

PILOT PROGRAM FOR CLIMATE RESILIENCE Summary - Project/Program Approval Request			
1. Country/Region:	Papua New Guinea (PNG)	2. CIF Project ID#:	XPCRPG067A
3. Project/Program Title:	Building Resilience to Climate Change in Papua New Guinea ¹		
4. Type of PPCR Investment:	Private:	Public: X	Mixed:
5. Funding Request (in USD million total) for Project/Program:	Grant: USD 24.25 million	Loan:	
6. Approved Preparation Grant:	Amount (USD): USD 750,000	Date: 1 November 2012	
7. Implementing MDB:	Asian Development Bank		
8. Other MDB Involvement:	MDB: None	Type of Involvement: Not applicable	
9. National/[Regional] Project Focal Point:	Ms. Hakaua Harry, Secretary, Department of National Planning and Monitoring. hakaua_harry@planning.gov.pg Mr. Varigini Badira, Executive Director, Office of Climate Change and Development, Ministry of Environment, Conservation and Climate Change., vbadira@gmail.com		
10. National/[Regional] Executing Agency for project/program:	Office of Climate Change and Development (OCCD)		
11. MDB PPCR Focal Point and Project/Program Task Team Leader (TTL):	Headquarters-PPCR Focal Point: Cinzia Losenno Senior Environment Specialist (Climate Change Adaptation) Sustainable Development and Climate Change Department closenno@adb.org	TTL: Maria Lourdes Drilon Senior Natural Resources Economist Pacific Department mldrilon@adb.org	
12. Project Description (including objectives and expected outcomes):			
<p>The Government of Papua New Guinea (PNG) seeks approval of \$24.25 million in grant resources from the Strategic Climate Fund under the Pilot Program for Climate Resilience (PPCR) for the <i>Building Resilience to Climate Change in Papua New Guinea Project</i>. The proposed project is designed to implement PNG's Strategic Program for Climate Resilience (SPCR).² The SPCR is aimed at achieving transformational change in addressing the current and future threats from climate change and related hazards by supporting implementation of PNG's national strategies, outlined in its <i>Vision 2050</i>, PNG's <i>Development Strategic Plan (2010-2030)</i>, which includes climate change as a cross-cutting issue, and PNG's <i>Medium Term Development Plan (2011-2015)</i>, which focuses on "developing governance and institutional capacity together with essential infrastructure and policies ... to improve the quality of life", and the <i>National Climate Compatible Development Policy 2014</i>.³ The project will address key impediments in mainstreaming climate change resilience, which include (i) inadequate human, technical, and financial resources at national, provincial, district, community, and sector levels and associated enabling environment; (ii) limited knowledge for climate change risk management in key sectors including food security, health, and critical infrastructure; and (iii) poorly designed infrastructure that is vulnerable to climate change impacts. The overall objective will be achieved by mainstreaming climate resilience into development planning in vulnerable communities in 21 priority islands/atolls in the provinces of</p>			

¹ The name of the proposed project was changed to better reflect the nature of proposed interventions.

² Government of Papua New Guinea. 2012. Strategic Program for Climate Resilience. Port Moresby (http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/Strategic_Program_for_Climate_Resilience_for_Papua_New_Guinea.pdf).

³ National Climate Compatible Development Policy 2014. Office of Climate Change & Development Port Moresby National Capital District Papua New Guinea 4 August, 2014.

Bougainville, East New Britain, Manus, Milne Bay, and Morobe, benefiting an estimated 600,000 people.

PNG is a low-income country of approximately 6.5 million people with high vulnerability to volcanic eruptions, earthquakes, tsunamis, cyclones, droughts, and other weather-induced extremes. Climate variability and change such as sea level rise and storm surges, droughts or floods, and temperature extremes will further exacerbate this vulnerability, damage assets and infrastructure, and deplete resources essential to support basic livelihoods. A recent study indicated that climate change would result in losses of up to 15.2% of PNG GDP by 2100 (under a business as usual scenario), with agriculture being the most affected sector.⁴ Analyses indicate that the climate change will result in loss of coral reefs in the Pacific, with implications for recreational opportunities for tourism, coastal protection, habitat and nursery functions for commercial fisheries, and other goods and services of economic importance.⁵ Additionally, loss of wetlands and freshwater sources is expected due to seawater intrusion. Approximately 4,500 kilometers of the total 17,100 kilometers of shoreline are expected to be moderately to severely inundated, affecting up to 30% of PNG's population. Those most vulnerable to climate change are the 2,000 coastal villages with a combined population of around 800,000 residing in the small islands and atoll communities living in a wide variety of coastal habitats, including deltaic floodplains, estuaries, tidal flats, mangroves, beaches, bays, lagoons, sea grass beds, and coral reefs, practicing agriculture and fishing as the primary occupation and the main source of food. As a result food shortages are common in the island regions, poverty rates remain high and have actually increased during the period 2003-2008 from 37% to 54%.⁶

The project impact is increased resilience to the impacts of climate variability and climate change. The outcome of the project is improved capacities of communities in vulnerable atolls and islands, government agencies, and civil society to plan and respond to the impacts of climate change. The project has three outputs: (i) climate change and vulnerability assessments carried out and adaptation plans developed for target communities, (ii) sustainable fishery ecosystems and food security investments piloted in nine vulnerable island and atoll communities, and (iii) enabling framework for climate resilient infrastructure established and early-warning communications network extended.

Output 1: Climate change and vulnerability assessments carried out and adaptation plans developed for target communities. The project will, for the 21 identified vulnerable islands, (i) prepare local climate projections; (ii) undertake climate vulnerability assessments in consultation with local administrations and beneficiary communities, develop climate change vulnerability assessment and adaptation plans (CCVAPs) and emergency response strategies in the event of extreme climate events, and provide training in actions and procedures to be followed if such extreme climate events occur; (iii) install around 190 priority water supply/storage facilities and 100 ventilation-improved pit latrines identified during the vulnerability assessments near community facilities - schools, aid posts, and churches with large collection areas and public access to improve village hygiene against water-borne disease; (iv) assist communities to prepare climate adaptation subprojects for financing; (v) incorporate the climate adaptation subprojects in local government, district, and provincial development plans and (vi) establish a Small Grant Facility with a capital of \$5 million to provide grant finance in support of subprojects aimed at increasing climate resilience of vulnerable island and atoll communities, as identified in the climate change vulnerability assessment and adaptation plans. The project will support communities in preparing applications for financing the climate adaptation subprojects to either the government's District Services Improvement Program⁷ or, where appropriate and eligible, the Small Grants Facility (see section 19 for further details).⁸

Output 2: Sustainable fishery ecosystems and food security investments piloted in nine vulnerable island and atoll communities. The project will assist local communities in nine pilot sites to (i)

⁴ ADB. 2014. *The Economics of Climate Change in the Pacific*. Manila.

⁵ See footnote 2.

⁶ Summary Poverty Reduction and Social Strategy in the linked documents accessible in Appendix 2

⁷ The Government allocated K10 million to each of the 89 districts in PNG to be spent on infrastructure and rehabilitation maintenance projects covering education, health, law and justice, water supplies, agriculture, electrification, transport, and community infrastructure.

⁸ The governance of the Small Grant Facility and the eligibility criteria for the subprojects are described in the Project Administration Manual.

demonstrate techniques used in the rehabilitation of protective coral reefs and degraded mangrove forests, including delineation and operation of locally managed marine areas and the development and implementation of management plans, mapping, and environmental monitoring (including fish, coral, and seaweed species); (ii) pilot income-generating activities in the marine environment, including aquaculture of fish and crustaceans, and localized processing of marine products to extend their shelf life and improve food security; and (iii) pilot the stabilization of watershed catchment areas, adopting a ridge-to-reef approach in island hinterlands through tree planting and other slope stabilization measures, as appropriate.

To further improve food security in the same nine vulnerable islands and strengthen trading links between the islands and mainland areas - the project will (i) assess the extent of food insecurity anticipated from climate variability and change ; (ii) identify options and priorities to address food insecurity in consultation with local communities; (iii) demonstrate how to implement selected priority options; and (iv) increase the production and distribution of planting material on selected agricultural stations. Demonstrations will include production techniques, drought-tolerant planting material, and water management and rehabilitation of sago areas.

Output 3: Enabling framework for climate resilient infrastructure established and communications network extended as part of early warning system. The project will develop an enabling framework to address the impacts of climate change on coastal infrastructure (ports, wharves, and jetties) by (i) developing policy documents,⁹ (ii) upgrading engineering design standards for climate proofing infrastructure; (iii) incorporating benefits from climate proofing and/or enhanced resilience in feasibility studies; and (iv) recommending sustainable financing alternatives for operations and maintenance. Training will be provided to enhance the capacity of national agencies, PNG Ports Corporation Ltd. (PPCL), provincial administration, and Coastal and Inland Fisheries Development Agency (CIFDA) personnel to incorporate climate change considerations into design, construction, operation, and maintenance of coastal infrastructure.

Under Output 3, the project will extend the radio communications network to improve communications and early warning of natural disasters and extreme climate events by installation of a very high frequency network linked to PNG's National Disaster Center. This will provide emergency and general communication services to the target islands and others within the network coverage. Equipment for five relay stations will be installed on existing towers, one in each participating province, together with receiving equipment and disaster warning sirens on the 21 vulnerable target islands complemented with operating and maintenance training of communities.

As proposed in the SPCR, \$25 million of grant financing from the Strategic Climate Fund was allocated to PNG. A project preparation technical assistance totaling \$0.75 million was financed from the PPCR envelope of \$25 million, leaving a total of \$24.25 million available for the proposed project. This includes \$9.26 million for Output 1, \$8.41 million for Output 2, and \$3.94 million for Output 3, with an allocation for project management of \$2.64 million.

A request for PPCR additional allocation of \$5 million is being submitted together with this funding request. The addition allocation will be utilized to expand the scope of Output 3 and include the climate proofing of Alotau Provincial Government Wharf in Milne Bay. This will serve as a model for climate proofing similar structures currently planned in PNG.

13. Objective:

The project objective is mainstreaming climate change in development planning and the expected impact is increased resilience to the impacts of climate variability and climate change.

14. Expected Outcomes:

The outcome is improved capacities of communities (in vulnerable atolls and islands), government agencies, and civil society to plan and respond to the impacts of climate change.

15. Key Results and Indicators for Success (consistent with PPCR Core indicators):

Result	Indicator
(1) Climate change and vulnerability	Quality and extent to which climate responsive

⁹ These will include the strategic policies on operations and maintenance of port facilities, designs for climate proofing coastal assets, upgrading national, provincial and CIFDA managed facilities, and the extension of the infrastructure in support of the marine transport network in the islands.

<p>assessments carried out and adaptation plans developed for target communities in 21 vulnerable communities and incorporated into local level government, district and provincial development plans.</p> <p>(2) Gender responsive disaster response strategies developed in 21 vulnerable island communities.</p> <p>(3) Building codes and design standards developed and upgraded to incorporate climate change considerations.</p> <p>(4) Climate risk management policy developed and adopted by PPCL.</p> <p>(5) Appropriate technologies developed in 1,200 home gardens to provide income earning opportunities, especially to women, to increase household income to better cope with climate induced extremes.</p> <p>(6) Appropriate technologies developed for various agricultural and marine food products to enhance the shelf life of processed food and facilitate marketing and sale in nine target islands.</p> <p>(7) Three watershed rehabilitation interventions demonstrated in communities adjoining target vulnerable islands.</p> <p>(8) Rehabilitation technologies developed for nine mangroves ecosystems (270 ha of planting) to enhance their functions for the benefit of island communities.</p> <p>(9) Building codes and design standards are developed for use by relevant institutions to incorporate climate change considerations.</p>	<p>instruments/ investment models are developed and tested.</p>
<p>(1) CCVAPs integrated in local, district and national, including sector development plans in vulnerable sectors identified in CCVAPs.</p> <p>(2) Five VHF repeater stations established on existing towers and transmission / receiving substations established in 21 target islands.</p> <p>(3) Nine LMMAs established, registered and operational with approved management plans being implemented.</p> <p>(4) Adaptation measures against climate change in home gardens demonstrated in nine target communities covering 1,200 households.</p> <p>(5) Nine mangrove forest rehabilitation demonstrated with a planting area of 270 ha of mangroves.</p>	<p>Extent to which the relevant institutions, businesses, and public sector services use improved PPCR supported tools, instruments, strategies, and activities to respond to climate variability or climate change, including climate resilient design standards.</p>

<ul style="list-style-type: none"> (6) Three watershed rehabilitation interventions demonstrated in communities adjoining target vulnerable islands. (7) Food processing and preservation initiatives piloted in nine island communities (50% women) and adopted by 20% of island households. (8) Building codes and design standards upgraded and adopted by relevant institutions to incorporate climate change considerations. 	
<ul style="list-style-type: none"> (1) 21 CCVAPs integrated in local, district and national, including sector development plans in vulnerable sectors as identified in CCVAPs. (2) Building codes and design standards upgraded to incorporate climate change considerations. (3) Climate risk management policy adopted by PPCL and other relevant national, provincial, and district level institutions, as appropriate. 	<p>Degree of integration of climate change in sector planning and design (in terms of new building codes and design standards) as evidenced by planning and design documents adopted by institutions such PNG Ports Corp, various PNG national, provincial and district agencies responsible for coastal infrastructure facilities (ports, wharves, jetties, etc.).</p>
<ul style="list-style-type: none"> (1) PMU established, staffed and equipped and monitoring systems developed. (2) Provincial (50) and NGO (50) staff (30% women) trained in adaptation to climate change. (3) PPCL (20 personnel), national and provincial staff (estimated 50 - 30% being women) trained in the incorporation of risks from climate change in coastal port/jetty operations. (4) Project activities and performance posted on project-based website. 	<p>Evidence of strengthened government capacity and coordination mechanism to mainstream climate resilience in development planning in vulnerable sectors including design and construction of coastal infrastructure.</p>
<ul style="list-style-type: none"> (1) 2,800 households benefit from five VHF repeater stations established on existing towers and transmission and receiving substations established in 21 target islands. (2) 1,100 households benefit from nine LMMAs established, registered and operational with approved management plans being implemented. (3) Adaptation measures against climate change in home gardens demonstrated in nine target communities involving an estimated 1,200 households. (4) 1,100 households benefiting from nine mangrove forest rehabilitation demonstrated over an area of 270 ha. (5) 200 households benefit from food processing and preservation initiatives 	<p>Number of people supported by the PPCR to cope with the effects of climate change.</p>

piloted in nine island communities (50% women).		
(6) 2,700 working aged people, including 50% women, benefit from a 20% reduction in the incidence of water borne and water related diseases in target communities.		
16. Budget:		
Expenditures¹⁰	Amount (USD) – estimates	
Civil works	1,853,700	
Equipment	1,244,700	
Vehicles	200,000	
Consulting services	6,816,900	
Workshops, seminars and conferences	4,240,000	
Small grants facility	5,000,000	
Operations costs	2,705,900	
Contingencies (max. 10%)	2,188,800	
Total Cost	24,250,000	
Co-Financing¹¹:	Amount (USD million):	Type of contribution:
• Government	2.04	Counterpart funds of project implementation, comprising exemptions from taxes and duties, salaries of seconded government staff, national consultant fees and operating costs of the project management unit.
• MDB	-	-
• Private Sector	-	-
• Others (beneficiary contributions)	1.00	Labor and materials in kind for SGF subprojects.
Co-Financing Total	3.04	
17. Project/Program Timeframe:		
Expected Board/MDB Management ¹² approval date:	September 2015	
Expected Mid-Term review date:	December 2018	
Expected Project/Program closure ¹³ date:	December 2021	
Role of other Partners involved in project/program: Despite PNG's commitment to addressing climate change, the country's current capacities and resources are still inadequate to deal in a systematic and integrated way with the challenges the country faces from climate change. Hence, the design and implementation of PPCR supported investments requires close coordination with all development partners to ensure complementarity and avoid duplication of effort. Consistent with its commitment to address climate change, the Government of PNG will play a principal role in coordinating efforts aimed at transformation to climate compatible development as articulated in Vision 2050 and the National Climate Change Development Policy as discussed earlier, with the support of international development partners in the form of resources and guidance. Through continued cooperation on climate change programming that has been fostered under the PPCR process, international development partners will be better able to		

¹⁰ Expenditure categories provided by ADB based on its own procedures.

¹¹ This includes: in-kind contributions (monetary value), MDB loan or grant, parallel financing, etc.

¹² In some cases activities will not require MDB Board approval.

¹³ Financial closure date.

support the office of climate change and development (OCCD) and others agencies responsible for climate change programming in the country. In this context, the support provided by the European Union in integrated water resources management and food security, the UNDP-Global Environment Facility support to the Sustainable Land Management program and the promotion of food security through the Pacific Adaptation to Climate Change program, and the United States Agency for International Development, Japan International Cooperation Agency, Government of Finland, Wildlife Conservation Society, and Conservation International are relevant and particularly noteworthy.

The project will also benefit from the support PNG is receiving from multilateral development banks (mainly World Bank and ADB) as well as regional institutions that include the Pacific Islands Forum Secretariat, Secretariat of the Pacific Regional Environment Program, Secretariat of the Pacific Community, Forum Fisheries Agency, and the Pacific Regional Infrastructure Facility. The project will complement the implementation of the SPCR Pacific Region by (i) developing an evidence base on climate vulnerability, piloting approaches for enhancing resilience in some of PNG key economic sectors and an enabling environment to promote climate proofing of ports/wharves/jetties (and associated infrastructure), lessons learned through these interventions would be scaled up and/or replicated and expanded, as appropriate, through the regional PPCR using piloting and demonstration methodologies for the benefit of other countries in the region that face similar challenges.

18. Implementation Arrangements (incl. procurement of goods and services):

The Executing Agency will be the Office of Climate Change and Development (OCCD) under the guidance of a Project Steering Committee, which will be co-chaired by a secretary-level officer or designated representative from the Department of National Planning and Monitoring and OCCD. The Steering Committee will be composed of representatives from the Department of Treasury, Department of Health, CIFDA, National Disaster Centre, PPCL, National Agricultural Research Institute, and representatives from the five participating provinces, with ADB as an observer. The Steering Committee shall meet quarterly initially and then bi-annually once implementation stabilizes or as required to review project implementation progress and performance and approve annual work plans and budgets. A project management unit (PMU) will be established in OCCD headed by a full-time Project Director seconded from OCCD, who will be supported by a full-time National Project Coordinator recruited by OCCD and the Project Implementation Support Consultants (PISCs). The PISCs will provide technical support to the PMU as well as financial management, procurement, safeguards and support for the Small Grant Facility related activities. The PMU will be the secretariat for the Project Steering Committee. The PMU will ensure adherence to Safeguard Policy Statement (2009) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time), together with timely progress and financial management reporting to ADB and the Government. Knowledge management will be a priority output as lessons from new approaches to climate adaptation measures are captured.

At the provincial level, five provincial advisory committees (PACs) will be established in the participating provinces to be chaired by the provincial administrator. The Deputy Chairperson will be the head of the provincial administration office responsible for the agricultural and natural resources sector in each province. PAC membership will include representatives from the relevant provincial line departments (e.g. health, agriculture, fisheries etc.) and a civil society representative appointed by the governor. A quorum of 50% of committee members will be needed to pass PAC resolutions. The Committee will meet quarterly or as needed to review implementation progress at provincial level; and endorse applications for subprojects to confirm consistency with local development objectives.

Project implementation will be carried out by four implementing agencies (IAs) as shown below:

- (i) At the national level, OCCD will be responsible for the implementation of Output 1 and Output 2 initiatives as well as the communication equipment under Output 3. Under Output 1, OCCD will be responsible for the recruitment of facilitating NGOs in the five provinces and for coordinating the vulnerability assessment work on the 21 target vulnerable island communities.
- (ii) CIFDA and the National Agricultural Research Institute will jointly implement the proposed initiatives under Output 2.
- (iii) Output 3 will be implemented by PPCL for the enabling framework whereas the National Disaster Centre will provide technical expertise to OCCD in the implementation of the extended VHF network coverage.
- (iv) At the provincial level, the administrator's office in each participating province will be responsible for coordination of implementation activities in each of the first two outputs.

See the Project Administration Manual (Linked Document No.3 of the Report and Recommendation of the President to the Board of Directors) for further details.

19. Other Information:

Small Grants Facility

A Small Grants Facility (SGF) will be established to provide grant finance to eligible beneficiaries for eligible subprojects that support activities aimed at increasing climate resilience of vulnerable island and atoll communities, as identified in the CCVAPs. Since the subprojects in the CCVAP may also be funded under the national, provincial, or the district budget, the SGF will fund only those subprojects that meet the eligibility criteria as described below. Individual subproject financing shall range from \$20,000 to \$30,000. However, a maximum amount of \$50,000 can be considered as long it can be justified, especially in areas where cost of construction material is high due to importation cost/logistics.

The objectives of the SGF are to (i) provide grant funds for eligible subprojects that address the impacts of climate change in vulnerable communities located in the 21 target islands of the project in accordance with the CCVAP developed under the project; and (ii) support the participation at least 30% of women and other disadvantaged groups in subproject identification.

Eligible Beneficiaries of the SGF

Eligible beneficiaries are the local communities in the 21 islands/atolls in the provinces of Manus, East New Britain, Milne Bay, Morobe, and Bougainville. Individual households are not eligible for SGF financing. Eligible beneficiaries will be mobilized and have an established local level committee - an elected body of seven members including a chairperson with representation of women and other disadvantaged groups. At least 30% of the eligible beneficiaries will be women.

Eligible beneficiaries can submit funding requests to the SGF to support an eligible subproject. If the funding request is approved, the eligible beneficiary becomes a participating beneficiary.

Eligible Subprojects

The SGF will support a range of subprojects, including the introduction of innovative technologies to support climate change adaptation, activities that promote awareness related to climate change adaptation, develop the capacities of the communities and provide a mechanism to demonstrate and share best practices in reducing climate risks within vulnerable communities. The subprojects will result in climate change adaptation solutions that can be replicated and expanded to the benefit of the national and the global community. Further details including eligibility criteria are presented in Annex 1 of the Project Administration Manual.

Stakeholder Consultation

The project was developed through an extensive national and provincial consultative process. The process included assessments by sector thematic working groups, community consultations, a series of focus group meetings, and national consultative workshops that included representatives from key government agencies and vulnerable communities. The consultative process identified areas of support for PNG's

current national approach to climate change adaptation. During implementation, the process of consultation will continue throughout the identification and design for each subproject to afford community groups the opportunity to voice their views on how the subproject is to be designed, implemented and operated. This will be accomplished through a series of community consultation meetings at community/island level as well as at the local level government level. The community consultation meetings will be carried out by the facilitating NGOs, consultants and provincial staff as appropriate. It will include the participation of representatives from the local government and mass organizations where appropriate. The communities will be briefed on all aspects of the subproject including safeguard issues of environment and resettlement. Women will be particularly encouraged to actively participate in the consultation meetings and voice their opinions and views about the subproject design and implementation arrangements. See the Project Administration Manual (Section C: Stakeholder Communication Strategy, page 106) for further details.

Gender Dimensions

The design features of the project are gender responsive and take into account local aspirations as identified during participatory consultations. The project will focus on gender empowerment as women have expressed the desire to be trained, to be kept up to date with community developments, to participate in planning and decision making and to be consulted on subproject design in regards to community and their specific needs (e.g. women are the most frequent users of latrines over the sea largely due to cultural reasons and the relocation of pit latrines will require significant consultation with women on their siting). A Gender Action Plan has been prepared to support women's participation in decision making for climate change-related resource allocation and community-based project investments. Gender based targets outlined in the Gender Action Plan is available in the RRP linked document No. 9 and include:

- i. Full consultation of women in the conduct of vulnerability assessments on the 21 vulnerable islands;
- ii. Full participation of women in determining priority investments for the SGF;
- iii. Full consultation for women in determining the marine ecosystems interventions to be piloted and agricultural farming systems to be upgraded under Output 2 of the project;
- iv. Full consultation with women on design and implementation of activities;
- v. Female membership of climate change committees that might be needed to inform project activities;
- vi. Involvement of both women and men in training;
- vii. The requirement for a minimum of 30% of facilitating NGO staff to be women under the facilitation contracts; and
- viii. Strengthening of the capacity OCCD to mainstream gender and protect people from HIV/AIDS.

Please refer to the Report and Recommendation of the President to the Board of Directors, linked document No. 8: Summary Poverty Reduction and Social Strategy and linked document No.9: Gender Action Plan for further details.

Knowledge Management

A project knowledge portal will be established in OCCD, which will include information on all project activities and report on their progress; and coordinate knowledge management activities carried out under the project including the GIS database, project baseline data, targets, and progress toward achieving targets, best practices, guidelines on climate change risk management, and application of tools including climate proofing of infrastructure. In addition, the knowledge portal will include (i) the CCVAPs in text and illustrated in pictorial form for the islanders to enhance its ownership and understanding. The CCVAP report will indirectly encourage the local and administration to focus their local and national planning to include isolated communities in mapping out their vulnerabilities and capacities needing positive change and in addressing the PNG's Millennium Development Goals, regionally, provincially and locally; (ii) the capacity building plan for key institutions including women and youth. Among other things, the capacity

building plan will identify island women's need for capacity building and life skills trainings to equip them with relevant skills to better run and manage their homes, families and livelihoods, and address risks from climate change. (iii) details on learning exchange visits and the outcome; (iv) NARI and other Government agencies information on new gardening skills and methods; (v) User-friendly systems to detect early warnings of climate related disasters; and (vi) the lessons learned through assessments, design, and implementation.