

# Landmark achievement

**T**he first-ever Census of Marine Life (CoML), a mammoth decade-long exercise involving more than 2,700 scientists from over 80 countries, has been successfully completed. The painstaking research has unearthed nearly 250,000 marine species of an estimated one million. About 6,000 new species have also been discovered. The landmark exercise marks a remarkable beginning in identifying and mapping the diversity, distribution, and abundance of marine organisms. Though long-distance migration of many predators like tuna and sharks was tracked, large areas of the oceans, mainly the Indian Ocean, have not been fully explored. While ten marine hotspots were identified, including one in the Indian Ocean, many biodiversity hotspots await detailed investigation. This is because the oceans cover 75 per cent of the earth's surface, and investigating their surface and depths requires tremendous scientific expertise and huge investments. The good news is that even though the census has been completed, several national and regional initiatives started during the CoML programme will continue to operate with support from government and non-government agencies. Unlike other major projects such as the mapping of the human genome, the scope of this study is undefined. Thus the CoML provides an ideal platform for incorporating diverse inputs from future studies to help us understand the big picture. It will also serve as the baseline for evaluating the future impact of human intervention on sea animals.

The CoML facilitated the use of diverse technologies on a large scale, technologies that are of continuing use. For instance, there are special sonar devices which allow us to see how marine life assemble in schools and move both vertically and laterally over thousands of square kilometres. Thanks to the use of modern techniques, scientists were also able to have a glimpse of the hitherto unknown world of marine animals. One finding of the study which is a cause for concern is that the fate of many animals living in easily accessible habitats appears gloomy. Large fishes and marine mammals like sea turtles and tuna have declined by 90 per cent on an average due to over-fishing and/or pollution. Apart from being an invaluable source of food, the oceans produce 70 per cent of oxygen present in the atmosphere, and also absorb one-third of global carbon dioxide emissions. All these are warning signs that oceans, the lifeline for all things living on earth, may well turn into a watery grave if damage to marine life continues unabated.