



Resolution to Establish the IOSEA Network of Sites of Importance for Marine Turtles in the Indian Ocean – South-East Asia Region

Adopted by the Signatory States at their Sixth Meeting (Bangkok, 2012)

Recalling that the IOSEA Marine Turtle Memorandum of Understanding encourages co-operative measures for the protection, conservation and management of marine turtles and their habitats throughout the Region;

Recalling further that the Tenth Meeting of the Conference of the Parties to the Convention on Migratory Species (Bergen, November 2011) adopted Resolution 10.3 on the role of ecological networks, which calls upon Signatory States to CMS Memoranda of Understanding to consider the network approach in the implementation of their instruments;

Recognizing the need to identify and promote the long-term conservation of sites of regional value for benefit of marine turtles and their habitats throughout the IOSEA region, while respecting existing national designations;

Appreciating the importance of coordinating efforts with the many other initiatives and programmes at various levels that provide for the designation and protection of sites of importance for biodiversity in the IOSEA region;

Acknowledging the substantial developmental work undertaken by the Secretariat, the Advisory Committee, and the Site Network Working Group to refine the site network proposal since the Fifth Meeting of the Signatory States (Bali, 2008);

Further recognizing the importance of the role of IOSEA in providing technical oversight and international legitimacy to cooperative conservation efforts in the region, and acknowledging the leading role of Signatory States in the designation and active management of sites of importance for marine turtles;

The Sixth Meeting of Signatory States to the IOSEA Marine Turtle Memorandum of Understanding:

1. Agrees to establish the IOSEA Network of Sites of Importance for Marine Turtles, as described in the annex to this resolution;
2. Requests the Advisory Committee to review and, as necessary, revise the Site Evaluation Criteria described in Document MT-IOSEA/SS.6/Doc. 7/Working Paper #2, prior to the submission of site nominations; and to draw attention to any further adjustments that may warranted in the course of using the criteria;
3. Requests the Secretariat to circulate to all Signatory States, by 31 May 2012, the revised Site Evaluation Criteria for final review and written comment by Signatory States no later than 31 July 2012; with a view to circulating a final version of the Site Evaluation Criteria by 31 August 2012;

4. Encourages Signatory States to begin preparing and submitting site nominations, as of September 2012 until six months prior to the Seventh Meeting of the Signatory States, tentatively anticipated to take place in the first half of 2014;
5. Agrees to consider, at the Seventh Meeting, recommendations of the Advisory Committee for the possible inclusion of network sites, to enable the network to be formally launched in 2014;
6. Decides to establish a steering committee to seek financial support for the implementation of the Site Network and to consider other operational issues that may arise inter-sessionally.



Guidance for the Establishment of a Network of Sites of Importance for Marine Turtles in the Indian Ocean – South-East Asia Region

**as adopted by the
Sixth Meeting of IOSEA Signatory States
Bangkok, January 2012**

**Secretariat of the Indian Ocean – South-East Asia Marine Turtle
Memorandum of Understanding (IOSEA)**

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A major revision of the IOSEA Site Network proposal was developed and refined by Dr. Eric Gilman (consultant) and Douglas Hykle (IOSEA Co-ordinator) between April 2010 and May 2011. The contents have benefitted from review and comment by members of the Site Network Working Group established by the Fifth Meeting of IOSEA Signatory States, chaired by Alexis Gutierrez (United States); the IOSEA Advisory Committee; and other experts around the IOSEA region. The individual contributions of Ali Al-Kiyumi (Oman), Lee Butcher (Australia), Renato Cruz (Philippines), Dr. Jack Frazier (United States), Jillian Grayson (Australia), Dr. Mark Hamann (Australia), Dr. George Hughes (South Africa), Meera Koonjul (Mauritius), Dr. Ronel Nel (South Africa) and Francesa Marubini (United Kingdom) are gratefully acknowledged. The document has benefitted from further input and refinement by participants of the Sixth Meeting of IOSEA Signatory States (Bangkok, January 2012).

Executive Summary

The Signatory States to the *Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia* (IOSEA Marine Turtle MoU) have considered options for the establishment and administration of a *Network of Sites of Importance for Marine Turtles in the Indian Ocean – South-East Asia Region* (IOSEA Marine Turtle Site Network). The network will serve as a mechanism for sites to operate more cooperatively and synergistically, both ecologically and administratively, rather than working in isolation with minimal coordination.

The overarching goal of the IOSEA Marine Turtle Site Network is to promote the long-term conservation of sites of regional value for benefit of marine turtles and their habitats.

The IOSEA Marine Turtle Site Network objectives are to:

- (i) Provide a regional mechanism to enhance the conservation of sites of importance to marine turtles;
- (ii) Derive ecological and governance benefits that are not possible to achieve by managing individual sites in isolation;
- (iii) Contribute, through enhanced regional conservation of marine turtles and their habitats, to more effective maintenance of ecosystem services that support human well-being; and
- (iv) Catalyse opportunities for participatory resource management and community development centred on marine turtles, through network-wide information exchange.

A number of benefits arising from the site network are critical to achieving regional-scale objectives. These include:

- Optimal use of limited resources for governance. A fully functional network will coordinate available financial, technical and human resources to conduct common training, facilitate exchange of information on best practices, carry out joint research and monitoring, undertake performance evaluation, and encourage adaptive management;
- Enhanced local-to-global scale recognition of the importance of the networked sites, on the strength of a credible selection process. This in turn should catalyse increased support and resources for more effective site-based and regional management;
- Mitigation of adverse socio-economic impacts over a wider geographic scale. Activities incompatible with marine turtle conservation cannot be eliminated entirely, but such activities may be restricted at selected network sites in a way that diffuses adverse impacts across the wider region;
- Protection of ecological connectivity between habitats through strategic spacing and shape of sites; and
- Optimisation of regional resistance and resilience of marine turtle habitats to environmental stress. This will be achieved by including and managing sites containing marine turtle habitats necessary for different life cycle phases, by protecting multiple examples of each habitat type, and by including sites that act as refugia to current and predicted stress.

Countries will be invited to nominate turtle nesting beaches and adjacent areas considered to be important sites for marine turtles and, in doing so, will hopefully have an added incentive to secure additional resources and protection at the sites. However, provision of

additional resources is not a binding commitment or obligation upon joining the network. Site nominations must come from governments, to assure the highest level of recognition, but proposals can be drafted by other interested parties.

The need to prepare a baseline site assessment is the only fundamental requirement associated with site nomination. This exercise will be extremely valuable in and of itself, especially if one has never been conducted previously. In addition to helping identify constraints and management gaps, the assessment will lend credibility to the site selection process and will help to match potential donors to specific site needs.

Nominated sites will be recommended to the Meeting of IOSEA Signatory States for inclusion in the network based on an objective evaluation of each submission against a suite of criteria, to be conducted by the IOSEA Advisory Committee.

It is agreed that nominating a site to the network should not impose any new binding financial commitments or any new legal obligations on Signatory States. Beyond that, the structure and operation of the IOSEA Marine Turtle Site Network will depend largely on the financial resources made available for its development. Three possible models are presented to reflect different scenarios -- ranging from little or no new funding to substantial investment by interested donors.

* * * * *

This document serves to: (1) explain the rationale for the site network proposal; (2) present a draft suite of criteria against which to assess sites for possible inclusion in the network; (3) describe a process for site nomination and evaluation of candidate sites; and (4) present alternative approaches for coordinated governance of sites included in the network.

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1. BACKGROUND, PURPOSE AND BENEFITS OF AN IOSEA MARINE TURTLE SITE NETWORK

1.1. Background

The *Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia* (IOSEA Marine Turtle MoU) is a non-binding framework under the Convention on Migratory Species through which States and organisations of the Indian Ocean and South-East Asia region, and other concerned States, are working together to conserve and replenish depleted marine turtle populations for which they share responsibility. The IOSEA Marine Turtle MoU took effect in September 2001 and has 33 Signatory States (as of December 2011). Supported by an Advisory Committee of eminent scientists and complemented by the efforts of numerous nongovernmental and intergovernmental organisations, Signatory States are working towards the collective implementation of a Conservation and Management Plan comprising 24 programmes and 105 separate activities.

Governments and numerous other organisations have undertaken marine turtle conservation activities in the Indian Ocean and South-East Asia region for many decades, allocating substantial financial, institutional and staff resources for this purpose. Impressive achievements have been realised on local, national and regional levels. The establishment of the *Network of Sites of Importance for Marine Turtles in the Indian Ocean – South-East Asia Region* (IOSEA Marine Turtle Site Network) will serve to recognise these past efforts, while more effectively achieving regional-scale ecological and governance objectives that single protected sites cannot achieve in isolation.

The concept of a network of sites of importance for marine turtles has been under development for several years, having been introduced initially in 2004 at the second Meeting of the IOSEA Signatory States. While the development of the site network concept has progressed since the idea was first presented, divergent views persisted about several aspects of the proposal. Among the primary issues were: what would the governance structure of the network entail, how would sites be evaluated for inclusion and ultimately chosen, and what additional obligations, if any, would be required of governments. This document further elaborates these issues for consideration and discussion by the Signatory States.

The present initiative serves to:

- explain the rationale for the site network proposal;
- present a draft suite of criteria against which to assess sites for possible inclusion in the network;
- describe a process for site nomination and evaluation of candidate sites; and
- present alternative approaches for coordinated governance of network sites.

1.2. Context

The IOSEA region is host to six species of marine turtles: Loggerhead (*Caretta caretta*), Olive ridley (*Lepidochelys olivacea*), Green (*Chelonia mydas*), Hawksbill (*Eretmochelys imbricata*), Leatherback (*Dermochelys coriacea*), and Flatback (*Natator depressus*). Across the region, there are several examples of decades-long conservation programmes whose management interventions have contributed to stable or increasing turtle populations. In addition, several countries can boast significant turtle populations that, if not still thriving, have remained resilient in the face of increasingly diverse and escalating human pressures.

However, many of the region's marine turtle populations have declined significantly, some having been almost eliminated. Various factors are thought to have contributed to

unsustainable turtle mortality, including: widespread and intense exploitation of eggs, meat and shell, fisheries-related mortality (by-catch), destruction and degradation of critical habitats, pollution, climate change, and inappropriate management practices. Consequently, where marine turtles were once a substantial economic and cultural resource in many parts of the IOSEA region, costly management interventions are now required to protect marine turtles and their habitats.

Marine turtles depend on diverse habitats at different phases of their life cycle, including suitable beaches for nesting and coastal waters for foraging and reproduction. Yet the importance of many of these coastal habitats – critical not only for marine turtles, but for a wide range of species as well as ecosystem services critical for human wellbeing – is often not recognised. Short-term economic interests trump restrictions necessary to ensure long-term sustainability.

A lack of awareness and understanding of the ecological and other values of these unique habitats may lead to inappropriate development of areas at the expense of coastal ecosystem integrity, as well as the conservation of marine turtles. In some areas marine turtles and their habitats may be protected on paper, through appropriate national legislation and regulations, yet the implementation of adequate conservation measures on the ground is often lacking. In either case, there are adverse impacts for the coastal communities that rely on the services provided by these ecosystems.

Protecting areas critical for the region's marine turtles will simultaneously yield a range of socio-economic benefits for people. Maintaining coastal water quality, protecting habitat used as nursery grounds for seafood species that support commercial and subsistence fisheries, and generally protecting mangrove and reef habitat in a way that reduces threats from coastal hazards – such as erosion, flooding, and strong wave action – is good for humans as well as turtles.

The overarching goal of the proposed IOSEA Marine Turtle Site Network is thus to promote the long-term conservation of sites of regional value for benefit of marine turtles and their habitats.

Site networks, a collection of individual sites operating cooperatively and synergistically, both ecologically and administratively, can achieve ecological and governance benefits that single protected sites cannot achieve in isolation. These include:

- Optimal use of limited resources for governance. A fully functional network will coordinate available financial, technical and human resources to conduct common training, facilitate exchange of information on best practices, carry out joint research and monitoring, undertake performance evaluation, and encourage adaptive management;
- Enhanced local-to-global scale recognition of the importance of the networked sites, on the strength of a credible selection process. This in turn should catalyse increased support and resources for more effective site-based and regional management;
- Mitigation of adverse socio-economic impacts over a wider geographic scale. Activities incompatible with marine turtle conservation cannot be eliminated entirely, but such activities may be restricted at selected network sites in a way that diffuses adverse impacts across the wider region;
- Protection of ecological connectivity between habitats through strategic spacing and shape of sites; and
- Optimisation of regional resistance and resilience of marine turtle habitats to environmental stress. This will be achieved by including and managing sites containing marine turtle habitats necessary for different life cycle phases, by

protecting multiple examples of each habitat type, and by including sites that act as refugia to current and predicted stress.

There are many other initiatives and programmes at various levels that provide for the designation and protection of sites of importance for biodiversity in the IOSEA region, including those of The World Heritage Convention, UNESCO's Man and Biosphere Programme, the Ramsar Convention on Wetlands, the Programme for the Red Sea and Gulf of Aden (PERSGA), and the Association of Southeast Asian Nations (ASEAN). IOSEA should coordinate with the aforementioned initiatives in the design and implementation of the IOSEA Marine Turtle Site Network.

1.3. Objectives

The objectives for the IOSEA Site Network are founded on the stated objective of the IOSEA Memorandum of Understanding, "to protect, conserve, replenish and recover marine turtles and their habitats, based on the best scientific evidence, taking into account the environmental, socio-economic and cultural characteristics of the signatory States," (IOSEA, 2009a). The proposed IOSEA Site Network is an important adjunct for fulfilling the six objectives of the IOSEA MoU *Conservation and Management Plan* (IOSEA, 2009b).

The objectives of the IOSEA Marine Turtle Site Network are to:

- (i) Provide a regional mechanism to enhance the conservation of sites of importance to marine turtles that might otherwise not be adequately protected, that will attain additional benefits from being in a network irrespective of their current status, and that serve as regional models of effective governance;
- (ii) Derive ecological and governance benefits that are not possible to achieve by managing individual sites in isolation;
- (iii) Contribute, through enhanced regional conservation of marine turtles and their habitats, to more effective maintenance of ecosystem services that support human well-being; and
- (iv) Catalyse opportunities for participatory resource management and community development centred on marine turtles, through network-wide information exchange.

2. SITE INFORMATION SHEET

The completion of a site information sheet is an important prerequisite for the nomination of a site to the network. It provides the justification for a site to be included in the network and is the basis upon which the merits of including a site will be evaluated by the IOSEA Advisory Committee. The sheet includes baseline information on the site; describes the current and/or planned management framework; and identifies any resources already committed or foreseen for management of the site.

The exercise of preparing such an assessment will be extremely valuable in and of itself, especially if one has never been conducted previously for the site. In addition to helping identify current constraints and management gaps, it will lend credibility to the site selection process and will help to match potential donors to specific site needs. A well-prepared site information sheet can also be used to assess management progress at regular intervals.

All site information sheets will be compiled in a searchable database that will be maintained on the IOSEA website for public viewing, thus providing another vehicle for publicising the importance of the site to the international community.

The outline of an *IOSEA Marine Turtle Site Network Information Sheet*, presented in Appendix 1, is adapted from existing site network materials from the Convention on Migratory Species (2007) and the Ramsar Secretariat (2009). In due course, a template will be prepared together with explanatory notes to facilitate the submission and processing of requested information.

3. NOMINATION AND EVALUATION PROCESS

Government agencies will nominate sites to become part of the IOSEA Marine Turtle Site Network by addressing a covering letter to the IOSEA Secretariat, accompanied by the required Site Information Sheet(s). Appendix 2 contains a template for a covering letter that a Signatory State Focal Point may use for this purpose. Nominations may be submitted to the Secretariat at any time, at least six months before the Meeting of Signatory States. Interested nongovernmental organizations, academic institutions and the private sector are encouraged to suggest sites for possible formal nomination by governments, and may assist governmental bodies in the preparation of the Site Information Sheet. However, the formal submission must be made by the national IOSEA Focal Point for the country in whose jurisdiction the site is located. In the longer term, it may be useful to encourage a sub-regional approach to both nomination and evaluation, in order to promote interaction among neighbouring countries as well as familiarity with the sites in question.

The IOSEA Advisory Committee will evaluate all site nominations against a suite of criteria, defined in Section 4. The Committee may call upon independent reviewers / local experts to assist in its evaluation, in cases where specialized expertise and knowledge about a particular site is lacking or where additional capacity is needed to deal with the number of submissions.

Whereas nominations may be submitted at any time, the Advisory Committee will review them only two times per year, for sake of efficiency and to facilitate relative comparisons across sites. These reviews will take place approximately 12 months and six months prior to the regular Meeting of IOSEA Signatory States.

The Advisory Committee will comment on the nominations, suggest any necessary amendments or improvements, and make recommendations to the Meeting of IOSEA Signatory States for inclusion or rejection based on the results of their assessment. The Secretariat will circulate the Advisory Committee's recommendations to IOSEA Focal Points no later than three months prior to the regular Meeting of the Signatory States.

Each Meeting of the Signatory States will have on its agenda the consideration of any new candidate sites, and will either endorse or reject the inclusion of a given site. When relevant, rejections may be accompanied by specific recommendations about what would be needed for the nomination to be approved.

4. CRITERIA TO EVALUATE THE INCLUSION OF SITES IN THE NETWORK

The suitability of including individual sites in the network will be assessed against a suite of criteria, which will help to assure minimum standards and add credibility to the selection process. This is necessary to ensure that the site network meets its rigorous ecological and socio-economic criteria, to promote effective governance of individual sites and the network at large, and to secure confidence among the donor community of the likelihood of success of initiatives conducted at individual sites, as well as network-wide activities.

The selection criteria are divided into four categories: Network-wide, Ecological/ Biological, Governance-related, and Socio-economic/Political. A weighting scheme is used to differentiate the relative importance of the various criteria. The maximum value assigned to each criterion determines its relative importance in the overall rating. Points are awarded against each criterion, up to its maximum value. For a site to be recommended for inclusion in the network, it must obtain a minimum score against *each* of the four categories, as well as a minimum *total score*.

This design is intended to allow sites that might be deficient in some areas still to be included in the network on the basis of their strengths in other areas, while setting a minimum standard for inclusion. The thresholds are also designed so that both sites with nesting beaches and sites with other habitats would be able to meet minimum thresholds.

A separate IOSEA Site Network Evaluation Criteria paper describes these criteria and the rationale behind them in more detail and defines, for each criterion, a scale that evaluators can use to assess more precisely the merits of a particular submission.

The IOSEA Advisory Committee will use the criteria to: (i) evaluate nominations of new sites; (ii) re-assess the rationale for continued inclusion of existing sites; and (iii) conduct gap analyses for the overall network to identify priorities for inclusion of additional sites. The Site Information Sheet (Appendix 1) provides all the information needed for objective assessment of nominated sites.

5. OPTIONS FOR NETWORKING SITES

It is agreed that adding a site to the IOSEA Site Network should not impose any new binding financial commitments or any new legal obligations on Signatory States. The three models presented below represent a continuum, with implementation measures and network coordination being largely dependent on available financial resources. Different levels of cost are associated with the alternative designs that can be envisaged. Combinations of aspects of the designs presented in these three alternatives are also feasible. Table 2 provides a summary of the continuum of networking activities possible under each of the three Models.

5.1. Model 1: Limited or No New Funding Available

Under this scenario of limited or no new funding, it may be difficult to achieve increased networking of sites. Nonetheless it is expected that regional and international recognition resulting from inclusion of sites in the network will help to raise their profile.

Each site will be inaugurated through a dedication ceremony, including provision of an IOSEA certificate to the Signatory State, and installation of appropriate signage identifying the site's inclusion in the IOSEA Marine Turtle Site Network. A dedicated page for each site will be created on the IOSEA website to publicise its main features. Emphasis will be given to identifying, as concretely as possible, the particular resource needs of each site. It is hoped that this increased attention may lead to additional funding that can be made available for conservation and management interventions at the site.

Even in the absence of significant new funding, ties can be developed among network sites – for example by twinning pairs or larger numbers of 'sister sites'. These sister sites can begin to coordinate their human, technical and financial resources with the aim of conducting collaborative staff training, outreach, monitoring, and management activities.

In the course of applying for inclusion in the network, a site manager and/or collaborators will have conducted basic field and desk research in order to prepare the IOSEA Site Network Information Sheet (Appendix 1). This will serve as a benchmark against which to measure progress and to guide adaptive management -- with a goal of maintaining and augmenting the long-term site-specific and network-wide values of the site. Analyses of ecological gaps in the network will help to guide its systematic growth, to ensure that it is achieving the desired objectives.

5.2. Model 2: Moderate New Funding Available

Under this scenario, new funding will be used to increase the networking of all sites through coordinated activities, including financial support to implement formal mechanisms for the coordination and sharing of technical, financial and human resources between subsets of sites in the network. Also under this scenario, new site management plans or improvements of existing plans will be developed for a number of 'model' sites. Available funding will also be used to undertake some prioritized interventions at these sites.

Site management plans will contain the following elements, some of which will have been documented already in the original site network nomination (those identified below with an asterisk):

- Executive summary, covering essential issues and key decisions;
- Introduction, defining the site's contribution to the network, purpose of the plan, and legal basis, as appropriate, for the development of the plan;
- Statement of the goal and objectives for establishment of the IOSEA Network site, and its inclusion in the site network, categorizing these into short, medium and long-terms;
- Definition of the site's boundaries, and a geographic description of its setting and accessibility*;
- Baseline inventory descriptions of the site's resources, of relevance to decisions for the site's management*;
- Description of past and present types and levels of activities and resource uses*;
- Documentation of past and current threats to the site's resources*;
- Description of the site's existing legal and management framework*;
- Explore the potential for legal status, as appropriate, and integration in national planning framework;
- Description of stakeholder involvement in the site selection and planning processes and their planned continual involvement in implementation of all aspects of the management plan;
- Statement of policies, plans, actions, inter-agency agreements and responsibilities of individual agencies relevant to meeting the objectives of the protected site and to mitigate threats and conflicts;
- Zoning plan, if relevant, and definition of permitted and prohibited activities within each zone;
- Regulations, where appropriate, to implement the permitted and prohibited activities;
- Contingency plan for emergencies;
- Sustainable financing plan;
- Establishment of data collection/management systems using standardised protocols;
- Methodology for incorporation of results of monitoring, research, evaluation into planning;
- Negotiation, as appropriate, of agreements to achieve a sustainable level of traditional use of marine turtles through a collaborative management framework, that might also provide for alternative livelihoods;

- Process for the preparation of periodic performance assessment, workplans, and reporting;
- Plan for meeting reporting requirements and other obligations of being a component of the IOSEA Marine Turtle Site Network; and
- An assessment of the financial, human and physical resources required to establish and manage the protected site, including: staffing, equipment and facilities, training, budget, outreach and education, monitoring, research, rehabilitation, conservation interventions to address threats, surveillance and enforcement, performance evaluation and adaptive management.

5.3 Model 3: Substantial New Funding Available

Under this scenario, significant resources will be available to implement activities at individual sites and network-wide. Ideally, institutional donors will be attracted to make a major investment in the development and operation of the network, by committing substantial resources towards network-wide coordination activities and fundamental site-based activities, including: infrastructure development, human resource development and capacity-building, conservation interventions, community engagement and information sharing, and networking among sites.

Initial funding will be used to improve network coordination and to implement management plans at selected sites -- including a budget for subsequent infrastructure and human resource development, and activities to address priority threats to marine turtles and their habitats. Depending on the nature of the site and the amount of funding available, the following site-based activities are envisaged:

Infrastructure development:

- Construction or upgrading of visitor (information) centre;
- Construction of guard stations, as appropriate;
- Non-expendable equipment procurement and maintenance (e.g. for patrolling on land/sea); and
- Provision of standard beach-management kits (e.g. basic research, monitoring equipment).

Human resource development and capacity-building:

- Recruitment or (re-)assignment of personnel (manager, guards, community outreach/education/development specialists, researchers etc.);
- Specialised staff training (methodology, team building etc.);
- If eco-tourism activities are desirable, an eco-volunteer programme ;
- Acquisition of standard reference materials; and
- Staff exchanges with other network sites and related institutions.

Conservation interventions:

- Temporal or spatial restrictions on habitat use, as appropriate;
- *In-situ* nest (i.e. clutch/egg) protection; measures to minimise mortality from all sources and to maximise the production and survival of hatchlings;
- *Ex-situ* nest protection in accordance with defined protocol;
- Habitat restoration/rehabilitation, debris removal etc., as necessary;
- Mitigation of undesirable impacts at or near the site (lighting, vehicles, sand extraction, invasive predators, bycatch etc.);
- Research and long-term monitoring programme (on-site collection of biological and sociological data, genetics, tagging, pollution monitoring etc.); and

- Extraordinary re-introduction programme (e.g. egg exchange between rookeries), when necessary/appropriate, with adequate long-term experimental design and monitoring to measure outcomes (i.e. only as a last resort intervention, to test the efficacy of this approach).

Community engagement and information sharing:

- Education and awareness programme for defined audiences;
- Collaborative management framework, including incentives to involve local communities in benefit-sharing (e.g. managed eco-tourism, alternative livelihood development etc.);
- Initiatives to enhance community welfare (literacy, health projects etc.);
- Engagement of relevant nongovernmental and intergovernmental organizations;
- Information exchange with other network sites; and
- Sharing of data with national/regional/global databases (e.g. IMapS, OBIS).

Networking with other sites:

Participate in formal mechanisms for sharing resources with other sites, including training and implementation of standardized monitoring, sharing resources for surveillance and enforcement, and participating in “sister sites” programme.

Network sites targeted for substantial funding will be expected to designate, and preferably undertake to co-finance, a site manager before any disbursement of funds takes place. The site may already be under some form of management, in which case the existing manager could be co-opted to participate in the new framework; otherwise a new manager will need to be appointed for any new site. Disbursement of funds and administrative arrangements may vary from site to site, depending on the prevailing conditions.

Managers at each site in the network will participate in network-wide coordination of governance activities. Each site will also receive educational and technical materials; assistance in implementing a management plan; as well as support for research, monitoring, training, public outreach and educational activities.

Formal arrangements to institutionalize the networking of sites for all sites in the network will be developed and implemented within the funding available -- for instance, to provide for the exchange of information and personnel, and sharing of technical and financial resources for monitoring, surveillance, enforcement, staff training, etc.

Table 2. Potential activities for coordination and integration of sites under each of three scenarios for the IOSEA marine turtle site network.

Activity for networking marine turtle sites	Model 1 – Nominal New Funding	Model 2 – Moderate New Funding	Model 3 – Substantial New Funding
Preparation of a Site Network Information Sheet – providing an ecological and governance benchmark for the site	X	X	X
Issuance of IOSEA certification to designate inclusion of the site in the network	X	X	X
Design, production and installation of signs identifying the site's inclusion in the network	X	X	X
Site profile page on a newly created Site Network section of the IOSEA website, focusing content to the donor community	X	X	X

Creation of 'Sister Sites' mechanisms to promote sharing of financial, technical and human resources	X	X	X
New or improved site management plans developed for a number of 'model' network sites		X	X
Establishment of ad hoc mechanisms for coordination and sharing of technical, financial and human resources (limited in scope)		X	X
Funding allocated for prioritized interventions at 'model' network sites		X	X
Establishment of more substantial mechanisms for network-wide coordination and sharing of technical, financial and human resources			X
Dedicated site managers appointed at selected sites to help implement coordinated network activities			X
Regional educational and technical materials prepared / distributed			X
Networked sites receive technical, financial and human resource assistance in implementing site management plans			X
Substantial and well-coordinated site-based activities are implemented across the network			X

5.4 Roles of the Signatory States, Advisory Committee and Secretariat

The respective roles of the Signatory States, Advisory Committee and Secretariat need to be elaborated in more detail, however the functional responsibilities may be summarised as follows:

Signatory States (individually, unless otherwise noted):

- Develop proposals for site nominations (i.e. prepare Site Nomination Sheets), in consultation with other interested partners. Focal Points are encouraged to discuss and coordinate nominations at the sub-regional level to facilitate coherence within the network.
- Formally submit the site nominations to the Secretariat, for sites located in their jurisdiction.
- Collectively decide whether or not to accept sites for inclusion in the network, taking into account recommendations made by the Advisory Committee.
- Make arrangements for the inauguration of newly listed sites, in collaboration with the Secretariat.
- Examine the potential for collaboration (e.g. twinning/sister-sites) with other sites, with a view to enhancing coordination and cost-effectiveness of conservation efforts.
- Consider the need and possibility to enhance the protection status of listed sites.
- Consider the possibility of increasing the funding available for the development of site management plans, as well as conservation interventions and research activities, at selected sites.
- Keep under review the operation of the site network, and consider proposals for further improvement.

Advisory Committee:

- Review and evaluate proposals for site nominations against the agreed selection criteria; suggest necessary amendments/improvements; and recommend acceptance or rejection of site nominations by the Meeting of Signatory States.
- Review the existing IOSEA Site Network on a periodic basis.
- Within the framework of the IOSEA Technical Support / Capacity-building programme, offer expert advice/technical support (e.g. at selected sites) upon request of Signatory States.
- Make recommendations for improving the operation of the site network.

Secretariat:

- Advise the Signatory States in the preparation and revision of site network proposals
- Coordinate the review process for the IOSEA Site Network.
- Issue IOSEA certification for newly listed sites and cooperate with Signatory States in inauguration activities.
- Develop and maintain a dedicated section of the IOSEA Website to publicise listed sites, including mention of additional resource needs.
- Encourage interested partners to suggest additional sites for inclusion in the network.
- Work with the Advisory Committee to develop technical/training materials suitable for use at network sites.
- Seek additional funding for implementation of activities at individual sites as well as network-wide interventions.

6. NEXT STEPS

This section briefly describes possible preparatory activities to occur in advance of the launch of the proposed IOSEA Marine Turtle Site Network, and components of the site network, for consideration by IOSEA Signatory States.

6.1. Preliminary Activities

IOSEA Signatory States will be invited to submit proposals of candidate sites from which initially up to ten regionally-balanced sites will be selected. The reason for initially limiting the number of sites included in the network is so that efforts are focused on establishing effective demonstration sites that can serve as models elsewhere. Through their national governments, NGOs (including environmental groups, academic institutions and the private sector) will be welcome to suggest possible sites for formal nomination by IOSEA Signatory States, and to assist in the preparation of relevant documentation.

Although the process of identifying appropriate sites for nomination should be rigorous, country-driven and involve a wide range of stakeholders, one may make use of reviews already undertaken in other fora to begin to draw up master lists of candidate sites, for preliminary consideration. A number of sources are readily available for consultation, and have been used to produce an indicative list of sites (Appendix 3). The indicative list has not been screened against the provisional suite of criteria presented in this document. It is merely a compilation of findings from other reviews to identify some areas of importance for marine turtles. The six IUCN Protected Area Categories, familiar to most protected area managers, may be of value in categorizing the sites that are eventually selected to form the network.

6.2. Criteria Validation

It will be constructive to include a continuum of sites in a validation exercise to assess the provisional suite of criteria, as well as the definitions and assigned weights. The criteria can be tested to confirm whether they meet best professional judgement for a range of sites: from those considered not belong in the network, to those that are understood to be of highest ecological importance and clearly warranting inclusion (e.g., relatively least-disturbed reference sites).

6.3. Gap Analysis

There is a need to conduct national and regional-level gap analyses to establish national and regional priorities for the nomination of new sites for the network. The suite of criteria as well as overarching goal and objectives, provide a framework against which to identify gaps in the site network.

6.4. Sustainable Financing

Under the hypothetical Model 3 scenario, IOSEA Signatory States and the Secretariat should seek up to five years of funding to support the initial formation of the site network, after which time the sites would be expected to be self-sufficient or maintained through direct government and other funding. Capital outlays would be expected to be highest in Years 1 and 2, and substantially less in Years 3-5, to cover ongoing operational costs.

Funding needs at site level will differ from site to site, and country to country, depending on local circumstances. In some countries, a site may already have protected status and conservation programmes and infrastructure in place, and will require funding only to meet incremental improvements. In other countries, a site may be designated that has never before benefited from protection, thus requiring substantial investment.

Conceptually, there are at least two ways of presenting the site network proposal to interested donors and partners:

(1) The proposal could be offered as a complete package to a major donor that is able to provide sufficient funding to cover the network development and coordination costs, as well as the operating costs of a certain number of sites (backed by matching funds, as necessary). Administration and disbursement of funds would be handled centrally, so that the donor would need to have only one point of reference. This approach may be attractive to donors that would like to support interventions in multiple countries, without necessarily having to administer the project funding through separate arrangements.

(2) Alternatively, multiple donors may be interested in and/or may have the means only to support activities in individual sites or countries, or certain aspects of implementation at particular sites. In this case, donors may prefer to deal directly with the site management, and each site will be responsible for the administration of funds received. To assure that funds are still available to cover the basic network development and coordination costs, a certain percentage of the site's budget should be allocated to the coordinating body. In this way, individual sites can participate in and receive support from the network, while paying their fair share of the associated development and coordination costs.

These two approaches are not mutually exclusive, and the network could embrace both of them simultaneously. To complement the funds provided by major external donors, several sources of matching funds are envisaged:

- (1) Voluntary contributions from interested governments, towards the overall operation of the site network (not necessarily linked to a particular site);
- (2) Financial and in-kind contributions from a site's host country; and

- (3) Financial and/or in-kind contributions from interested non-governmental organizations (particularly those already working in the area or at the site), private sector, academic and research institutions, and communities adjacent to the site.

6.5. Performance Assessment and Adaptive Management

Once the site network is operational, the effectiveness of management interventions can be monitored employing a modified version of a tool for “Reporting Progress at Protected Area Sites” (Stolton, 2007). Performance assessments for the network and for individual sites should be conducted according to an established schedule and methodology. Monitoring data and other information from network sites should be shared and compiled to enable periodic evaluation of the efficacy of conservation interventions and to guide adaptive management.

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8. APPENDICES

Appendix 1. IOSEA Marine Turtle Site Network Information Sheet

Appendix 2. Generic Nomination Letter

Appendix 3. Indicative List of Potential Network Sites