



Report of the Reef Clean-up at Hikkaduwa National Park

Sunday 3rd April 2005



Sustainable
Ecosystems
Institute

Introduction

The tsunami of 26th December 2004 inflicted substantial damage to several of the near-shore reefs on the southern and eastern coasts of Sri Lanka. As well as causing extreme mechanical damage to some reef areas by breaking and overturning coral colonies, much terrestrial debris was deposited on the reefs and the surrounding near-shore region by the receding waves. This debris continues to stress and further damage the corals, and also presents a hazard to local coastal inhabitants and tourists alike.

Consequently, a reef clean-up was organized by the Sri Lanka Sub Aqua Club (SLSAC) on 29/30th January at Hikkaduwa National Park. A lot of the debris was removed over this weekend by volunteers, but it was not possible to remove two large fishing nets located on the outer edge of the reef. Due to Hikkaduwa's status as a National park and the imminent onset of the southwestern monsoon, it was decided that this operation needed to be carried out as soon as possible, alongside further removal of the remaining debris on the inner reef. IUCN – The World Conservation Union and SLSAC therefore decided to hold a voluntary reef clean-up on 3rd April. Permission to conduct the clean-up was obtained from the Department for Wildlife Conservation (DWLC).

Local advice was sought from Mr Somadasa de Silva, owner of the International Diving School in Hikkaduwa, as to the main areas of debris accumulation, and the size and location of the two nets. Being a former commercial diver Mr de Silva had good experience and knowledge on the best way to tackle the removal of the net. Further arrangements were made with the International Diving School to hire their equipment and boat, and with the Coral Sands Hotel to provide a meeting place, changing room and lunch.

Volunteer recruitment and other personnel

An email was sent out to potential volunteers informing of the date, planned aims for the day and other necessary information. Additionally, a press release was included in national newspapers in the days preceding the event, and posters were put up in Hikkaduwa, giving details of the clean-up and how to participate if interested. Consequently, thirty people, including several IUCN staff, turned up on the day and took part either snorkeling in the water or remaining onshore to help with debris collection and general clean-up of the beach (see Appendix 1 for lists of participants).

Mr Lalith Kumara, DWLC's park warden for the Hikkaduwa Marine National Park, together with five members of his staff came to inspect our activities. Two staff from the Coast Conservation Department (CCD) were also present to oversee the operation.

The clean-up operation

The first of the volunteers arrived at the Coral Sands Hotel at 0930 hrs. As they arrived they were welcomed and then briefed on the aim of the day. They were also given guidelines produced by IUCN explaining the need for reef clean-ups after the tsunami and the best practices for carrying out such an exercise with as minimal damage to the reef as possible. The document: 'After the Tsunami: Cleaning up reefs and beaches' can be found at [www.http://www.iucn.org/places/srilanka/TsunamiN.htm](http://www.iucn.org/places/srilanka/TsunamiN.htm).

Volunteers were provided with snorkeling equipment if they did not have their own gear, heavy-duty rubber gloves for protection from sharp debris, and old grain sacks to collect the rubbish in. Before the clean-up began, the help of many of the volunteers was enlisted by a group of local fishermen to aid them in launching a multi-day fishing vessel. The clean-up therefore started at 1030 hrs.



Volunteers head out to begin the reef clean-up

As the primary aim of the clean-up exercise was to remove two large fishing nets caught on the outer edge of the reef, a boat set off from the shore at this time with 3 divers, 3 snorkelers, a boat captain and an extra boathand. The success of this mission was hampered by the monsoon-like conditions of the sea generating a troublesome swell. Two divers, Somadasa de Silva from the International Diving School and Marten Meynell from IUCN, both with past commercial diving experience, succeeded in removing one of these nets by cutting it away from the coral reef and floating it to the surface using empty plastic 20 litre containers as make-shift airbags. It was then hauled back to the boat by the snorkelers and boathand. However, it was decided that under the current weather conditions the location of the second net was unreachable, so the boat returned to shore with only the first net.



The fishing net ashore & the team that removed it



Dragging the net to a pick-up point

Even after the previous post-tsunami reef clean-up by SLSAC in this area, there remained a substantial amount of terrestrial debris on the reef. Removal of as much of this as possible was the aim for the rest of the day. All the participants spread out along the reef and shallow inshore subtidal section, and over the course of the day roughly 70 cubic feet of debris was removed from the marine environment. This ranged from asbestos roofing sheets, bits of masonry and parts of wooden boats to rope, wire, broken glass, plastic bags and bottles, and pieces of clothing.

Lunch and water was provided by IUCN for all the volunteers at 1330 hrs. After this, some were keen to get back in the water and continue hauling out debris for another hour until the currents and tide became too strong. These volunteers finished snorkeling at 1500 hrs. Whilst they were in the water, a local with a tractor and trailer was identified and enlisted to remove all the collected debris, including the fishing net. However, before the net was taken away, a local fisherman came to cut off the floats that were attached, so as to reuse them with another net. A group of 12 volunteers helped to load all the debris on to the trailer.



Volunteers carrying the debris to the trailer



A trailer-load of debris

All the collected marine debris was then dumped at Akurala, a dumpsite 5km outside Hikkaduwa recommended by the Central Environmental Authority of Sri Lanka (CEA). The site was an abandoned coral mine in a barren and non-populated area.



**IUCN and CCD staff at the
CEA-recommended dumpsite**



**The debris having been unloaded at
the dumpsite**

Recommendations and future clean-ups

Mr Kumara was pleased with the volunteers' efforts and encouraged further clean-ups at Unawatuna and Rumassala, which are both within his jurisdiction. Funding to carry these out had been previously secured, and plans were already underway to arrange suitable dates and to obtain the necessary equipment; the shallow subtidal section at Unawatuna has large parts of masonry and lengths of barbed wire that can only be removed with the use of air-lifting bags and strong wire-cutters respectively.

It is intended that the remaining net on the reef at Hikkaduwa will be removed within the next few weeks when there is an appropriate weather window. Mr. de Silva has also expressed concern that the stronger monsoon seas will bring in debris from further out to sea, re-depositing it in the marine park, as well as uncovering other bits of debris that are at present buried in the sand within the MPA. It may therefore be necessary to conduct further beach and reef clean-ups over the coming months at Hikkaduwa.

One observation was that very few locals were involved in the clean-up or knew why we were doing it. Consequently, it is advised that notice should be given to residents in the area a week prior to the event. This could be in the form of leaflets and posters or a community meeting explaining the purpose of the clean-up, how it will benefit them, and how they can participate. Their involvement would probably be best directed towards cleaning up the beach and helping with hauling large pieces of debris into the boat .

Follow Up

On Friday 22nd April, a second attempt to remove the remaining fishing net was made. The seas were calmer than on the previous occasion, which made it possible to reach the location by boat. On inspection, the net was tangled round an outboard motor that was itself lodged between parts of the reef. Two divers were needed to attach the plastic containers to be used as air bags and to cut the net away from the outboard, whilst another diver kept watch to ensure the working divers did not get snagged in the net. The net was successfully removed and floated to the surface, and then another container was tied to the outboard thereby aiding removal of this piece of debris also. The safety diver noticed two other smaller pieces of net on the reef, and so removed these too. The nets and the outboard were hauled into the boat and taken back to shore where they were then taken by tractor to the dumpsite at Akurala.

The divers involved in this operation were Somadasa de Silva from the International Diving School at Hikkaduwa, Dr Malik Fernando of the SLSAC and Marten Meynell from IUCN.

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Thanks are due to Mr. Somadasa de Silva of the International Diving School for helping with the coordination of the clean-up and for the provision of dive and snorkel equipment and a boat. To the Coral Sands Hotel for providing a room for the volunteers to change and shower. Thanks also should be given to all the volunteers that took part in the clean-up.

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Photo credits: Sandeep Sengupta, IUCN HQ

Appendix 1: List of participants

Marten Meynell	IUCN
Gayathri Sriskanthan	IUCN
Azain Raban	IUCN
Kumi Ekaratne	IUCN
Asha de Vos	IUCN
Shalini Amarasinghe	IUCN
Sasanka Rodrigo	IUCN
Sandeep Sengupta	IUCN
Malik Fernando	SLSAC
Somadasa de Silva	International Diving School
Terney Pradeep Kumara	University of Ruhana, Dept. of Fisheries Biology
Yohan Abeysekera	STCSAC
Arjuna Dabare	STCSAC
Namali Goonetillake	STCSAC
Roshan	CRMP – Ambalangoda
Dinesh Nishantha	Red Cross
Samantha Ratnam	CRP (CIDA)
Janith Nethicumara	Regional Representative for The Coral Reef Alliance
Sarah	Danish Peoples' Aid
Steve Pannell	Project Phoenix, Hansa Surf
Pochee	Project Phoenix, Hansa Surf
Ruky	Project Phoenix, Hansa Surf
Caleb	Project Phoenix, Hansa Surf
David	Project Phoenix, Hansa Surf
Nick	Project Phoenix, Hansa Surf
Gillian	Project Phoenix, Hansa Surf
Nick Kreider	Foundation of Goodness, Seenigama
Rukshan Keragala	
Namali	
Vivien	

IUCN – The World Conservation Union

SLSAC – Sri Lanka Sub Aqua-Club

STCSAC – St Thomas' College Sub-Aqua Club

CRMP – Coastal Resources Management Project of the Coast Conservation Department

CRP (SIDA) – Child Rights Project (Canadian International Development Agency)