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**REPORT OF THE WORKSHOP ON THE ECOSYSTEM APPROACH AND CUSTOMARY
PRACTICE IN PROTECTED AREAS IN SMALL ISLANDS
BANGKOK, 12-16 DECEMBER 2006**

INTRODUCTION

1. In decisions VII/1 (para. 7), VII/11 (para. 14), and VIII/24 (para. 4) the Conference of the Parties to the Convention on Biological Diversity, *inter alia*, called for increased capacity-building for the application of the ecosystem approach and the implementation of the programmes of work on protected areas and islands biodiversity (respectively).
2. In response to these and related decisions, the Executive Secretary, jointly with the United Nations University Institute of Advanced Studies (UNU-IAS) and the World Conservation Union (IUCN), in consultation with the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Food and Agriculture Organization of the United Nations (FAO), organized the Workshop on the Ecosystem Approach and Customary Practice in Protected Areas in Small Islands. Other organizations contributing to the development of the workshop included the Secretariat of the Convention on Migratory Species.
3. The objective of the workshop was to build capacity in the subject areas by exchanging views and experiences among participants and, building upon their considerable experience, develop guidelines, including key lessons learned, for the application of the ecosystem approach to protected areas in small islands.
4. Specific objectives of the workshop included to:
 - (a) Enhance knowledge of ways and means to apply the ecosystem approach in the planning, designing and establishment of protected areas, including traditionally managed areas, embracing the role of cultural traditions;
 - (b) Examine the role of protected areas, including traditionally managed areas, in implementing the ecosystem approach in small islands;
 - (c) Increase knowledge of the role of access to, and benefit-sharing of, island resources by island communities in implementation of the ecosystem approach in small islands; and

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(d) Build the capacity of countries to understand and apply the ecosystem approach (decisions V/6 and VII/11) to various economic sectors and implement activities of the Convention's programmes of work on island biodiversity (decision VIII/1), protected areas (decision VII/28) and Article 8j and related provisions (including through the identification of sustainable capacity-building approaches).

5. A "train the-trainers" approach was adopted in working to develop guidelines for future trainers. Selected case studies provided by the participants were examined and discussed. The workshop was interactive and built upon the experience of participants. Formal presentations were brief and used only to introduce topics if and when necessary.

6. Invited participants included representatives of small island developing States in the Indian Ocean, Pacific and Caribbean regions. These were selected following the standard procedures of the Secretariat of the CBD and the UNU-IAS, giving due regard to professional background, regional representation and gender balance. There was good representation from indigenous and local communities. In addition, representatives from 13 United Nations and specialized agencies, inter-governmental organizations, non-governmental organizations, indigenous and local community organizations and education/universities were present. These had a wide range of professional backgrounds and experience as small island practitioners in the fields of environment, protected areas and fisheries from both government and non-government sectors. The list of participants is provided in annex I.

7. The workshop was held mainly at the United Nations Conference Centre at the headquarters of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) in Bangkok and hosted by the Ministry of Natural Resources and Environment of the Government of Thailand. The final day of the workshop was held at the Royal Princess Hotel, in Bangkok.

8. The workshop was made possible through the generous financial support of the Government of the Netherlands and the Christensen Fund.

9. The governments of the United Kingdom, New Zealand, and Australia, and the South Pacific Regional Environment Programme (SPREP), The United Nations University and IUCN funded the participation of resource persons. Other governments and organizations funded participation of their representatives.

10. The language of the workshop was English.

11. The workshop contributed to capacity-building for the achievement of targets for protected areas, including: the establishment and maintenance by 2010 for terrestrial and by 2012 for marine areas of comprehensive, effectively managed, and ecologically representative national and regional systems of protected areas. These areas collectively, *inter alia*, through a global network, are to contribute to achieving the three objectives of the Convention and the 2010 target to significantly reduce the current rate of biodiversity loss (decision VIII/28). A pledge to reduce the rate of biodiversity loss by 2010 was also brought forth through the "Micronesia Challenge", launched at the eighth meeting of the Conference of the Parties, by the President of Palau, the President of Indonesia, the Vice-President of the Federated States of Micronesia, and the governments of Grenada and Kiribati. This collaborative venture, executed under a "Global Island Partnership", is aimed at enhancing marine and terrestrial protected areas as a major contribution to achieving the commitment made by Heads of State and Government.

ITEM 1. OPENING OF THE MEETING

12. Dr. Sirikul Bunpapong of Thailand formally opened the workshop, welcoming the participants to Thailand. She noted Thailand's strong support for the CBD, including, for example, hosting the tenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA-10) at the same venue as this workshop, 7-11 February 2005. Thailand, she indicated, has many islands with unique and varied biodiversity, is experienced with involving local communities in management and is adopting

ecosystem-based management more comprehensively. She thanked the organizers for giving Thailand the opportunity to be an active participant in the workshop.

13. Mr. Jo Mulongoy from the Secretariat of the CBD, on behalf of the Executive Secretary, also welcomed the participants and thanked the Government of Thailand for their excellent hospitality and the Government of Netherlands for their financial support.

14. Mr. Jo Mulongoy gave a brief introduction to the development of the ecosystem approach under the CBD and the objectives of the Government of Netherlands (which funded the CBD participants), which include capacity building for enhanced implementation of the Convention. He also drew attention to the programme of work on islands biodiversity and protected areas, highlighting the importance of targets adopted by the Conference of the Parties. The expansion of the coverage and improvement of management effectiveness of protected areas are major strategies for the achievement of the 2010 biodiversity target. The ecosystem approach is the primary framework of action to be taken under the Convention on Biological Diversity. Small islands are a major area of focus for biodiversity conservation and sustainable use and offer significant opportunities for improved integrated approaches to protected areas whilst also suffering from constraints due to their island status and small size. Many island countries also have customary management practices that can enhance the implementation of the ecosystem approach. In addition, the issue of equitable sharing of the costs and benefits of protected areas and other management actions is central to the ecosystem approach. Mr. Mulongoy explained that the workshop addressed these matters collectively.

15. Ms. Gill Shepherd of the IUCN also welcomed participants and extended their thanks to the Government of Thailand. She gave a brief background to the ecosystem approach drawing particular attention to the different interpretations of it and the extensive experience the IUCN has in promoting the ecosystem approach, including through the Commission on Ecosystem Management.

16. Mr. Sam Johnston of the UNU-IAS also welcomed the participants, giving a brief background to the interests of the UNU-IAS and the sponsor of the UNU participants – the Christensen Fund. He emphasised the importance of promoting customary practice and local knowledge in the subject in question and that this theme would transcend all topics to be discussed. He noted that the meeting had good representation from indigenous and local communities and that this would strengthen consideration of this subject.

ITEM 2. ORGANIZATIONAL MATTERS

2.1. Election of officers

17. Participants briefly introduced themselves and explained their background, interests and expectations for the meeting.

18. Mr. Anuwat Nateewathana of Thailand was elected as Chair of the workshop.

2.2. Adoption of the agenda

19. Workshop participants adopted the following agenda on the basis of the annotated agenda (UNEP/CBD/WS-EA-PA/1):

Item 1 – opening of the meeting

Item 2 – organizational matters

2.1 election of officers

2.2 adoption of the agenda

2.3 organization of work

Item 3 – application of the ecosystem approach

3.1 What is the ecosystem approach and how is it applied?

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3.2 Setting the scene – how to define the focus of the ecosystem approach and special applications in small islands;

3.3 Planning, establishment, management and monitoring of protected areas within the ecosystem approach

Item 4 - Guidelines and lessons learned for the application of the ecosystem approach to protected areas in small islands

Item 5 – Other matters

Item 6 – Preparation and adoption of the report

Item 7 – Closure of the meeting

2.3. Organization of work

20. Workshop participants endorsed the organization of work as proposed in the annotated agenda (UNEP/CBD/WS-EA-PA/1). Workshop participants agreed to begin by considering item 3 in its entirety in plenary and item 4 in both plenary and working groups.

ITEM 3. APPLICATION OF THE ECOSYSTEM APPROACH¹

21. Ms. Gill Shepherd of the IUCN gave an introduction to the ecosystem approach, explaining IUCN's interest, activities and role – including through the Commission on Ecosystem Management (CEM).

22. Mr. Sam Johnston of the UNU-IAS introduced the topic of local knowledge and its critical importance to the subject matter in question.

23. Ms. Diana Mortimer of the Joint Nature Conservancy of the United Kingdom also gave a background to the ecosystem approach.

24. All of these brief presentations were developed further in introductions to specific topics below.

3.1 - What is the ecosystem approach and how is it applied?

25. Ms. Gill Shepherd briefly introduced the topic. Using the ecosystem approach, IUCN (CEM) has been conducting a set of case studies in multiple-use landscapes. They are in: Panama (marine protected area and adjacent use areas); dryland West Africa (livestock and agricultural landscape); the Democratic Republic of the Congo (logging concession and protected areas in symbiosis); the Mekong in Vietnam (wetland protected area); and Indonesian Papua (logging concessions, indigenous people's lands, conservation areas). Key areas of interest have been: economic issues; adaptive management over space as the impacts of the initially selected ecosystem on other ecosystems become clearer, or as impacts and interaction evolve over time; and adaptive management over time – the improvements on initial interventions that are gradually seen to be needed. The findings are helping the CEM to focus better above all on the institutional challenges of the ecosystem approach, where there are very diverse stakeholders, where they must learn how to operate when they do not have full management authority, and where there are very diverse tenure arrangements. The cases presented, and others, show that both more detailed and tightly focussed understanding of the ways in which ecosystems are used and a broader frame of reference are important. All the cases show how important understanding the economic decision-making of poor people in and near the ecosystem has become. Above all, appropriate institutions and keeping communication alive between all parties is the hardest task of all.

^{1/} The workshop was structured so that the outcomes from item 3 relevant to item 4 would be brought into consideration by the working groups under item 4. Reporting on the main technical content of this process is therefore reflected under item 4.

26. This was followed by general discussions amongst the participants focussing on lessons learned and specific applications in small islands. The case studies presented echoed the practical experiences of the participants. The importance of understanding institutional aspects of applying the ecosystem approach was widely recognized, as was the necessity that outcomes benefit people and that the achievement of those outcomes requires full and effective stakeholder participation and dialogue.

3.2 - Setting the scene – how to define the focus of the ecosystem approach and special applications in small islands

27. Ms. Diana Mortimer briefly introduced the topic, providing an introduction to small islands and their special circumstances. She explained that biodiversity on islands is very vulnerable. Islands also contain closely connected ecosystems that are to some degree isolated and relatively easy to define. Island ecosystems are also important for their cultural, spiritual, educational and recreational values. The ecosystem approach is a framework that can be used to assess the sustainability of actions and plans. It can be thought of as a method for working towards sustainable development based on fully functioning ecosystems. The core concept of the approach lies in integrating and managing the range of demands we place on the environment, such that it can indefinitely support essential services and provide benefits for all without deterioration of the natural environment.

28. The presentation then gave an overview of the well-known threats to biodiversity on islands and the drivers of biodiversity loss. The 12 principles of the ecosystem approach provide a framework that can be adapted to suit all issues and situations. The ecosystem approach provides a checklist for assessing if the actions taken towards a particular problem will be sustainable. For example: 1. identify and involve all members of society – ensure traditional knowledge is not lost; 2. seek decentralised management – work with local stakeholders; 3. assess impact of actions on adjacent and other ecosystems – e.g. tourism or aquaculture; 4. assess the economic context in relation to the issues at hand; 5. identification of measures are required to maintain ecosystem services – develop better understanding of links between management and provision of ecosystem goods and services; 6. assess what actions are needed to manage ecosystems within their functional limits – determine what levels of take are appropriate, e.g., for fisheries; 7. determine the right temporal and geographic scales – easier for islands?; 8. assess the impact of lag effects from previous and current actions – impact of land use changes to natural hazards such as cyclones; 9. use adaptive management to address the issues identified – learn from previous experiences and share these; 10. seek appropriate balance between conservation and use of biological diversity – determine appropriate levels of natural resource use; 11. ensure all forms of knowledge, including indigenous and local knowledge, innovations and practices are included – develop actions to collect and sustain this; and 12. involve all relevant sectors of society and scientific disciplines – seek wide involvement.

29. Key questions presented to participants included: what's missing?; are there regional issues?; what mechanisms are already being used to address sustainability on islands?; does the ecosystem approach cover everything or are there issues specific to islands it doesn't cover?; and what do you need to increase sustainability or use of the ecosystem approach as a framework on islands?

30. During consideration of this item, a focused discussion was held on the role and importance of traditional knowledge to the ecosystem approach, customary practice and protected areas in small islands. Ms. Aroha Te Pareake Mead from New Zealand presented a very informative case study on this subject. A description of the case study area was first presented. She further elaborated as follows: The CBD uses the framework of "knowledge, innovations and practices" to situate indigenous ways of being and knowing. The CBD has also adopted the ecosystem approach as a framework of international significance and application. But are traditional knowledge and the ecosystem approach compatible? Generally, yes. Certainly traditional knowledge has a key role to play in the application of the ecosystem approach, and it is central to the issue of full and effective stakeholder participation. Points noted were: the need to explain the CBD to local people – need to make it understandable; the conservation goal is to stop the decline of biodiversity, maintain conservation status – however, each year, the number of threatened species increases – therefore, are no-take/go zones effective?; people are part of the system;

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should the ecosystem approach have more status than other integrated approaches?; the ecosystem approach comes from a conservation focus – this is the perspective of indigenous peoples – is this approach going to be welcomed by communities, and will it be useful to them?; “bio-cultural heritage” – fits the holistic view; how do things fit with community realities?; communities manage many different landscapes holistically; misunderstanding of the cultural drivers of resource use; the protection of sacred sites or sites with cultural importance – very important for local communities; for local communities it is a problem when they cannot use resources anymore; for communities the concept stems from colonization – it is associated with loss of knowledge – can the ecosystem approach deal with these issues? – no, it is not designed for this; and there are some areas of synergy and some areas of divergence. Some observations on the principles of the ecosystem approach included: principle 1 - the protection and transmission of biocultural heritage is a matter of inter-generational responsibility (not matter of choice, it is a serious responsibility); principle 2 – bio-cultural heritage is local and site specific (so lowest appropriate level works); and principle 4 – needs more discussion with indigenous and local communities – access to funding is a driver of how environmental policies are implemented – donors put money in projects that may not be consistent with what a community or country wants. Not all stakeholders are equal. Indigenous people are not stakeholders, they are owners. But often they are the minority on committees.

31. Group discussion followed, and participants gave their own perspective on the points raised. This was followed by general discussions amongst the participants focusing on lessons learned and specific applications in small islands. Some conclusions were: keep it simple whether talking to local people or government officials and representatives; what scales are appropriate? – rather than trying to define which ecosystems to work on this should be developed according to the issue being addressed – this would also be true for judging the appropriate scale; the ecosystem approach is not new because many organizations and projects are already undertaking the ecosystem approach but not using its terminology; the ecosystem approach is a framework for deciding if a project, plan or policy is sustainable because it covers what sustainability is about, i.e. people (social), the environment and economic issues; it was agreed that it is important not to sell the EA as something which requires people to jump through another hoop, rather the 12 principles act as a checklist; and gender is not explicit in the EA. There was discussion on the name “ecosystem approach”. Because the approach is people centric it should make this clearer. For example, sometimes it is not helpful to talk about the ecosystem approach to some organizations because they think it is only about the environment when it covers much more. A suggestion was made for a name change – but this was thought to be very expensive and might confuse matters because it has been used by other MEAs. A further suggestion was to add a by-line such as “Ecosystem Approach: ecological and human well-being”. A question was raised as to whether we should be thinking about “ecosystem approach by islanders” rather than application of the EA on islands. There was then considerable debate about the difference between local stakeholders and owners. In many cases they are seen as the same, but owners (that might be traditional owners) have much more to lose if they are restricted from undertaking activities.

32. One delegate interjected, expressing the stark reality of environmental issues for some islands. Whilst the topic of the workshop at the local scale is relevant to many, he indicated, some islands, and their societies, basically face extinction from sea-level rise. He questioned whether this is not a more important ecosystem problem to address. Although there was general agreement on this point – the workshop itself was unable to influence this “big picture” problem directly.

3.3 - Planning, establishment, management and monitoring of protected areas within the ecosystem approach

33. Ms. Marjo Vierros from the UNU-IAS introduced the topics of the protected area planning process, the establishment of protected areas and the ecosystem approach. Planning, she said, requires determining what a protected area is meant to achieve. The IUCN suggests that the main purpose of protected areas can be summarized as: scientific research; wilderness protection; preservation of species and genetic diversity; maintenance of environmental services; protection of specific natural and cultural features; tourism and recreation; education; sustainable use of resources from natural ecosystems; and

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maintenance of cultural and traditional attributes. Regarding planning, an overview was provided of the following topics: biologically rich areas; conserving areas high in biodiversity, but biodiversity is made up of variety of aspects; areas of narrow endemism; occurrence of threatened species; selection can lead to gaps in overall representation – we need to use a combination of methods of site selection: high-priority natural biological communities; conserving ecological and evolutionary processes, e.g., sites important for migration; and complementarity, which includes the categories above plus human considerations. A brief introduction was then given to international protected area targets: the CBD national protected area framework; marine protected areas and coral bleaching; transboundary initiatives and marine protected areas beyond national jurisdiction; spatial planning; social, economic and cultural considerations; societal choice; encouraging stakeholder participation; using all forms of knowledge and tools for sharing knowledge; using the ecosystem approach to define the protected area; and mapping for protected areas. For the establishment of protected areas, topics included: “selling” protected areas: the role of valuation of ecosystem services; establishment of protected areas and the local economy; changing resource management approaches; the importance of considering economic issues; and managing protected areas in an economic context.

34. Mr. Isaac Harp from Hawaii (USA) then presented an enlightening case study on the background and process for the recent establishment of the world’s largest marine protected area (the North-Western Hawaiian Islands Marine National Monument). He described a very participatory process, from ground up. It was essential that every stakeholder received some benefit. Commercial interests were a problem. Conflict of interest rules for members of the management panel were necessary. The case study also demonstrated that full stakeholder involvement and will power can exert significant influence on top-level administrations and governments.

35. Ms. Diana Mortimer then introduced the topics of the ecosystem approach and protected area management and monitoring. There are several ecosystem approach principles relevant to monitoring in protected areas: principle 3 – ensuring the effects of management actions (potential or actual) on adjacent or other ecosystems are taken into account; principle 5 – conservation of ecosystem structure and functioning so as to maintain ecosystem services; principle 6 – ecosystems must be managed within the limits of their functioning; principle 7 – projects and programmes should be undertaken at the appropriate spatial and temporal scales; principle 8 – because of the varying temporal scales and lag-effects that characterize ecosystem processes, objectives for ecosystem management should be set for the long term; and principle 9 – management must recognize that change is inevitable. The range of principles that require monitoring show how important it is to set up monitoring systems that meet multiple objectives. Effective management plans require an initial assessment of the status of biodiversity, to set the priorities and objectives for management, and then on-going monitoring to establish whether or not management actions are achieving their objectives. Monitoring needs to be carried out regularly to assess progress with management implementation and achievement of objectives. Monitoring must be based on clearly defined conservation objectives. Good practice for monitoring includes, for example: assessing the state of key species or habitats; assessing pressures; requirements of key species such as certain habitats or prey species; condition of habitats; number of people using the resources of an area and the type of resources they use; and assessing responses. Some applicable tools were then described.

36. This was followed by a case study presented by Mr. Alifereti Tawake from Fiji demonstrating progress in developing Locally Managed Marine Area Networks (LMMA). This is as follows: The LMMA covers an extensive area of the southwestern Pacific. Categories of management include community-based marine area management initiatives and collaborative management (national, NGOs, institutions and resource owners/users) of marine resources (co-management). LMMA tools include: no take areas or *tabus*, seasonal harvest and rotational harvest areas (temporary or permanent); species-specific harvest refugia, e.g., turtle/lobster moratoria; and restriction of fishing or harvesting effort. The presentation then covered how management approaches can be adapted to the specific circumstances of small islands. The LMMA network has grown from eight sites in 2000 to 244 in 2005. Participating countries include the Federated States of Micronesia, Fiji, Indonesia, Palau, Papua New Guinea, the Philippines and the Solomon Islands. The Fiji example was then presented in more detail. Monitoring

has demonstrated the real impact of the approach in economic terms (increased harvests and sustainability of marine resources). The shared vision of stakeholders underpins the success of the project, and this includes: healthy ecosystems and communities, abundant marine and fish stocks, and sustainable fisheries utilization; protected marine biodiversity; sustainable development in coastal communities; understanding of what communities are doing and can do in managing marine areas; and understanding of ecological and socio-economic responses to LMMA and coastal management implementation. Adaptive management is central, and there is a strong emphasis on gender and youth empowerment. Results for Fiji since 1997 have included: a 20-fold increase in clam density in the *tabu* areas; average of 200-300% increase in harvest in adjacent areas; tripling of fish catches; and 35-45% increase in household income. Emerging issues include: poaching in successful marine protected areas and enforcement; conservation values versus community needs (e.g. opening of the *tabu*, protecting high-biodiversity areas); how can these locally managed marine area activities be sustained?; and integrating the work into existing national plans and activities, e.g., Department of Fisheries/Environment strategies and environment plans. Recommendations include to encourage local participation at every stage of the process by maintaining open communication between all stakeholders (local leaders, village and community, NGOs, university and government). These successes are being replicated throughout the project area.

37. There was extensive discussion in this session. Some points noted include: the role of big international NGOs (BINGOs) – the problem of the cycle of dependency in regards to donor funding; pressures on the communities to create an NGO or legal personality to receive funding; often projects do not use traditional decision-making structures – these are doomed to fail; there is a need to strengthen local institutions towards island resources management; often, existing laws can help us move forward without new laws or changing existing laws; extended time is required on the ground for things to emerge, but donor project cycles do not factor this in; a trust fund for the Micronesia Challenge is needed; institutional innovation is also needed for donors; enable funds to be dispersed in smaller amounts; but donors are moving away from umbrella projects – going in the opposite direction; small organizations with small money flow is one response; there is a need for GEF support for a protected areas trust fund; we need innovative ways to make funding/use of funding bottom-up – much funding does not get to the local level; in Madagascar – local communities have the best structure to achieve conservation (echoed by many others) – but local communities change over time – other priorities come into play; sources of funding are available locally, e.g., ecotourism, but can also attract big hotels, which then pushes out local communities; there are problems of governance on local, provincial and national levels; apply EIA - but it does not always work; it is difficult for local communities to manage tourism effectively - tourism interests are a more powerful player; regarding empowerment – communities may lose sight of the bigger picture, so some caution needed in everyone's interest; for ecotourism – a big issue is indigenous peoples' rights over ancestral land - tourism often comes in without permission; adaptive management means that best practice changes over time; and for local communities "best practices" are not the best approach – "lessons learned" is better.

ITEM 4. GUIDELINES AND LESSONS LEARNED FOR THE APPLICATION OF THE ECOSYSTEM APPROACH TO PROTECTED AREAS IN SMALL ISLANDS

38. For this item, the meeting agreed that it would break into four working groups to discuss their conclusions, lessons learned and best practices. Four working groups were established based on random selection amongst the participants.

39. After group discussions, the meeting reconvened in plenary, and each group presented an overview of its discussion. This was followed by discussion in plenary on the most appropriate ways and means to achieve effective outcomes under item 4.

40. As a basis for discussion the meeting adopted the framework for the "capacity-building manual" presented in annex II of the annotated agenda (UNEP/CBD/WS-EA-PA/1). In that structure, sections 1 (What is the Ecosystem Approach?) and 2 (Setting the Scene) refer to general ecosystem approach considerations and section 4 focuses more directly on protected areas considerations. Section 3 (Protected areas in an ecosystem approach framework) connects these (1 and 2 with 4).

41. The meeting decided that sections 1, 2 and 3 were critical to frame the consideration of section 4 (relating to the planning, establishment and monitoring of protected areas in small islands) but in view of time constraints, the workshop should focus on section 4.

42. For consideration of section 4, the workshop established two working groups. One group considered sections 4a and 4b (the protected area planning process using the ecosystem approach, and the ecosystem approach and the establishment of protected areas, respectively). The second group considered sections 4c and 4d (the ecosystem approach and protected area management, and the ecosystem approach in monitoring protected area effectiveness, respectively). Composition of these two groups was at the discretion of participants. Each working group reported back to plenary.

43. The outcomes of this process relating to the development of guidelines and lessons learned for applying the ecosystem approach to protected areas in small islands are contained in annex II.

ITEM 5. OTHER MATTERS

44. The meeting discussed broader issues associated with capacity building in the context of the workshop. The outcomes of these deliberations are contained in annex III.

45. The workshop requested the Secretariat to establish a liaison group to follow-up on these matters, consisting of resource persons and specialists with regional representation amongst the participants. The liaison group would focus on ways and means to follow-up on strengthening the capacity-building outcomes of the workshop (annex II) amongst workshop participants and their peers, bearing in mind other initiatives. Tools for training and tools for implementation are required. As part of this process consideration will be given to circulating some brief key questions amongst participants to frame priorities.

46. There were no other matters.

ITEM 6. ADOPTION OF THE REPORT

47. The draft report was adopted at the plenary meeting at 3:30 pm on 16 December 2006 with the understanding that the Secretariat would finalise the work with the Chairs of the working groups and the Chair of the meeting.

ITEM 7. CLOSURE OF THE MEETING

48. The Chair thanked all of the participants for their significant effort throughout the week. Mr. Jo Mulongoy also thanked the participants and organizers for their dedicated effort throughout the workshop process and extended his gratitude, on behalf of the Executive Secretary, to the Chair and the Government of Thailand for their support. The Chair declared the workshop closed at 4 pm on 16 December 2006.

Annex I

LIST OF PARTICIPANTS

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Annex II

Guidelines and lessons learned for the application of the ecosystem approach to protected areas in small islands

PREAMBLE:

The purpose of this annex is to record the outcomes of the workshop in relation to agenda item 4 – specifically, guidelines and lessons learned by the participants regarding the application of the ecosystem approach to protected areas in small islands. The workshop concluded that these outcomes should be the basis of clear and comprehensive guidelines for small island practitioners generally. Such guidelines will be developed in consultation with a liaison group established in accordance with the workshop recommendations (see annex III).

The intention is to develop these outcomes using additional information and explanation and to publish this in a form suitable for other small island practitioners.

The following is published here as a record of the progress made towards this end by the workshop in its final plenary session.

The workshop used as a basis for its discussions the “Draft framework for a ‘capacity-building manual’ on the application of the Ecosystem Approach for Protected Areas in Small Islands” contained in annex II of the provisional annotated agenda (UNEP/CBD/WS-EA-PA-Islands/1/1). The workshop decided that it would be more efficient to focus on section 4 of that framework.

I. INTRODUCTION

The ecosystem approach is described as “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way” (Decision V/6, CBD). It considers all aspects related to supporting the natural life cycles of flora, fauna, and other forms of life to allow for the conservation of biodiversity, its sustainable use and the equitable sharing of its benefits, through the effective management of human activities.

The overall goal in applying an ecosystem approach in the management of natural resources, land and oceans surrounding islands is to ensure that activities based on natural resources:

- are ecologically and economically sustainable,
- meet societal needs,
- singularly or in combination do not threaten ecosystem integrity and health, compromise marine or biological diversity or intergenerational equity.

The goals of the ecosystem approach for protected areas on small islands are:

New protected areas are planned and established, and existing ones are managed in accordance with the concept of the ecosystem approach and with full consideration of the inherent characteristics of small islands.

Key observations made by participants with respect to the ecosystem approach include:

- Humans are central to the application of the ecosystem approach.
- The ecosystem approach is consistent with other approaches to integrated resource management as applied in other situations (integrated coastal and forest resource management) and in small islands.
- A participatory process is central to successful implementation of the ecosystem approach. This may take time and needs to be taken into account in the planning process and feature in donor funding.
- Protected areas, as defined using the IUCN categories, are one tool for implementation of the ecosystem approach and can be planned, established and managed in the context of the ecosystem approach. The establishment of protected areas needs to be accompanied by sustainable management actions over the wider environment.
- The ecosystem approach is not well understood by all sectors of society. A targeted approach to information transfer is needed. Messages need to be simple and appropriate for politicians, communities and youth.

Small islands are, because of their size and the uniqueness of many of their species and communities, vulnerable to change. Nonetheless, management on an island scale can also provide an excellent opportunity for sustaining and restoring biodiversity. The ecosystem approach is a framework for managing human impacts in small islands, and practices in many places are consistent with its principles.

Applying the ecosystem approach to protected areas on small islands involves considering human activities in the context of island ecosystem boundaries rather than boundaries based on governance or tenure. Adaptive management is central to the ecosystem approach on islands. This means that management of human activities is modified in response to feedback from monitoring as well as changes in knowledge about ecosystems, societal values and technological development.

II. PRINCIPLES

Principle 1: The objectives of land, water and living resource management are a matter of societal choice

The ecosystem approach allows communities to contribute to decision-making about the management and the use of resources that are critical to their survival. It allows expression of free will, which fosters ownership, promotes consensus, and minimizes conflicts in planning for protected areas.

Principle 2: Management should be decentralized to the lowest appropriate level

The ecosystem approach allows for management at the grass-roots or the appropriate level. It fosters ownership, promotes empowerment for on existing management schemes, and enhances success levels.

Principle 3: Ecosystem managers should consider the effects (actual and potential) of their activities on adjacent and other ecosystems

The ecosystem approach emphasizes the importance of ecosystem inter-connectivity. It promotes rapid response and pro-activity to, enhances preparedness for, and reduces cumulative effects of threats to protected areas.

Principle 4: Recognizing potential gains from management, there is usually a need to understand and manage the ecosystem in an economic context.

The ecosystem approach allows for integration of economic issues into management. It creates credibility and buy-in, builds trust, and enhances compliance by resource users, thereby enhancing success levels in planning and establishing protected areas.

Principle 5: Conservation of ecosystem structure and functioning, in order to maintain ecosystem services, should be a priority target of the ecosystem approach

The ecosystem approach promotes mechanisms for sustainability, supports livelihoods, and maintains the integrity of the ecological, social, and economic systems.

Principle 6: Ecosystems must be managed within the limits of their functioning

The ecosystem approach recognizes and responds to ecosystem limitations and functioning. It promotes realistic goal-setting, promotes sustainable use, thus enhancing success levels.

Principle 7: The ecosystem approach should be undertaken at the appropriate spatial and temporal scales

The ecosystem approach promotes actions that are consistent with space and time and changes to these. It minimizes delay-induced degradation (temporal), allows for forward planning and provides for present and future generations, reduces the negative impacts on adjacent ecosystems, thus enhancing success levels.

Principle 8: Recognizing the varying temporal scales and lag-effects that characterize ecosystem processes, objectives for ecosystem management should be set for the long term

The ecosystem approach allows for forward planning and preparation. It fosters pro-activity, promotes rapid response, allows for continuity, and enhances success levels.

Principle 9: Management must recognize that change is inevitable

The ecosystem approach establishes flexible systems and creates mechanisms for review, evaluation, and redirection. It promotes ready and appropriate responses and allows for adaptive management.

Principle 10: The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity

The ecosystem approach allows sustainable use to coexist with conservation efforts. It seals credibility and builds trust, creates buy-in, and enhances compliance by communities, thus enhancing success levels.

Principle 11: The ecosystem approach should consider all forms of relevant information, including scientific, indigenous and local knowledge, innovations and practices

The ecosystem approach is founded upon all available and relevant modern and traditional information, including customs, legends, and modern forms of information. It fosters transparency, enhances the flow of information, creates buy-in, reduces costs, promotes complementarity and synergy, and enhances connectivity between society and ecosystems.

Principle 12: The ecosystem approach should involve all relevant sectors of society and scientific disciplines

The ecosystem approach allows for cross-sectoral linkages and over-all effective participation. It fosters ownership, enhances commitment, promotes equity, and reduces costs.

III. USING THE ECOSYSTEM APPROACH TO PLAN AND ESTABLISH PROTECTED AREAS

Identifying drivers, threats and constraints

The issues driving biological diversity loss should be identified first. Having established the drivers of change, it is necessary to consider what area and habitats are affected. Care must be taken to ensure all impacted habitats are identified, including those adjacent to those suffering the most change.

The following guidelines present the steps that must be taken to ensure the areas identified and the drivers and threats facing them are developed through a participatory process.

Stakeholders and ecosystems

Identifying stakeholders

Key actors – who should lead the planning?

- Setting-up and managing the protected area does not have to be undertaken by the same organization.
 - A government department might set up the initial project to select the protected area.

- Management could be in the hands of a local or regional body in either the public or private sector, or an implementing body might be set up to specifically manage the site.
- Reliance should not be placed on one organization to plan the protected areas. Successful projects often have one fully committed organization (either governmental or non-governmental) that works with other partner organizations. The lead organization should:
 - act as an effective facilitator and co-ordinator engaging stakeholders;
 - provide clear evidence and reasons for decisions taken;
 - be a source of information for all stakeholders in an open and transparent way; and
 - be willing to listen to all views and adapt to others' views if required.
- It is best to determine who the stakeholders are and the area under consideration in parallel. Both issues take considerable time, and a liaison person/organization may be required to reach satisfactory points from which to move in to the establishment of the area.
- Given the time taken to establish a protected area, care should be taken not to raise stakeholders' expectations of deliverables or results.
- Knowing who the stakeholders are can assist with the process of determining the area to be covered. Stakeholders can provide ideas and reactions to help develop the area chosen and highlight issues that will need to be managed in the future.
- Engaging stakeholders can ensure they realize that they will be part of the process to develop the protected area. This is important if they are to feel included and to have the necessary empowerment to contribute to the process.
- Failure to communicate with stakeholders at this stage can severely delay creating the protected area and make future management difficult. Development of trust between everyone early on can help overcome difficulties if / when they arise in the future.

Stakeholders - Who are the stakeholders for protected areas?

- Stakeholders with interests in the proposed protected area are the:
 - Local groups and individuals
 - Interest groups – local, regional and national, e.g., recreational societies such as water sports clubs
 - Non-governmental organizations – such as wildlife trusts and charities
 - Business interests – independent business organizations that deal with commercial activities, e.g., fishermen's organizations
 - Governmental organizations – local, regional, and national
- Some stakeholders will have more to contribute to, or indeed lose from, the establishment of the site. They can be assessed as primary, secondary, and tertiary.
 - Primary stakeholders – most dependent on the resource and likely to be involved in the management
 - Secondary and tertiary stakeholders – have a strong opinion on the site, but are not dependent on it
- Having determined the different types of stakeholders, it is possible to ensure those most dependent on the site are fully included in the planning of the protected area.

Encouraging stakeholder participation

There are many different ways to encourage stakeholder participation. How engagement takes place depends on several factors:

- Type of organization – e.g., a national organization that had been involved with a similar project elsewhere can be approached differently from a local organization to whom the issues are very few.

- Current relationships – in some cases, local people might already belong to advisory groups dealing with other issues; this can have both positive and negative implications for future working.
- New government policies and strategies, and their re-organization and re-structuring (local to national) can influence how new projects will be accepted.
- Also need to assess how easy it is for stakeholders to engage in the process. This will influence the type of participatory processes used, and in some cases active efforts will need to be made to facilitate empowerment of otherwise-excluded groups or those not used to being consulted on decisions.

Tools for encouraging participation

Use innovative strategies to build ownership

- Workshop-based methods
 - workshops to raise understanding of others' perspectives
- Community-based methods
 - Participatory and rapid rural appraisal techniques
- Local community approaches

Community forums

- Social analysis
 - Gender studies
 - Social assessment
- Conflict management and resolution (only where necessary and aim not to build to this!);
- Collecting available information / knowledge – scientific, local, traditional, customary
 - Information from all sources is critical for arriving at effective ecosystem management strategies. Start with a clean slate, not preconceived ideas; listen to others – don't bring own ideas or impose on others; recognize that it's an interest-based process; (SMMA – Saint Lucia)
 - All relevant information from any area under consideration should be shared with all stakeholders – while this is appropriate in some circumstances, knowledge is part of customary practice and is only available to particular groups or individuals.
 - Assumptions behind proposed management decisions should be made explicit and checked against available knowledge and views of stakeholders.
 - Indigenous and local knowledge should be treated with full respect to Article 8(j)

Tools for sharing knowledge

Good planning will depend on maximizing information inputs, assessing accuracy and relevance, and using the information to determine the boundaries for the protected area.

Public participation is obviously key to this process;

- Education and awareness campaigns, including
 - Translation of documents into local/non-technical language
 - Public awareness campaigns (radio, TV, the press, publications)
 - Information and popularized science to transfer scientific results to decision-makers and stakeholders
 - GIS tools and other imaging methods to allow people to visualize their ecosystem
 - Education to empower communities; provide training so that local people can go global with their views; make sure there is an avenue for the application

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of these skills: CCTRAIN; build skills to communicate widely; training in negotiation skills;

The integrated management of land, water and living resources requires increased communication and co-operation:

- Between sectors
- At various levels of government (national, regional, and local)
- Amongst governments, civil society, and private sector stakeholders
- In some cases communication is also needed between international and regional organizations

ECOSYSTEM STRUCTURE, FUNCTION, AND MANAGEMENT

Identifying selection criteria for protected areas

Various methods have been developed to locate key areas for conservation on ecological considerations (Biodiversity Issues for Consideration in the Planning, Establishment and Management of Protected Area Sites and Networks, CBD Technical Series No. 15, 2004).

- Biologically rich areas – Conserving areas high in biodiversity, but noting that biodiversity is made up of a variety of aspects, such as number of species and phenotypic diversity. Furthermore, areas poorer in biodiversity might include threatened, restricted -range, biome-restricted or congregatory species. Simply considering areas rich in biodiversity can lead to gaps in overall representation – it can, however, be used in combination with other methods of site selection where the following are included:
 - Areas of narrow endemism
 - Occurrence of threatened species

Simply considering areas rich in biodiversity can lead to gaps in overall representation – it can however be used in combination with other methods of site selection where the following are included:

- High-priority natural communities – these are the best areas of naturally occurring communities
- Occurrence of significant ecological and evolutionary processes – e.g., sites important for migration
- Complementarity – includes categories above plus human considerations

Using the ecosystem approach as a mechanism for ensuring sustainability in the selection of protected areas can help secure sites that meet stakeholders' and ecological needs.

Setting objectives for the protected area – what can we learn from application of the ecosystem approach?

Using the ecosystem approach (Principle 5 and 6) as a mechanism for ensuring sustainability, the selection of protected areas can help secure sites that meet stakeholders' and ecological needs. Planners need to:

- assess the extent to which ecosystem composition, structure and function contribute to the delivery of goods and services to meet the desired balance of conservation, social and economic considerations;

- need to plan in maintaining ecosystem structure and function, which requires combining protected area networks, ecological networks and areas outside of such networks to meet both short-term and long-term requirements;
- need to assess what limits natural productivity, ecosystem structure, function and diversity;
- be aware that the limits to ecosystem function may be affected to different degrees by temporary, unpredictable or artificially maintained conditions and select sites accordingly

How to do this?

- Local people, scientists and those charged with setting up the protected area needed to work together to assess the key ecosystem functions.
- Need to understand the ecological features of an area and the importance of these features to the different stakeholders involved
- Participatory process areas very important – they should be used to create maps of ecological features, the goods and services associated with particular habitats and areas, and baseline information for use in future monitoring.
- In addition to mapping areas within the potential area boundary it is necessary to assess how adjacent areas contribute to the future health and condition of protected areas.
- Recognize political realities; if possible or consistent with objectives of protected area, work with it (Hawaii, Saint Lucia)

Tools to do this

- Stakeholders (scientific, resource managers, local groups and individuals) need to work together to assess the areas (protected, adjacent zones, etc.) involved in the delivery of ecosystem goods and services
- Relevant organizations need to determine available legal, voluntary and self-regulatory frameworks
- Spatial boundaries and areas of jurisdiction need to be determined; if possible, mechanisms to address functional mismatches in administration and management should be sought
- When covering large areas (e.g., large marine areas) new institutional arrangements may be required. New mechanisms to engage stakeholders across borders and between different levels of administration might be required.
- Assess what funding is available and seek additional sources where appropriate
- Paying attention to temporal and spatial scales at this stage can be useful for future monitoring.
- Public participation is key to determining the right spatial and temporal scales. Various approaches can be used, for example
 - Workshop based on the outcome pictures methodology
 - Imaging methods (e.g., GIS) to allow people to visualize their ecosystem
 - Oral research and other research to collect information from communities for wider dissemination
 - Community forums
- Determine legal and non-legal frameworks for designation and management – if necessary, bring in experts from other areas to advise; time spent determining what mechanisms are available and how they can be used in the early stages of setting up an area can save considerable effort and problems later.
- Determine funding required and what is available. In some cases seeking additional funding can be time-consuming and complicated. Professional fundraisers with previous experience can be invaluable in this process.

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- Ensure contact is made with those who will be responsible for monitoring and surveillance. The area and adjacent zone boundaries can have important implications for monitoring. Consultation at an early stage can reduce problems at a later date.
- Allow time for evolution of process, for dialogue, feedback and assimilation (case study – St. Lucia)

Defining and mapping protected areas and their components

Mapping is essential for collecting a wide variety of information, such as:

- Areas important for local resource use
- Traditionally protected areas/areas of cultural importance
- Areas of conservation concern/needing particular management
- Areas identified for commercial uses (non-traditional), e.g., non-subsistence forestry
- Areas with potential for visitor access/tourism (and where you want to restrict these)
- Establishing biome and habitat coverage

Mapping needs to be undertaken with local people to fully appreciate the different uses and associations which are part of the proposed protected area. For example

- Showing areas of traditional resource use
- Establishing where there are conflicts between
 - Users (e.g., grazers and wood cutters)
 - Uses (particularly where this has recently changed and become unsustainable) and protection of biodiversity
- Infrastructure
- Ownership

Mapping these components is essential to ensure that management decisions take into account the various demands placed on the protected area.

Mapping is also necessary to the management of the ecosystems on site and in particular for establishing:

- Where important areas might need to be managed differently in the future
- Where additional research is required to understand ecosystem function and structure before developing management guidelines
- baseline information for future monitoring and surveillance

Collecting mapping information

Some information might already be available. There is a need to establish the occurrence, ownership, availability and format of relevant datasets, and determine the priority datasets from those potentially available.

Need to consider

- Whether data are fit-for-purpose
- Whether they cover the right geographical areas
- Format, cost and ownership and how they can be used to meet needs

The collection of information is expensive and time-consuming – best practice can include:

- Co-ordination between organizations collecting information, whilst organizations collect information to meet their needs, coordinated data collection can reduce costs and enable better use of resources. This is particularly true when data is collected in

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the field. For example, habitat mapping might be required by several stakeholders; collaboration between fieldwork and the use of equipment can help reduce survey costs and lead to greater transparency of information between those involved.

- Data availability can be highly variable depending on the degree and type of research previously carried out in the area. For example, certain areas might have been well studied while others are poorly known. Mapping efforts need to take these anomalies into account and seek appropriate effort to match needs.

Bringing stakeholder and boundary issues together

Once it has been determined

- Who the main stakeholders are
- Stakeholder interests and requirements
- Stakeholder relationships to management
- Capacity of organizations and administrative boundaries and resources
- Requirements of the ecosystem in terms of area to maintain structure and functioning
- Best area for monitoring purposes
- Appropriate temporal and spatial scales in relation to the protected area, and
- The site has been mapped and data are available to ensure all stakeholders' need are adequately catered for

- it is then possible to determine both ecosystem boundaries and the stakeholders who are likely to be able to protect, manage, and take decisions over the protected area from its inception to the long term.

Protected areas and climate change

Islands are vulnerable to climate change and associated sea-level rise. Many islands are already at risk from environmental hazards, such as coastal, river and rain-induced flooding, typhoons and storm surges. Knowing the existing risks and how they are changing (e.g., through climate change) can help those who are to prepare for natural hazards.

Adaptation is essential to the management of protected areas and islands alike. The planning of protected areas should take into account the potential impacts of climate change. This includes increased storm surges, sea-level rise, wetter wet seasons and more severe drought in dry seasons.

Lessons Learned and Key Considerations in the Planning and Establishment of Protected Areas

Issue	Lessons learned/Key considerations	Observations	Case study^{2/}
Stakeholder identification and participation	There must be full and effective representation and participation	All agencies and interest groups must be involved, including youth, women, marginal/vulnerable groups. It is important to consider sub-groups within groups; e.g. seine fishers are different from pot fishers.	Fiji (youth) Marshall Islands Ascension (youth) Hawaii Saint Lucia (Soufriere Marine Management Area-SMMA) Jamaica
	Conflict mapping must be done between groups/interests	This helps lay all the issues on the table-transparency	Saint Lucia (SMMA)
	Assisted group organization is useful – bringing like-minded actors together e.g. fishers might not be part of an organized group	This is not always necessary, or always appropriate; might need to find other ways of getting dispersed actors together	SMMA – Saint Lucia Hawaii
	Use existing groups where possible	Build on existing systems- no need to reinvent	Samoa – marine protected area
	Start with a clean slate not preconceived ideas	Don't push your own ideas or impose them on others; it is important to listen and allow time and the sharing of ideas for people to build ownership of the process and the outcome At the same time, recognize that it is an –interest based process-a skilled facilitator is essential	
	Identify commonalities between stakeholders	Find common areas to work from and build from this point forward. This creates a form of bonding among parties.	Hawaii
	Identify champions within a community	Make sure that the right people in the community are involved e.g. chiefs, queen, politicians Key players can make or break a process	Fiji Palau Madagascar Saint Lucia (SMMA)

^{2/} Case studies were submitted by participants and are held on file by the Secretariat. Participants were requested to enter these into the ecosystem approach sourcebook case study database.

Issue	Lessons learned/Key considerations	Observations	Case study ^{2/}
	Allow time for evolution of process, for dialogue, feedback and assimilation	Don't set a limited time to undertake the work – you need to work at the speed of the stakeholders to have sufficient dialogue / go back to their communities	Marshall Islands Fiji Saint Lucia (SMMA) Ascension (lesson learnt)
	Institutional mapping must be conducted	It is important to know who the regional and national stakeholders are	
	Involve players in every part of the planning and establishment of protected areas	Vertical and horizontal involvement is all-encompassing	
	Use innovative strategies to build ownership	For example, wardens can be hired from the community to provide employment for local people Use the trouble makers as wardens if appropriate	Hawaii Palau Saint Lucia (SMMA) Fiji
Customary practice of indigenous communities	Recognize political realities	If possible or consistent with objectives of protected area, work with it	Hawaii Saint Lucia (SMMA)
	Respect knowledge, innovations and practices, and ownership, (intellectual property rights)	Note for compilers: Look on Google ahupuaa Hawaii	Vanuatu
	Find a balance between science and traditional/local knowledge	Locals have as much to offer as scientists; use and respect of local knowledge allows for buy-in and ownership	Fiji
Education and public awareness	Document customary practice where appropriate	If appropriate, encourage continuance of customary knowledge. At the same time, note that it is not the role of the manager of a protected area to pressure a community into maintaining customs; recognize that change is inevitable.	Vanuatu Model Law – Fiji (capturing traditional knowledge for communities with limited access)
	Provide training so that local people can go global with their views if necessary or appropriate	Provide an avenue for the application of these skills where possible. Note: This is not essential to the Planning and Establishment of protected areas, but could be useful to help generate support	CCTRAIN

Issue	Lessons learned/Key considerations	Observations	Case study ^{2/}
	Sensitize persons about environmental and other relevant topical issues, as appropriate	This can include various media such as radio and television (public service announcements, documentaries, skits, news pieces, interviews, panel discussions), newspapers, newsletters, town criers, website, etc.	Saint Lucia (SMMA)
	Build skills to communicate widely and effectively	Provide training in information transfer and negotiation skills	CCTRAIN
Effective communication and information flow	Maintain verbal communication and aural histories	Use of drama, legends, stories or other mechanisms is very effective Where appropriate, encourage maintenance of traditional / aural histories	Hawaii Saint Lucia (SMMA) Vanuatu (wan smol bag) Marshall Islands Kiribati
	Use the appropriate language	For example, dialect, aimed at a certain audience)	Hawaii
	The type of meeting and setting need to be appropriate to the audience	This includes, informal bar and “under tree” discussions; one-on-one and small group discussions; field exercises and classroom settings as appropriate	
	It is important to have terms of reference or ground rules for running meetings	This allows for focus. <u>Caution:</u> While ground rules are important, it is critical to allow time for people to vent their issues; a facilitator who does not allow time for some diversion from the ground rules will create frustration among participants and retard the participatory process	
	Facilitation should be neutral	A fisheries person may be skewed in favour of fishers and a tourism person may favour hotel, restaurant and water-sports operators. This can cause mistrust and credibility loss	
	It is important to ensure that everyone understands the concepts under consideration	Various methods need to be employed to allow for the different assimilation levels of participants	

Issue	Lessons learned/Key considerations	Observations	Case study ^{2/}
	Learn from others' experiences	There is no need to re-invent the wheel. This is a cost saving measure for small islands with limited resources. At the same time, adaptive management must be practiced as it will likely not be possible to duplicate.	[Note to compilers: Use the ecosystem approach sourcebook]
	Be cautious not to raise expectations or create 'false hope'	This can have negative future consequences; trust and credibility may be lost if deliverables are not forthcoming as promised.	
	Don't overburden your stakeholders with demands for information	It is important to do your homework; there are less intrusive ways to obtain some key information (libraries, databases, internet, etc) without overtaxing stakeholders	
Legislation and governance	Ensure that all relevant information collected is available for future management	This can be done through documentation and other means. This allows for continuity.	
	Have a binding agreement where possible or appropriate	This helps to build commitment and develop accountability	Marshall Islands Saint Lucia (SMMA)
	Encourage self-regulation mechanisms	Compliance is key; the "big stick" approach is needed sometimes but should not be the norm	Fiji
	Plans and policies need to be consistent with national policies	Needs to work with planning, policies. Significant deviation from national policies and plans is a recipe for failure; sub-plans and policies must be part of a larger picture.	Cuba

Issue	Lessons learned/Key considerations	Observations	Case study ^{2/}
Financial resources and considerations	Use customary frameworks where available	Respect of customs garners support and builds ownership	Fiji Cook Islands Hawaii
	Identify sustainable financial mechanisms at the outset	Establish user fees where possible, that are re-directed into management. Use innovative ways to generate revenue such as “adopt a reef” and “friends of the association”, where donors receive publicity in newsletters and on websites and are provided with trademark souvenirs. Make ‘sourcing funding’ a key and structured part of the role of management-not an auxiliary function	Saint Lucia (SMMA) Micronesia Challenge Ascension
	Undertake cost-benefit analysis or other valuation techniques		UK OTs Madagascar Valuation of reefs is being conducted in some islands by Loretta Burke and team.
Livelihood considerations	Provide back to the community where possible	For example, where possible, sponsor sports or carnival clubs or support fishermen’s feast activities	Saint Lucia (SMMA)
	Identify the range of potential alternatives to unsustainable uses with the stakeholders	Consider impacts on adjacent areas Caution: respect tradition; not all people can learn new trades and it is unsustainable to force the issue	Fiji Hawaii Marshall Islands
	Determine ecosystem goods and services provided by the area	This includes the biological/ecological aspects as well as well as services/benefits to man	
	Identify and offer incentives, as appropriate	Caution: Sometimes incentives may create dependencies that cause future problems	Fiji Saint Lucia (SMMA) Hawaii

Issue	Lessons learned/Key considerations	Observations	Case study ^{2/}
Ecosystem function and services	Identify stakeholders' interests/benefits from the area	Livelihoods must be sustained if consistent with biodiversity conservation and sustainable use and the objectives of the protected area	Hawaii
	Identify all the ecosystems represented	Recognize the inter-dependency of the system	
	Recognize the interconnections between ecosystems	This needs to be communicated widely, including the people in the mountains and the coast. Isolated management is pointless.	WWIIBW Fiji Sulu – Sulawesi Marine Ecoregion
	Assess ecosystem health and determine appropriate action	This includes restoration where possible or appropriate.	Hawaii Kiribati
Temporal and climate change issues	Set realistic objectives	Pick priority areas of focus, being careful not to take on too much (“jack of all trades” concept)	Saint Lucia-System of Protected Areas (lesson learned)
	Plan / evaluate potential impacts of natural hazards and climate change	Recognize global ecosystems' connectivity– e.g. melting of polar caps	Reef resilience Marshall Islands LME – regional projects on global currents Palau

IV. MANAGEMENT AND MONITORING OF PROTECTED AREAS

Management

- Management arrangements
- Identification of values, goals, objectives & management targets
- Management strategies and activities
- Integration of terrestrial, inland water, coastal and marine management frameworks
- Customary, legal and legislative frameworks
- Stakeholder participation
- Indigenous people and customary practices (includes traditional resource owners/tribal leaders/taboos/laws)
- Managing impacts of sectoral/development activities
- Managing for climate change and adaptation / natural disasters

Monitoring protected areas effectiveness

- Research and development
- Community empowerment
- Monitoring, evaluation and reporting on protected area effectiveness
- Monitoring, evaluation and reporting on maintenance of ecological integrity, ecosystem health, human well-being, social and economic benefits
- Information, education and communication

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Lessons Learned and Key Considerations in the management and monitoring of Protected Areas

Management of protected areas	Key considerations	Experiences	Case studies^{3/} resources
Management arrangements	<ul style="list-style-type: none"> • Management arrangements need to conform to terms of reference agreed by stakeholders • Management arrangements need to take account of ownership of resources • Management arrangements should be appropriate to encourage integration and coordination across sectors, jurisdictions, industry and community • Management arrangements must consider transboundary issues and may include transnational collaborations • Arrangements and instruments for delegation /devolution must be clearly agreed and communicated amongst stakeholders • Targeted communications are essential to maintain engagement of stakeholders 	<ul style="list-style-type: none"> • Agreed terms of reference crucial element of success (Micronesia) • Local Government code facilitates appropriate arrangements (Philippines) • DENR administrative orders on co-management provide encouragement (Philippines) • Community based elements critical 	<ul style="list-style-type: none"> • Micronesia challenge • Caribbean challenge • Fiji commitment • Phoenix Islands Protected Area • JCDT (Jamaica)

^{3/} The workshop was structured so that the outcomes from item 3 relevant to item 4 would be brought into consideration by the working groups under item 4. Reporting on the main technical content of this process is therefore reflected under item 4.

Management of protected areas	Key considerations	Experiences	Case studies ³ /resources
Develop, review and assess values, goals, objectives & management targets	<ul style="list-style-type: none"> • Ecosystem management must be based on shared vision • Develop Specific, Measurable, Achievable, Realistic, timebound objectives and undertake SWOT assessments, which can be used to evaluate and review goals and objectives • Ensure linkage between national and local plans/strategies • Ecosystem values needs to consider ways to relieve poverty, improve livelihoods and human health through setting of appropriate management targets 	<ul style="list-style-type: none"> • Everyone's participation critical for buy-in to objectives and delivery of results • Knowledge of ecosystem context and potential (past, future) important 	<ul style="list-style-type: none"> • IUCN CEESP
Management strategies, plans and activities	<ul style="list-style-type: none"> • Management plans must be developed with full participation of all stakeholders and reviewed as appropriate • Constant evaluation of impacts of management activities is required to enable continuous improvement and to realize the full benefits from the adaptive management approach • Management should consider all ecological values and human uses of the ecosystem to understand cumulative effects and pressures • Because water and land resources are critically limited they should be managed to a sustainable level 	<ul style="list-style-type: none"> • Invasive species are the leading threat to island biodiversity • The adaptive management approach is particularly suitable to small islands because lines of communication are simpler and communities rely more directly on ecosystem goods and services • Rehabilitation of ecosystems involving eradication of invasive species and repopulation with native species more achievable on small islands • Unsustainable development and population growth are both threats to island biodiversity • Toxins threaten island biodiversity 	<ul style="list-style-type: none"> • Fiji case study www.LMNAnetwork.org NZ Biosecurity SOP • Campbell Island pest mammal eradication programme • NZ Korapuki Island interaction web research • Easter Island • Representative areas programme Great Barrier Reef Marine Park Authority

Management of protected areas	Key considerations	Experiences	Case studies ^{3/} resources
	<ul style="list-style-type: none"> • Management activities should adopt a precautionary approach; consider influence of past activities and consider future pressures • Compliance and enforcement arrangements need to be developed which are appropriate for the community and support achievement of management objectives • The effectiveness of compliance, enforcement and zoning should be regularly assessed and changed where needed to ensure ongoing effectiveness of management • Seek appropriate international designations to improve protection in a global context, as this increases national awareness and cooperation and opportunities for funding 	<ul style="list-style-type: none"> • Conflict hinders application of the ecosystem approach • Isolation facilitates biosecurity • Because of their isolation and size, management of islands presents challenges and opportunities to sustain their unique species and ecosystems • Preventing introductions is cheaper than controlling and eradicating threats • Compliance and enforcement can be more effective at a community level than national/state enforcement 	
Integration of terrestrial, inland water, coastal and marine management frameworks	<ul style="list-style-type: none"> • Management must take account of the critical linkages between and within ecosystems 	<ul style="list-style-type: none"> • Ridge to reef conservation maximizes resilience • Ecological sequences maximize resilience 	<ul style="list-style-type: none"> • Coastal Mgmt advisory council strategic plan for Marshall Islands • Green road show (Alissa) • USA ridge to reef (Racquel) • Wetland programmes RAMSAR

Management of protected areas	Key considerations	Experiences	Case studies ³ /resources
Customary, legal and legislative frameworks	<ul style="list-style-type: none"> • Management practices must take account of customary and legal frameworks (where they exist) under which protected areas are established • Where legal or legislative frameworks are absent engagement of community is critical to management of protected areas • Where legal or legislative frameworks are absent initiate a process for its establishment, recognizing that this takes political will and time 	<ul style="list-style-type: none"> • Secure tenure can facilitate sustained funding for management 	<ul style="list-style-type: none"> • NZ Island & Protected Area Classification and Strategic Plan • Palau protected areas network legislation • NIPAS act 1992 – Cuba • Pohnpei PA 1997 (Alissa) • Local Govt Code 1991 Cuba (Vicente) • NCIP Act Cuba (Vincente) •
Stakeholder participation	<ul style="list-style-type: none"> • Stakeholder participation and motivation must be sustained • Build capacity by mentoring stakeholders • Consider roles, revenue and governance structure • Consider primary, secondary & tertiary stakeholders • Consider the respective roles of NGOs/Civil Society/Government • Stakeholder participation should be appropriate to the governance structure that's in place • Consider needs & potential impacts of all current and future ecosystem users • Ensure processes for dispute and conflict resolution are in place 	<ul style="list-style-type: none"> • Community/ owners and users participation essential to sustaining engagement in management • 	<ul style="list-style-type: none"> • Ucuivanua case study • Sth Pacific Biodiversity Conservation Programme reports • Bowden pen farmers association report • International Waters Programme report

Management of protected areas	Key considerations	Experiences	Case studies ^{3/} resources
Indigenous people and customary practices (includes traditional resource owners/tribal leaders/taboo s/ laws)	<ul style="list-style-type: none"> Where appropriate customary resource management practices are available they should be integrated into management arrangements and activities Where possible base management arrangements on customary resource management practices Recognize and consider customary land and marine tenure 	<ul style="list-style-type: none"> Some of the most sustainable management programmes are built upon the long histories of traditional practice that are themselves effectively the evolved products of adaptive management and community participation 	<ul style="list-style-type: none"> Maroons (Jamaica) Titi islands NZ Cook Islands Ra'ui Fiji Vanuatu IUCN resources IPA (Australia) Commonwealth of Dominica Carib Indians Cultural redress/Treaty of Waitangi FSM States Resource Management committee Mt Kitanglad and Malindang (Phil)
Managing impacts of sectoral/ development activities	<ul style="list-style-type: none"> Determine the potential of development and sectoral activities to interact with the ecosystem Understand the flow on effects at ecosystem level Determine whether the development or sectoral activity will affect or be affected by other users Incorporate uncertainty in assessing, managing or mitigating sectoral / development activities Determine social, economic and cultural impacts Balance objectives of social cultural and economic activities Undertake monitoring to independently evaluate environmental impact assessments and modify activities accordingly 	<ul style="list-style-type: none"> Developments on small islands can easily compromise critical ecological values Philippine environmental impact assessment process 	<ul style="list-style-type: none">

Management of protected areas	Key considerations	Experiences	Case studies ³ /resources
Managing for climate change and adaptation	<ul style="list-style-type: none"> • Maintain linkages between ecosystems (connectivity) • Climate change increases the need for buffer zones • Ecosystems with greater integrity are more resilient to change • It's a reality – plan for it • Take account of the implications of potential water shortages, displaced human populations, loss of species, impacts of invasive species and more frequent/extreme events • Take advantage of carbon trading where this benefits sustainable use locally • Act locally and reduce your ecological footprint • Continue advocacy to encourage non-island countries to reduce their ecological footprints • Monitor and model impacts to inform management practices 	<ul style="list-style-type: none"> • Invasion of freshwater lenses • Greater influx of subtropical invasive species into temperate areas • Sea-level rise Marshall Islands implications • Impacts of extreme events can be more profound (disastrous) on small islands as they impact over the entire island • 	<ul style="list-style-type: none"> • SPREP • WWF resources • Movie – An Inconvenient Truth • Australian gov. reports (David) • USP - Alifereti
Monitoring protected areas effectiveness			
Research and development	<ul style="list-style-type: none"> • Underpin the ecosystem approach by adopting priority research programmes that inform management and reduce uncertainty but do not compromise resources 	<ul style="list-style-type: none"> • Fundamental knowledge at the genetic, species, community and ecosystem level is seriously lacking for many regions • Create profile for research strategies and encourage universities to 	<ul style="list-style-type: none"> • NZ Subantarctic research strategy

Management of protected areas	Key considerations	Experiences	Case studies ³ /resources
	<ul style="list-style-type: none"> Identify knowledge gaps Develop research strategies to fill knowledge gaps for approval by stakeholders Ensure repatriation of research results and resources (including biological) Respect traditional knowledge, innovations and practices of indigenous and local communities Ensure information feeds into management strategies in appropriate forms 	<p>contribute in fulfilling knowledge gaps</p>	
Community empowerment	<ul style="list-style-type: none"> Monitor change in community governance Monitoring impact of ecosystem approach on community sustainable livelihoods 	<ul style="list-style-type: none"> Community-based forest management (Philippines) Coastal review management (Philippines) 	<ul style="list-style-type: none">
Monitoring, evaluation and reporting on protected area effectiveness	<ul style="list-style-type: none"> Develop an agreed monitoring framework Selection of, and reporting on appropriate performance indicators Encourage participation across the range of stakeholders Development of baseline information 	<ul style="list-style-type: none"> Monitoring and evaluation is key to the application of adaptive management 	<ul style="list-style-type: none"> NZ Biodiversity Inventory & Monitoring Framework Fiji case study – learning framework www.LMNAnetwork.org CBD indicators report NZ Maori marine indicators programme Millennium Ecosystem Assessment
Monitoring, evaluation and reporting on maintenance of ecological integrity, ecosystem health, human well-	<ul style="list-style-type: none"> Develop an agreed monitoring framework that considers structure, function and composition and scale within the natural range of variability of an ecosystem Select and report on appropriate 	<ul style="list-style-type: none"> Monitoring and evaluation are key to the application of adaptive management 	<ul style="list-style-type: none"> NZ Biodiversity I&M framework Fiji case study www.LMNAnetwork.org CBD indicators report NZ Maori marine indicators Millennium

Management of protected areas	Key considerations	Experiences	Case studies ^{3/} resources
being, social and economic benefits	performance indicators <ul style="list-style-type: none"> • Regularly assess ecosystem health and integrity (including threats) to ensure ongoing provision of ecosystem goods and services • Encourage participation across the range of stakeholders 		Ecosystem Assessment assessment
Information, education and communication	<ul style="list-style-type: none"> • Develop and disseminate appropriate resources • Keep it simple and target product for audience • Ensure communication flow amongst stakeholders 	•	•

Annex III

Capacity-building strategies for the application of the ecosystem approach to protected areas in small islands

The workshop considered the broad issue of capacity building in relation to annex II (Guidelines and lessons learned for the application of the ecosystem approach to protected areas in small islands). Points noted and agreed are as follows:

- Capacity needs to be developed in many areas and for many target audiences. In addition, existing capacity-building tools and resources should be used and built upon where necessary.
- Messages and approaches taken must be appropriate to the target group – using language that is understandable to them and addressing issues over which they have influence.
- In addition to capacity-building requirements at the field/local community level, there are significant constraints to the application of the ecosystem approach at the institutional level and at the level of senior policy– and decision-makers.
 - The participants noted that their own role was basically one of linking field level implementation activities more effectively to policy-makers, and to senior decision-makers such as politicians – including explaining the ecosystem approach and institutional needs for its effective application. For this, tools and guidance were needed, drawing on capacity within the group and on resources outside the group.
 - This intermediary role has been identified as a priority for further training and tool development by IUCN and a proposal has been submitted to JICA. But activities could be undertaken through email and experience exchange within the existing group. There was no need to wait for funding of complementary activities before starting to act.
- The focus of capacity building should be the ecosystem approach and protected areas in small islands and ways and means to move forward with capacity building in practice.
- The development of capacity-building activities resulting from the workshop should be linked to other ongoing processes, for example, the UNEP-GEF National Capacity Self Assessment process and related activities of other organizations, such as the IUCN.
