



## **Report of the Reef and Beach Clean-up at Unawatuna Bay**

**Saturday 30<sup>th</sup> April  
Sunday 1st May 2005**



**Sustainable  
Ecosystems  
Institute**

## **Introduction**

The tsunami of 26<sup>th</sup> 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 coastal 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.

Since the tsunami there have been a number of clean-ups organized in Unawatuna. However, some larger pieces of debris could not be removed on these occasions due to a lack of manpower or the correct equipment. In addition, much new debris previously buried in the sand has recently been uncovered by the waves. IUCN – The World Conservation Union and Sri Lanka Sub Aqua Club (SLSAC) therefore decided to hold a voluntary reef clean-up over the weekend of 30<sup>th</sup> April and 1<sup>st</sup> May. Permission to conduct the clean-up was consequently obtained from the Department for Wildlife Conservation and the Coast Conservation Department.

An email was sent out to IUCN's network of volunteers informing of the date, planned aims for the weekend and other necessary information. A good turnout was achieved on both days; on the Saturday 20 volunteers joined in the clean-up activities, and on the Sunday 40 volunteers took part (see Appendix 1 for lists of participants). Lunch was provided for all participants on both days. It was also thought necessary to involve some of the locals in the project, so 10 villagers that had been affected by the tsunami were hired. They were paid 400 Rupees per day and given lunch.

Leaflets aimed at coastal inhabitants were designed and printed. These were then distributed around Unawatuna by the Coastal Resources Management Programme (CRMP) and the Unawatuna Tourism Development Society. The leaflets explained why cleaning Sri Lanka's beaches and reefs was important, and described the main benefits the locals would experience.

## **The clean-up**

Volunteers arrived at the designated meeting point in Unawatuna at 10am. They were given guidelines produced by IUCN explaining the need for reef and beach 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).

Everyone was provided with snorkeling equipment, gloves, and old grain sacks to collect the rubbish in. Knives and wire cutters were also made available for use on relevant debris such as sand bags, rope, and barbed wire. Over the weekend, various methods were used to remove all the debris depending on its size and type.

To start with, volunteers spread out over the bay. Working in teams of four or five they snorkeled around the reef and sandy subtidal area on the inshore side of the reef picking up pieces of glass, plastic, metal, fishing net, clothing and other small bits of debris. Barbed wire was also removed with the use of wire cutters. Each group had one or two sacks between them to collect all the debris.

A pair of divers went by boat to the outer reef edge and carried out a survey in the deeper water beyond the reef. Due to the shallow depth of the reef itself and the strong surge on the reef crest, an actual reef survey was not possible. However, a broad survey of the sandy seabed outside the reef was carried out. Aside from a chair and a glass bottle very little debris was found in this area. The water depth was between three and six metres, but the visibility was less than two metres, thus making any clean-up attempt very difficult.

Other volunteers snorkelled about the area picking up pieces of masonry and rocks, and placing them in large piles in the close to shore. These piles were then removed by lines of volunteers passing the rocks from the sea to the beach. Large pieces of wall, floor and foundation were carried from the sea using up to five volunteers at a time.



On the Sunday, two divers swam about the clearance area, scouting for particularly large pieces of debris. Once found they attached floating marker buoys so that teams could remove them later on. Consequently, an eight metre concrete telegraph pylon was removed by attaching specially purchased lift bags to help float it and more than twenty volunteers working together to pull it out with a rope and rollers.



A section of concrete drainage pipe, one metre in diameter and two metres in length, that was partially buried in the sand near the reef, was removed with the use of lift bags and was then rolled on to the beach by five volunteers.



At the end of the weekend, several large piles of debris had been made along the beach. Rocks were separated for reuse within future building projects, and all the crumbling, old masonry was collected alongside the inorganic materials for transportation to an approved dumping site.

Due to Sunday being 1<sup>st</sup> May and Labour Day, there were problems hiring a tractor. Removal was therefore entrusted to Friends of Unawatuna, a UK-based charity working on post-tsunami community projects in the area. IUCN staff briefed members of Friends of Unawatuna on the correct methods of debris disposal and gave them a list of dumpsites recommended by the Central Environmental Authority of Sri Lanka.

### **Recommendations and future clean-ups**

There are still some large pieces of masonry remaining in the bay and these should be removed as early as possible. The Unawatuna Tourism Development Society and the Friends of Unawatuna ran a two-day clean-up on 3<sup>rd</sup> and 4<sup>th</sup> May. This continued the work carried out over the weekend, removing the smaller pieces of masonry and any inorganic materials or potentially dangerous objects. Friends of Unawatuna informed IUCN that they hired a tractor on 7<sup>th</sup> May to remove the piles of debris collected over both clean-ups, and also a high-ace extractor to haul out the remaining telegraph pylon and other potentially dangerous objects that are partially buried deep in the sand.

Since the southwest monsoon is now beginning, the seas are getting rougher and the visibility has been reduced down to a couple of metres. Future clean-ups in this area will therefore be much harder. Friends of Unawatuna have possible plans to start regular clean-ups of the coastal strip in and around the Unawatuna region; these would probably be on a fortnightly basis. It is recommended that once the monsoon ends, further clean-ups should be carried out to remove any debris still existing in the marine environment on the south and southwest coasts. This will be additionally necessary since the waves are continuously uncovering pieces presently buried in the sand.

After the monsoon ends and the underwater visibility improves, surveys should also be carried out outside the reef to assess the amount of debris in this region.

## **Acknowledgements**

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Thanks are due to Mr Rohana from CRMP for arranging the local help and for distributing the information leaflets. To Seahorse Diving for hiring out the dive and snorkel equipment and a boat, and to the Sea View Hotel for making a room freely available for the volunteers to change and shower. To Subsolve USA for providing the lift bags at dealers rates.

Thanks also should be given to all the volunteers that took part in the clean-up.

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**Photo credits:** Marten Meynell – Photos 1-3  
Maria Antonia Perez – Photos 4 & 5  
Terney Pradeep Kumara – Photo 6

**Appendix 1: List of participants**

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Malik Fernando	SLSAC
Terney Pradeep Kumara	
Jake Zarins	
Arne Vosgroene	
Adam Rees	
Kathy Hotchkiss	
Daniel Agne	
Olivia McIntyre	
Aruni Peiris	
Louise Korsgaard	
Darren Krause	
Maria Antonia Perez	
Timothy Senaviratne	
Logan Gee	
Laura Dunkam	
Antonio Trabucco	
David Molden	
Karen Molden	
Olivia Molden	
Jane Higgins	
Ethan Gelber	
Kate Forrest	
Ainsley Forrest	
Max Finlayson	
Domitille Valle	
Devsiri Peiris	
Arjuna Dabare	
Prashan Perera	
Jehan Goonaratne	
Imran Zaveer	
Romesh Fernando	
Shabeer Rizwi	
Thamaranga Gunasena	
Laksitha Jayasekera	
Peter Simmonds	
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Romesh Abhayaratne	
Reshan Jumar	
Oliver Van Straaten	
Daniel Oleary	
Niki	