An endless supply of solar energy -Aride becomes self-sustainable with renewable energy project

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Aride Island is the northernmost granitic island of the Seychelles archipelago of 115 islands. After more than forty years as a Nature Reserve, the island is now entirely run on solar energy. (Gerard Larose, Seychelles Tourism Board)

(<u>Seychelles News Agency</u>) - The most northerly granitic island of the Seychelles archipelago, <u>Aride</u>, did not interest the first explorers of the Indian Ocean Islands due to the fact that it was dismissed merely as a 'pile of rocks' featuring a few bushes and no fresh water source.

Today however, the 68-hectare **Aride** Island, now a nature reserve, is recognised for the important role it plays towards nature conservation in the 115 islands of the Seychelles.

The island hosts large colonies of various **seabirds** including lesser noddies, roseate terns and the frigate bird, the latter almost equating to the numbers found on the Aldabra atoll, which is one of two UNESCO World Heritage Sites in the Seychelles.

Aride is also renowned as having the highest recorded density of reptiles and various endemic plants, notably the <u>Wright's Gardenia</u>, a small plant with white speckled flowers that grows only on the island.



A picturesque view: the island of **Aride**, with its typically Seychellois white beaches and crystal-clear blue waters, lies about 10 kilometres north of the second most poulated Seychelles island of Praslin. (Seychelles News Agency)

But despite more than forty years of conservation and restoration, the **Island Conservation Society** (ICS) which manages the island, have until recently been heavily reliant on diesel to run a small generator on the island. The generator provides essential electricity supplies to the six resident staff members stationed on the island.

"The generator is itself a noise pollution... but it helps to keep our fridges and fans running. It is habitual to have the power switched off early in the evening, just so we could have enough electricity to last us the following day, but this will change now," said ICS's Albert Belmont, who has been living on the island for almost two years.

With the cost of fuel going up, **Aride** Island has for the past three years embarked on a project towards harvesting energy from a renewable source that is in plentiful supply out on this arid, hot island - the sun.

Self-sustainable in energy production and consumption

The project entails the installation of several **solar** panels on the staff accommodation on **Aride** island, giving out 250 watts each which gives on average seven and a half kilowatt hours of **solar** panel.



The photovoltaic panels on the rooftops of the ICS accommodation (Seychelles News Agency)

"We are getting 30 – 35 kilowatts of free power from these **solar** panels every single day. The energy is wired down into the room and in each room there is one inverter which changes the DC [direct current] power from the **solar** power to AC [alternative current] power," explained Tim Kirkpatrick, who was involved in the designing and installing the **renewable energy** hybrid system.

"On an island, we've estimated six rupees per kilowatt hour - if you times that by ten thousand you can see that already we have saved sixty thousand rupees and with all the others, it adds up to almost 100 thousand rupees," added Kirkpatrick.

Depending on how much electricity is being used on the island, the system sends back power to the different houses and the remaining is used to charged 24 rechargeable A600 batteries that discharges its load back into the system in night time.

With a lifespan of eight to ten years, Kirkpatrick says 'there is no reason why every single island in Seychelles should not have **solar** power' which costs an average of 50 to 60 thousand dollars to install.

The new project makes **Aride** the second island in the Seychelles archipelago to produce and depend entirely on **solar** energy following Curieuse Island in 2012. Neither of the two islands are connected to the main power supply of the Seychelles.

Four of the populated islands, namely, Mahe, Praslin, La Digue and Silhouette are connected to a local system of energy supply from the main service provider, the Public Utilities Corporation (PUC).

"With the current system that we have on **Aride**, the rangers, the volunteers and our guests subsist entirely on **renewable energy** and that's a major achievement. It's clean, we are not logging any diesel, we are not fixing engines, we don't have fumes, we don't have any fear of spillage and that's a huge advancement for us. In future, we want to go further in that vein. We want to make [**Aride**] a real model of island sustainable living," said Ahab Downer, the Chief Executive Officer of ICS.



The Australian High Commissioner to Seychelles, **Suzanne Coles**, speaks at the official launch event last week on **Aride** (Seychelles News Agency)

The project, which started in 2012 was funded partly by the **Australian High Commission** Direct Aid Progamme, with contributions of 15,000 Australian dollars (US\$ 11,800) and a matching amount from Australian energy firm **WHL Energy**, which is currently <u>engaged in oil exploration activities in Seychelles' waters</u>.

The second phase of the project was successfully commissioned by the United Nation's Development Programme (**UNDP**)'s, **GEF** Small Grants Programme in February 2014 through a grant amount of US\$ 50,000.

On her recent visit to **Aride**, the Australian High Commissioner to Seychelles, based in Port-Louis Mauritius, **Suzanne Coles**, commended ICS on the initiative which she said would help to optimize the consumption of electricity on the island.

Coles also added that the **Australian High Commission** has in recent years been actively involved with local NGOs and associations in various projects related to sustainable development and the effects of climate change.

"The Australian government is committed to working with countries in the Indo-Pacific region... working with the Government of the Seychelles in sustainable development of the Blue economy," stated Coles, who also urged other NGOs to submit applications for similar funding.