

ALDABRA



ALDABRA MANAGEMENT

The solar system installed on Aldabra in 2012 exceeded all expectations by providing 97% of Aldabra's energy needs in 2013. This incredible achievement was recognised and detailed in a publication in the IUCN journal *PARKS: International Journal of Protected Areas and Conservation*, and the project should hopefully serve as a model for other remote islands. Radio communications on the atoll were also enhanced with improvements to the VHF system.

ALDABRA'S SOLAR SYSTEM PERFORMS ABOVE EXPECTATIONS

In 2013, Aldabra's photovoltaic (PV) system produced 35,709 kWh of solar power. In addition 1,143 kWh of power were contributed by the back-up diesel generator. An impressive 97% of the Research Station's energy demand was covered by solar power in 2013. Throughout the year only 530 litres (less than 3 drums) of diesel were consumed on the atoll compared to the average use of 38,000 litres (190 drums) per year before the system was installed.

The diesel reduction of almost 99% not only saved enormous operation costs but also made the supply and work of the Aldabra community much easier. Use of the PV system alone avoided emissions of 37,453 kg of CO₂ during 2013. In addition the investments made into energy efficiency throughout the project reduced

the general electricity demand by 57%, avoiding an additional 57,482 kg of CO₂ emissions per year, which were previously produced by the diesel generators.



In 2013, SIF prioritised the energy efficiency project by importing highly efficient inverter-type air-conditioning units (A+++) of the highest available international standards for the research

station. Despite the high investment costs the lower consumption of the units makes this an economical and environmentally friendly investment. The exact energy savings of the new air-conditioning units will be analysed in early 2014.

A highlight in 2013 was SIF's first publication about an operation management related topic in the IUCN journal *PARKS: International Journal of Protected Areas and Conservation*. The results of the renewable energy project were presented in the article "Improving the sustainable operation of a world heritage site: Increasing energy efficiency and implementing a renewable energy system on Aldabra Atoll, Seychelles" (*PARKS* Vol. 19: 47-58).

One of the many findings of the renewable energy project discussed in this publication is that investments into energy efficiency are more cost-effective than investments into PV power. These options should be fully explored as a first step to ensure



Above: Aldabra team and SIF board members in front of Aldabra's solar panel system Below: Cover of IUCN journal PARKS: International Journal of Protected Areas and Conservation



The first AGM for the new board at Aldabra

AGM MEETING HELD ON ALDABRA

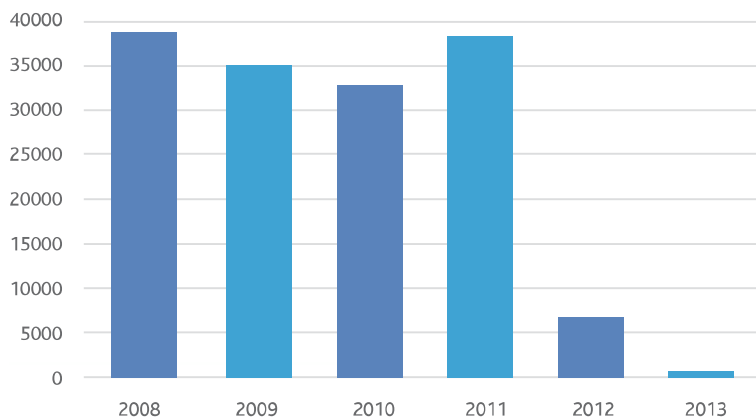
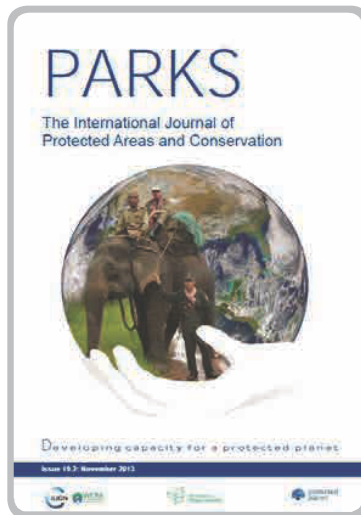
The future direction of Seychelles' two UNESCO World Heritage Sites – Aldabra Atoll and the Vallée de Mai – was mapped out on Aldabra when SIF's Board of Trustees met for the organisation's Annual General Meeting in January.

Created in 1979 by legal decree as a Public Trust, SIF receives guidance and direction from a Board of Trustees appointed by the SIF Patron, the President of Seychelles. A mix of local and international experts, the SIF Board spent three days on the atoll to review the last twelve months of research, conservation, management and outreach carried out by the organisation, and to set the direction for 2013.

The Board also focused on the Aldabra House project. Announced by the chairman, Ambassador Maurice Loustau-Lalanne, during the Aldabra 30th anniversary celebrations, the project is designed to bring some of the Aldabra experience to Mahé. The SIF head quarters will be designed to serve as a visitor attraction featuring outdoor and indoor exhibits, displays and activities designed to recreate the magic of Aldabra on Mahé, bridging the 1000 km gap between the inner islands and Aldabra. During the AGM the Board discussed financing and architectural options to progress the project.

economical system sizing and to minimize investment costs. Secondly a successful and substantial reduction of operation costs makes it easier to close financial gaps and is an integral part of sustainable financing for a site as costly to run as Aldabra.

In 2014 the priority in environmental management on Aldabra will shift towards more sustainable waste and water management of the research station. Ideas that are currently being investigated include organic waste recycling, general waste management, as well as possibilities to re-use grey water and the installation of water-saving equipment. In addition renovation of the existing water tanks, and increasing their holding capacity to maximise rainwater harvesting and reduce dependency on the desalination plant are planned.



Annual diesel consumption (in litres) on Aldabra 2008 – 2013



IMPROVED RADIO COMMUNICATIONS

Under the objectives of the GEF Protected Areas project which SIF is a partner on (see pages 21 – 24), the VHF repeater station installation was revamped on Aldabra's southern

Grande Terre coast. The dipole repeater antenna has replaced the whip-antennae, which was relocated to the research station. Consequently the research station currently enjoys near atoll-wide VHF coverage, ensuring much better safety and security for the staff and improving surveillance.