## KEY ISSUES IDENTIFIED IN THE REVIEW OF IOSEA IMPLEMENTATION PROGRESS

- 1. Implementation and/or reporting of actions undertaken within the framework of the IOSEA MoU have improved significantly since March 2006, with almost all Signatory States having submitted national reports through the online facility.
- 2. We now have a better understanding of the fisheries that are interacting with turtles and of the range of measures that Signatory States are applying to try to reduce and mitigate turtle by-catch. For example, set gill nets are reported by half of the Signatories to have "moderate to relatively high" impacts on turtles. By-catch in shrimp trawls has been identified as a problem, yet less than a third of the members have effective systems in place to address it. Signatories have started to document the nature of the harmful illegal fisheries occurring in their waters, including what appears to be a resurgence of destructive fishing methods.
- 3. We now have a better appreciation of the uses and values of marine turtles across the IOSEA membership, and can observe that traditional consumption of meat and eggs still occurs in three-quarters of the Signatory States. We are beginning to get a sense of the extent of socio-economic studies carried out to examine the complex relationships between coastal communities and marine resources and of programmes to identify alternative livelihoods.
- 4. We are more aware of the vital research that is -- and is not yet -- being conducted by the member States. Australia, Oman, Seychelles and South Africa are among the countries have been monitoring their turtle populations literally for decades; and several more countries have programmes of longer than 10 years duration.
- 5. Through information contained the national reports, we have a good record of the rather comprehensive legislation and management programmes that have been put in place. Eight Signatory States already have national Action Plans focusing on turtle conservation, while another 10 are working towards these national plans a laudable achievement over the space of a few years.
- 6. Signatory States have done well to identify what they consider to be their highest conservation and management priorities, among them: targeted research, habitat conservation, enhanced education/awareness, capacity-building and reducing incidental mortality in fisheries.
- 7. Interesting examples of best practice (or exemplary approaches) can be found across the entire IOSEA region: To mention but a few:
  - Australia's multi-million dollar programmes to support the development of community-driven approaches to turtle conservation and to find solutions to the problem of ghost nets;
  - Bahrain's identification of shrimp trawling as the primary cause of turtle mortality in its waters, suggesting a need for fishermen training in appropriate handling techniques;
  - Comoros' successful involvement of communities in nesting beach monitoring and protection;
  - India's recent satellite tracking programme aimed at elucidating migration routes of Olive ridley turtles nesting on its shores;
  - Indonesia's advanced research to identify fisheries-turtle interactions and to work with industry to develop suitable mitigation measures;
  - Oman's soon-to-be-completed visitor orientation and research centre at Ras al Jinz, a first-class facility to complement one of the world's most important areas for Green turtle nesting;
  - Seychelles' innovative approaches to fully integrate and involve the private sector in practical conservation measures; and
  - South Africa's decades-long monitoring and research programme along its Atlantic coast.

The Online Reporting Facility now contains information on more than 700 discrete sites of importance for marine turtles throughout the Indian Ocean and South-East Asia. Users can query this

system to obtain a truly phenomenal amount of information on the occurrence of species, the threats they face at a given site, the mitigation measures that are being implemented, as well as the research activities being carried out. A new mapping interface, taking full advantage of the satellite imagery offered by GoogleMaps and Google Earth, is now in place to provide unprecedented visual presentations of informative data.

- 8. From this system, we find that Signatory States identified natural threats, such as predation, as the most common threat, followed closely by incidental capture in coastal fisheries. Both threats are reported to occur with "moderate to strong" intensity at about 35 % of the sites surveyed, covering about 18 countries. Moderate to strong threat of egg collection came third in the ranking, being problematic at 20 % of the sites in 14 countries.
- 9. The Signatory States have begun to provide assessments of their turtle populations, giving rise to concern in some places and cautious optimism in others. For example:
  - the Eastern Australian population of Loggerhead turtles is reported to be in serious decline, a situation mirrored in Madagascar. Yet South Africa's nesting population of Loggerheads has increased markedly, with annual nests increasing from 250 to 1,750 over the past four decades in an 8 km index area.
  - Olive ridley turtles which nest in the thousands in India are reported to be declining, prompting efforts to curb fisheries-related mortality, to monitor population trends more closely and to safeguard critical habitats. In Thailand, numbers of Olive ridley turtles are critically low, thought to represent only about five percent of historical levels.
  - Leatherback turtles in Indonesia, home to the region's most abundant populations of this species, are said to be threatened by habitat destruction. Numbers of Leatherbacks in Thailand are also critically low; while in South Africa the population appears to be stable despite large annual fluctuations in nesting.
  - Green turtles, still very abundant in Oman, are declining in Indonesia and Philippines due to unsustainable egg collection and poaching. The same mixed message holds true for Hawksbill turtles, which are increasing on some islands of Seychelles, but declining on others.

This 'broad brush' portrait only scratches the surface of the kinds of analyses that could and should be made based on comprehensive information provided by the Signatory States.

- 10. There, is course, considerable room for improvement in the MoU's implementation. We have learned that not enough truly collaborative work and information exchange is taking place. Even here, some notable exceptions can be mentioned, such as in South-East Asia with its sub-regional research programme under SEAFDEC and in the Western Indian Ocean with its nascent Marine Turtle Task Force.
- 11. We observe that Signatories have yet to clearly articulate their resource needs and to mobilise sufficient funding for domestic implementation; and only a few are carrying the burden of supporting international coordination efforts.
- 12. Signatory States have put in place fairly comprehensive beach management programmes, but there appears to be insufficient attention given to periodically evaluating their effectiveness. Most Signatories are engaged in monitoring and recovery of coral reefs and mangroves, but rather limited work is being done on sea grass habitat. Finally, there is insufficient information available to judge whether tagging, satellite tracking, and genetic sampling have helped to elucidate migration routes.
- 13. The IOSEA Marine Turtle MoU has the most sophisticated information management system of any multilateral environmental agreement for asssessing implementation progress. Overall, very good progress is being made and it is very likely that improvements in reporting will reveal that the Signatory States have already accomplished much more than they are credited with to date.