultancy for development of Strategic Plan <b>Target:</b> Issues reflected in the Strategic Plan</p> <p><b>RMI UNDAF Outcome 1.1:</b> A functional regulatory system with a high degree of compliance at all levels to achieve sustainable development of natural resources and protection of the environment through strengthened gender inclusive climate change adaptation and disaster risk reduction.</p> <p><b>Indicator:</b> # gender inclusive environmental legislations endorsed (water quality, solid waste, earth moving, etc) <b>Baseline:</b> Earth Moving Act established 2002 <b>Target:</b> Acts implemented at all levels</p> <p><b>Indicator:</b> # registered breaches of the acts <b>Baseline:</b> # breaches of Earth Moving Act <b>Target:</b> TBC with OEPPC.</p>					
<p><b>APPLICABLE KEY RESULTS AREAS:</b> Crisis Prevention and Recovery, Environment management, climate change and disaster risk management.</p> <p><b>PARTNERSHIP STRATEGY:</b> UNDP will implement the project in close consultation with the Ministry of Resources and Development. The joint presence office in RMI will provide support to in country coordination and quality assurance. FAO and SPC will provide the technical assistance to the project.</p> <p><b>Project title:</b> Enhancing community drought resilience in the Republic of Marshall Islands.</p>					
INTENDED BASELINE & INDICATORS	OUTPUT (Disaggregated by Year)	TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS (US\$)
<p><b>Output:</b> A community model for drought resilient food cropping is established for future replication</p>	<p><b>Targets:</b></p> <ul style="list-style-type: none"> <li>Women and men trained in cultivation of drought resistant food crops</li> </ul>		<p>Activity Result 1. Introduction and care of drought-resistant staple crops in RMI</p> <ul style="list-style-type: none"> <li>Activity 1.1. Develop criteria and Identify/Select appropriate island to use as</li> </ul>		\$25,000 technical mission

<p>in drought affected atolls.</p> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>1. Insufficient current food supply for 6,384 affected populations with most crops on affected atolls dying out due to drought.</li> <li>2. Poor management of scarce water and nutrient poor soils, exacerbating drought conditions due to limited awareness on water and soil conservation practices among communities</li> <li>3. Absence of literature on integrated drought mitigation practices for atoll situations</li> </ol> <p><b>Output indicators:</b></p> <ol style="list-style-type: none"> <li>1. Successful harvesting of drought resistant crops and community nurseries through using the skills learnt from the trainings</li> <li>2. Community training on food and cash crop and sustainable water management to include at least 30% of women and 30% of youths (age-sex-disaggregated data)</li> </ol>	<ul style="list-style-type: none"> <li>• Champions identified</li> <li>• New varieties of climate ready plantlets, vegetable seeds and seedlings are successfully grown and harvested</li> <li>• Guidelines and manuals produced</li> </ul>	<ul style="list-style-type: none"> <li>• demonstration site to showcase integrated drought mitigation techniques</li> <li>• 1.2. Conduct technical mission by SPC to RMI to develop fast-growing crops</li> <li>• Activity 1.3. Transfer seedlings from Majuro to suitable island for propagation work to be established</li> <li>• Activity 1.4. Develop monitoring and reporting mechanisms of progress on evaluation of crops</li> <li>• Activity 1.5. Transfer of new varieties of climate ready plantlets to RMI for greenhouse cultivation</li> <li>• Activity 1.6. Recruit temporary laboratory assistant</li> <li>• Activity 1.7. Procure laboratory supplies, bio security and phytosanitary expenses</li> <li>• Activity 1.8. Distribute and transport and distribution costs in compliance with quarantine procedures</li> <li>• Activity 1.9. Training of local agricultural officers by SPC and extension staff</li> <li>• Activity 1.10 a propagation, field trial and dissemination strategy developed for the community</li> <li>• Activity 1.11. Production of guidelines and manuals</li> <li>• Activity 1.11. Provide technical support for monitoring purpose</li> </ul>	<p>UNDP</p> <p>SPC</p> <p>SPC</p> <p>SPC</p> <p>SPC</p> <p>SPC</p> <p>SPC</p> <p>SPC</p> <p>FAO</p> <p>SPC</p>	<p>\$10,000 national consultants</p> <p>\$10,000 equipment</p> <p>\$15,000 Workshop costs</p>
<p><b>Activity Result 1: Sub-Total</b></p> <p><b>Targets:</b></p>		<p><b>Activity Result 2: Establishment</b></p>	<p>USD \$60,000</p>	

<p>3. Knowledge products, including guidance note on integrated drought mitigation practises developed and widely disseminated to stakeholders</p> <p>4. Local champions identified to advocate for the introduction of integrated drought mitigation practises throughout RMI</p> <p>5. Sources Project monitoring report Back-to-office report (mission) Annual report</p>	<ul style="list-style-type: none"> <li>Practices for integrated drought mitigation implemented, promoted and showcased on selected island</li> </ul>	<p><b>ofwater and soil conservation practices and training</b></p> <ul style="list-style-type: none"> <li>Activity 2.1 Provide "Training of Trainers" in propagation of the new varieties/ drought mitigation farming practices to extension officers in Majuro</li> <li>Activity 2.2. Conduct a "training of trainers" for local farmers, schools, and community leaders on water and soil conservation</li> <li>Activity 2.3 Identify local champions to advocate for development planning on food security and water management;</li> <li>Activity 2.4. Develop training tool kits on conservation which will contribute to the national Food Security Strategy for RMI</li> </ul>	<p>FAO</p> <p>UNDP</p> <p>FAO</p>	<p>\$15,000 materials</p> <p>\$5000 transportation</p> <p>(\$25,000 FAO In-kind)</p>	
<p><b>Activity Result 2: Sub-Total</b></p>		<p><b>Activity Result 3: Knowledge Sharing and Communication for Community Drought Resilience</b></p> <ul style="list-style-type: none"> <li>Activity 3.1. Develop and implement an effective communication strategy for the project</li> <li>Activity 3.2. Develop a guidance note on integrated drought mitigation techniques for producing food crops in atoll situations</li> <li>Activity 3.3. Training for local community leaders/champions (including schools) on community leadership/development planning by UNDP</li> </ul>		<p>UNDP</p>	<p>USD \$20,000</p>
<p><b>Targets:</b></p> <ul style="list-style-type: none"> <li>Communication strategy and knowledge products developed and shared widely to communities, national stakeholders, Development partners.</li> </ul>		<p>Production Costs 3,000</p> <p>i-comms 7,000</p> <p>Travel 10,000</p>		<p>UNDP</p>	<p>UNDP</p>



#### IV. MANAGEMENT ARRANGEMENTS:



This project will be managed by UNDP using the Directly Implementation Modality (DIM), under the guidance of a Project Board (refer Annex 1 for ToR). The Project Board will be co-chaired by the Secretary for the Ministry of Resources & Development and UNDP Resident Representative. Under the DIM modality, the UNDP Resident Representative is responsible to the UNDP Administrator and the Government of the Republic of the Marshall Islands for reporting on progress towards achievement of results and is accountable to the UNDP Administrator for documenting prudent and proper use of resources. Use of the DIM modality will reduce the administrative burden to the Government of RMI to coordinate and report on the various project components, particularly given the emergency situation that is currently being faced. UNDP will work in close cooperation and consultation with the Secretary, Ministry of Resources & Development, Chief Secretary, Office of the Chief Secretary and other relevant Government counterparts.

The UNDP Project Coordinator will be responsible for project management, including financial management and reporting. The Project Coordinator will also manage the technical inputs to the project in close liaison with SPC, FAO and the Ministry of Resources and Development. UNDP will ensure provision of project technical inputs, including the provision of technical experts to conduct various assignments detailed in project annual work plans and documented in Terms of Reference annexed hereto. Procurement and recruitment

will be conducted by the Project Coordinator in accordance with the agreed Annual Work Plan using UNDP Financial Rules and Regulations. Project Audit will be conducted as part of the UNDP Country Office Audit performed by the UNDP Office of Audit and Performance Review.

The Project Coordinator will work closely with stakeholders in country to ensure collaboration and complementarity with other drought recovery and mitigation initiatives. A key role for UNDP will be to ensure that development partners and stakeholders are kept fully informed of project's progress.

To ensure the on-going quality assurance of the programme outcomes and outputs, the Project Board will meet quarterly to review project progress. In addition, the Chairpersons may call for special meetings should the need arise. The UNDP Project Coordinator, in conjunction with the Ministry of Resources and Development, will prepare the Agenda for circulation at least two weeks prior to the meeting date and ensure the Minutes of the Meeting are circulated within one week of the meeting being held. Project Reports will verify the achievement of the project management milestones and ensure that these are delivered within the allocated budget in accordance with approved annual work plans (AWPs). The Project Board will be responsible for approving amendments to the annual work plans for achievement of project results.

Project Assurance is the responsibility of each Project Board member; however the role can be delegated. The project assurance role supports the Project Board by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. Project Assurance has to be independent of the Project Coordinator; therefore, the Project Board cannot delegate any of its assurance responsibilities to the Project Coordinator. In addition to Board Members, project assurance for this project will be provided by the UNDP MCO and UNDP Pacific Centre, the UN JPO in Majuro and the DRM and NAP Reference Group.

**DRM & National Action Plan Reference Group: Project Advisory committee**

In addition to the project board, the NAP Reference group shall act as an advisory mechanism to the RMI Project to ensure adequate consideration is taken to address all aspects of the project implementation. The advisory committee will meet every three months and provide advice and guidance to the project board on technical issues relevant to programme implementation. The DRM NAP Reference Group is the main policy coordination committee for the DRM NAP implementation and will provide strategic direction and guidance on project implementation.

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**V. MONITORING FRAMEWORK AND EVALUATION**

In accordance with the programming policies and procedures outlined in the UNDP User Guide, the project will be monitored through the following:

Within the annual cycle

- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table

below. A quarterly report shall be submitted by the Project Coordinator to the Project Board through Project Assurance, using the UNDP standard report format

- An Issue Log shall be activated in Atlas and updated by the Project Coordinator to facilitate tracking and resolution of potential problems or requests for change.
- Based on the initial risk analysis submitted (see annex 1), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
- A project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project
- A Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events

Annually

- **Annual Review Report.** An Annual Review Report shall be prepared by the Project Coordinator and shared with the Project Board and the Outcome Board. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the QPR covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.
- **Annual Project Review.** Based on the above report, an annual project review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Project Board and may involve other stakeholders as required. It shall focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcomes.

**Terminal/Final**

- A final report shall be compiled by the Project Coordinator and will be reviewed by the Project Board, three months before the scheduled completion of the project.

**QUALITY MANAGEMENT FOR PROGRAMME ACTIVITY RESULTS (NEEDS TO BE AMMENDED TO REFLECT THE RESULTS FRAMEWORK)**

<b>Output:</b> A community model for drought resilient food cropping is established for future replication in drought affected atolls.		
<b>Activity Result 1.</b>	Introduction and care of drought-resistant staple crops in RMI	Start Date: July 2013 End Date: July 2014
<b>Purpose</b>	To establish drought resistance crops and skills for cultivation on a demonstration atoll as a model for replication in drought affected atolls	
<b>Description</b>	<ul style="list-style-type: none"> <li>• Activity 1.1. Identification/ Selections of most appropriate island to use as demonstration site to showcase integrated drought mitigation techniques</li> <li>• Activity 1.2. Conduct technical mission by SPC to RMI to develop fast-growing crops</li> <li>• Activity 1.3 Transfer seedlings from Majuro to suitable island for propagation work to be established</li> <li>• Activity 1.4 Develop monitoring and reporting mechanisms of progress on evaluation of crops</li> <li>• Activity 1.5 Transfer of new varieties of climate ready plantlets to RMI for greenhouse cultivation</li> <li>• Activity 1.6 Recruit temporary laboratory assistant</li> <li>• Activity 1.7 Procure laboratory supplies, bio security and phytosanitary expenses</li> </ul>	



	<ul style="list-style-type: none"> <li>Activity 1.8 Distribute and transport and distribution costs in compliance with quarantine procedures</li> <li>Activity 1.9 Training of local agricultural officers by SPC and extension staff</li> <li>Activity 1.10 a propagation, field trial and dissemination strategy should be developed</li> <li>Activity 1.11. Production of guidelines and manuals</li> <li>Activity 1.12. Provide technical support for monitoring purpose</li> </ul>	
Quality Criteria (Indicator)	Quality Method (Means of verification)	Date of Assessment
# of drought resistant crops established suitable for transfer to drought affected areas	<ul style="list-style-type: none"> <li>Programme Progress Report</li> <li>Field trips to project areas</li> <li>Government reports</li> </ul>	Quarterly and at the completion of the project
# of agricultural officers trained, sex-disaggregated		
# Community participants trained, data disaggregated type eg. Community leaders, school children, etc and by sex		
# of Households with "climate-ready" crops		
Monitoring and reporting system established to evaluate suitability of trialed crops		
Guidelines and manuals produced		
<b>Activity Result 2</b>	<b>Support to communities through water and soil conservation practices</b>	Start Date: July 2013 End Date: July 2014
<b>Purpose</b>	Introduction of water and soil conservation practices to the community to mitigate the effects of drought	
<b>Description</b>	<ul style="list-style-type: none"> <li>Activity 2.1 Provide "Training of Trainers" in propagation of the new varieties/ drought mitigation farming practices to extension officers in Majuro</li> <li>Activity 2.2. Conduct a "training of trainers" for local farmers, schools, and community leaders on the demonstration Atoll on water and soil conservation</li> <li>Activity 2.3 Identify local champions to advocate for development planning on food security and water management;</li> <li>Activity 2.4. Develop training tool kits on conservation which will contribute to the national Food Security Strategy for RMI</li> </ul>	
Quality Criteria (indicator)	Quality Method (means of verification)	Date of Assessment
Training package on water and soil conservation produced that is aligned to the national Food Security Strategy for RMI	<ul style="list-style-type: none"> <li>Programme progress reports</li> <li>Field visits</li> </ul>	Quarterly, annually and at the completion of the project
# Local champions		

actively advocating for development planning for drought resilient conservation methods		
# community using drought resilient conservation methods for food crops		
# people trained, sex disaggregated		
<b>Activity Result 3</b>	<b>Knowledge Sharing and Communication for Community Drought Resilience</b>	Start Date: July 2013 End Date: June 2014
<b>Purpose</b>	To record and share successes, best practices and lessons learned from the demonstration atoll with other atoll communities	
<b>Description</b>	<ul style="list-style-type: none"> <li>Activity 3.1. Develop and implement an effective communication strategy for the project</li> <li>Activity 3.2. Develop a guidance note on integrated drought mitigation techniques for producing food crops in atoll situations</li> <li>Activity 3.3 Training for local community leaders/champions (including schools) on community leadership/development planning by UNDP</li> </ul>	
<b>Quality Criteria</b>	<b>Quality Method</b>	<b>Date of Assessment</b>
# communications products developed	<ul style="list-style-type: none"> <li>Programme progress reports</li> <li>Field visits</li> <li>UNDP and Government websites</li> </ul>	Quarterly, annually and at the completion of the project
At least 2 champions from the community advocating for community resilience		
Guidance note produced		
<b>Activity Result 4:</b>	<b>Project Implementation, Monitoring &amp; Evaluation</b>	Start Date: June 2013 End Date: July 2014
<b>Purpose</b>	Project established and results areas coordinated with timely results achieved and reported on in the required formats	
<b>Description</b>	<ul style="list-style-type: none"> <li>Activity 4.1 Quarterly Reporting (financial &amp; narrative)</li> <li>Activity 4.2 Final review of results by Project board and UNDP</li> <li>Activity 4.3 Terminal reporting</li> <li>Activity 4.4 Effective technical oversight carried out incl. technical missions</li> <li>Activity 4.5 Project monitoring missions conducted</li> </ul>	
<b>Quality Criteria</b>	<b>Quality Method</b>	<b>Date of Assessment</b>
Timely project reporting	<ul style="list-style-type: none"> <li>Progress reports</li> <li>Final reports</li> <li>Board meeting minutes</li> <li>Mission reports</li> </ul>	Quarterly, annually
Board meetings held		
Project results achieved, documented and disseminated		

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## VII: LEGAL CONTEXT

This document together with the UNDAF Action Plan signed by the Government and UNDP which is incorporated herein by reference, constitute together a Project Document as referred to in the Standard Basic Assistance Agreement (SBAA) between the Government of Republic of the Marshall Islands and the United Nations Development Program, as such all provisions of the UNDAF Action Plan apply to this document. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner"; as such term is defined and used in the UNDAF Action Plan and this document.

UNDP as the Implementing Partner shall comply with the policies, procedures and practices of the United Nations safety and security management system.

UNDP will undertake all reasonable efforts to ensure that none of the project funds are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via [http://www.un.org/sc/committees/1267/aq\\_sanctions\\_list.shtml](http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml). This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

### Annexes:

- Annex 1: Terms of Reference Project Board
- Annex 2: Terms of Reference Project Coordinator
- Annex 3: Terms of Reference: Lab Assistant.
- Annex 4: Risk Log
- Annex 5: Monitoring & Evaluation Plan
- Annex 6: Map of RMI

#### **Annex 1: Terms of Reference of Project Board**

The Project Board is the group responsible for making by consensus, management decisions for a project when guidance is required by the Project Coordinator including recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, final decision shall rest with UNDP. The project board's responsibilities are summarized as follows:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the Project Coordinator
- Provide guidance on new project risks and agree on possible countermeasures and management actions to address specific risks;
- Review the project progress on a quarterly basis and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Review combined delivery reports prior to certification by UNDP;
- Appraise the project annual review report, make recommendations for the next annual work plan, and inform the outcome group about the results of the review;
- Provide ad-hoc direction and advice for exception situations when Project Manager's tolerances are exceeded; and
- Assess and decide to proceed on project changes through appropriate revisions.

The Project Board will meet quarterly or as and when required by the chairpersons. In addition, the Chairpersons may call for special meetings should the need arise. The UNDP Project Coordinator in collaboration with the Permanent Secretary, Ministry of Resources & development and UN joint presence office, will prepare the agenda for circulation at least two weeks prior to the meeting date and ensure the minutes of the meeting are circulated within one week of the meeting. Project reports will verify the achievement of the project management milestones and ensure that these are delivered within the allocated budget in accordance with approved annual work plans (AWPs). The Project Board will be responsible for approving amendments to the annual work plans for achievement of project results.

## **Annex 2: Project Coordinator Terms of Reference**

### **Functions / Key Results Expected**

The UNDP Project Coordinator will be the Marshall Islands focal point based within the UNDP MCO in Suva. He/she will be responsible for project management, including financial management and reporting. The Project Coordinator will also manage the technical inputs to the project in close liaison with the Ministry of Resources and Development and the Office of the Chief Secretary as well as with the responsible parties i.e. SPC and FAO. UNDP will be responsible for provision of project technical inputs, including the provision of technical experts to conduct various assignments detailed in project annual work plans and documented in Terms of Reference annexed hereto. Procurement and recruitment will be conducted by the Project Coordinator in accordance with the agreed Annual Work Plan using UNDP Financial Rules and Regulations. Project Audit will be conducted as part of the UNDP Country Office Audit performed by the UNDP Office of Audit and Performance Review.

A key role for UNDP will be to ensure that development partners and stakeholders are kept fully informed of the project's progress.

The UNDP Project Coordinator, in conjunction with the Ministry of Resources and Development, will prepare the Agenda for circulation at least two weeks prior to the meeting date and ensure the Minutes of the Meeting are circulated within one week of the meeting being held. Project Reports will verify the achievement of the project management milestones and ensure that these are delivered within the allocated budget in accordance with approved annual work plans (AWPs).

### **Description of Duties:**

- Prepare the annual/quarterly work plans to deliver project outcomes and ensure that the project feeds into and connects with the overall national draught response and recovery plan
- Strategically plan, coordinate and deliver project outputs as agreed in the annual work plan;
- Coordinate recruitment and manage all project advisors/consultants and staff;
- Facilitate and coordinate the integration of assistance from UN specialized agencies and other support bodies and agencies;
- Monitor and measure the project's performance, timing and results and manage risk;
- Plan and strategically manage and monitor the project budget and ensure that procurement of goods and services, recruitment of project personnel are undertaken in accordance with UNDP financial regulations and rules, policies and guidelines;

- Advise UNDP on significant policy measures undertaken by the Government of RMI which may impact on the project strategy.

Annex 3: Risk Log

Risk Log						
1.	Type of risk: Financial	Project Formulation Stage: 27 <sup>th</sup> June 2013	Funds not disbursed to project on time	Impact: Implementation of project activities will be delayed Probability: Medium Counter Measures: Project will be Direct Implementation Modality	Status: Date:	UNDP, SPC, FAO, MRD, Office of the President, Office of the Chief Secretary

2	Type of risk: Operational and Technical	Project Document Stage: 27 <sup>th</sup> June 2013	<u>Risk:</u> Technical experts not available to execute technical activities of the project.	<u>Impact:</u> Project will have to be delayed to accommodate suitable consultant OR quality of project delivered is compromised. <u>Probability:</u> Would be determined during tendering process, but project execution may take longer than proposed if approval process takes longer than anticipated. <u>Counter Measures:</u> Ensure use of available technical expertise within SPC, FAO and UNDP. Ensure adequate budget to cover this activity	<u>Status:</u> <u>Date:</u>	SPC, FAO, UNDP
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3.	Type of risk: Financial	Project Document Stage: 27 <sup>th</sup> June 2013	<u>Risk:</u> Coordination of the different agencies.	<u>Impact:</u> Delay delivery of activities <u>Probability:</u> Medium <u>Counter measures:</u> Project coordinator to liaise and coordinate with responsible parties.	Status: Date:	UNDP, SPC, FAO, MRD, Office of the President, Office of the Chief Secretary
4.	Type of risk: Logistical	Project Document Stage: 27 <sup>th</sup> June 2013	<u>Risk:</u> Transportation	<u>Impact:</u> Delay delivery of activities <u>Probability:</u> Medium <u>Counter measures:</u> Project coordinator to liaise with Government counterparts, responsible parties and existing projects to cost share on transportation.	Status: Date:	UNDP, SPC, FAO, MRD, Office of the President, Office of the Chief Secretary



5.	Type of risk: Operational	Project Document Stage: 27 <sup>th</sup> June 2013	<u>Risk:</u> Time frame to implement	<u>Impact:</u> Delay delivery of activities <u>Probability:</u> High <u>Counter measures:</u> Project to consider planting fast yield crops that are drought resistant	Status: Date:	UNDP, SPC, FAO, MRD, Office of the President, Office of the Chief Secretary
6.	Type of risk: Technical	Project Document Stage: 27 <sup>th</sup> June 2013	<u>Risk:</u> Crops are not drought resistant are not conducive to the RMI environment	<u>Impact:</u> Crops cannot grow in drought affected atolls <u>Probability:</u> Low <u>Counter measures:</u> Project to select a pilot atoll for testing during the growing and harvesting period.	Status: Date:	UNDP, SPC, FAO, MRD, Office of the President, Office of the Chief Secretary

**Annex 4: Laboratory Assistant Terms of Reference**

**Position:** Laboratory Assistant

**Responsible to:** Coordinator for the Genetic Resources Team through the Curator

The appointee will work with members of the CePaCT team in the conservation and distribution of the crop and tree selected species held at the CePaCT. The CePaCT is a regional gene bank and presently maintains a collection of over 2,000 accessions of mainly taro and other edible aroids as well as collections of yam, sweet potato, cassava, banana, kava, breadfruit and some tree species.

**Duties and Responsibilities:**

1. mass propagation of selected climate ready crops for distribution to meet timely requests for quick recovery and rehabilitation efforts by project partners
2. ongoing maintenance of sub-cultured climate ready crops prior to shipment for establishment of nurseries for affected islands
3. preparation of artificial nutrient culture medium for culturing and maintenance of climate ready crops for mass-propagation activities
4. maintain high level of hygiene in the lab at all times to avoid contamination of cultures
5. transfer of plantlets to sterile plastic bags, labeling and packing of plantlets for shipment
6. preparation of quarantine documents (phytosanitary certificates and import permits) for plantlets
7. transport of plantlets for inspection by Biosecurity Authority of Fiji and liase with courier companies for shipment of plantlets
8. placing orders for consumables and equipment
9. provide weekly and quarterly reports to supervisor
10. Any other duties assigned by the supervisors.

**Experience and qualifications:**

The appointee must have relevant agricultural science qualifications, tissue culture and laboratory experience very essential, and ideally knowledge and understanding of working in a sterile environment. Candidates should be willing to work outside of normal working hours to meet deadlines, be able to work as part of a team, and have good personality and good interpersonal and communication skills in English.

**Tenure:** 1 year (July 2013 – July 2014)