#### REPORT ON THE NDBP PALAU WATER CONSERVATION INCENTIVE PROGRAM (PWCIP)

#### February 2016

### **Executive Summary**

The Secretariat of the Pacific Community (SPC) being the implementing agency for the European Union funded Global Climate Change Alliance: Pacific Small Island States (GCCA: PSIS) project 2012- 2015 provided support to help the Republic of Palau in its prioritised water sector climate change adaptation actions. One element of this was the Palau Water Conservation Incentive Program through the Government of Palau's designatied semi-autonomous agency the National Development Bank of Palau. Through this program the water conservation incentives scheme criteria were developed and trialled, including training of private sector contractors in the benefits of first flush devices and installation of rainwater harvesting systems. Several challenges were encountered and lessons learnt in the development of the program.

#### Timeline

- May 2013: Letter of Agreement signed governing roles and responsibilities of SPC and the Government of Palau for the overall European Union funded GCCA: PSIS
- May 2014: Letter of Agreement signed between Government of Palau, National Development Bank and SPC for the Palau Water Conversation Incentive Program
  - Advertising of program design consultancy
  - Readvertising of program design consultancy
  - Decision taken to develop criteria in house
- April 2015: Training in best practice installation of Rainwater Harvesting Systems was given to 19 male private sector contractors as part of the NDBP Water Conservation Incentive Program using a tank provided through the PPUC GCCA: PSIS adaptation demonstration project Addressing Water Sector Climate Change Vulnerabilities in the Outlying States of Palau
- July 2015: Letter of Agreement amended to reduce the scope of the PWCIP
- September 2015: Certified Food Grade Water tanks delivered
- December 2015: 8 water tanks installed
- February 2016: Letter of Agreement acquitted and terminated.

#### **Background**

In May 2014 an agreement was made between the Secretariat of the Pacific Community, the Government of Palau (GoP) and the National Development Bank of Palau, a semi-autonomous

agency of the Government of Palau based in Palau which was established by the Palau National Code Annotated 26 PNCA 5 102 (NDBP). SPC agreed to provide the funds to support development and trailing of a water conservation incentives program in the Republic of Palau under the Global Climate Change Alliance: Pacific Small Island States project (GCCA: PSIS). GoP nominated the NDBP to undertake the Project Activities on its behalf and to receive the funds directly from SPC to do so. The NDBP agreed to accept this nomination and to undertake the Project Activities.

The NDBP is already implementing a successful energy efficiency subsidy programme (EESP) with support from the Italian Government, the Palau Energy Office, IUCN and the North Pacific Africa-Caribbean-Pacific Renewable Energy and Energy Efficiency project. This provides property owners with a subsidy to install energy efficient measures and features to reduce the consumption of energy in new properties and to retrofit existing properties. Under the support provided this model has been adapted for the PWCIP.

#### **Program Summary**

A subsidy programme is integrated with existing housing and commercial loan programmes to incorporate water catchment systems into new home/commercial building construction projects, as well as to existing home/business building renovation and improvement projects. This loan programme with a subsidy mix is available to all loan applicants meeting the Bank's lending criteria for approval.

The programme under the NDBP is extended to the Palau Housing Authority through their partnership established under a Memorandum of Understanding. Part of the loan programme incorporates continued maintenance service for at least 5 years from installation to address regular systems maintenance. As part of the proposed maintenance programme a schedule of water quality testing will be conducted as part of the maintenance service being provided, together with the Environmental Quality Protection Board.

The NDBP also collaborate closely with the Palau Public Utilities Corporation (PPUC), SPC and the Palau Energy Office regarding the design and implementation of the programme, and with the Office of Environment Response and Coordination (OERC) for overall coordination with government. Local contractors, architects/engineering companies and property owners will be other key stakeholders.

The home owners and businesses will benefit from having a subsidised water catchment system in place which will provide a back-up water supply particularly during extreme events such as typhoons and droughts. The programme incorporated a small home system solar pump that can

be used to pump the water from the tank into the building, giving in house tap water. Thus the programme contributes to building climate change resilience by developing alternative water sources. In the current El Nino is also anticipated that in the long term there may be financial savings as property owners begin to use the rainwater for their everyday supply.

#### **Program Results**

### **Summary Table**

46
24
22
6
3
3
3
7

While initially there was a large pool of interest in the program, half of them did not proceed with submitting a loan application for various reasons. These ranged from not being financially ready to take on more debt, to home not yet built, to home not ready within the timeframe of the program. Most of them wanted more time to think about it, which is a polite way of saying interested but not really ready to commit to a new debt.

Of the 22 clients who submitted their applications, 3 canceled after going through the whole loan process and getting approved. One canceled because of land boundary issue so a building permit was not granted. The other two canceled due to personal reasons. However one of the clients did mention that the cost for the whole system was still expensive even after the subsidy. She was comparing the prices of the program tanks and accessories to existing stainless steel tanks already in the market. Even when we explained the difference between the two types of tanks and the benefits of the program tank system, she was still not sufficiently convinced to proceed with the loan.

With the readily available filtered water on island, Palau has three local suppliers of filtered drinking water. Shortage of drinking water is probably not the issue most Palauans think of when they think about water issues. This is probably something a trained consultant could have identified earlier on in the process.

The above table is the breakdown of prospects and installations. Although only 7 clients were able to install their systems before this reporting date the other 8 clients will not be able to get their subsidy due to timing issues.

It is unfortunate that some of our customers were not able to proceed with the program as issues came up that changed their minds

# **Photographs of Installations**



Client in Ngeremlengui



Client in Aimeliik



Client in Airai



Client in Koror (Ngerbeched)



Client in Koror (Ngerbodel)



Client in Koror (Ngerbeched)



Client in Koror (Ngerbeched)

## **Challenges**

## Developing the Program

Sourcing 3<sup>rd</sup> party consultants to actually develop equipment specifications, installation design, lending program, training for both contractors and lending staff, marketing and awareness programs were all challenging. The Request for Proposals was issued twice without a successful outcome, it was then agreed that scope of work be reduced and local consultants were to be approached directly which also did not bear fruit.

In the end, NDBP with the assistance from SPC had to develop the equipment specifications and tank base layout design and specification that would be used for the program. While SPC provided invaluable support in developing the specification and material list for the tank and accessories, all other aspects of developing the program was left to NDBP to work out. It was challenging to say the least. NDBP is a bank and did not have available staff with experience in developing the program. While the Bank has implemented a successful energy program, the program was developed over time with the full support of 3<sup>rd</sup> party consultants who were familiar with developing programs. The Bank's staffs were basically learning as they went. It took time to eventually develop the program as it is presented here. Man power at the Bank was limited.

The main lesson learned was that in developing into a new program, it would be ideal if a consultant were already identified and on board to work with the Bank developing and creating a workable program. In addition, the Bank was facing its own challenges with a shortage of staff.

#### *Initiating the Program*

Initial prospects were positive, but as the process proceeded, applicants changed their minds for one reason or another and cancelled their applications or withdrew their interest.

Of the 22 paid applications, 7 of them canceled and withdrew their application and decided not to proceed with the loan for the water tank system. We were left with 15 applications to work with, which we have processed and approved 10. Of the 10 approved loans, only 7 have been installed. The remaining 3 approved loans are pending permits from the local government agencies to proceed with the construction of the tank base. We did not anticipate that the permitting process would take so long. It took between 4 to 6 weeks to get building permits which is the cause for the delay in installing the remaining systems. There are 5 application still in the loan process and have not been approved. These applications were processed later when the previously approved or processing loans were canceled and we knew we were short of the quota for the project.