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EMERGENCY ASSISTANCE IN SUPPORT OF FOOD SECURITY RECOVERY OF DROUGHT-AFFECTED COMMUNITIES

June 2020

SDGs:



Countries:

Republic of the Marshall Islands

Project Code:

TCP/MAS/3601

FAO Contribution:

USD 245 000

Duration:

1 October 2017 – 31 December 2019

Contact Info:

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Implementing Partner

Ministry of Natural Resources and Commerce.

Beneficiaries

Community leaders, men, women and youth in atolls affected by drought.

Country Programming Framework (CPF) Outputs

CPF (2018-2022) Output 2: Sustainable climate-change practices promoted to help build resilient agriculture, fisheries and forestry production systems.



BACKGROUND

The Republic of the Marshall Islands has historically faced numerous challenges with regard to the accessibility of consistent water supplies. In 2015/16, an estimated 21 000 people were affected by severe drought conditions as a result of the El Niño Southern Oscillation. A State of Emergency was declared in March 2016 and support was requested from the World Bank to conduct a Post Disaster Needs Assessment to evaluate the economic effects of the drought, while the Pacific Community was asked to assess key sectors, including agriculture, water and health. The monetary value of the effects of the drought, in early 2016, was estimated at USD 4.9 million. Although this was equivalent to only 3.4 percent of the 2015 gross domestic product for the country as a whole, the consequences of the drought on agricultural production were critical, as the agriculture sector is of primary importance to self-employed communities in outer islands, where the cultivation and processing of copra, and the sale of fish, bananas, pumpkins and handicrafts are the main sources of cash income.

In response to this situation, a nine-month Drought Immediate and Near Response Plan was endorsed by the Government for USD 8.9 million, of which USD 3.1 million would meet food security needs. The aim of the project was to increase resilience and contribute to restoring the food security of at least 560 drought-affected households (HHs) in the six most affected atolls (Arno, Aur, Maloelap, Mejit, Namu and Wotje) in a sustainable manner. This would be achieved by distributing drought-resistant and saline-tolerant crops, by providing training in sustainable agriculture in drought-prone areas to farmers, women and youth, and by supporting the Government in monitoring the outcome of the training and seed distribution in order to inform future sustainable response practices and future action plans.



IMPACT

The expected impact of the project was enhanced food security for drought-prone communities. Although the project was impeded from conducting all the activities envisaged in all five targeted project atolls, it was able to provide Wotje Atoll with the selected planting and nursery materials, and to carry out training activities for beneficiaries. Micro-gardening and keyhole gardening demonstrations were particularly appreciated by the beneficiary households. Overall, the project's activities will increase food security in Wotje and provide a model that can be extended to other drought-prone atolls.

ACHIEVEMENT OF RESULTS

After discussion with the Government counterpart, the number of project atolls was reduced to five as Arno was already the recipient of assistance from other donors. Baseline surveys were conducted in 168 HHs in the five remaining atolls (Aur, Maloelap, Mejit, Namu and Wotje) to identify the most suitable planting and nursery materials. The procurement of these materials was completed for all five atolls. However, following delays as a result of the cancellation of flights, travel restrictions caused by airport construction, and outbreaks of dengue and measles, nursery and planting materials were distributed to Wotje and Maloelap Atolls. The nursery and planting materials procured for Aur, Mejit and Namu are stored with MNRC. Training in planting techniques for drought-resistant crops and seedlings, pests associated with drought-conditions and management, and soil management was provided in Wotje Atoll, with hands-on demonstrations on micro-gardening and keyhole gardening. In total, food production was re-established in around 24 percent of the envisaged 560 households. A post-distribution survey of 44 HHs was carried out in Wotje. A lessons learnt report to inform future sustainable response practices in the affected atolls was not drafted because of the lack of available data from the other project atolls. However, a closing workshop in December 2019 presented the results of the project and the impact of the intervention in Wotje, based on the data collected in the pre- and post-distribution surveys.

IMPLEMENTATION OF WORK PLAN

The original duration of the project was extended to enable the completion of activities following challenges with travel and delays in the shipment of procured materials. Flight schedules to remote atolls are restrictive and flights are frequently cancelled because of adverse weather conditions and repairs to the planes and airfields, while the transport of procured items depends on the schedule and availability of cargo space on passenger planes for smaller items and, for larger items, on boats and ships, which are limited, sporadic and costly. In addition, as a result of outbreaks of dengue in August 2019 and measles in November 2019, the Government called a State of Emergency, banning all travel from Majuro to the outer islands, by both plane and boat.

The risks envisaged by the Project Document included difficulties in travelling and in transporting supplies to the outer islands, the unavailability of inputs, low government commitment and insufficient staff in the outer islands, and natural disasters. With the exception of the first risk, these were successfully mitigated by the project. The only known risk involved the purchase of fertilizer inputs; this was mitigated when their distribution to the outer islands was halted in time by FAO and the Ministry of Natural Resources and Commerce (MNRC). The fertilizers are now with MNRC for disposal.

FOLLOW-UP FOR GOVERNMENT ATTENTION

It is recommended that MNRC work with local government, specifically with the mayors of Aur, Mejit and Namu, on the delivery of the nursery and planting materials stored with MNRC, and the distribution of seeds and agricultural equipment for Aur, Maloelap, Mejit and Namu.



SUSTAINABILITY

1. Capacity development

A Memorandum of Understanding was signed between MNRC and the Public School System (PSS), under which MNRC provided technical support and two agriculture extension officers to conduct training in the project atolls, while PSS provided logistical support with the storage and transport of nursery materials to the outer islands. PSS was only able to transport these to Wotje, and the materials for the other atolls were returned to the vendors for storage following a termite issue at the PSS warehouse. They are now stored with MNRC. MNRC is expected to work with local government on the delivery of nursery and planting materials to the remaining atolls. This will depend on the availability of the funds required by MNRC to carry out the work.

2. Gender equality

The conduct of the baseline surveys and post-distribution survey was based on the location of HHs in relation to that of the airport/airfield. Community briefings and participation in training were open to all HH members, male and female.

3. Environmental sustainability

The project aimed to provide inputs with the least impact on the country's natural resources. The training provided in soil management focused on sustainable practices to maintain healthy soil during and after the project.

4. Human Rights-based Approach (HRBA) – in particular Right to Food and Decent Work

Human rights issues were not specifically addressed in the project design.

5. Technological sustainability

Although training was conducted in only one of the five project atolls, the keyhole gardening and micro-gardening approaches introduced by the project were well received by beneficiaries.

Given the low commitment from beneficiaries during training, along with a lack of interest in taking part in agricultural activities in the context of recurrent droughts, beneficiaries will need further technical assistance in order to pursue project activities. However, MNRC participated in discussions and training in drought-resistant crops, planting techniques, soil management and composting, as well as assisting FAO to conduct the post-distribution survey, and is therefore capable of pursuing post-project activities without further technical assistance.

6. Economic sustainability

Economic issues were not specifically addressed in the project design.

DOCUMENTS AND OUTREACH PRODUCTS

- ☐ Aur Atoll: El Niño-induced Drought 2016, Brochure. FAO.
- ☐ Maloelap Atoll: El Niño-induced Drought 2016, Brochure. FAO.
- ☐ Mejit Atoll: El Niño-induced Drought 2016, Brochure. FAO.
- ☐ Namu Atoll: El Niño-induced Drought 2016, Brochure. FAO.
- ☐ Wotje Atoll: El Niño-induced Drought 2016, Brochure. FAO.
- ☐ Joint Back-to-office Report. F. Chopin and A. Lameta. Majuro and Wotje, Republic of Marshall Islands. February 2018.
- ☐ Wotje Pre-distribution Survey, F. Chopin, A. Lameta and S. Lafita. February 2018.
- ☐ Namu Pre-distribution Survey. S. Lafita and A. Lameta. March 2018.
- ☐ Aur Pre-distribution Survey. S. Lafita and A. Lameta. April 2018.
- ☐ Mejit Pre-distribution Survey. S. Lafita and A. Lameta. June 2018.
- ☐ Memorandum of Understanding between Ministry of Natural Resources and Commerce and Public School System. June 2018.
- ☐ Maloelap Pre-distribution Survey. S. Lafita and A. Lameta. July 2018.
- ☐ Back-to-office Report. A. Lameta. Majuro, Republic of Marshall Islands. August 2018.
- ☐ Back-to-office Report. T. Keresoma. Majuro and Wotje, Republic of Marshall Islands. March 2019.
- ☐ Back-to-office Report. A. Lameta. Majuro, Republic of Marshall Islands. April 2019.
- ☐ Back-to-office Report. A. Lameta. Majuro and Wotje, Republic of Marshall Islands. July 2019.
- ☐ Wotje Post-distribution Survey, A. Lameta, R. Kabua and J. Bujen. July 2019.
- ☐ Back-to-office Report. A. Lameta. Majuro, Republic of Marshall Islands. December 2019.



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ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

Expected Impact	Enhanced food security of drought-prone communities in the Marshall Islands	
Outcome	Strengthened local capacities to support the food security recovery of drought-affected communities	
	Indicator	<ol style="list-style-type: none"> 1. Number of targeted HHs trained in planting techniques for new drought-resistant/saline-tolerant crops and seedlings, and application of soil management. 2. Number of baselines for food security and agriculture production collected in drought-prone atolls to inform planning of future drought responses.
	Baseline	<ol style="list-style-type: none"> 1. 0 2. 0
	End Target	70% of total number of HHs or minimum 560 of targeted HHs.
	Comments and follow-up action to be taken	<ol style="list-style-type: none"> 1. Based on the Government's request, Arno Atoll was removed as one of the selected atolls as it was already receiving similar assistance from other donors. Following the project inception mission in February 2018, additional activities were added and agreed, including: <ul style="list-style-type: none"> – Identify atoll physical and environmental constraints in seed production, distribution and growing. – Propose and estimate costs (materials, equipment, transportation) of practical agricultural production solutions. – Identify on-atoll systems, services and facilities that can contribute towards the capacity building of householders in agricultural production, the production and distribution of seedlings to increase on-island production, the engagement of the community, especially youth and children, in awareness raising in vegetable and fruit growing, and the provision of assistance to introduce atoll-relevant fruit and vegetable growing practices. A number of challenges impeded the achievement of the target. These included: <ul style="list-style-type: none"> – Delays in the delivery of procured seeds and seedlings to Majuro, which deferred training in project atolls. – Travel restrictions caused by airport construction, flight cancellations and the banning of flights as a result of outbreaks of dengue and measles, which made it impossible for the service provider to travel to the project atolls to conduct training and distribute seeds and agriculture equipment. 2. Five baseline surveys were collected for Aur, Maloelap, Mejit, Namu and Wotje. One evaluation survey was completed for Wotje. Evaluation surveys for Aur, Maloelap, Mejit and Namu could not be completed as a result of the non-completion of the training and distribution component of the project.

Output 1	Food production in 560 households impacted by El Niño-drought conditions re-established		
	Indicators	Target	Achieved
			Partially
Baseline	0		
Comments	The procurement of nursery materials and seeds/seedlings was completed. Training was completed for Wotje Atoll. Following delays in procurement, cancellation of flights, and travel restrictions caused by airport construction, and outbreaks of dengue and measles, only HHs in Wotje Atoll received seeds/seedlings, cuttings and training. It is recommended that MNRC work with local government, specifically the mayors of Aur, Mejit and Namu, on the delivery of nursery materials stored with MNRC.		
Activity 1.1	Identify, procure and propagate seedlings for distribution, together with agricultural inputs		
	Achieved	Yes	
	Comments	Based on the results of the baseline surveys (Activity 2.1), seedlings and cuttings were identified and procured, noting the atoll's physical and environmental constraints in seed production and growing. Seeds/seedlings that were procured included: watermelon, Chinese cabbage, cabbage, radish, tomato, eggplant, pumpkin, long bean and cucumber. Cuttings included: sweet potato, breadfruit, banana, pandanus, lime, taro and papaya. As a practical agricultural solution, it was agreed to add school nurseries in the project atolls to the project, as follows: <ul style="list-style-type: none">– two nurseries in Wotje: a 16x30ft nursery at Northern Islands High School (NISH) in Wotje, with students from Wotje, Aur, Maloelap and Mejit, and an 8x16ft nursery at Wodmej Elementary School. The construction of both nurseries was completed.– two nurseries in Namu: a 16x30ft nursery at Majkin Elementary School and an 8x16ft nursery at Namu Elementary School.– one nursery in Aur: an 8x16ft nursery at Tobal Elementary School.– one nursery in Maloelap: an 8x16ft nursery at Kaben Elementary School.– one nursery in Mejit: an 8x16ft nursery at Mejit Elementary School. Following discussions with project stakeholders, a nursery design was drafted and relevant costs for materials and transportation were estimated and budgeted. Nursery and planting materials were procured, as follows: lumber, cement, sand, gravel, cement blocks, mesh wire, fiberglass, plywood, door hinges, nails, rain gutters, rain gutter brackets, rain gutter end caps, rain gutter downspouts, water tanks, rakes, garden hoses, watering cans, planting pots and wheelbarrows. The project also procured mulchers and tillers for the two 16x30ft nurseries.	
Activity 1.2	Distribute seedlings, seeds and agricultural equipment		
	Achieved	Partially	
	Comments	Nursery materials and planting materials (see Activity 1.1) were distributed to Wotje and Maloelap Atolls. The nursery and planting materials for Aur, Mejit and Namu remained stored with MNRC. The distribution of seeds/seedlings and cuttings was completed for Wotje (see list of procured seeds/seedlings and cuttings under Activity 1.1). It is recommended that MNRC work with local government to complete the distribution of seeds and agricultural equipment for Aur, Maloelap and Mejit, and the delivery of nursery and planting materials for Aur, Mejit and Namu.	
Activity 1.3	Train beneficiaries in the affected communities		
	Achieved	Partially	
	Comments	Training for HHs was completed for Wotje in March 2019. This component utilized the knowledge and expertise of the agriculture science teacher at NIHS for Wotje. Students, teachers and HH members participated in the training and hands-on demonstrations. Training was given in soil management practices, planting techniques for drought-resistant plants, pest management practices and plant propagation, and included a hands-on demonstration of composting. Training also introduced a hands-on demonstration on micro-gardening as a planting alternative suitable for drought-affected areas. A keyhole garden manual, translated into the local language by PSS, was shared with the schools.	

Output 2	Lessons learnt report to inform future sustainable response practices in the affected atolls developed		
	Indicators	Target	Achieved
			Partially
Baseline	0		
Comments	Baseline surveys/pre-distribution surveys for all five atolls were completed. As distribution and training were completed only for Wotje, that was the single post-distribution survey to be conducted and completed. Delays and challenges affected project implementation, impeding the completion of Output 2. Flight schedules to the outer islands are restricted to, on average, one a week. In addition, during implementation, there were numerous flight cancellations as airports were under construction, as well as travel restrictions caused by outbreaks of dengue and measles. It is important to note that post-distribution surveys could not be completed for Aur, Maloelap, Mejit and Namu as the training and distribution component under Output 1 was delayed and remained incomplete. The lack of post-distribution data made it difficult to draft a lessons learnt report.		
Activity 2.1	Conduct rapid pre- and post-distribution household surveys		
	Achieved	Partially	
	Comments	Pre-distribution HH surveys were completed for all five atolls. A total of 168 households was interviewed. The pre-distribution surveys helped to identify: the seeds/seedlings that HHs were interested in growing and that from experience would grow in drought-related conditions; HHs with gardens; most vulnerable HHs; pests that affect plants and crops; the harvest season for most common plants; and soil enrichment methods used by HHs. This information helped to identify the seeds, seedlings and cuttings to be procured, as well as to tailor the training to suit the needs of the HHs/beneficiaries. Brochures based on the data from the pre-distribution surveys were developed and disseminated with project stakeholders. A post-distribution survey was completed for Wotje. The survey measured the impact of the intervention (i.e. distribution of seeds, seedlings and cuttings, and training) compared with the situation of households as identified in the pre-distribution survey. The survey resulted in 44 HHs interviewed and noted that: not all HHs received seeds, seedlings and cuttings; although not all HHs participated in the training and demonstrations, all students and teachers participated; because of an existing drought at the time of the survey, the majority of HHs that received seeds and cuttings did not plant them out of fear that they would perish in the ongoing drought; although the nutritional intake of HHs increased, there remains a high dependency on imported food. Lessons learnt from the survey included: communication between stakeholders in Majuro and beneficiaries in the outer islands needs to be improved; there is a need for validation options to gauge beneficiaries’ interest in participating in project activities (e.g. if they participate in training they will receive seeds and cuttings); and it is important to utilize on-island expertise such as MNRC extension officers based in the outer islands. Travel restrictions as a result of dengue and measles outbreaks made it difficult to complete post-surveys for other project atolls. Furthermore, post-distribution surveys, to be effective, can only be done at least three months after distribution and training have been completed.	
Activity 2.2	Prepare and present lessons learnt report to inform Government on sustainable response practices		
	Achieved	No	
	Comments	A lessons learnt report could not be drafted as only one post-distribution survey was completed. A closing workshop was held in December 2019 facilitated by MNRC and FAO with the participation of project stakeholders such as mayors of the project atolls, staff from the MNRC Quarantine Division, staff from PSS and the Head of the International Organization for Migration Office in Majuro. FAO presented the results of the project and the impact of the intervention in Wotje based on the data collected in the pre- and post-distribution surveys (see Activity 2.1). Appreciation was expressed by the mayors on the project’s achievements, despite challenges. The importance of including local stakeholders and government counterparts in the early planning stages of a project was also noted during discussions.	

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