



From
the People of Japan



*Empowered lives.
Resilient nations.*

Enhancing Disaster and Climate Resilience in the Republic of Palau through Improved Disaster Preparedness and Infrastructure (Project#: 00115303)

**Annual Progress Report
April – December 2019**



PROJECT BRIEF

Project Title	Enhancing Disaster and Climate Resilience in the Republic of Palau through Improved Disaster Preparedness and Infrastructure (EDCR Palau)
Delivery date:	20 January 2019
Award ID:	00118499
Project ID:	00115303
Contributing Outcome (UNDAF/CPD, RPD or GPD):	Outcome 1 of the UN Pacific Strategy 2018-2022 By 2022, people and ecosystems in the Pacific are more resilient to the impacts of climate change, climate variability and disasters and environmental protection is strengthened.
Implementing Partner:	UNDP
Responsible Parties:	Bureau of Cultural and Historical Preservation (Activity 3.2)
Award ID Start Date:	31 March 2019
Award ID End date:	31 March 2020
Total Project Budget (Award ID):	USD 7,500,000
Beneficiary Country:	Republic of Palau
Period of the Report:	1 April to 31 December 2019
Brief Description	
<p>The project aims to improve the capacity for preparedness and mitigation of Palau's resilience to man-made, geo-physical, climate and different types of related hazards and enhancing resilience to climate change impact. The project will respond to Outcome 1 of the UN Pacific Strategy 2018 – 2022: By 2022, people and ecosystems in the Pacific are more resilient to the impacts of climate change, climate variability and disasters; and environmental protection is strengthened. The cooperation with the Government of Japan will contribute to achieving the goals of the Sendai Framework for Disaster Risk Reduction, elimination of threat to human security and protect gains of sustainable development and inclusive of the Sustainable Development Goals. The Palau DRR project is consistent with the 2020 Palau National Master Development Plan priority of mainstreaming disaster risk reduction and aligned with the National Disaster Risk Management Framework (NDRMF) vision of “safe, resilient and prepared communities in Palau.”</p>	
<p>Given the nature of the supplementary Budget project, concerted efforts will be devoted to responding to urgent and unpredicted needs arising out of slow/sudden onset of natural hazards impacting livelihoods, economy and persistent inequalities. The outcome will be achieved through 3 expected outputs:</p> <ol style="list-style-type: none"> 1. Strengthened gender sensitive Disaster Communication and Climate Monitoring Systems 2. Enhanced gender sensitive National and State Disaster Responders readiness capacity 3. Enhanced Community Disaster Resilience through improved water resource management, and integrated gender and social inclusion awareness 	
<p>The project will be implemented by the UNDP Pacific Office in Fiji under the UNDP Direct Implementation Modality (DIM) and as part of the Resilient and Sustainable Development team.</p>	

Overview of the Annual Progress (April -December 2019)

Palau experiences frequent natural hazards (mainly typhoons, droughts, and storm surges), which can result in human casualties, disrupt economic activity, lead to loss of livelihoods, divert fiscal resources, and undermine development priorities. Although not all disasters are caused by climate change, the country's vulnerability to climate change will heighten disaster risks because extreme weather events are likely to increase in the future. Analysis undertaken under the Pacific Catastrophe Risk Assessment and Financing Initiative indicates that Palau faces an average annual loss of \$2.7 million from typhoons, earthquakes, and tsunamis, with probable maximum losses of \$16.8 million from a 1-in-50-year event, \$46.7 million from a 1-in-100-year event, and \$146.0 million from a 1-in-250-years event. This excludes losses from droughts, and possible downturns in economic growth due to reduced tourism. Climate change will obviously exacerbate these numbers and urgent action such as laid out in this proposal is required.

The project, entitled "Enhancing Disaster and Climate Resilience in the Republic of Palau through Improved Disaster Preparedness and Infrastructure" aims to improve the capacity for preparedness and mitigation of Palau's resilience to man-made, geo-physical, climate and different types of related hazards and enhancing resilience to climate change impact. The Exchange of Notes for this grant took place on 4 March 2019. The major focus of the project during the first 3 months was on recruitment of the project staff and preparatory works for major procurement. The project staff was on board during the 3rd quarter and the inception workshop and the first Project board meeting were held in August 2019. As such, there was no substantial results achieved in 2019. However, some of the main highlights of the efforts are as below:

- 5 containerized storage facilities were provided and handed over to the government. (Activity 2.4)
- 2 portable man packs VHF radio were provided and handed over to the government. (Activity 2.6)
- Contracts were concluded to supply a generator for the National Emergency Operation Centre (NEOC) (Activity 2.1), a rescue pumper tanker (Activity 2.5), an elliptical tanker (Activity 3.3), and a boat (Activity 3.4) which will be delivered in 2020.
- Letter of Agreement (LOA) with the Ministry of Community and Cultural Affairs (MCCA) was concluded to conduct vulnerability assessments of 10 cultural heritage sites and implement actual climate risk mitigation measures in two prioritized sites. (Activity 3.2)

Progress towards Project Outputs/Activities in 2019

Output 1: Strengthened gender sensitive Disaster Communication and Climate Monitoring Systems

#	Planned Activities	Summary of Progress
1.1	Install VHF and HF radio (incl. of climate proofing) in key emergency operations facilities (i.e. MET, NEMO and vulnerable schools) in line with PICI Panel work plan	<ul style="list-style-type: none"> Locations to install VHF and HF radio were identified as below, focusing on the remote Southwestern outer islands. <ul style="list-style-type: none"> Tobi state Sonsorol state Helen reef Merir Island Pulo Ana Kayangel Peleliu Angaur NEMO, Education, Hospital The tender document for procuring VHF and HF radio was drafted. Arrangement of the installation is under discussion with NEMO and the Palau National Communications Corporation (PNCC). Installation will be undertaken by PNCC by concluding the Letter of Agreement (LOA).
1.2	Install tsunami and multi-hazard warning sirens (incl of repeater stations) in key vulnerable locations	<ul style="list-style-type: none"> Specification of the siren system was drafted. Telecom experts hired by the UNDP have been working in a simulation of the coverage of the possible sirens in order to determine the number of sirens to be procured within the allocated budget.
1.3	Repair/Install Automated weather stations related equipment in key strategic and vulnerable locations both existing and non-existing according to WMO guidelines	<ul style="list-style-type: none"> Procurement of 5 automated weather stations and 1 airport type weather station were launched twice together with the other UNDP Project (RESPAC). However, these tenders were not successful as there was no bid to be accepted technically. The project is negotiating with the National Weather Service Office (NWSO) who could undertake this activity by using their established partnership.
1.4	Install 4 wave rider buoys to determine ocean conditions and surface wave monitoring	<ul style="list-style-type: none"> Preparation of Letter of Agreement (LOA) with NWSO is ongoing with partnership with the University of Hawai'i in order to expand the wavewide buoys networks to enhance resilience with accurate and reliable wave information for assessing ocean condition and generate sea-state forecasts.

1.5	Reconstruction of AM Frequency Modulation Tower	<ul style="list-style-type: none"> Location to install the AM frequency modulation tower was confirmed after the mission by the communication expert hired by the UNDP. The draft tender document of procuring materials was developed and under review by Domestic Affairs
1.6	Training course for young technicians on how to maintain the current communications Infrastructure	<ul style="list-style-type: none"> Discussion is ongoing with Palau Community College to implement a training course on the potential participants.
1.7	Monitoring including Gender Analysis & perception assessment on the impact of the project on beneficiaries	<ul style="list-style-type: none"> Partnership with SPC was made after identifying possible partners. Concept note was developed in coordination with Bureau of Gender, NEMO, PRCS, and SPC.

Output 2: Enhanced gender sensitive National and State Disaster Responders readiness capacity

#	Planned Activities	Summary of Progress
2.1	Provide appropriate and improved disaster preparedness and response equipment to NEMO (purchase of generator to complement existing one)	<ul style="list-style-type: none"> List of equipment required for the NEOC was determined. The first tender to procure furniture was unsuccessful. The second tender was issued in December 2019.
2.2	Retrofit the National Emergency Operations Centre (NEOC) facility to meet international and functional standards	<ul style="list-style-type: none"> The structural engineer hired by the UNDP has collected required information. Discussion was made with possible options for the retrofit the NEOC. A tender document for retrofit the national emergency operation centre (NEOC) facility was drafted.
2.3	Conduct LIDAR Imagery remote sensing mapping over key and vulnerable locations. High Resolution Digital Elevation Models (DEM) for Inhabited Coastal Areas developed	<ul style="list-style-type: none"> The TOR of the survey was determined with Palau Automated Land and Resource Information System (PALARIS). Procurement of LIDAR survey was launched.
2.4	Provide key strategic islands with containerised storage facilities to store emergency stockpiles/supplies, emergency equipment	Completed <ul style="list-style-type: none"> 5 containerized storage facilities were provided and handed over to the government. Training on maintenance of storage units was delivered through skype to NEMO.
2.5	Appropriate equipping of emergency disaster response stations, East coast and Westcoast of Babeldaob island with response and rescue	<ul style="list-style-type: none"> A contract of supplying a rescue pumper tanker was concluded Currently is being manufactured.

	vehicles (specifically fire trucks and first responders' vehicles)	
2.6	Provide key disaster responders and Search & Rescue institutions with 2 portable man packs VHF radio	<p>Completed</p> <ul style="list-style-type: none"> • 2 portable man packs VHF radio were provided and handed over to the government. • Training regarding maintenance and operation is scheduled to happen January.

Output 3: Enhanced Community Disaster Resilience through improved water resource management, and integrated gender and social inclusion awareness

#	Planned Activities	Summary of Progress
3.1	Provide emergency backup power for schools as evacuation centres (Low tech off grid electrical power system for three schools in Sonsorol, Pulo Anna and Hatchobei, Southern most islands)	<ul style="list-style-type: none"> • Specification was determined with Ministry of Education. • A tender document for procurement of solar systems for 3 schools in Southwestern states was drafted.
3.2	Restoration and protection of cultural heritage sites in coastal communities rated high risk (Palau Historical Preservation Office, Vulnerability Assessment) – in line with Palau Climate Change Policy (PCCP) for Climate & Disaster Resilient Low Emissions Development.	<ul style="list-style-type: none"> • Letter of Agreement (LOA) with the Ministry of Community and Cultural Affairs (MCCA) was concluded to conduct vulnerability assessments of 10 cultural heritage sites and implement actual climate risk mitigation measures in two prioritized sites. • Although the first mission to Tobi was conducted in November, the mission was postponed to February 2020 due to the bad weather condition.
3.3	Procure a double function vehicle for the Fire Department, to secure water resources during droughts	<ul style="list-style-type: none"> • A contract of supplying of an elliptical tanker was concluded. • Currently is being manufactured.
3.4	Provide with vehicles and boats to improve their capacity to access the areas where the monitoring equipment will be installed as well as to support evacuation and humanitarian assistance in case of disasters	<ul style="list-style-type: none"> • A contract of supplying a boat for NEMO was concluded. • The first tender for procuring four vehicles was unsuccessful as the bids did not meet the technical specification. The second tender was launched.
3.5	Provide food preservation training to vulnerable communities through all relevant national and state actors to enhance community resilience.	<ul style="list-style-type: none"> • After discussions were made with NEMO, Bureau of Agriculture, Red Cross and NWSO as well as efforts have made to seek partnership with other UN agencies, it was suggested to cancel this activity to reallocate the budget to other activities.
3.6	Conduct Integrated Gender Equality and Social Inclusion (GESI) and DRM Training of Trainers with key national and	<ul style="list-style-type: none"> • It was agreed to merge this activity with the activity 1.7 above.

	state government sectors including CSO's that work with communities.	
3.7	Conduct PDNA and DRF Training of Trainers to key government sectors	<ul style="list-style-type: none">• The Post Disaster Needs Assessment (PDNA) training was under preparation with the Pacific Community (SPC) and the other UNDP Project (RESPAC) to be conducted in February 2020.

Status on the Results Framework

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		TARGETS BY END OF THE PROJECT	PROGRESS AS OF DEC 2019
			Value	Year		
Output 1 Strengthened gender sensitive Disaster Communication and Climate and Tsunami Monitoring Systems	1.1 # of States with upgraded (i.e. redundancy, marine grade, energy efficient, gender sensitive) climate and tsunami early warning system installed and operational ¹	Quarterly progress Reports	0	2019	16	0
	1.2 # of men and women with access to early warning information through the upgraded gender sensitive disaster communications, climate and tsunami early warning systems	Quarterly progress Reports	0	2019	17,661 ² Male=9,433 Female= 8,228	0
	1.3 # men and women with potential access to AM radio broadcasting coverage	Quarterly progress Reports	0	2019	17,661 ³ Male=9,433 Female= 8,228	0
Output 2 Enhanced gender sensitive National and State Disaster Preparedness capacity	2.1 # staff and members of the Emergency Operational Centre and National Emergency Committee have improved their capacities in information management and coordination (i.e. infrastructure, physical base data, equipment and gender sensitive guidelines)	Quarterly progress Reports	0	2019	33 (Women=8)	0
GEN 2						

¹ The equipment to be provided as part of the Early Warning Systems comprises VHF/HF marine grade radio and antennas, and sirens network. Currently, the equipment is incomplete and/or deteriorated due to deficiencies in the type of equipment. No sirens are installed in the country.

² Population of Palau according to the Census, 2015

³ Population of Palau according to the Census, 2015

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		TARGETS BY END OF THE PROJECT	PROGRESS AS OF DEC 2019
			Value	Year		
	2.2 # emergency storage facilities provided/installed, including humanitarian assistance supplies under gender and age sensitive requirements	Quarterly progress Reports	0	2019	5	5 (Completed)
Output 3 Enhanced Community Disaster and Climate Resilience through improved energy, water, food and cultural resources management GEN 2	3.1 # men and women with access to educational / evacuation facilities provided with renewable energy services within 3 Southwestern islands (2 states: Sonsorol and Hato Hobei)	Quarterly progress Reports	0	2019	65 Male= ## Female= ##	0
	3.2 # cultural heritage sites with vulnerability assessment and DRR strategies owned by the Palau Government	Quarterly progress Reports	0	2019	10	0
	3.3 Number of men and women with increased capacities in food preservation, GESI in DRM, PDNA/DRF	Quarterly progress Reports	0	2019	90 (women= 364)	0

⁴ Number of women participating in the training sessions will be emphasized expecting to achieve a 40% of the total number of participants

GENDER SPECIFIC RESULTS

As major activities are still under preparation, there is no gender specific results.

PARTNERSHIP

The Project has continued working closely with various counterparts including the Office of Chief Secretary, National Disaster Management Office (NDMO), Palau National Communication Corporation (PNCC), National Weather Service Office (NWSO), Bureau of Domestic Affairs, Palau Community College, Bureau of Aging, Disability and Gender, Bureau of Public Works, the Office of the Palau Automated Land and Resource Information System (PALARIS), Bureau of Public Safety, Bureau of Cultural and Historical Preservation, and Ministry of Education.

The Project has also established a partnership with the University of Hawai'i for the installation of wave rider buoys as the university has providing supports to the NWSO via NOAA. The project is also planning to cooperate with SPC for conducting PDNA and gender trainings.

ISSUES

The following details of the activities were changed during the inception phase after consultations with the counterparts:

Activities mentioned in the Project Document	Activities changed during the inception
1.4 Install DART Tsunami buoys warning systems in strategic and vulnerable locations	Install wave rider buoys to determine ocean conditions and surface wave monitoring
2.4 Provide key strategic islands with containerised storage facilities to store emergency stockpiles/supplies, emergency equipment.	Provide mobile storage facilities to five locations
3.3 Install emergency water systems (e.g. reverse osmosis system incl. solar powered) in low lying islands) enhancement through installation of 1 drilling rig.	Procure a double function vehicle for the Fire Department, to secure water resources during droughts

Communications and Visibility

During the reporting period, the following coverage was made.

Island Times

Project Announcement

<http://islandtimes.us/japan-pours-out-over-7-m-for-palaus-disaster-risk-reduction-projects/>

Inception Board Meeting

<http://islandtimes.us/key-agencies-lay-out-plans-for-implementation-of-7-5-m-disaster-resilience-project/>

Twitter

Inception/Inaugural Board Meeting

<https://twitter.com/RESPACatUNDP/status/1166463640448274433>

<https://twitter.com/PaulaCirikiyas3/status/1166146326859370496>

<https://twitter.com/PaulaCirikiyas3/status/1165782765054259201>

Announcement of funding from Japan Partnership

<https://twitter.com/RESPACatUNDP/status/1164648275175071744>

Second Board Meeting

https://twitter.com/UNDP_Pacific/status/1199903544846905344

Facebook

Second Board Meeting



UNDP in the Pacific

December 1, 2019 ·

Enhancing disaster and climate resilience in #Palau through disaster preparedness and infrastructure.

The Project board met to discuss progress, i.e. strengthened disaster communication and monitoring systems, disaster preparedness capacity and improved resources management.

Funded by the Government of Japan, the project aims to improve Palau's resilience capacity in preparing and mitigating man-made, geo-physical, climate hazards and other related hazards. ... See More



Inception Board Meeting



UNDP in the Pacific

September 5, 2019 ·

Enhancing disaster and climate resilience in the Republic of Marshall Islands, the Republic of Palau and the Federated States of Micronesia is a key objective of the new Japan-funded project implemented by the UN Development Programme.

Over 72-thousand people in RMI will benefit from the project outcomes of a strengthened disaster communication and climate and inundation monitoring system; an enhanced national disaster responder's readiness capacity; and better resources to minimise loss of lives and damages.

The Project will respond to Outcome 1 of the UN Pacific Strategy 2018 – 2022; by 2022, people and ecosystems in the Pacific are more resilient to the impacts of climate change, climate variability and disasters; and environmental protection is strengthened.

This cooperation with the Government of Japan will contribute to achieving the goals of the Sendai Framework for Disaster Risk Reduction.

#disasterresilience #Japan



Lessons Learned

- All meetings during the project planning phase should be recorded and the minutes of meeting shared with all stakeholders to confirm the agreements on project activities to avoid changes later on.
- The Project Timeframe should be decided with due consideration to the constraints in the country of implementation.
- All the project costs should be accurately budgeted in the AWP.

Updated Risk Log

#	Description	Type	Impact & Probability	Countermeasures / Management response
1	Natural Disasters in the North Pacific	Environmental (Natural Disasters)	Frequency and regular occurrence of natural hazards has been a cause of concern over the years.	Preparedness activities will need to be activated and cease project implementation in the event of warnings issued by the National Emergency Management Office (NEMO). The intention is to avoid loss of life, damage to project assets and residual unforeseen circumstances.
2	Engagement and coordination within Palau and Development Partners	Strategic (Stakeholder Relations)	It affects timelines of implementation and ownership	Consultation space needs to be very open, frank and accommodative being mindful of the parameters of the funding modality, contingencies and allow room for flexibility.
3	Availability of Equipment from Suppliers.	Operational (Delivery)	It will delay installation and affect timeline of project delivery	Mapping of preferred supplies and/or existing suppliers and internal arrangements can still be made based on best practices consistent with UNDP Procurement guidelines.
4	Procurement Delays	Operational (Procurement)	It will affect timeline of project delivery	Mapping of preferred supplies and/or existing suppliers and internal arrangements can still be made based on best practices consistent with UNDP Procurement guidelines. [Nov 2019] Adaptation of formats for local bidders to understand process. Availability of procurement officer to meet with vendors request to provide guidance

5	Staff turn-over	Other	Project focal point(s) leaving for attractive job opportunities and not sharing institutional knowledge on the project design details and value - intervention issues.	Need to ensure at least three or four personnel from the relevant government line Ministries are part of the project design, conceptualisation and implementation for ownership and sustainability purposes.
6	Logistic challenges (e.g. disease epidemic, land tenure issues)	Operational	It will affect timeline of project delivery	[Aug 2019] Preparedness on preventive/containment measures and consultation with key stakeholders
7	Weather condition affects the implementation of activities which require travels	Environmental	It will affect the timeline of project and may require additional budget	[Nov 2019] Need to ensure that the activity will plan with alternative schedule.

Annual Financial Reporting

	2019*	Total (USD)	BUDGET (USD)
EXPENDITURE			
O1- Strengthened gender sensitive disaster communication and climate and Tsunami monitoring systems	64,805	64,805	2,341,916
O2- Enhanced gender sensitive national and state disaster preparedness capacity	62,586	62,586	1,487,680
O3- Enhanced community disaster and climate resilience through improved energy, water, food and cultural resource management	67,467	67,467	1,946,682
Total Program Expenditure	194,858	194,858	5,776,278
O4- Program Management Unit	<u>444,657</u>	<u>444,657</u>	<u>1,723,721</u>
Total Expenditure	<u>639,514</u>	<u>639,514</u>	<u>7,500,000</u>

* Tentative figure retrieved from Combined Delivery Report (CDR) on 16 Jan 2020