

The Aldabra Clean-Up Project

*Tackling ocean plastic pollution through
action, education and research*



JUNE 4, 2019

Report for UN Secretary General by Seychelles Islands Foundation & The Queen's College, Oxford.

Authored by: J Raguain, AJ Burt, N Bunbury & LA Turnbull



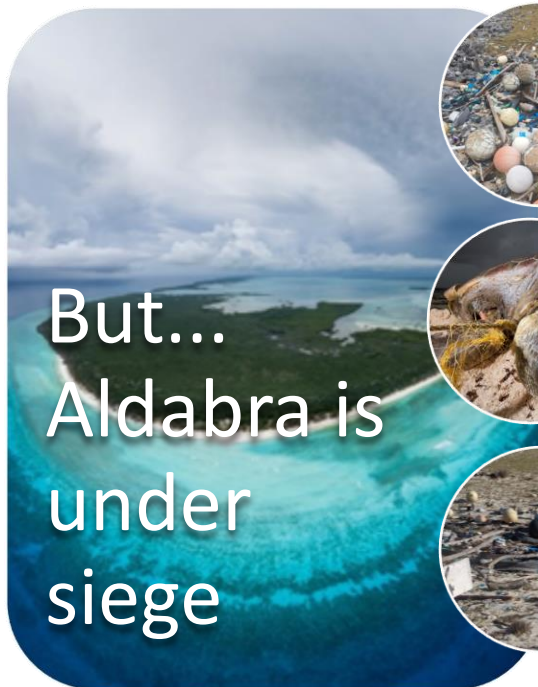
Aldabra Atoll

Iconic UNESCO World Heritage Site

Located in the Indian Ocean, Aldabra Atoll is an outstanding example of a raised coral atoll. Due to its remoteness and inaccessibility, the atoll has remained largely untouched by humans and is highly protected today. Aldabra is one of the largest atolls in the world and is an important site for evolutionary and ecological research. It is home to the world's largest giant tortoise population and contains near-pristine marine ecosystems, teeming with sharks, turtles and fish. The Seychelles Islands Foundation (SIF) manages and protects the UNESCO World Heritage Sites of Aldabra Atoll and the Vallée de Mai and has the President of Seychelles, Danny Faure, as Patron.

“One of the World’s Greatest Surviving Natural Treasures”

Sir David Attenborough



Tonnes of plastic from other countries is accumulating along Aldabra's coastline



Impacting Endangered Wildlife



Clogging key turtle nesting beaches

THE PROBLEM

Tonnes of plastic pollution is arriving in Seychelles from other nations. Aldabra's isolation and the difficulty in accessing its remote beaches means that the amount of rubbish is too great for SIF to tackle alone. So, while SIF staff based on Aldabra make continuous efforts to contain and mitigate the problem, the dramatically increasing volume of marine plastic pollution arriving means that these efforts are not enough.

Ibis with plastic on beak



Dense accumulation

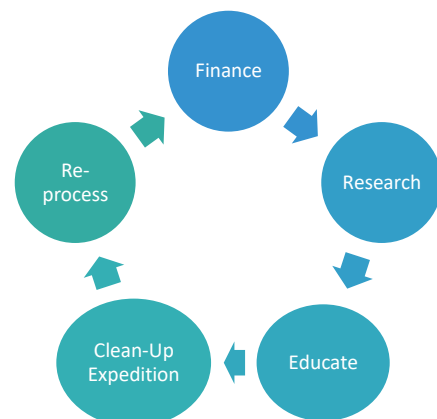


THE SOLUTION

The Aldabra Clean-Up Project (ACUP), a collaboration between SIF and The Queen's College, University of Oxford, was formed in May 2018 to tackle the issue of plastic pollution through action, education and research. It unites Oxford graduate students with Seychellois volunteers, selected through a national video competition. The project was launched at the Royal Society in London, and by the President of Seychelles in June 2018.

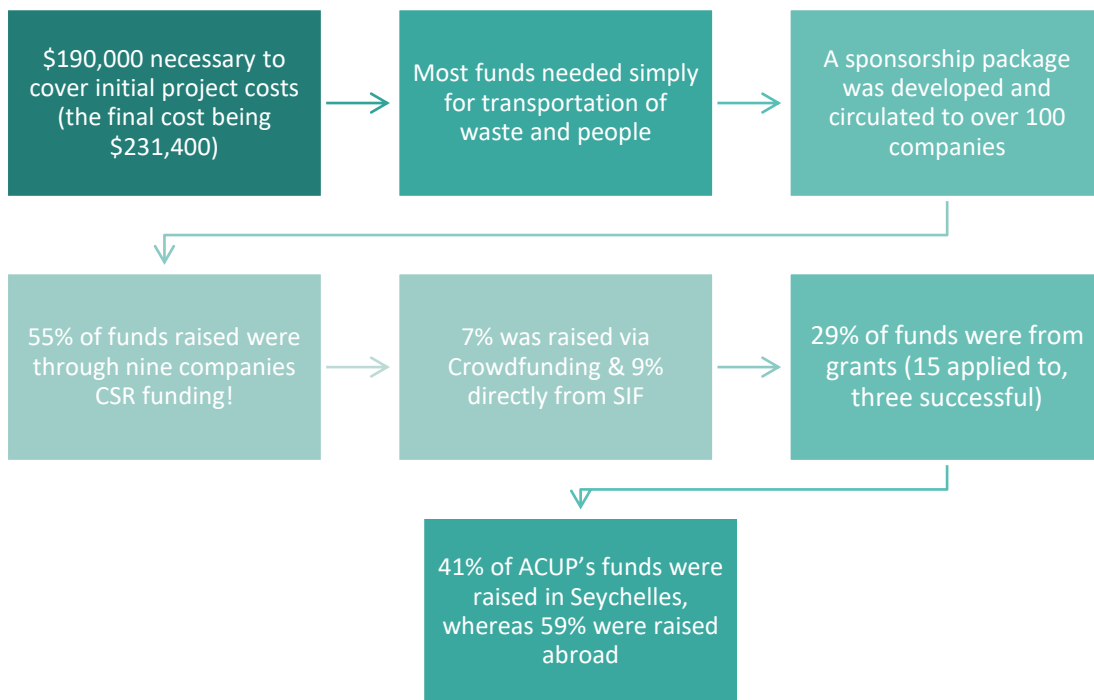


Aims:



Finance

The Aldabra Clean-Up Project addresses the challenge that many conservation organisations face: to achieve multiple aims with limited funding. SIF has sufficient funds to ensure the day-to-day protection of Aldabra and to maintain a team of rangers but not to fund large-scale, logistically complex operations. By raising funds through alternative means, we can inform and engage local and global actors of the impacts of marine plastic pollution on sites of international importance like Aldabra.



“Solving global problems requires international cooperation, and that underlines our financing solution”

Jeremy Raguain, SIF Project Officer

Education & Awareness

For ACUP to have a meaningful impact it joined global efforts to tackle the wider issue of reducing plastic production and consumption (particularly single-use plastics) by:

- Encouraging societal and individual changes through education and outreach
- Ensuring that the expedition was covered by local and international media
- Engaging with and educating the public about marine plastic pollution on Aldabra, across Seychelles, and globally.



A number of fairs and events in UK & Seychelles



President Faure shared photos of Aldabra plastic to world leaders at the 21st G7 Summit in Canada



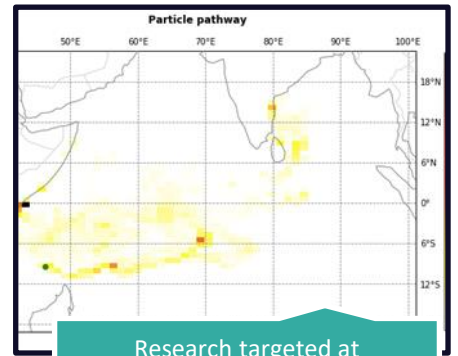
Meeting with the UK Government to discuss the issue in the Commonwealth context



Team presenting at SHAPE Africa in Nairobi



National and international news and television



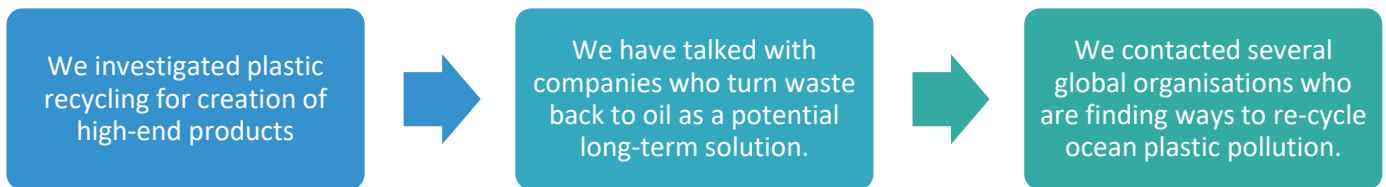
Research targeted at understanding the source of the trash arriving in Seychelles

THE TEAM ARE WORKING ON A NUMBER OF ADDITIONAL OUTPUTS SUCH AS CONTINUED RESEARCH, SCIENTIFIC PUBLICATIONS, NEWS ARTICLES AND A DOCUMENTARY AROUND THE PROJECT.

Reprocessing

There are very limited recycling facilities in Seychelles so the removed waste is currently stored and being sorted. Local conservation organisations have utilized a large number of the fishing buoys to demark marine protected areas or as mooring buoys in marine parks. Flip-flops are already in use by schools for artwork or outside seating. Several other interested parties plan to collect waste for re-purposing and re-use in June.

WASTE MANAGEMENT IS CURRENTLY UNDER REVIEW IN SEYCHELLES



Collection of waste by local conservation organisations



Seychelles National Parks Authority collecting buoys for re-use

Conclusion

25,750 kg of marine debris were removed from Aldabra over five weeks. A team of 12 people, assisted by SIF staff and SPDF staff in the final two weeks achieved this feat. The project has reached thousands, possibly millions of people all around the world and has shone a light on the impact of plastic pollution to small island nations. The Aldabra Clean-Up story has kick-started a wave of change both within Seychelles and internationally. Now it is time to learn from this and manage for the future. The expedition cost \$231,400, equating to \$9 to remove 1 kg of marine debris from Aldabra. We estimate that up to \$5 million is required to completely clear Aldabra’s accumulated waste. The plastic will continue to accumulate and Seychelles will have to continue these efforts and they are prepared to do so, with understanding and assistance at a global scale.

Annexes

ALDABRA CLEAN-UP EXPEDITION: SUMMARY

The expedition consisted of a team of 12 young people based for five weeks on Aldabra. The majority of the time was based on three remote field camps with no electricity, running water & limited communication with the outside world.

The expedition's aim was to remove plastic pollution from the endangered green turtle nesting beaches and key tortoise grazing areas along the south coast of Aldabra. It was decided for research and reprocessing purposes that the marine debris collected would be sorted at source into the major categories, including fishing gear, (buoys, ropes), flip-flops, bottles and miscellaneous/fragments.



Costs

\$153,000 for 20-day hire of vessel
\$48,000 transportation of personnel
\$26,000 expedition equipment
\$4,400 food supplies
Total expedition cost \$231,400

Methods

12 volunteers, 5 weeks
Phase 1: Systematic clearing of turtle nesting beaches
Phase 2: Moving of trash to access points
Phase 3: Moving trash from shore to ship with SIF team and Seychelles coastguard

Challenges

Extremely difficult working conditions
Logistically complex operation moving trash off atoll
Lack of recycling options
Quantity and size of trash on the atoll
Resource constraints impeding capacity

Results

25.75 tonnes of plastic debris
12 young people empowered
Thousands of people engaged in the issue
Baseline data with which to monitor the issue

RESEARCH

The Seychelles is an archipelago of over 115 islands, stretching over 1.4 million km² of the Western Indian Ocean. Vast quantities of marine plastic pollution have accumulated along the coastlines of these islands and will continue to do so until there is a dramatic reduction of plastics entering the oceans. Increased understanding of the issue is urgently needed to manage the threat of plastic pollution both to Seychelles and to other island nations.

The research component of ACUP is led by April Burt, ACUP co-lead, as part of her DPhil on island management and connectivity under the supervision of Dr Lindsay Turnbull at Oxford University.



Composition

Which items are arriving?

Accumulation

How much is arriving annually on Aldabra/ in Seychelles?

Quantity

How much has already arrived and is waiting to be removed?

Attached biota

What proportion of marine debris have attached biota?

Clean-Up Effort/ Resources

What effort (people/time) is required to remove accumulated waste?



THE MAJORITY OF THE WASTE COLLECTED BY WEIGHT WAS FISHING GEAR



THE MOST COMMON ITEM WAS FLIPFLOPS! OVER 50,000 COLLECTED