

The IUCN Species Survival Commission

# A **M**ARINE **T**URTLE

## Conservation Strategy and Action Plan for the Western Indian Ocean



Prepared by IUCN East Africa Regional Office  
and IUCN/SSC Marine Turtle Specialist Group

Development and publication of *A Marine Turtle Conservation Strategy and Action Plan for the Western Indian Ocean* was made possible through the generous support of :

The Convention on the Conservation of Migratory Species of Wild Animals  
World Wide Fund for Nature  
Natal Parks Board, Republic of South Africa  
IUCN East Africa Regional Office  
Water Branch, United Nations Environment Programme  
International Coalition to Save the Sea Turtles, Center for Marine Conservation

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ISBN 2-8317-0363-8

Printed by Balmar, Arlington, VA USA

cover photo: Loggerhead (*Caretta caretta*) female returns to the sea after nesting.  
Photo: G. Hughes

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Prepared by IUCN East Africa Regional Office  
and IUCN/SSC Marine Turtle Specialist Group

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# Introduction

The Western Indian Ocean Sea Turtle Workshop and Strategic Planning Session, organised by IUCN East African Regional Office (EARO) and the IUCN/SSC Marine Turtle Specialist Group and hosted by the Natal Parks Board in Sodwana Bay, South Africa from 12-18 November 1995, was the first regional meeting on sea turtles to be convened under the umbrella of A *Global Strategy for the Conservation of Marine Turtles*. The *Global Strategy* lists actions which need to be taken at local, national, and regional levels to conserve sea turtles but specifically recommends that actions be coordinated at the regional level.

In terms of sea turtle population dynamics, a regional focus is essential to cover the ranges of distinct breeding groups or populations of sea turtles. These populations are the natural "management units" for sea turtles. Management actions for sea turtle conservation need to account for all stages of their lives, which are spent in different habitats and often remote locations, spread among different nations.

The Western Indian Ocean (WIO) is one such region where one or more populations of five sea turtle species (the green turtle *Chelonia mydas*, the hawksbill *Eretmochelys imbricata*, the loggerhead *Caretta caretta*, the leatherback *Dermochelys coriacea*, and the olive ridley *Lepidochelys olivacea*) have been identified.

The workshop brought together representatives and scientists from Eritrea, Kenya, Tanzania mainland and Zanzibar, Mozambique, South Africa, Comoros, Mauritius, Seychelles, and France, including La Reunion and other islands, to discuss and address issues of regional concern for the conservation of sea turtles. The principal sponsors of the workshop were the World Wide Fund for Nature (WWF), the Convention on the Conservation of Migratory Species of Wild Animals (CMS), and the Water Branch of the United Nations Environment Programme (UNEP).

R.Slam



Green turtles, one of the five species of sea turtles found in the Western Indian Ocean, migrate widely within the region

The principal objectives of the workshop were to:

- formulate a regional conservation strategy for sea turtles
- initiate networking among sea turtle researchers and managers; and,
- train senior researchers and managers.

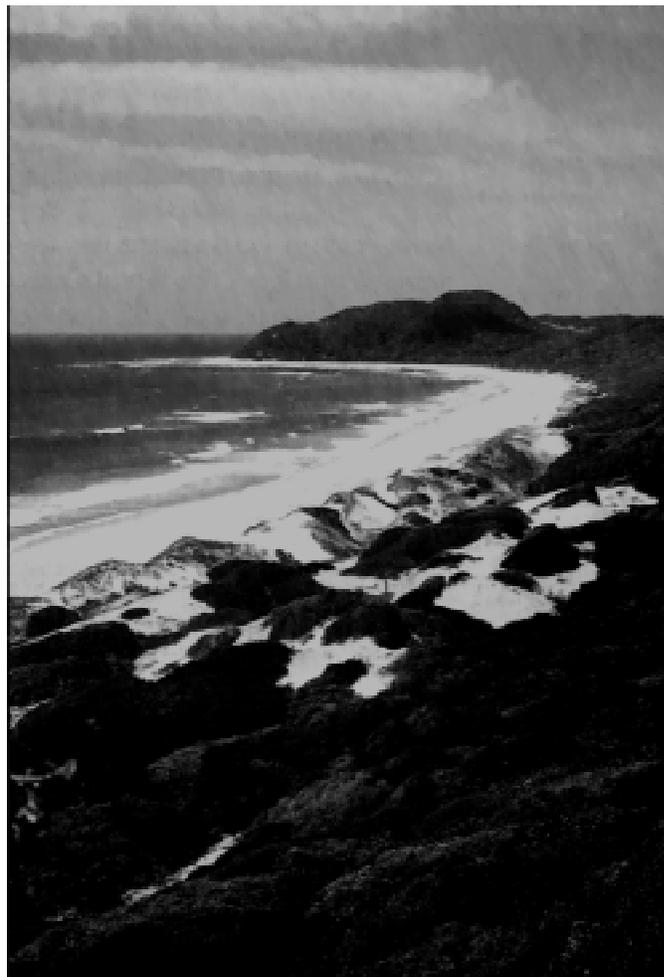
*A Marine Turtle Conservation Strategy and Action Plan for the Western Indian Ocean* was formulated through a series of national presentations and group discussions designed to determine key issues in sea turtle conservation at national and regional levels. In particular, discussions focused on those topics where national issues and needs require or would benefit from being addressed at a regional level. The regional strategy thus contains actions which can be taken to address common problems and needs, as well as actions which are international or regional in scope.

The regional strategy is structured in a similar way to the *Global Strategy* under the headings:

- Research and Monitoring
- Integrated Management for Sustainable Marine Turtle Populations
- Community Participation in Conservation
- Building Capacity for Conservation, Research and Management
- Public Awareness, Information and Education
- Regional and International Cooperation
- Funding for Marine Turtle Conservation

Many of the specific actions addressed under one heading actually contribute to several themes identified in the strategy. Thus, each theme should be regarded as complementary but not exclusive.

The text of the Sodwana Declaration was drafted and endorsed by participants at the conclusion of the workshop, and summarizes the goals and recommendations of all involved.



The magnificent protected beaches of South Africa's Natal Coast safeguard the region's major loggerhead and leatherback nesting sites

# The Sodwana Declaration

REPRESENTATIVES and concerned scientists of countries of the Western Indian Ocean (Comoros, Eritrea, France, including La Reunion and other French islands of the Indian Ocean, Kenya, Mauritius, Mozambique, Seychelles, South Africa, and United Republic of Tanzania), having gathered at Sodwana Bay from 12-18 November 1995 for a meeting held under the auspices of IUCN (The World Conservation Union) and the Natal Parks Board of South Africa, and sponsored by the Convention on the Conservation of Migratory Species of Wild Animals (CMS), UNEP Water Branch, and the World Wide Fund for Nature,

ACKNOWLEDGE that:-

The marine turtles of the Western Indian Ocean are a shared resource of inestimable value to the region's coastal nations;

Only a few of the numerous discrete populations of the five species occurring in the region are stable or growing, three populations are extinct; most are either in decline or have not yet begun to recover from many centuries of irrational use;

The longterm survival of the marine turtles of this region cannot be achieved by any single country and maximum collaboration and cooperation are necessary;

The effectiveness and success of conservation and research endeavours will be enhanced by the creation of common methodologies, elimination of duplication, the creation of a single data recording centre, and timely information exchange;

The popularity of marine turtle nesting areas as exciting ecotourist destinations makes them a valuable economic resource, the use of which through rational non-extractive methods is both laudable and sustainable.

HAVE FORMULATED a strategy for the conservation of the marine turtles of the Western Indian Ocean in which each representative has AGREED to endeavour to research, publicise, and advocate the responsible management and conservation of these ancient and invaluable species as a shared resource which can only survive through the constructive and synergistic cooperation of all of the sovereign nations of the Western Indian Ocean,

And THEREFORE RECOMMEND that:-

The governments of all of the nations of the Western Indian Ocean RECOGNISE the historic, cultural, spiritual, economic and ecological value of the marine turtles of this region;

The governments of the nations represented at the Sodwana meeting ENCOURAGE those nations unable to share this occasion to support the goals of *A Marine Turtle Conservation Strategy and Action Plan for the Western Indian Ocean*; and

ENDORSE this declaration and UNDERTAKE to provide official support and encouragement for all of the actions required to successfully execute and develop *A Marine Turtle Conservation Strategy and Action Plan for the Western Indian Ocean*, in keeping with the spirit of the Convention on the Conservation of Migratory Species of Wild Animals, 1979.

# Priority Actions for the Conservation of Marine Turtles in the WIO

Twelve priority actions need to be taken at the regional level in order to facilitate national programmes. These actions indicate the need for and suggest mechanisms to achieve a coordinated programme which addresses research and management needs, capacity building and awareness throughout the Western Indian Ocean.

## **PRIORITY ACTIONS FOR THE CONSERVATION OF MARINE TURTLES IN THE WESTERN INDIAN OCEAN**

- Obtain government endorsement of regional strategy
- Establish communication and information exchange
- Establish WIO regional steering committee
- Appoint regional coordinator for marine turtle conservation
- Declare "Year of the Sea Turtle" for the Indian Ocean
- Implement training, study tours, personnel exchanges
- Coordinate regional database, including distribution of tags
- Standardise methodologies for research and management
- Identify independent management units for each species of marine turtle in the WIO through tagging and genetic assessment
- Monitor direct harvest in the WIO
- Intensify monitoring of impact of fisheries operating in the WIO
- Reduce fisheries bycatch mortality, including promotion of Turtle Excluder Device (TED) implementation

To support these, three immediate actions were agreed to by the participants:

- To establish an interim steering committee of individuals from the region who are actively involved in marine turtle conservation activities. The following were nominated: George Wamukoya (Kenya), François Renè (French Indian Ocean Territories), George Hughes (South Africa), John Collie (Seychelles), and Rodney Salm (IUCN EARO).
- To declare 1998 the "Year of the Sea Turtle" for the Indian Ocean.
- To accept the offer from Natal Parks Board (NPB) to supply tags and tagging kits to countries in the region without these facilities and coordinate tagging activities for the region, using funds raised by the NPB for this purpose. This activity is designed to meet immediate needs, but in the long term may be replaced by the establishment of a regional tagging centre.

# Strategy: Research and Monitoring

For most of the countries of the Western Indian Ocean, information concerning turtle habitats and population dynamics is incomplete. Knowledge of the location of nesting beaches and feeding habitats is patchy, and of developmental habitats almost non-existent. Similarly, we have incomplete information on the extent and significance of human actions on turtle populations at different stages in their life cycle. This information is fundamental to the conservation and management of different breeding populations of turtles, and, in particular, to determining management priorities for the conservation of critical habitats. Methodologies for turtle research and monitoring need to be standardised and promoted throughout the region. Many countries require technical assistance to undertake these tasks. Regional collaboration and coordination are also needed.

The following specific research and monitoring needs for the WIO were identified.

## Issue 1: Incomplete data on turtle nesting and feeding habitats

### Actions:

- 1.1 Survey and inventory nesting beaches and feeding grounds using standardised techniques for aerial, boat, and ground surveys. Nesting and feeding habitats need to be identified, the number of nesting and foraging turtles determined, and prioritised
- 1.2 Conduct individual national surveys:
  - **Eritrea:** Identify nesting and feeding habitats along the entire coastline by aerial surveys.
  - **Somalia:** Identify nesting and feeding habitats along the entire coastline by aerial and ground surveys.
  - **Kenya:** Identify nesting and feeding habitats with a view to assessing, monitoring, and regulating fisheries impacts.
  - **Tanzania:** Identify main nesting and feeding habitats by aerial and ground surveys.
  - **Zanzibar:** Reestablish beach patrol teams to confirm or identify nesting beaches and identify feeding habitat.
  - **Mozambique:** Identify main nesting beaches by aerial and ground surveys.
  - **Madagascar:** Identify nesting and feeding habitats along the entire coastline by aerial, boat, and ground surveys.
  - **Mauritius:** Survey and inventory nesting, feeding, and developmental habitats.
  - **Comoros:** Survey and inventory nesting beaches and feeding habitats on all islands.
  - **Seychelles:** Survey and inventory nesting beaches and feeding habitats on all islands.
- 1.3 Identify benchmark nesting beaches and initiate or continue long term studies as part of a regional monitoring programme. Proposed benchmark sites include:
  - **Green turtles:** Europa, Glorieuse, Aldabra, Mohdli
  - **Hawksbill turtles:** Cousin, Cousine, Ste Anne, Curieuse, Aride (all Seychelles)
  - **Leatherback turtles:** KwaZulu-Natal
  - **Loggerhead turtles:** KwaZulu-Natal
  - **Olive ridley turtles:** to be identified

## Issue 2: Incomplete data on turtle breeding populations and migration

### Actions:

- 2.1 Encourage reporting of sightings of turtles by the general public, aero clubs, helicopter pilots, divers, etc.
- 2.2 Tag and record turtles on nesting beaches and feeding grounds using standardised methodology, according to an agreed regional tagging system
- 2.3 Undertake genetic assessment of turtles on nesting beaches. Initiate genetic assessment is needed for the following nesting populations:
  - **Green turtles:** Aldabra, Moheli/Mayotte, Tromelin, Europa, Chagos, St Brandon, Glorieuse, Red Sea, Kenya, Tanzania, Somalia
  - **Hawksbill turtles:** Granitic Seychelles, Amirantes (Seychelles), Platte and Coetivy (Seychelles); Aldabra group; Glorieuse, Mayotte
  - **Olive ridley turtles:** to be identified
- 2.4 Undertake genetic assessment of turtles on feeding grounds and in markets to determine migratory routes of turtles away from nesting sites and identify individual management units. Initially, collect samples at the foraging grounds and from nearby markets in:
  - **Green turtles:** Aldabra, Granitic Seychelles, Chagos, Madagascar, Kenya, Tanzania, Zanzibar, Mauritius, Mozambique, Somalia
  - **Hawksbill turtles:** Aldabra, Granitic Seychelles, Chagos, Madagascar, Mauritius, Zanzibar, Kenya, Tanzania, Mozambique, Somalia
  - **Loggerhead turtles:** Madagascar, Mozambique, Seychelles

D. Hykle



Training in turtle biology and conservation is critical to the development of sound planning and management for sea turtles in the WIO

Unplanned coastal development degrades turtle nesting habitat through sand mining, construction, and alteration of coastal vegetation



### **Issue 3: Incomplete information on size and status of turtle populations**

#### **Actions:**

- 3.1 Compile and evaluate information on historical levels of nesting and human exploitation in each country using a combination of the following sources:
  - Historical literature and ships' logs
  - Trade statistics from each country
  - National archives from each country
  - Interviews with older coastal residents
- 3.2 Produce and distribute annual reports on national turtle research and management

### **Issue 4: Inadequate information on the condition of turtle habitats**

#### **Actions:**

- 4.1 Acquire and distribute guidelines for a standardised methodology to be used to assess the quality, degree of threat, and vulnerability of:
  - Nesting and internesting habitat
  - Feeding habitat
  - Migratory habitat
- 4.2 Evaluate the condition of turtle habitats throughout the WIO
- 4.3 Prioritise areas needing attention or protection

## **Issue 5: Inadequate information on factors affecting the survival of egg clutches and hatchlings (especially factors associated with people, such as presence of feral animals)**

### **Actions:**

- 5.1 Acquire and distribute guidelines for a standard methodology to assess impacts on and survivorship of eggs and hatchlings
- 5.2 Assess survivorship of and impacts on eggs and hatchlings using standard methodologies
- 5.3 Assess predation by domestic and feral animals

## **Issue 6: Inadequate information on subsistence harvest (personal domestic use by coastal communities, not involving sale or barter)**

### **Actions:**

- 6.1 Assess the extent of subsistence harvest of turtles and their eggs for all countries in the WIO
- 6.2 Develop guidelines for sustainable use of eggs and turtles where appropriate
- 6.3 Explore alternatives to turtle utilisation

## **Issue 7: Inadequate information on levels of local, national, and international trade**

### **Actions:**

- 7.1 Assess internal trade throughout the region:
  - Surveys of markets, turtle curio outlets, and medicinal trade need to be conducted in Madagascar, Mauritius, Reunion Mayotte, Kenya, Tanzania, Somalia, Mozambique, Seychelles
  - Monitor trade in green turtles wherever it occurs
- 7.2 Assess international trade:
  - Reunion needs to address illegal trade with Madagascar
- 7.3 Encourage TRAFFIC and other agencies to undertake market surveys for sea turtles including information on species, routes of trade, volume, parts and derivatives, and availability of products

## **Issue 8: Lack of standard global methodology for data collection**

### **Actions:**

- 8.1 Acquire and distribute descriptions of standardised methodologies to ensure that WIO methodologies are compatible with standardised global methodologies
- 8.2 Promote training programmes in methodology

# Strategy: Integrated Management for Marine Turtle Populations

Many of the threats to sea turtle populations are unintentional, arising from activities in sectors which have no direct concern with sea turtles. Many of these threats could be reduced (e.g., degradation of turtle habitats) or avoided altogether (e.g., trawler bycatch) through straightforward changes in the way these activities are carried out. To mitigate other threats will require a concerted effort by different agencies and across different sectors.

The lead in this integration should ideally be taken by the agency assigned responsibility for sea turtle management. However, in several countries, the legal status of turtles is unclear, while in others there is no identifiable authority with a mandate to enforce laws or to undertake other activities relating to sea turtle conservation. Clarification of the legal status of turtles and of the responsibility to enforce this status is essential for conservation efforts to be sustainable.

## Issue 9: Inadequate legislation for conservation of sea turtles

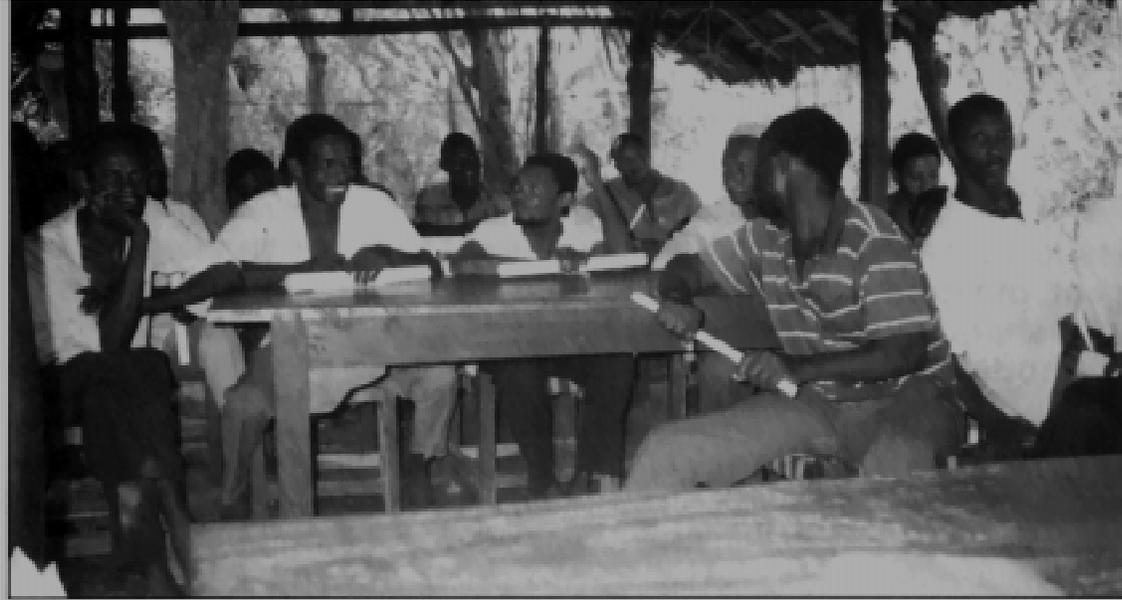
### Actions:

- 9.1 Establish clear mandate for turtle protection in all countries
- 9.2 Develop comprehensive model legislation for conservation of turtles and of the habitats for all life stages for distribution throughout the region
- 9.3 Promote revision of national legislation where necessary
- 9.4 Encourage national governments to accede to relevant regional and international conventions (Nairobi Convention, Convention on Biological Diversity, CITES, CMS, Ramsar, and MARPOL) (see Appendix 1)

R. Salm



Dynamite fishing and other destructive fishing practices affect marine ecosystems and species such as sea turtles



Fishermen's workshops on sea turtle biology and management promote their participation in observer and conservation programmes

- 9.5 Encourage and facilitate national and provincial governments to develop implementing legislation for relevant conventions and to include special provisions for sea turtles
- 9.6 Identify national and provincial authorities responsible for each convention and regularly provide them with information on sea turtles

**Issue 10: Loss and degradation of coastal habitat due to poorly planned or unplanned coastal development and tourism, and through lack of coordination and collaboration between sectors**

**Actions:**

- 10.1 Establish protected areas in priority turtle habitats with appropriate management regimes
- 10.2 Include turtles in integrated coastal planning and management, National Environment Action Plans, and other planning frameworks
- 10.3 Promote development and implementation of relevant policies, including Environmental Impact Assessments, and planning frameworks
- 10.4 Collaborate with appropriate authorities to protect nesting beaches from degradation due to coastal development, including sand mining, beachfront construction, destruction and alteration of coastal vegetation, and agricultural practices
- 10.5 Collaborate with appropriate authorities to establish a pollution monitoring and control programme, addressing all anthropogenic contaminants (including sediments)
- 10.6 Develop multisectorial collaboration including NGOs

## **Issue 11: Too few focused turtle conservation programmes**

### **Actions:**

- 11.1 Produce and disseminate standard format for design of national sea turtle recovery plans
- 11.2 Develop comprehensive national turtle conservation or recovery plans

## **Issue 12: Incomplete data on accidental mortality in fishing gear, including trawl nets, long lines, drift nets, purse seines, anti-shark nets, dynamite fishing, gill nets, and other fishing methods**

### **Actions:**

- 12.1 Assess rates of mortality in fishing gear, including trawl nets, long lines, drift nets, purse seines, anti-shark nets, gill nets, and mortality in dynamite fishing and other fishing practices
- 12.2 Monitor bycatch of industrial (national and foreign) fisheries using the following methods:
  - Records of turtle catches in log books
  - Validation of log books by observers on board
- 12.3 Assess turtle bycatch in artisanal fisheries
- 12.4 Assess the degree to which trawlers and long liners threaten turtles in the WIO

R. Salma



Rates of mortality in gear need to be determined for sea turtles of all sizes in the WIO

## **Issue 13: Accidental mortality in fisheries**

### **Actions:**

- 13.1 Promote use of turtle excluder devices (TEDs) in trawl fisheries where necessary
  - Develop and promote passage of model TED legislation
  - Facilitate TED technology transfer through training workshops
- 13.2 Advocate the strict regulation of large mesh bottom set nets; where necessary, advocate total bans of these
- 13.3 Identify important turtle habitats requiring seasonal or permanent fishing closure for fisheries
- 13.4 Promote fishery observer programmes

# Strategy: Community Participation in Conservation

Local community participation in and benefit from sea turtle conservation efforts are critical to their ongoing support, especially where management needs may interfere with traditional uses of turtles and turtle products. In addition, local people possess important information on sea turtle populations and habitats which should not be lost.

## Issue 14: Inadequate participation in and benefit from turtle conservation activities by local communities

### Actions:

- 14.1 Enable and promote community participation in turtle surveys, monitoring, and management
- 14.2 Develop collaborative management activities with coastal communities, including protected area design and implementation
- 14.3 Work with MTSG Task Force on Community Participation in Conservation
- 14.4 Develop alternative support systems for local communities living adjacent to turtle management areas
- 14.5 Promote ecotourism activities relating to turtles, and ensure equitable sharing of resulting revenues and other benefits with local communities

## Issue 15: Insufficient use of local knowledge of turtles

### Action:

- 15.1 Interview community members for information concerning:

- the natural history of sea turtles
- local uses of and dependence on sea turtles
- local traditions as they pertain to turtles

The sale of traditional crafts in areas adjacent to nesting beaches allows local communities to benefit from sea turtle ecotourism



# Strategy: Building Capacity for Conservation, Research, and Management

There is a shortage of trained personnel to carry out research, to liaise with coastal communities, and to enforce regulations and laws relating to sea turtle conservation in many countries of the region. This is exacerbated in some cases by the lack of basic equipment for surveillance and research, and by lack of information on techniques for turtle management.

## **Issue 16: Too few Skilled personnel concerned with turtle conservation**

### **Actions:**

- 16.1 Establish collaborative agreements (e.g., Memoranda of Understanding) with research or management agencies to assign personnel to turtle conservation activities
- 16.2 Encourage community participation to incorporate adequate training
- 16.3 Establish volunteer programmes
- 16.5 Advocate that more conservation agencies dedicate personnel to turtle conservation
- 16.6 Involve universities and NGOs in the training of personnel to work with turtles
- 18.1 Develop travel scholarship programmes for annual sea turtle biology and conservation symposia held in USA
- 16.8 Promote internships in turtle programmes
- 16.9 Implement periodic training in management techniques for turtle researchers, managers, and enforcement personnel

## **Issue 17: Inadequate guidelines for management of turtle nests, eggs, and hatchlings**

### **Actions:**

- 17.1 Advocate a policy of minimal interference with nests, eggs, and hatchlings except in emergency situations and then only by authorised personnel
- 17.2 Acquire and distribute guidelines standardising egg handling techniques to maximise the production of healthy hatchlings

## **Issue 18: Inadequate surveillance and enforcement on turtle nesting beaches**

### **Action:**

- 18.1 Address poaching of eggs and turtles, nest protection, community incentives and participation, ecotourism, and education and awareness programmes

**Issue 19: Inadequate surveillance of turtle feeding and migratory habitats and enforcement at sea Actions:**

19.1 Increase surveillance and enforcement in national waters to:

- control fishing by foreign and national vessels
- stop dynamite fishing where it occurs
- regulate turtle harvest wherever it occurs

19.2 Promote and support mandatory observer programmes on national and international vessels to record turtle bycatch

**Issue 20: Insufficient equipment for sea turtle research and conservation including tags, beach research equipment, vehicles, and boats Actions:**

20.1 Conduct a needs assessment of essential equipment

20.2 Encourage governments to meet their responsibilities to provide necessary equipment

20.3 Develop country proposals incorporating requests for necessary equipment

20.4 Involve the private sector in the acquisition of equipment

20.5 Participate in regional tagging and tag distribution scheme

R. Salm



Standardised techniques are needed throughout the Indian Ocean to ensure that regional populations of sea turtles are conserved and managed in comparable ways

# Strategy: Public Awareness, Information, and Education

In much of the Western Indian Ocean people are unaware of the threats to sea turtles or of the ways in which their actions may be affecting the longterm survival of turtle populations. There is also lack of appreciation of the actual and potential values of sea turtles, and, consequently, conservation efforts are afforded low priority by governments and donors.

## Issue 21: Turtle conservation is not perceived as a priority by government and funding agencies

### Actions:

- 21.1 Demonstrate ecological, economic, and cultural values of living turtles
- 21.2 Promote adoption and implementation of the WIO Sea Turtle Strategy
- 21.3 Raise awareness among relevant authorities about obligations-resulting from accession to international conventions concerning migratory species and their habitats
- 21.4 Promote a "Year of the Turtle" campaign in the Indian Ocean
- 21.5 Ensure that politicians recognise sea turtles as priority species
- 21.6 Convene workshops for government personnel
- 21.7 Advocate greater emphasis on turtle conservation by governments, funding agencies, and UNEP programmes

G. Wamukoya



In Kenya, traditional dance troops offering messages about sea turtle conservation are very popular

## **Issue 22: Turtle conservation issues (endangered status and threats, life history, and the shared nature of these migratory species) are not sufficiently publicised or appreciated**

### **Actions:**

- 22.1 Draw attention to turtle conservation issues through imaginative use of mass media
- 22.2 Develop and implement a programme of education and awareness targeting:
  - Communities adjacent to turtle habitats
  - Schools
  - General public
  - Conservation personnel at all levels
  - Enforcement personnel (police, customs, and other relevant personnel)
  - Judiciary personnel
  - Coastal planners and decision makers
  - Tourists (especially regarding restrictions on international trade and transport)
  - Village associations and local administrations
  - Women's groups
  - Recreational and commercial boat owners and operators
- 22.3 Disseminate information on sea turtles to local, national, and regional conservation groups
- 22.4 Facilitate training workshops for educators
- 22.5 Develop a network to facilitate development and exchange of educational materials on turtle conservation

Kenya Wildlife Service



The Kenya Wildlife Service involves local fishermen in conservation by developing "Community Reward Incentive Schemes" to protect sea turtle nests

# Strategy: Regional and International Cooperation

Sea turtles are a shared resource which cannot be managed by a single range state in isolation. Regional collaboration in collecting and sharing of research data will guide management actions and determination of priorities for turtle conservation. In addition, many of the issues for sea turtle conservation are common throughout the region, and individual countries have much to gain from sharing the experience of others. At present there are no mechanisms in place to facilitate such cooperation.

## **Issue 23: Lack of mechanisms for collaboration at the regional level concerning sea turtle conservation**

### **Actions:**

- 23.1 Promote acceptance of this Western Indian Ocean turtle conservation strategy at the Ministerial level
- 23.2 Develop a specific agreement for collaborative management at the regional level
- 23.3 Establish coordinated regional sea turtle tagging programme, including tag distribution and coordination, and data collection and information centre
- 23.4 Establish formal partnerships to promote turtle conservation
- 23.5 Promote the establishment of a regional coordinator and/or steering committee for turtle conservation
- 23.6 Request assistance, for example from UNEP agencies and the Indian Ocean Commission, to develop and implement agreements addressing the protection of sea turtles on the high seas
- 23.7 Facilitate regional networking, including communication (newsletter and through e-mail) and information exchange
- 23.8 Compile a regional directory of NGOs, agencies, and funding sources for sea turtle conservation

## **Issue 24: Inadequate regional cooperation in the promotion of sea turtle conservation**

### **Actions:**

- 24.1 Encourage full integration of all WIO states in regional turtle programmes
- 24.2 Develop a regional education and awareness programme
- 24.3 Develop and implement the " 1998 Year of the Sea Turtle" campaign in the Indian Ocean for education and enhanced conservation
- 24.4 Develop a regional programme for capacity building including training programmes, study tours, and personnel exchanges
- 24.5 Develop links and collaborate with other regional turtle programmes
- 24.6 Develop links and collaborate with other relevant regional marine programmes

# Strategy: Funding for Marine Turtle Conservation

Funding sources for sea turtle conservation need to be identified to enable appropriate actions to be taken at the local, national, and regional levels.

## Issue 25: No formal funding mechanisms for regional programme coordination and implementation

### Actions:

- 25.1 Identify available sources of funds including international environmental institutions, governmental, and non-governmental sources
- 25.2 Develop fundraising proposals for national and regional programmes
- 25.3 Locate partners with whom to develop multi-species or ecosystem-oriented proposals
- 25.4 Initiate local, national, and regional fundraising activities
- 25.5 Establish private trusts to fund turtle conservation

M. Donnelly



The IUCN workshop in Sodwana Bay provided the opportunity for George Wamukoya from Kenya and George Hughes from South Africa (right) to discuss regional programmes

## Appendix 1. Accession of WIO States to Relevant International Conventions

	Nairobi <sup>1</sup>	CITES <sup>2</sup>	CBD <sup>3</sup>	Bonn <sup>4</sup>	Ramsar <sup>5</sup>	MARPOL <sup>6</sup>
Eritrea	na	X	X			
Somalia	X	X		X		
Kenya	X	X	X	in process	X	X
Tanzania	X	X	X			
Mozambique		X	X			
South Africa	na	X	X	X	X	X
Comoros	X	X	X		X	
Madagascar	(signed)	X	X	(signed)		
Mauritius		X	X			
Seychelles	X	X	X			X
France	X	X	X	X		X

1 Convention for the Protection, Management and Development of the Marine Environment and the Coastal Areas of the East African Region

2 Convention on International Trade in Endangered Species of Wild Fauna and Flora

3 Convention on Biological Diversity

4 Convention on the Conservation of Migratory Species of Wild Animals

5 Convention on Wetlands of International Importance Especially as Waterfowl Habitat

6 International Convention for the Prevention of Pollution from Ships

# Appendix 2. List of Workshop Participants

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## **IUCN/Species Survival Commission**

The Species Survival Commission (SSC) is one of six volunteer commissions of IUCN-the World Conservation Union-a union of sovereign states, government agencies, and non-governmental organizations. IUCN has three basic conservation objectives: to secure the conservation of nature, and especially of biological diversity, as an essential foundation for the future; to ensure that where the earth's natural resources are used this is done in a wise, equitable and sustainable way; and to guide the development of human communities towards ways of life that are both of good quality and in enduring harmony with other components of the biosphere.

The SSC's mission is to conserve biological diversity by developing and executing programs to study, save, restore, and wisely manage species and their habitats. A volunteer network comprising nearly 7,000 scientists, field researchers, government officials, and conservation leaders from 179 countries, the SSC membership is an unmatched source of information about biological diversity and its conservation. As such, SSC members provide technical and scientific counsel for conservation projects throughout the world and serve as resources to government, international conventions, and conservation organizations.

The SSC works primarily through its 105 specialist groups, most of which represent particular plant or animal groups that are threatened with extinction, or are of special importance to human welfare. A few groups deal with cross-cutting species conservation issues, such as veterinary medicine, conservation breeding, re-introducing species to their former ranges, invasive species and sustainable use of wildlife.

**Published by IUCN**

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