The IUCN Regional Marine Programme, Asia

Programme Strategy

March 2002

PREFACE

This document is a strategy seeking to present a coherent and well-defined Coastal and Marine Programme in the Asian Region reflecting the mission, strengths and priorities of IUCN - the World Conservation.

The preparation of the strategy has been based on consultation, both internally within the IUCN structure in addition to inputs from various external sources. At the outset a questionnaire survey was undertaken to identify salient coastal and marine conservation issues and areas that IUCN would be in a favourable position to address. This scoping process was carried out as a collaborative effort initiated by the IUCN Sri Lanka Country Office with inputs from the Asian Regional Directorate and with financial support from the Global Marine Initiative and IUCN-US.

The geographical coverage of the programme will include the following countries of the region with a coastline; Bangladesh, Brunei Darussalam, Cambodia, China, India, Indonesia, Malaysia, Maldives, Myanmar, Pakistan, Philippines, Singapore, Sri Lanka, Thailand and Vietnam.

1. BACKGROUND

The biodiversity of the sea and adjoining coastal zone, the interaction and functions of marine organisms, their behaviour and peculiarities still remain to be understood. Out of a total of 33 animal phyla, a staggering 32 alone are found in the sea[1]. The South and Southeast Asian region in particular displays one of, if not the highest, coastal and marine biodiversity in the world. covering a varied range of ecosystems such as coastal lagoons, mangroves, coral reefs, marshlands and deep sea trenches. The inadequate understanding of marine biodiversity coupled with the vastness of the oceans has always had a strange fascination and attraction for humans, and these resources have generally been conceived as inexhaustible. Unfortunately, today, we are very much aware that this is not the case and if remedial steps are not put in place the long future looks exceedingly bleak.

Approximately 60 % of the global population live in coastal areas, rising up to 80-90% in some countries inhabiting an areas of high ecological and economic significance and value. In recognition of the fragility and importance of a healthy coastal and marine environment and the current rate of degradation of coastal and marine habitats and loss of biodiversity in Asia there has been an intensified concern among governments, international bodies, regional and national NGOs, research institutions and the private sector. There is a growing awareness of the need to reduce current pressures on coastal and marine systems if sustainability in resource use is to be achieved. On the national, regional and international stage IUCN has been actively pursuing stronger conservation efforts in this area as one of its priorities.

Understandably reversing a negative trend of the present magnitude is not an easy task. Burgeoning human populations are increasing demands on coastal and marine resources in various ways; fish protein, land for development, minerals, industrial infrastructure, transportation, urbanisation, tourist facilities, and so on. As is often the case short-term economic interests and imperatives override sustainable development and conservation concerns. When economic demands surpass the coastal and marine resources ability to regenerate or are not in concordance with conservation considerations, degradation follows. The accumulated impacts of these effects have already taken their toll on coastal and marine ecosystems in certain areas, and this has been documented in the reduction of habitats and their general health. The effect of these activities is unfortunately most severely felt among low income countries and countries with a high economic growth. Often the human cost of biodiversity degradation and loss is poverty affecting marginalised communities in particular.

[1] *Creating a Sea Change* -The WWF/IUCN Marine Policy

2.1 Prominent Coastal and Marine Ecosystems in Asia

In the section below a brief description is presented of the most prominent ecosystems and the most significant threats found in the region:

South and Southeast Asia have some of the most prominent and extremely diverse ***mangrove areas*** in the world. The area covered by mangroves in the region has been estimated at 76,225 square km[2]. These areas constitute some of the most vital and productive coastal ecosystems on Earth and provide important functions acting as shelters for juvenile fish and shellfish, and as soil stabilisers. The extent of mangroves has been drastically reduced by approximately 50% over the past 50 years in the ASEAN countries, one of the main contributing factors being shrimp and fish farming, especially in Thailand, Indonesia and Vietnam. Land reclamation and illegal cutting are other prominent causes for the decline. In South Asia the same trend can be witnessed (Table 1)[3].

Country	Current Area (ha)	Recent Reduction
Bangladesh	420,000	40-45%
India	405,000	34%
Pakistan	250,000-283,000	99%? (Indus Delta)
Sri Lanka	10,000	N.A.

Table 1: Recent reduction in mangrove cover in South Asia

Coral reefs represent marine ecosystems with some of the highest levels of species diversity and productivity on Earth, and are as such often referred to as underwater rainforests. Of particular importance is Southeast Asia where some of the most species-rich areas of coral reefs are located, with approximately 70 hard coral genera. On a global scale, 27% of the reefs are under high threat and 31% are under medium threat, mainly caused by over-fishing, coastal developments, inland pollution, erosion and marine pollution[4].

Coral bleaching as a result of natural disturbances has further exacerbated the alarming decline in coral cover. Bleaching has had an unprecedented impact to the coral reefs, especially in the recent 1998 event that severely affected the Indian Ocean region and caused a 100% mortality in certain coral reef areas in South Asia. The bleaching coincided with the strongest El Niño event ever recorded.

[2] Kelleher, G., Bleakley, C. and Wells, S., 1995. *A Global Representative System of Marine Protected Areas.* GBRMPA, The World Bank and IUCN - The World Conservation Union.
[3] Source: Brown, B. E., (1997): *Integrated Coastal Management: South Asia.* Dept. of Mar. Sci. and Coastal Management, Univ. of Newcastle, Newcastle upon Tyne, United Kingdom.
[4] Bryant, D., Burke, L., McManus, J. and Spalding, M., 1998. *Reefs at Risk.* WRI

Coastal lagoons and estuaries are important habitats for brackish-water biodiversity, both in terms of a highly specialised and rich vegetation cover that attracts a high number and variety of birds, amphibians, reptiles and fish. As with mangrove ecosystems, lagoons and estuaries play an important role in fish breeding cycles. With their rich resource base, lagoons and estuaries also usually have a significant concentration of socio-economic functions such as transport waterways, food sources, and nature tourism. Human settlements and urbanisation and location of industrial facilities have sometimes jeopardised the biological systems present in these fragile areas, that are particularly susceptible to land-based pollution and oil spills.

Seagrass meadows are composed of rooted, seed-bearing marine plants known as *halophytes.* Seagrasses are mainly found in shallow, sheltered areas, including lagoons and estuaries throughout the South and Southeast Asian region. These areas exhibit very high rates of primary productivity and are often closely associated with mangroves and coral reefs. Seagrass beds are the feeding ground of a number of marine organisms, including the threatened Dugong and the Green Turtle. In addition, the meadows often play a critically important role as habitat and breeding areas for commercially important finfish and prawns, and consequently also constitute areas of intense trawling efforts, unfortunately often with severe damages to the habitat.

3. RATIONALE

Linking increased regionalisation of programmes with the global mission of IUCN is both challenging and important to ensure that policies and projects are efficiently carried out at the regional level, and that these efforts can be maximised at national and local levels as well. An important foundation for the programme establishment is the recently developed marine policy document, *Creating a Sea Change*, collaboratively prepared by WWF/IUCN. This document is the first consolidated attempt at providing a global guiding policy for IUCN on the Union's coastal and marine work. In addition, the Jakarta Mandate, that specifically promotes the application of the Convention on Biological Diversity to coastal and marine environments, also serves as essential guidance for the contents of This strategy.

Implementation of the above policy documents constitute the focus of this strategy, the emphasis on various issues is likely to change in line with global priorities defined in *Creating a Sea Change* in order to more specifically address the needs of the Asian region. A proactive and coordinated approach is needed if the current trend of decline and degradation of coastal and marine ecosystems witnessed are to be reversed. The programme aims at providing a consolidated framework for action and through this mechanism keeping a problem-oriented focus in identifying its activities.

4. AN INTEGRATED APPROACH

The downward spiral of decline in coastal and marine environmental quality is not deflected by strict conservation measures alone, but most often requires a balanced approach that incorporates social and economic development concerns as well as sound integrated measures in which sustainability is the keyword.

Targeted conservation efforts and integrated natural resource management strategies are necessary to sustain the resources of the oceans and the adjoining coasts. In so doing, a close dialogue has to be maintained between governments sectors, local communities and grassroot organisations, the scientific world, the private sector and the general public. Hence, it is proposed to build the Regional Marine Programme by supporting an integrated ecosystem planning and management approach to implementation of programme components. While programme activities have been broadly divided into the following core themes :

- Marine Protected Areas
- Species
- Sustainable Use
- Critical Ecosystems
- Integrated Coastal Zone Management,

it is considered imperative that the programme remain focused on integrating these various components if its overall goal is to be achieved.

Whenever possible programme and project activities will be designed within an integrative framework using multiple objective planning techniques. For example, establishment of MPAs and sustainable use initiatives (managed harvesting, tourism etc) are logically key components of an integrated coastal zone management project in a given area in the region.
The rationale for this approach lies in the fact that many, if not most, coastal and marine resource issues, arise from:

- unsustainable exploitation of natural resources and lack of understanding of ecological inter-relationships;
- unplanned or poorly located development
- uncoordinated and ineffective governmental responses to coastal and marine planning and management issues;
- unregulated pollution discharge and waste disposal; and
- loss of traditional NRM knowledge by indigenous peoples.

The impacts arising from such issues have resulted in loss and degradation of critical ecosystems, decline in species (many with economic and

subsistence values), and decline in the quality of life for the millions of people living in the coastal zones of Asia. Therefore, it is crucial that the Regional Marine Programme on the basis of its goal, reinforces the concept of values of integrated assessment, planning and management.

4.1 Goal

In contrast to terrestrial conservation practices, conservation in the transition zone between oceanic and marine systems and the terrestrial systems of the coastal zone requires different and sometimes innovative approaches. Impacts of conservation programmes may be felt, and can be catalysed across national and international borders, not only through physical and ecological improvements, but also through a coherent working relationship between related activities and initiatives. Hence, it is important that a regional focus is maintained to address regional coastal and marine conservation priorities and this is where the proposed programme will prove valuable.

The vision and goal of the Regional Marine and Coastal Programme is to :

> *"Contribute to, encourage and facilitate the conservation of coastal and marine biodiversity, while ensuring the sustainable use of coastal and marine resources in Asia"*

4.2 Objectives

The main objectives of the programme are:

1. To strengthen the effective management of critical ecosystems through the conservation of biodiversity and maintaining and/or enhancing socio-economic benefits.
2. To promote development and implementation of Integrated Coastal Zone Management approaches in Asia.
3. To promote and demonstrate that use of renewable coastal and marine resources can be sustainable.
4. To assist in the establishment of an effectively managed system of Marine Protected Areas in Asia.
5. Assist in the conservation and management of coastal and marine species, including control of alien invasive species.
6. Enhance the knowledge base and contribute to the effective communication about coastal and marine issues in Asia.

The time frame of the current strategy is 4 years according to the quadrennial programme planning cycle of IUCN, i.e. the period 2001-2004 and will be continually updated and revised in line with priorities and needs of the region..

5. KEY THEMATIC AREAS

A proposed focus in broad thematic terms is given below, building upon a consultative internal and external process. This will constitute a framework under which the RMP Programme will operate, although it should not being seen as a constraint to emerging and immediate conservation concerns, innovative ideas or creative overlap in projects between different themes.

5.1 Critical Ecosystems

In the South and Southeast Asian region coral reefs, mangrove forests, coastal lagoons, tidal flats, beach habitats and seagrass beds constitute a globally significant and unique range of habitats. IUCN's involvement in the conservation of these areas, through enhancing the capacity for management, quality of management, knowledge and understanding of these critical systems may provide an overall framework for future action. Networking and accessing specialist inputs to the establishment of a consolidated programme within this theme could be enhanced through the IUCN's Commission on Ecosystem Management.

To a large extent coordinated coastal and marine ecosystem work has progressed a fair way in certain parts of Asia, in stark contrast to other regions which have been To enhance existing knowledge, raise awareness and ensure sustainable management two major activities have been initiated by IUCN. Firstly, a project that will contribute to the implementation of the South Asian Seas Action Plan, under the Regional Seas Programme is currently being prepared. The project specifically addresses sensitive coastal and marine ecosystem and aims at establishing model sites in areas of regional biodiversity significance, using Integrated Coastal Zone Management approaches as a tool for their conservation and sustainable use. The second initiative aims at providing a 'state-of-the-environment report' of Asia's critical coastal and marine ecosystems and through this develop a regional action-oriented strategy for the future, and upon this build a solid portfolio of priority projects to ensure that planned strategies are efficiently implemented.

There are already ongoing national IUCN efforts in the region, which may contribute to the above activities. In Pakistan as an example, the Indus River estuary used to support some of the largest and most significant mangrove stands in the world. Upstream irrigation management structures have reduced the freshwater flow and thereby caused hypersaline conditions to prevail in the estuary system. Severe pollution is another contributing factor to the decline of the entire system, reducing the area and diversity of mangroves. IUCN has, over a number of years, carried out a significant replanting programme with support from NORAD and with the close collaboration of the local communities living in the estuary. The project has succeeded in converting significant areas of barren mud banks into dense

mangrove sites. In Sri Lanka, a GEF/UNDP project is being prepared on integrated collaborative management along a section of the southern coastline of the Island. The area is biodiversity-rich, with highly productive lagoons and estuaries, and with prominent nesting sites for all five species of marine turtles nesting onSri Lankan shores.

To achieve Objective 1, four main strategic activities have been identified:

1. Assess status and trends of coastal and marine ecosystems,

2. Identify priority critical ecosystems at regional and national levels,

3. Prepare a regional action strategy,

4. Develop and implement activities in selected priority ecosystems.

5.2 Integrated Coastal Zone Management

Integrated Coastal Zone Management (ICZM) can be defined as a continuous and dynamic process by which decisions are made for the sustainable use, development, and protection of coastal and marine areas and resources[5]. As such, it embodies a broad, multidisciplinary and consultative approach to planning and management, in which conservation is an important crosscutting issue while addressing social and economic aspects, transboundary implications, development issues and inter-sectoral coordination. Most Asian countries have developed national policies on ICZM and some successful programmes have been established. However, in most of the ICZM programmes monitoring and evaluation systems need to be improved, and linkages made with planning efforts. This still remains a major challenge[6]. Within this framework IUCN as an independent body can play an important catalytic, technical and mediating role in preparing coastal environmental profiles and assisting in future planning and implementation of ICZM programmes.

1. The main areas of focus for the programme will consist of efforts to:

2. Enhance the capacity for ICZM at the national level.

3. Ensure that coastal areas are planned according to ICZM principles.

4. Encourage donors and funders to adopt a coordinated approach when implementing activities relating to Integrated Management.

To achieve its objective and goal, the programme will work with already established regional programmes. In this regard, it is important that closer

[5] From Cicin-Sain, B. and Knecht, R.W., 1998. *Integrated Coastal and Ocean Management : concepts and practices*. Island Press, Washington, D. C.
[6] Olsen, S. and Tobey, J., 1997. *Avoiding an ICM Nightmare. Intercoast,* Vol. 29.

linkages are maintained with larger programmes and organisations with ICZM as important programme components for example UNEP, WWF, IOC, NOAA, GBRMPA, ICLARM and the University of Rhode Island (Coastal Resources Centre).

5.3 Sustainable Use of Coastal and Marine Resources

The exploitation of coastal and marine resources are escalating rapidly and unsustainably, especially in areas with a high economic growth, in which the impacts of environmental degradation are being strongly felt. Examples of intensive resource use can be witnessed in countries such as Thailand, Malaysia and Vietnam. The pace of this rapid economic development is not balanced with an equal focus on effective management of resources, hence leading to adverse impacts through extraction beyond the resource's regenerating capacity. Major ongoing activities that in certain parts of Asia exert serious pressures to species and entire ecosystems include grouper and shark fin fisheries, aquarium fish trade, coral and shell trade for decorative purposes, shrimp farming and collection/mining of coral for building purposes. In such areas, radical protective measures will often prove unsuccessful, since the income benefits derived in the short term are high, whereas alternatives are few and not feasible economically. Introducing sustainable use as a mechanism to ensure that the regeneration capacity of species and ecosystems are maintained is a challenge, and often requires a multitude of approaches, including capacity-building, policy development, regulatory frameworks and the provision of new livelihoods as long term alternatives.

In terms of fisheries, the Asia-Pacific region accounts for 47.3% of the world total fish catch[7]. The annual growth rate for the region as a whole was 2.8%, as against the world growth rate of 1.9 percent. This positive trend in terms of increased employment, increased earnings and improved nutrition has its negative side in the sense that a number of the marine fish stocks have reached full exploitation. Thereby, increased fishing efforts are unlikely to produce equivalent increases in catches. One way of counterbalancing over-fishing is by establishing protected areas and fisheries reserves in which fishing access is limited and regulated to ensure that stocks are maintained and regenerated. Establishment of the reserves requires an extensive knowledge of the presence and behaviour of species, ecological characteristics of the habitats as well as community structure, institutional setting, regulatory mechanisms and collaboration across borders if the reserves extend beyond national boundaries. Of course, depletion of migratory and pelagic fish species requires additional approaches and international cooperation.

[7] FAO Marine Resources Service, Fishery Resources and Environment Division, 1994. *Review of the State of World Marine Fishery Resources*. FAO Techn. Paper No. 335. FAO Rome.

To promote and demonstrate that the use of renewable coastal and marine resources can be sustainable two main strategic activities have been identified:

1. Develop and implement community-based project models, approaches and activities that have both national and regional benefits, in collaboration with members and partners.

2. To strengthen training efforts and institutional capacity, legal policy and institutional setting to enhance the capacity for sustainable use.

To achieve its objective and goal, the programme will mainly draw upon already established regional programmes, such as the Sustainable Use Programme for South and Southeast Asia and also the commissions and expertise of its members and partners.

5.4 Marine Protected Areas

A Marine Protected Area (MPA) is defined as *"any area of intertidal or subtidal terrain, together with its overlying waters and associated flora, fauna, historical and cultural features, which has been reserved by legislation or other means to protect part or all of the enclosed environment[8]"*. The justification for establishing Marine Protected Areas (MPAs) is today more obvious than ever, given the increasing pressures from human uses of the coastal and marine habitats and living organisms.

Designated resource `protection or management areas have been used as mechanisms for sustainable use in coastal and marine ecosystems for thousands of years, particularly by indigenous people. A wide variety of levels of protection have been provided for areas of particular ecological significance, ranging from fishery restrictions imposed through tribal community mechanisms by indigenous fisherfolk to one of the worlds largest protected areas, the intensely and state-managed Marine Protected Area along the Great Barrier Reef covering an area of 340,000 km².

A system of representative and well-managed MPAs can constitute a powerful tool for reducing pressures on certain threatened species and for the conservation and protection of ecosystems. As marine species exist in an open access system it is important that protection mechanisms are implemented and that transboundary collaboration is established, especially relevant when addressing protective measures to offshore areas, as well as pelagic and migratory species.

[8] IUCN, 1988. *Proceedings of the 17th Session of the General Assembly of IUCN and 17th Technical Meeting. San Jose, Costa Rica, 1-10 February, 1988*. Gland, Switzerland.

A foundation for future activities is already laid with various publications on MPA establishment and management including the Global Representative System of Marine Protected Areas. In this publication it is stated that it is:

> *"...estimated...90%* (of existing MPAs in the SE Asian area) *generally fail to achieve (57%) or partially achieve (31%) their management objective"*

Table 2 shows a compilation of MPA information from the region.

Country	Existing MPAs (including both coastal and marine elements)	Proposed new MPA's
Bangladesh	3	3
Brunei Darussalam	4	No new areas recommended
Cambodia	No Information	No information available
India	30	8
Indonesia	30	No new areas recommended
Malaysia	21	2
Maldives	0	No updated recommendations
Myanmar	0	6
Pakistan	?	1
Philippines	19 (160)	No new areas recommended
Singapore	1	1
Sri Lanka	16	6
Thailand	15	No new areas proposed
Vietnam	2	1

Table 2: Existing and Proposed Marine Protected Areas in the region

From the above it appears obvious, that a lot of additional work needs to be done on MPAs in the Asian context. Emphasis should be afforded to the general need for improved management both in terms of establishment, planning and day-to-day management, additional baseline data and proper demarcation of the existing MPA systems.
IUCN draws on a vast experience in protected area management through its World Commission on Protected Areas. Interaction with existing and future initiatives will be actively pursued in the Asian context. There are ongoing activities already being carried out by IUCN on the national level, lessons that will prove useful also in the regional context. In Vietnam as an example, IUCN has been instrumental in formulating and providing technical assistance in the preparation of a GEF/Danida supported project to establish the first well-managed MPA in Hon Mun. Main activities will be the

development of an effective provincial MPA Authority and a system of co-management arrangements with local resource users, including micro-credit facilities, training programmes, awareness campaigns and marine biodiversity monitoring.

Strategic activities proposed are the following:

1. To provide strategic planning advice to members/partners in order to create MPAs in Asia.

2. To provide institutional strengthening and capacity building through technical assistance to MPA authorities in order to achieve effective management.

3. Provide assistance to the implementation of MPA projects.

To achieve its objectives and goal, the programme will draw upon the World Commission on Protected Areas and the Global Protected Areas Programme, supported by the Regional Biodiversity Programme and the Regional Aquatic Ecosystems Programme.

5.5 Species – Threatened, Migratory and Invasives

On a global level, IUCN has since its establishment been involved in conserving threatened species. Today, with the publication of the Red List of Threatened Species and related activities, IUCN continues to be play a pivotal role in leading work in this area Specialist groups on a wide array of coastal and marine species are in operation supported by webs of voluntary experts. In spite of this significant headway the focus on coastal and marine species has not been afforded as much attention as terrestrial species and because of a paucity of data, this severely impediments sustainable management interventions. Formulation and implementation of species-specific action plans have been and will continue to be very valuable tools for sensitising policy-makers and to focus the required ground-level implementation activities.

Improving the knowledge of ecological functions, migratory patterns, habitats and behaviour is also a very prominent factor when working with threatened and migratory marine species, such as marine turtles and marine mammals. Improvement of the scientific knowledge base is necessary for adequate protection and requires a high degree of regional and transboundary collaboration. One of the distinct threats to these species is the increasing numbers of incidental and deliberate by-catches in the region, and the problem has to be solved through enhanced regional cooperation. Within IUCN, initiatives are now underway to launch a major Indian Ocean initiative for the conservation of Marine Turtles and both in Sri Lanka and Pakistan IUCN is involved with activities relating to the

conservation of these globally threatened species. IUCN will also maintain its commitment to advocacy work relating to threatened marine species.

A phenomenon, which is currently causing increased international concern, is the rapid spread of marine invasive species. One of the most well-known marine invasive impacts is the infestation of certain reefs by the Crown-of-Thorns starfish, which feeds on coral polyps. Recent focus has also been placed on the effects of the increased global trade and the introduction of alien and highly competitive species of a geographically different origin, that are exported to other regions often carried in ballast water of ships. Other ways of introducing invasives is through aquaculture operations, bait industry, aquarium trade, canals, seafood industry and fouling. Controlling marine invasives thereby becomes not only a national concern, but requires an extensive collaboration between countries in the region regarding management strategies and mitigation measures.

The RMP Programme will aim to strengthen IUCN's work on threatened, migratory and invasive species conservation through the following strategic activities:

1. Focus on *threatened* species:

1.1 Prioritisation of coastal and marine species in need of conservation
1.2 Setting up institutional and legal mechanisms
1.3 Preparation of regional species action plans
1.4 Assistance in the implementation of regional species action plans

2. Focus on *migratory* species:

2.1 Assistance in creating and implementing regional agreements
2.2 Facilitation of monitoring and assessment activities
2.3 Enhancement of protection efforts for migratory species

3. Focus on *invasive* species:

3.1 Development of a black list of key invasive species
3.2 Assistance to risk assessment in coastal and marine habitats including development initiatives
3.3 Development and implementation of regional invasive species action plans
3.4 Assistance to and collaboration with the Globallast Programme

To achieve its objective and goal, the programme will mainly draw upon already established regional programmes, one of the major interactions of the current strategic activities will be the IUCN Species Programme and the Species Survival Commission and the most recent addition, the Global Invasive Species Programme (GISP). In terms of the legal aspects of the activities, consultation will be sought with the Commission on Environmental Law and the Environmental Law Centre.

5.6 Information, Awareness and Education

In relation to all identified thematic areas, the establishment of efficient mechanisms of networking, sharing of information, enhancing education and awareness as well as exchanging experiences on coastal and marine conservation issues have a high priority and constitute one of the main cross-cutting issues of the programme. With its global conservation networks and Commission on Education and Communication, IUCN is in a pivotal position to facilitate this function, further catalysed by the Secretariat in collaboration with its members and partners.

Numerous national efforts and projects are currently being undertaken in the coastal and marine setting. It therefore becomes crucial that mechanisms are in place to communicate important lessons learned from one country to another. The sharing of information can also be important in avoiding duplication of effort and enhancing cost-effectiveness.

The following strategic activities are proposed for the programme:

1. Raise awareness about ecosystem values, functions, socio-economic benefits, uses and threats.

2. Undertake research and studies and collate and disseminate findings on critical ecosystems.

3. Facilitate transboundary dialogue on ICZM issues.

To achieve its objectives and goal, the programme will draw primarily on the IUCN Commission on Education and Communication as well as the Commission on Ecosystem Management, in addition to other sources.

6. PROGRAMME IMPLEMENTATION

6.1 Administration and Management

The RMP will be constituted under the Asian Regional Directorate of IUCN. The programme will be managed by a Regional Head reporting to the Asia Regional Director, as with the other regional programmes in Asia. The head of programme will be in continuous contact with country representatives in countries where IUCN is permanently present, and through this mechanism also liaise with national coastal and marine activities and programmes carried out by country offices and IUCN members ensuring a two-way feedback. Partner organisations and members will be mobilised in countries where the Union is not physically present. The head of the programme will also report to the Global Coastal and Marine Programme Coordinator.

Overall policy and strategic guidance will be provided by a Regional Programme Advisory Committee, comprising the Regional Director, Regional Programme Heads, Country Representatives and Regional Councillors. Programme planning will be vested in the Asia Programme Planning Team, normally referred to as the Asia Programme Development Group. The Team will meet regularly and discuss progress, assist in programme planning and review proposed projects.

A Coastal and Marine Expert Panel will be established and will be composed of a group of external experts from leading institutions, key secretariat staff, representatives of the commissions, members and partners and the Head of the programme. All members of the Expert Panel will be selected based on their long-standing experience with coastal and marine conservation in the Asian context, but also in the global perspective. The role of the expert panel will be to provide general guidance and direction as well as monitoring and evaluation and also take part in clearing-house functions for the programme. It will also be the responsibility of the Panel to liaise with the Global Marine Advisory Group.

An organisational diagram is presented in Annex 2.

6.2 Working with Members and Partners

Operations of the Union are carried out in close collaboration with members and partners. It generally improves the outreach for conservation into areas that do not have a Secretariat presence, both on the policy and field level and serves to stimulate and shape future decisions and actions. In terms of establishing a new and consolidated programme, there is a need to focus expertise and strengths in terms of coastal and marine conservation to build up the programme. A general update of the membership database should be encouraged at the initiation of the programme and members should be further encouraged to contribute more effectively in the programme planning and development process.

7. FUNDING MECHANISMS

Action to achieve the objectives of the Asia Regional Coastal and Marine Programme presented in this strategy document requires funding. IUCN will actively seek support for its programme component by advocacy, updating potential donors on ongoing coastal and marine issues and when needed play an advisory role in setting priorities. IUCN already receives support from a number of private, bilateral and multilateral funding agencies and will continue to develop relationships for projects of priority, including the Asian Development Bank, the Global Environment Facility, UNEP, EU, UNDP and bilateral agencies.

As an example of the kind of linkages that are being proposed, Annex 3 shows how the ADB Coastal and Marine Resources Management and Poverty Reduction in South Asia project and the *Integrated Management of Environmentally Sensitive Coastal & Marine Ecosystems in the South Asian Region*, will integrate with the proposed RMP, goal and objectives.