

Hikkaduwa National Park and Rumassala/Buona Vista Marine Sanctuary:

Status after the Tsunami 26 December 2004 and Recommendations on Management Action

Information and recommendations presented here are prepared by IUCN – The World Conservation Union, based on collaborative work with NARA (Natural Aquatic Resources and Research Agency), CORDIO (Coral Reef Degradation in the Indian Ocean), GCRMN (Global Coral Reef Monitoring Network) and SLSAC (Sri Lanka Sub Aqua Club)

Summary of Post-tsunami Status

Damage caused by the tsunami to the inter- and sub-tidal areas of Hikkaduwa National Park and Rumassala/Buona Vista Marine Sanctuary can be classified into five main types:

1. Mechanical damage: The overall mechanical damage was low at Rumassala and moderate at Hikkaduwa, but very patchy, with localized high impact particularly at Hikkaduwa and destruction of some coral. Large quantities of coral rubble formed after the coral mass mortality in 1998 has shifted, covering and killing reef biota as well as some sea grass.
2. Smothering by sediment: Only low levels of smothering was observed, caused by terrigenous sediment washed into the sea and resuspended marine sediment. Although not a major impact from the tsunami this is a potential concern at Hikkaduwa and Rumassala.
3. Litter: Considerable amounts of debris, both plant material and man-made objects, was carried with receding water and deposited on the reefs in Hikkaduwa. A reef cleanup has been carried out by SLSAC. At Rumassala abundant litter was seen only on the beach.
4. Beach erosion: Some loss of beach width was observed, ranging between low and moderate at Hikkaduwa and low or none at Rumassala. This is not a major concern.
5. Impacts on Fish Community: Where habitat has been destroyed reduced fish abundance is observed. It is noteworthy that Hikkaduwa has higher fish abundance than surrounding areas, a reflection of its management status. However, at Rumassala fish abundances were similar to surrounding unprotected areas, and recent blast fishing craters were seen.

Recommendations on Management Action

The compounded effects the tsunami 2004, the coral mortality 1998 and other stresses pose a management challenge in Hikkaduwa and Rumassala. The following key recommendations can improve coral reef survival and recovery prospects:

- i) Post-tsunami management should focus on stress relief rather than active restoration;
- ii) Physical damage to corals caused by tourism (boats, trampling, litter) should be controlled;
- iii) Impacts of land-based activities (such as sedimentation, nutrient and other pollution) must be controlled, especially during the imminent intense reconstruction phase;
- iv) Active restoration is at this stage not recommended. There is enough live coral at the sites for natural recovery to occur under sound management schemes;
- v) Effective prevention of illegal resource use, such as blast fishing and coral mining, both in Marine Protected Areas and elsewhere in Sri Lanka, is absolutely essential;
- vi) Regular review of effectiveness and impact of management actions and an adaptive management strategy are essential for ensuring reef health at Hikkaduwa and Rumassala;
- vii) For additional information or further elaboration on management needs, contact IUCN or other institutions mentioned above.

Annexes

Rapid Assessment of Tsunami Damage to Coral Reefs in Sri Lanka, Interim Report No. 1, 20 January 2005 NARA, CORDIO/IUCN/GCRMN, SLSAC, <http://www.nara.ac.lk/RAP/>
Report of the SLSAC Reef Clean-up Project at Hikkaduwa National Park on 29-30 January 2005, SLSAC