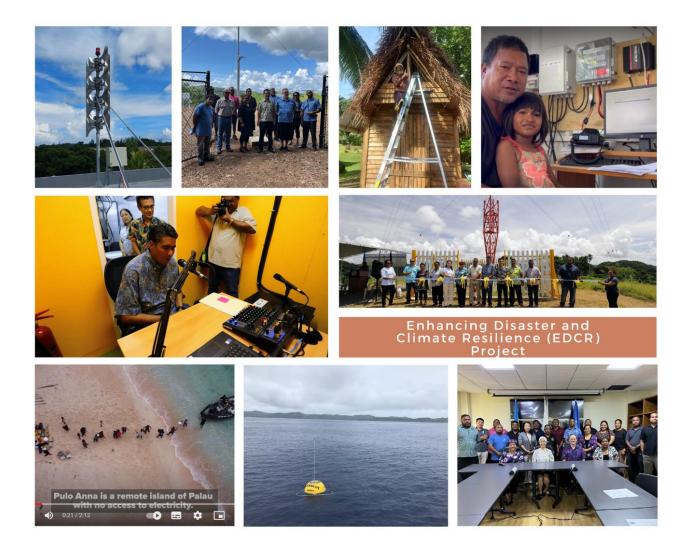
Enhancing Disaster and Climate Resilience in the Republic of Palau through Improved Disaster Preparedness and Infrastructure (Project#: 00115303)

Annual Progress Report December 2022



PROJECT BRIEF

Project Title	Enhancing Disaster and Climate Resilience in the Republic of Palau through Improved Disaster Preparedness and Infrastructure (EDCR Palau)
Delivery date:	13 February 2023
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:	Palau National Communication Corporation (PNCC) (Activity 1.1/1.2/2.1) National Weather Service Office (NWSO) (Activity 1.3/1.4) Bureau of Public Works (Activity 1.5/2.2) Bureau of Cultural and Historical Preservation (Activity 3.2)
Award ID Start Date:	31 March 2019
Award ID End date:	31 March 2023
Total Project Budget (Award ID):	USD 7,559,445.39 (Government of Japan \$7,500,000, UNDP\$35,789.42, Romania\$23,655.91)
Beneficiary Country:	Republic of Palau
Period of the Report:	1 January 2022 to 31 December 2022
Brief Description	

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.

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:

- 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

The project is 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.

Overview of the Annual Progress

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.

Main highlights of the efforts as of December 2022 are as below:

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

- Climate and tsunami early warning system was upgraded in all 16 States by various activities which benefited all Palauan population of 17,413 people (9,364 men and 8,049 women).
- Disaster communication was upgraded by completing installation of 12 High Frequency (HF) radios and five Very High Frequency (VHF) radios which were installed at 12 locations.
- The Project has also contributed significantly to Palau's disaster communication by successful installation of AM broadcasting system which could provide reliable and widespread dissemination of disaster information to the public, which covers all Palauan population including remote Southwestern islands.
- Climate monitoring system was strengthened by installing 3 Automatic Weather Stations (AWS) in Airai, Melkeok, and Kayangel as well as deploying a wave rider buoy to monitor ocean conditions.

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

 In addition to the completion of upgrading the National Emergency Operational Centre (NEOC) completed in 2021, the project further supported to enhance the national disaster responders readiness capacity by providing ICT equipment at the NEOC, where 53 staff and members (37 men and 16 women) of the Emergency Operational Centre and National Emergency Committee are benefitted.

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

• N/A (Completed by 2021)

Progress towards Project Outputs/Activities in 2022

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 [Completed]	 Locations to install VHF and HF radio were identified as below, focusing on the remote Southwestern outer islands. Tobi state Sonsorol state Helen reef Merir Island Pulo Ana Kayangel Peleliu Angaur NEMO, Education, Hospital A contract to supply solar system to power radios was concluded in August 2020. Equipment of has arrived in Koror in December 2020 - March 2021. The contracts of supplying HF/VHF radios, antenna and modems for HF email have been concluded in February 2021. HF radios and modems for HF email have received in Fiji. Modems were installed to the HF radios and radios were programmed which was shipped to Palau in April 2022. LOA was concluded in October 2020 with the Palau National Communications Corporation (PNCC) for the installation of HF and VHF radios. Installation works have initiated from March 2022 until June 2022. 12 HF radios (8 radios out of which includes fitlets and computer accessories which can enable to send emails) and 5 VHF radios were supplied and installed at 12 locations. 9 HF radios were installed at NEMO, Ministry of Education, Ministry of Health, Sonsorol State Office in Koror and Hatohobei State Office in Koror in May 2022 as well as 4 Southwestern Islands (Tobi, Sonsorol, Helen Reef and Pulo Ana) in June 2022. 3 VHF radios were installed in 3 states (Angaur, Kayangel and Peleliu). An official handover of the HF/VHF radio was held at NEMO on 9 September 2022.

		 An MOU was drafted to govern the operational aspects of asset upkeep and routine maintenance. NEMO will be responsible for its recurrent costs moving forward.
1.2	Install tsunami and multi-hazard warning sirens (incl of repeater stations) in key vulnerable locations	 LOA was concluded in October 2020 with the Palau National Communications Corporation (PNCC) for the procurement and installation of siren system. Installation work has started since August 2021 and completed by July 2022. The first three sirens installed at ITMC (Meyuns), Yelch and NEMO sites were tested publicly on 14 October 2021. Nation-wide siren test was organized in for Melekeok and Kayangel states on 6 and 13 September 2022 during September National Preparedness month for Disaster in Palau. The project is coordinating with PNCC to invite a manufacturer for on-site training and quality assurance in early 2023.
1.3	Repair/Install Automated weather stations related equipment in key strategic and vulnerable locations both existing and non-existing according to WMO guidelines	 Four Automated Weather Stations (AWS) will be installed in Kayangel, Melekeok, Koror and Peleliu States. After two tenders resulted in not successful in 2019, LOA was concluded in May 2020 with the National Weather Service Office (NWSO) to implement this activity. NWSO has concluded a contract with National Institute of Water and Atmospheric Research (NIWA) in June 2020. A virtual training was conducted to three NWSO staff in September 2020 and AWSs were assembled and shipped, which was arrived in Palau in March 2021. The first AWS was commissioned and handed over on the 15 April 2022 in Airai. The second AWS was completed at Melekeok in August, and the third one at Kayangel state in December 2022. The last AWS in Peleliu will be installed in 2023.
1.4	Install 2 wave rider buoys to determine ocean conditions and surface wave monitoring	 The last AWS in Peleid will be installed in 2023. The UNDP approached to Pacific Islands Ocean Observing System (PacIOOS) under the UH which has provided continuous supports in this area. As the UH was not able to conclude a direct partnership with the
	[Completed]	 UNDP, LOA was concluded with NWSO in May 2020. Due to the limitation of allocated budget, it was decided to supply two wave rider buoys instead of three. NWSO concluded an agreement with UH in September 2020. Two wave rider buoys have been delivered to Palau and the final deployment location of buoy was defined after collecting bathymetry data.

		• The experts from the UH has arrived in Palau in April 2022 and a waverider buoy have been deployed out at sea on 28 April 2022.
1.5	Reconstruction of AM Frequency Modulation Tower	• The tender for procuring materials and installation was awarded in November 2020. Equipment was arrived between May and September 2021.
	[Completed]	 Although the location to install the AM frequency modulation tower was confirmed since the project initiation, it was found that the Ministry of State who is a main counterpart, did not secure the official permit of land use. The site location was only finalized in August 2021 after series of discussions between the Palau Government and the Koror State. LOA was concluded in October 2020 with the Bureau of Public Works (BPW) to support this activity. BPW has conducted a topographic survey of the construction site and obtained EQBP permit with several conditions.
		 The farmers have agreed to harvest their crops planted on the AM Tower Construction site. Construction work for the AM Tower broadcasting system reconstruction started in January 2021. The final inspection was conducted, and trainings have been provided to Bureau of Archives & Media staff in June 2022. Signal tests have been conducted to confirm the radio to be received at the remote southwestern islands in bate 2022.
		July 2022. • An official handover ceremony of the AM
		broadcasting system was held on 2 September 2022.
1.6	Training course for young technicians on how to maintain the current communications Infrastructure [Completed]	 A two-day training of the installation and maintenance of solar system for radio operation was conducted on 16 and 17 Aug 2021, attended by 22 people (20 men and 2 women) from PNCC, States and NEMO. Training of HF/VHF radio basic operability/maintenance training was conducted on 2-8 Feb, attended by 23 participants (2 female & 21 male). The HF radio training (install HF radio with data fitlet) was completed on the 10, 16-17 May 2022 at NEMO, attended by 28 men and 7 women from NEMO, PNCC, Songeral/Ustababai State Offices and Ministring of
		 Sonsorol/Hatohobei State Offices and Ministries of Health and Education. During the mission to Southwest islands between 15 and 25 June 2022, 18 people (5 women and 13 men) were trained with additional participants trained earlier at NDMO to operate the HF radio with its email operability features. Communication experts have provided supports based on needs from NEMO or State offices.

1.7	Monitoring including Gender Analysis & perception assessment on the impact of the project on beneficiaries	 Partnership with the Palau Red Cross Society (PRCS) and the Pacific Communities (SPC) was made after identifying possible partners. A two-day workshop to integrate gender, age, disability, and cultural parspective in policies and
	[Completed]	 disability and cultural perspective in policies and practices of disaster risk management was conducted on 10-11 February 2021. Forty-two (42) staff (20 women and 22 men) from public sector and civil society organizations attended the training. Final report and presentation of recommendation was handed over to National Emergency Committee (NEC) in March 2021.

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).	 As a disaster preparedness and response equipment to National Emergency Management Office (NEMO), a generator (in April 2020), furniture (in June 2020), 8 mobile phones (in June 2020) were delivered, and internet capacity was improved (in July 2020) for National Emergency Operation Center (NEOC). LOA was concluded in October 2020 with the PNCC to install ICT equipment. The ICT equipment for NEMO has received in March 2022 and completed installation in June 2022. ICT equipment was officially handed over on 9 September 2022.
2.2	Retrofit the National Emergency Operations Centre (NEOC) facility to meet international and functional standards. [Completed]	 LOA was concluded in April 2020 with the Bureau of Works to implement this activity. The new National Emergency Operations Center (NEOC) at NEMO has been retrofitted and outfitted with modernized equipment, furniture was handed over to the Government of Palau on 25 June 2021.
2.3	Conduct LiDAR Imagery remote sensing mapping over key and vulnerable locations. High Resolution Digital Elevation Models (DEM) for Inhabited Coastal Areas developed. [Completed]	 LiDAR survey mission was dispatched from 16 March to 23 April 2021. The final draft deliverables are submitted for review. Final data sets have been handed over to PALARIS and UNDP in January 2022.
2.4	Provide key strategic islands with mobile storage facilities to store emergency stockpiles/supplies, emergency equipment.	 5 containerized storage facilities were provided and handed over to the government in December 2019. Training on maintenance of storage units was delivered through skype to NEMO in January 2020.

2.5	[Completed] Appropriate equipping of emergency disaster response stations, East coast and Westcoast of Babeldaob island with response and rescue vehicles (specifically fire trucks and first responders' vehicles).	 The Rescue Pumper Fire truck was shipped to Palau on 1 March 2021 and arrived on 2 May and has been in use effectively by the Division of Fire and Rescue. Training on the applicability and use of equipment was conducted in-country in Palau by NAFFCO (manufacturer) from December 6-9, 2021. 24 Fire personnel were trained (21 male/3 female).
2.6	[Completed] Provide key disaster responders	• 2 portable man packs HF radio were provided and
	and Search & Rescue institutions with 2 portable man packs HF radio	 handed over to the government in December 2019. Training regarding maintenance and operation was delivered online in January 2020.
	[Completed]	

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 Hatohobei, Southern most islands) [Completed]	 Equipment of solar system for 3 school in Southwestern states has arrived in Koror in December 2020 -March 2021. 20 participants (19 men and 1 women) from Ministry of Education (MOE), Palau National Communications Corporation (PNCC), National Emergency Management Office (NEMO) and Palau Energy Administration (PEA) and States of Sonsorol and Hatohobei were trained on the installation and maintenance of solar system from 9 to 13 Aug 2021. The installation was completed for all three schools in Sonsorol (20-29 September 2021), Pulo Ana (12-22 October 2021) and Tobi (9-22 November 2021). Handover ceremonies were conducted in Sonsorol and Pulo Anna islands on 21 October 2021. Another handover ceremony was conducted in Tobi on 29 December 2021. Debriefing workshop was held in December 2022 to discuss operational arrangement for routine maintenance of the radio equipment. 						
3.2	Restoration and protection of cultural heritage sites in coastal communities rated high risk (Palau Historical Preservation Office, Vulnerability Assessment)	• LOA was concluded with the Ministry of Communities and Cultural Affairs was concluded in October 2019 to conduct vulnerability assessments of 10 cultural heritage sites and implement actual climate risk mitigation measures in two prioritized sites.						

	 in line with Palau Climate Change Policy (PCCP) for Climate & Disaster Resilient Low Emissions Development. [Completed] 	 The ministry finalized the Disaster Risk and Climate Change Impact Survey report in the Republic of Palau and the comic book for communication in June 2021. Resoration works at Hatohobei state has been completed. A traditional hut was made to store the human remains and artifacts from the Iporu burial grounds. Works at Ngeremlengui have also been completed in November 2022 to restore traditional trails.
3.3	Procure a double function vehicle for the Fire Department, to secure water resources during droughts	 The Elliptical Tanker Fire Truck¹ arrived on 3 March 2021. It also has a 3,000 gallons water tank and has been in use effectively by the Division of Fire and Rescue.
	[Completed]	 Training on the applicability and use of equipment was conducted in-country in Palau by NAFFCO (manufacturer) from December 6-9, 2021. 24 Fire personnel were trained (21 male/3 female).
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 [Completed]	 A boat, two SUVs and a pick-up truck and search and rescue equipment were delivered and handed over to the government in August 2020. These vehicles and equipment will be used to improve the capacity of NEMO and NWSO to assess the areas where the monitoring equipment are installed and to support evacuation and humanitarian assistance in case of disasters. A 3.5t Truck was delivered to NEMO in March 2021. A LOA was concluded with Bureau of Public Works in April 2020 to implement extension of roof at Fire Department. The civil work was completed in April 2021.
3.5	Provide food preservation training to vulnerable communities through all relevant national and state actors to enhance community resilience.	• 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 cancelled this activity to reallocate the budget to other activities.
	[Cancelled]	
3.6	Conduct Integrated Gender Equality and Social Inclusion (GESI) and DRM Training of Trainers with key national and state government sectors including CSO's that work with communities.	 It was agreed to merge this activity with the activity 1.7 above. A two-day workshop to integrate gender, age, disability and cultural perspective in policies and practices of disaster risk management was conducted from February 10-11, 2021. Forty-two (42) staff (20

¹ This vehicle possesses the capacity to transport water to schools, hospitals and communities affected by water shortage due to droughts or any deficiency in the water system.

[Completed]	women and 22 men) from public sector and civil society organizations attended the training.					
3.7 Conduct PDNA and DRF Training of Trainers to key government sectors [Completed]	 Post Disaster Needs Assessment (PDNA) training was conducted in February 2020, attended by 34 participants (18 men and 16 women). 					

Status on the Results Framework

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		TARGETS BY END OF THE PROJECT	PROGRESS
			Value	Year		AS OF DEC, 2022
Output 1 Strengthened gender sensitive Disaster	1.1 # of States with upgraded (i.e. redundancy, marine grade, energy efficient, gender sensitive) climate and tsunami early warning system installed and operational ²	Quarterly progress Reports	0	2019	16	16
Communication and Climate and Tsunami Monitoring Systems	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 ³ Male=9,433 Female= 8,228	17,413 Male=9,364 Female=8,049
GEN 2	1.3 # men and women with potential access to AM radio broadcasting coverage	Quarterly progress Reports	0	2019	17,661 ⁴ Male=9,433 Female= 8,228	17,413 Male=9,364 Female=8,049 [Completed]
Output 2 Enhanced gender sensitive National and State Disaster Preparedness capacity GEN 2	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)	53 (37 men and 16 women) [Completed]

² 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 in incomplete and/or deteriorated due to deficiencies in the type of equipment. No sirens are installed in the country.

³ Population of Palau according to the Census, 2015

⁴ Population of Palau according to the Census, 2015

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	DATA SOURCE BASELINE		TARGETS BY END OF THE PROJECT	PROGRESS
			Value	Year		AS OF DEC 2019
	2.2 Scale (%) of upgrading of the National Emergency Operational Centre with appropriate infrastructure and equipment to facilitate information management and effective coordination	Quarterly progress Reports	0	2019	100%	100 % [Completed]
	2.3 # 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,	3.1 # men and women with access to access to educational / evacuation facilities provided with renewable energy services within 3 Southwestern islands (2 states: Sonsorol and Hatohobei)	Quarterly progress Reports	0	2019	65 Male= ## Female= ##	65 (39 men and 26 women) according to the Census 2015 [Completed]
water, food and cultural resources management GEN 2	3.2 # cultural heritage sites with vulnerability assessment and DRR strategies owned by the Palau Government	Quarterly progress Reports	0	2019	10	10 [Completed]
	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= 36₅)	76 (women 36) [Completed]

 $^{^{5}}$ Number of women participating in the training sessions will be emphasized expecting to achieve a 40% of the total number of participants

GENDER SPECIFIFC RESULTS

To mainstream the issue of gender and social inclusion in the area of disaster risk management, the Project has explored the partnership with the Bureau of Aging, Disability, and Gender, Palau Red Cross, and SPC. A two-day workshop to integrate gender, age, disability and cultural perspective in policies and practices of disaster risk management was conducted from February 10-11, 2021. Forty-two (42) staff (20 women and 22 men) from public sector and civil society organizations attended the training. Final report and presentation of recommendation was handed over to National Emergency Committee (NEC) in March 2021.

PARTNERSHIP

The Project has continued working closely with various counterparts including the Office of Chief Secretary, Vice-President's Office, National Emergency Management Office (NEMO), 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, Bureau of Archives 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 will be supporting NWSO via NOAA. The project is also cooperated with Palau Red Cross and SPC for conducting a gender workshop.

ISSUES

The following details of the activities were changed after consultations with the counterparts to finalize the specification/Scope of work on each activity:

Activities mentioned in the Project Document	Activities changed
1.2 Install tsunami and multi-hazard warning sirens	1.2 Install tsunami and multi-hazard warning sirens in
(incl of repeater stations) in key vulnerable locations	key vulnerable locations. (Repeater station will not
	be included after the decision of the government to
	use fiber optics/GSM for activation of siren system)
1.4 Install DART Tsunami buoys warning systems in	Install wave rider buoys to determine ocean
strategic and vulnerable locations	conditions and surface wave monitoring
2.4 Provide key strategic islands with containerised	Provide mobile storage facilities to five locations
storage facilities to store emergency	
stockpiles/supplies, emergency equipment	
3.3 Install emergency water systems (e.g. reverse	Procure a double function vehicle for the Fire
osmosis system incl. solar powered) in low lying	Department, to secure water resources during
islands) enhancement through installation of 1	droughts
drilling rig.	
3.4 Inspect, assess and upgrade critical infrastructure	Supply and upgrade critical infrastructure to enhance
conditions and upgrade needs to withstand climate	the capacity of disaster risk management
change and disasters	
3.5 Provide food preservation training to vulnerable	The activity was cancelled.
communities through all relevant national and state	
actors to enhance community resilience	

The final evaluation is in progress for this EDCR Palau project.

Communications and Visibility

The following coverage was made in 2022.

Handover Ceremony of solar system at Tobi (Dec 2021 – Jan 2022)

Island Times (4 Jan 2022): <u>https://islandtimes.org/new-solar-system-in-tobi-to-benefit-teachers-and-students/</u> UNDP Press Release: <u>https://www.pacific.undp.org/content/pacific/en/home/presscenter/pressreleases/2021/new-solar-system-in-tobi-to-benefit-teachers-and-students.html</u> UNDP FB: <u>https://www.facebook.com/UNDP.Pacific/posts/4623596444362055</u> Embassy of Japan FB: <u>https://www.facebook.com/JNDP.Pacific/posts/4623596444362055</u> Embassy of Japan Press Release: <u>https://www.facebook.com/japanembassy.palau/posts/1115912802481241</u> Embassy of Japan Press Release: <u>https://www.palau.emb-</u> japan.go.jp/itpr_en/11_000001_00373.html?fbclid=IwAR3g45VZYv0zirAGM_KCZp4ke62nWcAoEcD MK8Z28KoAzG63H398IOTpIQ

Video

UNDP Pacific facebook: <u>https://www.facebook.com/UNDP.Pacific/posts/4737181203003578</u> UNDP Pacific twitter: <u>https://twitter.com/UNDP_Pacific/status/1491519056830074882</u>



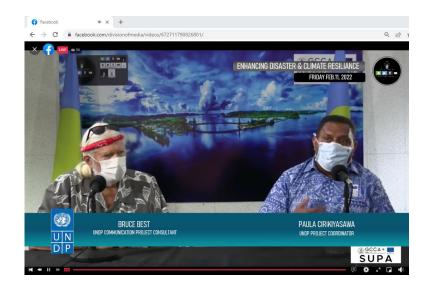
Arrival of Radio Equipment (Jan 2022)

UNDP Pacific facebook: <u>https://www.facebook.com/UNDP.Pacific/posts/4660892510632448</u> UNDP Pacific twitter: <u>https://twitter.com/UNDP_Pacific/status/1484012615697580033</u>



Talk Show on FM Radio (Feb 2022)

Eco Paradise EPFM 87.9: <u>https://www.facebook.com/divisionofmedia/videos/672711790826801</u> UNDP Pacific facebook: <u>https://www.facebook.com/UNDP.Pacific/posts/4749355681786130</u> UNDP Pacific twitter: <u>https://twitter.com/UNDP_Pacific/status/1492990426999304192</u>



Radio Training (Feb 2022)

UNDP Pacific facebook: <u>https://www.facebook.com/UNDP.Pacific/posts/4753200034735028</u> UNDP Pacific twitter: <u>https://twitter.com/UNDP_Pacific/status/1493433762063216642</u>



Installation of the 1st Automatic Weather Station (April 2022)

UNDP Press Release: <u>https://www.undp.org/pacific/press-releases/new-automatic-weather-station-enhance-palau-climate-monitoring-capacities</u>

UNDP FB:

https://www.facebook.com/UNDP.Pacific/posts/pfbid02UCcCsa7KAVztUeqDMUQc5817udMKvyniw yeJxwjrMhaBcta8q7zSVEXeYiCP4hrwl

UNDP Twitter: <u>https://twitter.com/UNDP_Pacific/status/1533934858447507456</u> Embassy of Japan Twitter: <u>https://twitter.com/OfPalau/status/1516702712146104320</u>



New Automatic Weather Station to enhance Palau climate monitoring capacities | United Nations Development Programme

Deployment of Waverider Buoy (April 2022)

Island Times (17 Jun): <u>https://islandtimes.org/deployment-of-a-new-wave-buoy-in-palau-to-improve-monitoring-of-ocean-conditions/</u>

UNDP Pacific facebook: https://www.facebook.com/UNDP.Pacific/posts/4660892510632448

UNDP Pacific twitter: https://twitter.com/UNDP_Pacific/status/1484012615697580033

UNDP Press Release: <u>https://www.undp.org/pacific/press-releases/deployment-new-wave-buoy-palau</u>

UNDP FB:

https://www.facebook.com/UNDP.Pacific/posts/pfbid02fonKxhQvMLYwxNbJzdz3GQzc9jGRACiYKph yQms3kSnRAagLKNbsztuHAe6q4QAAI

UNDP Twitter: https://twitter.com/UNDP_Pacific/status/1536513219971280897

UH PaclOOS website: https://www.pacioos.hawaii.edu/latest-news/new-wave-buoy-

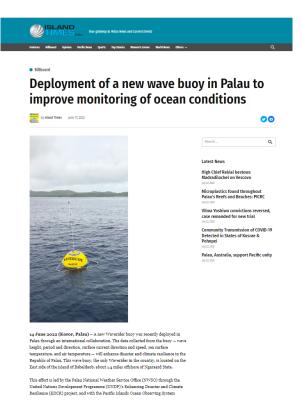
palau/?fbclid=IwAR0Sk2aq84YE6hrKRCXR9Q9zSzT5OxjhqHe3zemUiFAmhwytMB6FV6wr4dw

UH PaclOOS FB:

https://www.facebook.com/pacioos/posts/pfbid02dbbMUhY3ctXYybd9aWYQBXSDnqLDmn3ArawAf g9dS9tALmaUnbtCXfciwpNNANW3I

Hawai'i Public Radio: <u>https://www.hawaiipublicradio.org/local-news/2022-07-12/partnership-with-hawaii-researchers-helps-expand-access-to-critical-ocean-data-in-</u>

palau?fbclid=IwAR1oHUyVYOQ1rtvnidcuKjFlbtf_Cx1l2f6BDreh4WCJbCOXn7VChYWwJVU



Installation of the 1st Section of AM Broadcasting System (April 2022)

Island Times (26 April): <u>https://islandtimes.org/install-am-broadcasting-system-to-enhance-palau-disaster-communications/</u>

UNDP Press Release:

https://www.pacific.undp.org/content/pacific/en/home/presscenter/pressreleases/2022/installingam-broadcasting-system-to-enhance-palau-disaster-communications.html UNDP FB: https://www.facebook.com/UNDP.Pacific/posts/4936389663082730 UNDP Twitter: https://twitter.com/UNDP_Pacific/status/1518451052038979584 Embassy of Japan Twitter: https://twitter.com/OfPalau/status/1514891779950194689 RNZ: https://www.rnz.co.nz/international/pacific-news/465484/palau-restores-am-radio-service

Video:

UNDP FB:

https://www.facebook.com/UNDP.Pacific/posts/pfbid0dvhhTWPxoLZamsFTc1d2hoj6xM53zRGfdaYp j1F8QXXjNdktQ2VBEEd8vm1QC2pql



HF radio installation in Southwestern Islands (Jun 2022)

UNDP Press Release: <u>https://www.undp.org/pacific/press-releases/new-hf-radios-boost-</u> communication-in-palau

UNDP FB:

https://www.facebook.com/UNDP.Pacific/posts/pfbid0sXrXbz7RCa8nK3fk26wEvRkDF1XxwHYmBem vs3cSXdmUj2z7UQAAKGJ7kHhK9R6DI

UNDP Twitter: https://twitter.com/UNDP Pacific/status/1548882387643568128

Island Time (19 Jul 2022): <u>https://islandtimes.org/new-hf-radios-to-boost-communication-capabilities-in-the-southwest-islands/</u>

Diplomat (19 Jul 2022): <u>https://islandtimes.org/new-hf-radios-to-boost-communication-capabilities-in-the-southwest-islands/</u>



Pulo Ana Sola Installation Video:

UNDP YouTube: <u>https://www.youtube.com/watch?v=AI9gXTiiH-c</u>



Video for the 1st Automatic Weather Station Installation (April 2022)

UNDP YouTube: <u>https://www.youtube.com/watch?v=wiZaquzPUvQ</u>



Handover Ceremony of AM Broadcasting System (September 2022)

Eco Paradise EPFM 87.9 "Ngerel Belau":

https://www.facebook.com/divisionofmedia/videos/644048710235058

Tia Belau 6 and 8 September 2022

Embassy of Japan in Palau Twitter: https://twitter.com/OfPalau/status/1565610226111451137

UNDP Twitter: https://twitter.com/UNDP Pacific/status/1566944056445632512

UNDP Face Book:

https://www.facebook.com/UNDP.Pacific/posts/pfbid035ysMhyZX9tkyZjf8DtDAxvDUPsp5QUbGY2x kPNcWrAGx4dEjLXZBsTBqwv1f1Btcl

UNDP Press Release:

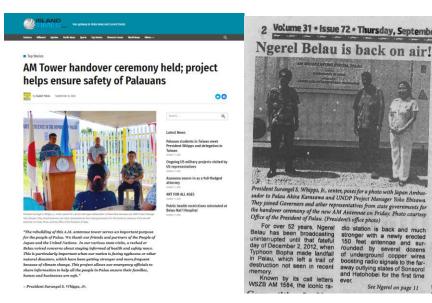
https://www.facebook.com/UNDP.Pacific/posts/pfbid035ysMhyZX9tkyZjf8DtDAxvDUPsp5QUbGY2x kPNcWrAGx4dEjLXZBsTBqwv1f1Btcl

UNDP Press Release (Japanese):https://www.undp.org/ja/japan/press-releases/edcr-palau-am-tower

UNDP Tokyo FB (Japanese):

https://www.facebook.com/UNDPTokyo/posts/pfbid02vTw6dWgUXCKZxDYW6xdaXLs8eCk3g1Tp2H kqn5qGyTaYq3fh2sijVS9sNGbfSAVSI

UNDP Tokyo Twitter (Japanese): https://twitter.com/UNDPTokyo/status/1575020951951253504





Handover of HF/VHF Radios and ICT Equipment (September 2022)

UNDP Press Release: <u>https://www.undp.org/pacific/news/disaster-communication-palau-enhanced-hf-and-vhf-radios</u>

UNDP Twitter: https://twitter.com/UNDP Pacific/status/1571739987196153856

UNDP Face Book:

https://www.facebook.com/UNDP.Pacific/posts/pfbid02gmRfozEA5Hoq37dkB1VA5sVYusPDaniQDzg kKaievSBs33Fp6jJ5KAvpJvMS8rd6l



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Palau upgraded its disaster communication with 12 High Frequency radios & 5 Very High Frequency radios installed in 12 locations to enhance crisis management coordination; with support from @UNDP 's #EDCR project funded by @JapanGov •: undp.org/pacific/news/d... #ClimateAction



▲ 在バラオ日本国大使館(Embassy of Japan in Palau) and 4 others 5:56 PM · Sep 19, 2022 · Twitter Web App

Siren Testing and Tsunami Drill (September 2022)

UNDP Press Release: <u>https://www.undp.org/asia-pacific/news/lasting-legacy-palaus-national-preparedness-month</u>

UNDP Face Book:

https://www.facebook.com/UNDP.Pacific/posts/pfbid023SSnXY13vD5bb8L1DgJBgrpkLFH8xkdvaQD4 Beq34YLE7wrfQ9KFKxqGXhrPNBVcl

UNDP Twitter: https://twitter.com/UNDP Pacific/status/1572372779344990213

UNDP YouTube: https://youtu.be/uPEUSE5IKTc



Installation of AWS in Kayangel State (September 2022)

UNDP Press Release: <u>https://www.undp.org/pacific/press-releases/third-automatic-weather-station-installed-kayangel-enhance-palau-climate-monitoring-capacities</u>



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.
- 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.

- It is important to engage Bureau of Public Works for the activity of the NEOC refurbishment from the initiation stage of the project implementation in order to obtain supports for the construction and obtained local expertise.
- It is important to coordinate with other UN organizations (WHO or UNICEF) to procure thermometers requested by NEMO to respond the needs from COVID-19 pandemic instead of approaching to nearby venders as the equipment is shortage of stock globally.
- It is recommended to seek partnership agreement between the UNDP and NOAA in order to avoid delay of implementation due to establish a legal framework between the UNDP and the University of Hawaii (which has an agreement with NOAA) if the UNDP continues supporting North Pacific countries in the area of Meteorology.
- It is important the engagement of the Government to ensure entrance of key essential workers when the expertise is not in country. The entrance should follow the policies and regulations of Palau during COV19 pandemic.
- It is important to obtain a written confirmation from the counterpart on the land use for the activity before the tender initiation.
- Installation work for solar systems in schools worked very well with strong partnership with various counterparts (MOE, PEA, PNCC, NEMO) by consolidating available technicians for installation mission instead of dispatching a single organization.
- UNDP EDCR can still be involved in post project scaling up activities to broker potential synergies with potential partners and Government of Palau.

Updated Risk Log

#	Description	Туре	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 issues 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 spaces need to be very open, frank and accommodative being mindful of the parameters of the funding modality, contingencies and allow room for flexibility. [Jun 2021] Coordination meetings have initiated among the counterparts and Marine Law related to the activities in the Southwestern states due to the complexity of logistics.		
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 practises consistent with UNDP Procurement guidelines. Please see the table of risks related to COVID-19.		
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 practises consistent with UNDP Procurement guidelines. Please see the table of risks related to COVID-19.		

				[Nov 2019] Adaptation of formats for local bidders to understand process. Availability of procurement officer to meet with vendors request to provide guidance Please see the table of risks related to COVID 19.
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.	government line Ministries are part of the project design,
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. [Jul 2021] Activity of AM broadcasting system is pending due to the land issue since February 2021. Requested Minister of Public Infrastructure to negotiate with Koror State Public Land Authority (KSPLA) [Nov 2021] land issue for AM broadcasting system was resolved thanks to the strong leadership by the Ministry of Public Infrastructure. KSPLA approved verbally on the land use on the original site at Malakal Hill in August 2021. Ministry of Public Infrastructure met Koror State Government and all affected farmers in October 2021 to request harvest crops by November. EQBP permit was obtained with a several conditions in October 2021.

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.
8	COVID19 Pandemic	Environmental	It will affect the timeline of project and may require additional budget	different activities that may be impacted in the delivery time by the
9	Oceans Conference Preparations	Strategic Stakeholders Relations	It will affect timeline of project delivery momentum	Develop contingency plans with NEMO and implementing partners to work on off-site installation such as HF/VHF radio installation works since Government officials based in Koror will be engaged in the preparatory logistics in the lead-up to the Oceans Conference preliminary, Officials and the main Plenary.

Activities (to be) affected by the COVID-19

Activity	Challenges caused (will be caused) by COVID-19
Supply of HF/VHF (Activity 1.1) [Resolved]	 UNDP negotiated with the supplier of HF radio to include the programming of the radios instead of dispatching experts. Shipment of equipment takes longer time due to the difficulty to find the container space. Major equipment arrived in Jan 2022. Supply of fitlets to be used for HF email was delayed due to the global shortage of materials, arrived in March 2022 in Fiji. Training and installation are delayed due to the above reasons. Training was held in Feb and May 2022 and installation was completed in June 2022.
Procurement of automatic weather stations (Activity 1.3)	 Shipment of equipment was delayed due to the disrupted shipping scheduled. Obtaining installation materials took time due to the lack of materials in the market. Installation and training are delayed as it is difficult to dispatch experts Palau from New Zealand. NWSO and UNDP agreed to seek supports from Bureau of Public Works to engage construction companies to expedite the installation.
Procurement of wave rider buoys (Activity 1.4) [Resolved]	• A mission to deploy buoys and training was delayed due to the weather condition as well as COVID-19 community pandemic in early 2022. The mission was deployed in Apr 2022.
AM Broadcaster system rehabilitation (Activity 1.5) [Resolved]	• Additional cost (estimated \$2,000) is required in order to dispatch missions when quarantine in Palau or original/transit countries are required. There was no mission dispatched at the initial stage of the activity due to the travel restriction which caused some delay to solve the technical issues.
Training of protection, gender, and social inclusion and DRM (Activity 1.7 and 3.6) [Resolved]	 Planning process was delayed as counterpart have experienced high level of commitment to address COVID19. Requirement of social distancing from March limits preparation meetings. Resolved the risk by conducting the workshop in February 2021 with instructors provided online.
ICT Equipment (Activity 2.1) [Resolved]	 Supply of equipment is delayed due to the global shortage of materials. Final shipment was received in March 2022.

LiDAR survey (Activity 2.3) [Resolved]	 The procurement of LiDAR survey was cancelled as the procurement was advertised before the COVID19 pandemic and additional conditions were required to add to the original bidding document. Second round of limited competition was conducted after revising the bidding document. (Estimated delay: 6 months) The price proposal became higher than the original proposal. The contract amount was increased by US\$35,000 in order to dispatch a mission with two aircrafts so that the survey was conducted without further delays.
Supply of Rescue Pumper Tanker and Elliptical Tanker (Activity 2.5 and 3.3) [Resolved]	 Original ETA was October. Manufacturing chassis was delayed due to the closure of factory. Rescue pumper tanker was arrived in March 2021 and Elliptical tanker was arrived in May 2021 (5-7 months delay) Transportation cost was increased by \$14,000. Training arrangement was delayed due to the travel restriction due to changing available flight options and quarantine requirements. (estimated delay: 6 months) Additional cost (approx. \$3,000) is required to dispatch a trainer to Palau due to quarantine requirements.
Supply of solar system for schools (Activity 3.1) [Resolved]	 Dispatching a trainer has been delayed due to the restricted travel from Palau and countries of transit and origin (Japan/Australia). In order to avoid further delays, an online training was conducted in August and UNDP dispatched an expert from Guam to support the training on the ground. This additional arrangement cost around \$9,000.
Project Management	 UNDP Project staff left an organization due to the changing work environment and COVID-19 situation at home. UNDP has assigned another personnel from the office. A logistic officer was in quarantine to fly to Palau on 2 April. A new procurement specialist (to be based in FSM) started working from February 2021.

Annual Financial Reporting

	Funding Sources	2019 (USD)	2020 (USD)	2021 (USD)	2022* (USD)	Total (USD)
O1- Strengthened gender sensiitve disaster communication and climate and Tsunami monitoring systems	GOJ	66,156	201,734	1,104,574	557,696	1,930,161
O2- Enhanced gender sensitive national	GOJ	63,361	542,155	1,218,957	359,687	2,184,160
and state disaster preparedness capacity	UNDP (TRAC 1)	0	0	15,072	0	15,072
O3- Enhanced community disaster and climate resilience through improved energy, water,food and cultural resource management	GOJ UNDP (TRAC 1) UNDP (TRAC 2) Romania	69,800 0 0 0	597,602 0 0 0	955,981 15,072 5,645 23,656	81,855 0 0 0	1,705,238 15,072 5,645 23,656
O4- Program Management Unit	GOJ	448,820	317,519	383,060	275,579	1,424,977
Total Expenditure	=	648,136	1,659,011	3,722,017	1,274,818	7,303,981
- Funded by GOJ - Funded by Romania		648,136 0	1,659,011 0	3,662,572 23,656	1,274,818 0	7,244,536 23,656
- Funded by UNDP (TRAC 1) - Funded by UNDP (TRAC 2)		0 0	0 0	30,144 5,645	0 0	30,144 5,645

* Tentative figure retrieved from Combined Delivery Report (CDR) on 14 February 2023