United Nations Development Programme (UNDP)

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Seychelles Energy Commission, Ministry of Home Affairs, Environment, Transport and Energy, Government of the Seychelles

**Grid-Connected Rooftop PV Systems**

(GEF Project ID: 4164 – UNDP PIMS ID 4331)

**LESSONS LEARNT AND RECOMMENDATIONS**

**Dec 2015**

# Conclusions and Recommendations

## Conclusions

* The project is well designed with an opportune selection of topic and timing such that the removal of barriers has resulted in the desired adoption rate.
* The project is ahead of schedule in reaching its installed capacity, energy generation and GHG emissions reduction targets. Project management has been highly effective in engaging stakeholders around these targets.
* As a result of reaching its main objectives, the project has the opportunity to address some factors beyond its original design, such as supporting a feed-in tariff or other mechanism to expand sustainability and adoption beyond that originally envisaged.
* The financing mechanism and its relation to adoption remains poorly understood as evidenced by half of the installations essentially ignoring it. Further understanding of the financial mechanism is needed.
* The project has left some items unaddressed, most specifically the NPA, capacity building and training, and implementation of secondary legislation to support long-term adoption of PV. Addressing these issues should be a priority in the remaining project time. In particular, the NPA requires attention as it may take a year or more to address and would thus be the only project output not reached by project close, though it can be expected within a few months of close.
* Record keeping for main documents, PIRs and reports is to be commended, not just for this project but for the portal which supports such functions for all Seychelles projects under UNDP-GEF.
* In terms of design, timing and intervention, the project can be considered best practice as it identified an opportunity where UNDP-GEF intervention could effectively remove barriers to adoption of a technology and thus facilitate its uptake.
* Adoption on Praslin has lagged adoption on Mahé. While this should be expected, further effort to encourage adoption can be effective, in particular supporting one or two installers on the island.
* The overall practice of establishing a PCU to support and administer such projects seems to be particularly conducive to effective project management and collaboration amongst projects. The camaraderie in having the various project managers in one location appears to be to the overall benefit of the projects managers and projects. Establishment of such a PCU may be considered good practice for replication in other areas.
* Lack of capacity at PUC and SEC is a limitation that should be addressed.

##  Summary of recommendations

* The project should prioritise in the coming period: establishment of sustainable legislation, capacity building and training (for installers, PUC, and SEC), and implementation of resource assessment and national performance assessment.
* The relationship between financial incentives and adoption is not clearly understood. Better study of the current financial mechanism and how to make it more effective (in combination with legislation) is necessary.
* It is necessary to establish a system that removes current delays and bottle-necks in installation, whether by increasing resources at PUC and SEC, or by changing installation procedures to require reduced PUC and SEC resources.
* Increasing capacity at PUC and SEC, through capacity building, increased hiring, and/or outsourcing should be carefully considered as the electricity sector in general takes on ever-larger changes. Where hiring of additional staff is not possible or not favourable, specific functions may be outsourced (potentially at no cost to PUC and SEC). Examples include filing of paperwork, or particular site activities or inspections which may be done by qualified and certified personnel (potentially the installers) and only spot-checked by PUC and SEC, as compared with the present system where PUC and SEC must visit each PV installation multiple times (initial inspection, at construction, and commissioning).
* There is currently no mechanism to ensure quality or hold installers responsible. A sort of consumer protection mechanism, supported for example by standard contracts, should be put in place. Such a mechanism should track installers and hold them accountable. It should also track system performance (perhaps making cumulative performance of system by an installer available to the public). Such a mechanism should also protect installers from unreasonable customer claims.
* Follow-up of co-finance commitments for the remaining tasks as these can be important resources in supporting and achieving remaining tasks.
* There are presently no installers on Praslin. The support of one or two installers on Praslin could make PV much more accessible to the residents of Praslin as compared with having to request installers from the main island. Given resources, the project may have an opportunity for further cooperation with other entities (e.g. the Clinton Climate Initiative and/or the Green Climate Fund) to promote longevity of the project, support study and research related to PV and Seychelles climate mitigation, or enable projects and other vehicles to accept external investment.