Guidelines for Financing Protected Areas in East Asia

World Commission of Protected Areas

The World Commission on Protected Areas (WCPA) is the world's leading global network of protected area specialists. The IUCN Programme on Protected Areas (PPA) is the focal point within the IUCN Secretariat for Protected Areas and serves as the Secretariat for WCPA.

The Mission and Objectives of the WCPA

WCPA's international mission is to promote the establishment and effective management of a world-wide representative network of terrestrial and marine protected areas, as an integral contribution to the IUCN mission.

The organization has the following objectives:

- to help governments and others plan protected areas and integrate them into all sectors, through provision of strategic advice to policy-makers;
- to strengthen capacity and effectiveness of protected area managers, through provision of guidance, tools and information and a vehicle for networking;
- to increase investment in protected areas, by persuading public and corporate donors of their value; and
- to enhance WCPA's capacity to implement its programme, including through co-operation with IUCN members and partners.

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Andrea Athanas, Frank Vorhies, Fernando Ghersi,
Peter Shadie and John Shultis

Adrian Phillips, Series Editor

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Foreword

During the past 10 years, the IUCN's World Commission on Protected Areas (WCPA) has prepared a series of regional action plans for protected areas throughout the world. These plans highlight regional priorities for protected areas, help raise awareness and funding for protected area projects, and encourage different groups to work together to address critical protected area issues. The East Asia Action Plan, prepared by the WCPA's East Asia network after extensive consultation within the region, was one of the first to be completed (IUCN, 1996).

The action plan reviews key issues associated with protected areas in East Asia and identifies 13 priority projects. The Nature Conservation Bureau of the Japanese Government's Environment Agency generously offered support to implement five of these projects:

Priority Project 1:
Develop guidelines for sustainable tourism in protected areas in East Asia.

Priority Project 2:
Apply full-cost accounting to a protected area in the region with the aim of exhibiting the economic importance of protected areas.

Priority Project 4:
Compile a directory of funding and assistance sources for protected areas in East Asia, covering multilateral, bilateral and regional sources of funds.

Priority Project 10:
Develop an exchange programme for protected area staff of the region with other regions, e.g. Europe (perhaps through the partnership and technical programme of EUROPARC).

Priority Project 13:
Compile a directory of protected area personnel and organisations in East Asia.

The Nature Conservation Bureau asked IUCN to take the lead in carrying out these projects in close consultation with key agencies and individuals in the region. Support from Japan was provided over a three-year period commencing 1 October 1998[1]. In response, four sub-projects were undertaken, each addressing one or more of the Priority Projects in the action plan. As a result, four publications are now being issued by IUCN:

- ***Guidelines for Tourism in Parks and Protected Areas of East Asia*** (Priority Project 1);
- ***Guidelines for Financing Protected Areas in East Asia*** (Priority Projects 2 and 4),
- ***Implementation of an Exchange Programme for Protected Areas in East Asia*** (Priority Project 10); and

[1] The Ministry of the Environment, Government of Japan offered another voluntary contribution for an additional three years to support the further implementation of these Priority Projects.

- ***Directory of Protected Area Personnel and Organisations in East Asia*** (Priority Project 13).

This publication is therefore a response to Priority Projects 2 and 4. It:

- explains how protected areas can generate more finance to help meet their needs;
- contains brief case studies relating to the financing of protected areas in East Asia;
- includes a list of potential funding sources for protected areas work in the region.

This report was written by Andrea Athanas, Frank Vorhies, Fernando Ghersi, Peter Shadie and John Shultis. Editing was by Adrian Phillips.

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Executive Summary

These guidelines have been prepared for protected area planners and managers in the East Asia region. The advice addresses one of the most critical issues which planners and managers face in this region: obtaining the funds needed to ensure the survival and success of protected areas.

This report advocates a "business approach" to protected area management. This means the identification of consumer groups obtaining goods and services from protected areas, and attempting to capture a fair return from these groups. Part 1 addresses the principles involved and is not specific to the region. It emphasises that business plans must be subordinate to the conservation aims of the protected area. Government allocation for protected area management should continue to be the foundation of their financing, as protected areas provide many public goods and services at a local, regional, national and global level.

Direct and *indirect* benefits are derived from protected areas. They also supply *private* and *public* goods. There is a crucial relationship between the type of benefit provided, the consumer groups involved and the type of financial mechanism that can be utilised. Together these will help shape the business plan for the protected area. So park managers need to know about these three variables before adopting a business approach to protected area management.

There are 11 kinds of financial mechanism – government allocations; taxes, levies, surcharges and subsidies; user fees; cause-related marketing; debt-for-nature swaps; joint implementation projects and carbon offsets; grants from multilateral/bilateral sources, and from foundations; loans from the private and public sectors; and public and private donations. Each of these has its strengths and weaknesses. Internal and external factors determine which mechanism is appropriate. In developing proposals for revenue-making schemes, park managers should endeavour to build support in the local community, avoid making excessive demands upon the capacity of park personnel, and respect the prevailing political and legal circumstances.

Seven steps are required to develop a financial plan:

1. define protected area goals and objectives;
2. identify the existing customer base;
3. list financial resources and demands on these resources;
4. identify new customers and relative levels of use versus contribution;
5. identify mechanisms to capture income from customers;
6. evaluate the feasibility of the proposed mechanisms; and
7. clearly state the financial plan.

These stages are briefly reviewed, as are other considerations relevant to generating a financial plan for protected areas.

The ten regional case studies included in Part 2 of the document demonstrate the wide range of options available to protected area managers. They illustrate the strengths and some of the dangers inherent in taking the business approach. Part 3 lists funding sources of particular relevance to East Asia.

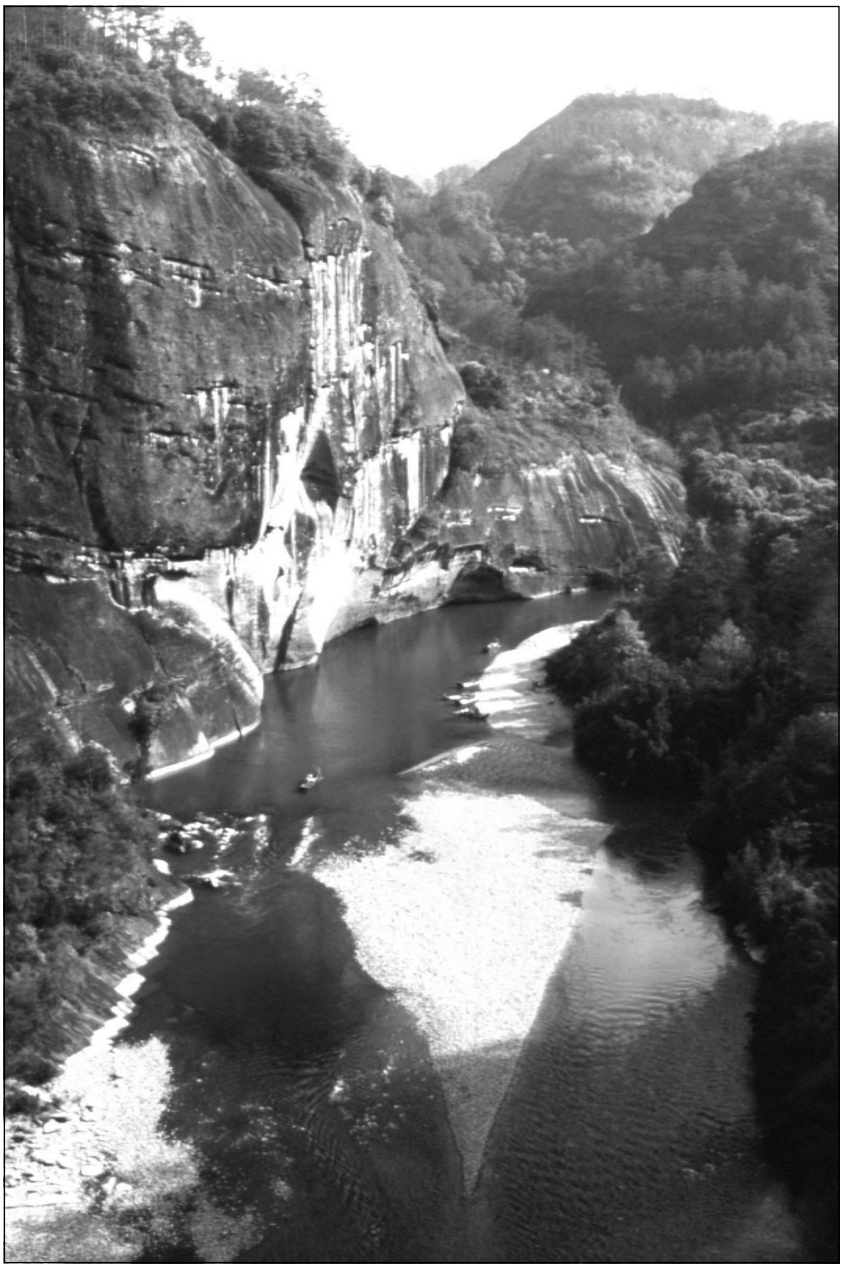
It is hoped that this advice will provide protected area managers in East Asia with some of the tools and knowledge that they require to improve the financial 'bottom line' of their protected areas and protected area systems. This in turn should help to develop management capacity in the region and thus the ability of managers to protect the outstanding natural and cultural resources contained within the protected areas of East Asia.

Several options are available to help protected area managers and administrators in the East Asia region build on this advice. It is suggested that WCPA in East Asia should:

1. Create a task force of its members to explore financing issues and options. Charge it to report within a year.
2. Identify a protected area, or a small group of protected areas, to create a pilot business plan. Criteria for selection include: ability of park staff and/or managers to create a financial plan; the number and level of benefits that the protected area provides; the presence of distinct and large consumer groups that could be tapped to provide funding.
3. Hold a workshop to agree how protected area managers and administrators could move forward with obtaining additional financing.
4. Place the topic of financing protected areas on the agendas of meetings of WCPA-EA; invite representatives who could help identify the most likely funding sources for various projects.
5. Prepare a small number of 'pilot' financial plans in selected protected areas around the East Asia region; distribute these, so as to give managers an idea of the content and process required to create such a plan.
6. The Mongolian Environmental Trust Fund (METF) seems to be an excellent funding model that could be adopted for use elsewhere in the East Asia region.
7. Develop a training seminar or package for use within the region to help train managers in the identification of consumer groups and the creation of financial plans.
8. The results of existing valuation studies undertaken in the region could be consolidated and publicised, or new valuation studies could be targeted throughout the region.
9. Translate this document for use by protected area managers throughout the region.

PART 1

Financing protected areas – general overview



Mount Wuyi World Heritage Site in China's Fujian Province is the most outstanding area for biodiversity conservation in south-east China and a refuge for a large number of ancient, relict species, many of them endemic to China. *©Les Molloy*

1. Introduction

The purpose of this document is to assist protected area managers and administrators in identifying and securing sufficient and appropriate financing for biodiversity conservation in East Asia. This guide is targeted at those involved in establishing and managing protected areas. It is based on inputs from a range of sources, including the IUCN Economics Unit, the IUCN Programme on Protected Areas, and IUCN's World Commission on Protected Areas (especially IUCN, 2000). It also draws upon the UNEP publication *Funding Protected Area Conservation in the Wider Caribbean: A Guide for Managers and Conservation Organisations* (UNEP, 1999), prepared in consultation with The Nature Conservancy.

The role of economics and financing in protected area management received much attention in the 1990s (e.g. Pearce and Turner, 1990; Munasinghe and McNeely, 1994; Pearce and Moran, 1994; Barbier, Acreman and Knowler, 1997; James, Green and Paine, 1999). This guide builds on past global assessments of financing protected areas and develops a step-by-step process which protected area managers can use to create a financial plan tailored to the needs and strengths of their protected area. Furthermore, it demonstrates how protected areas provide private and public goods and services and so require public and private financial support. Thus, this publication both shows how to capture revenues from private benefits flowing from the protected area, and provides arguments for governments to maintain the core levels of public financing needed to ensure the continued provision of public goods and services.

Ecologically, the East Asia region is one of the richest in the world. It accounts for about 14% of the world's mammals, birds and fish, nearly 26% of its ferns, and 40% of its conifers. It covers approximately 12 million square kilometres (about 8% of the global land mass), spreading across a wide area between 4 and 52º N and 73 and 154º E. It includes eight countries of widely varying social and economic attributes. The East Asia region accounts for 28% of humanity, approximately 1400 million people. From a human and an ecological perspective, the region is of gigantic importance.

There are approximately 885,000 square kilometres of land within protected areas in the region, covering around 7.5% of the land surface. As in many other regions, the number and extent of protected areas vary considerably by country and type of ecosystem; the effectiveness of their management varies greatly too. The amount of funding dedicated to protected areas is also a major challenge for protected area managers (Li, 1993; Japanese Organising Committee, 1996; Jim and Li, 1996; IUCN/WCPA-EA-3, 1999). The current report arose from a concern about this, which was expressed in the regional action plan for East Asia. The plan also urged governments to provide additional finance for protected areas, and recommended the adoption of new, innovative approaches to their funding (IUCN, 1996). These guidelines address the latter issue in particular.

Before discussing specific techniques for funding protected areas in East Asia, it is important to establish a common understanding of what protected areas are, and of the benefits that they bring.

1.1 Protected areas and why are they important

For the sake of consistency, the IUCN definition of the term "protected area" will be used throughout this document:

> *"Areas of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means"* (IUCN, 1994).

Protected areas represent special places on land and at sea that are managed for conservation purposes. The current global system comprises some 44,000 sites, covering 13.2 million square kilometres (roughly the size of China and India together). Each of these sites is different, composed of a unique combination of biological, ecological and cultural features. Together they play a key role in conserving natural ecosystems and, when managed effectively, make substantial contributions to biodiversity conservation and sustainable development (McNeely, 1999; Synge and Howe, 1999; Groombridge and Jenkins, 2000).

The Convention on Biological Diversity (CBD) outlines a number of specific measures which Parties can undertake to sustain biodiversity. Under Article 8, relating to *in situ* conservation, Parties are obliged to establish a system of protected areas to conserve biodiversity, to develop guidelines for the management of such areas, and to promote appropriate development adjacent to them. Commitments such as these help sustain global biodiversity, but they also place an additional strain on already stretched protected area budgets. Article 8m of the CBD calls for cooperation among Parties in providing financial support for *in situ* conservation, particularly for developing nations.

Protected areas perform a number of other extremely significant functions, providing both biophysical and socio-cultural benefits at the local, regional, national and global levels. For example, they ensure the continued flow of ecosystem services by providing renewable supplies of clean water and nutrient flows, and by protecting valuable soil resources. They provide significant social and economic benefits to surrounding communities, and contribute to spiritual, mental, physical and economic well-being. Protected areas also help fulfil an ethical responsibility to respect nature. Each of these aspects of protected areas is important in determining appropriate financing: this is discussed in more detail in Section 2.

1.2 Financial planning and its importance to protected areas

A financial plan is a tool which helps to determine the protected area's funding requirements, and to match income sources with those needs. Financial planning differs from a budget in that, in addition to identifying how much money is needed for different types of activities, it also identifies the most appropriate funding sources for short, medium, and long-term needs.

Different sources of funding have different characteristics. Some are more reliable than others; some are more or less difficult to obtain; some can be used freely according to management priorities; others come with many strings attached. Some funding mechanisms take a great deal of time and effort to establish, and therefore do not provide a good short-term return, but over the long term offer a possibility of steady, reliable financing for recurrent costs. Some have short-term time horizons (such as a bank

overdraft) and others have longer-term horizons (such as a mortgage). A good financial plan identifies these characteristics, and builds a revenue stream that matches both the short-term and long-term requirements of the protected area.

Effective management and sufficient finance are critically important issues if protected areas are to continue to provide their numerous benefits to society. Establishing and managing a protected area requires adequate financial resources over a long period of time. In practice, limited funds are increasingly constraining the effective management of protected areas. In East Asia, as elsewhere, funds for protected areas are often grossly inadequate when set against needs. Because the financial demands of other sectors, such as education, defence and health, are often seen as higher priorities, funding for protected areas is squeezed, especially in periods of financial stringency. No wonder, then, that in many countries around the world, government investment in protected areas is falling.

The traditional approach to the planning and management of protected areas has been that of a government agency, funded by annual government appropriations. While public sector appropriations will always be required to cover a proportion of the costs of protected area management, cutbacks in the funding of protected area management, especially during the 1990s, have encouraged a search for new models of administration and financing. In Africa, for example, increased reliance has been placed on protected area parastatals and the private sector, while in Latin America NGOs are playing an expanding role. Such new institutional arrangements are more flexible and can be more innovative in securing finance from sources other than the government.

However, notwithstanding the need to diversify sources of financing, it is crucial that governments retain and honour their obligations at the national level toward the establishment and sound management of an adequate and representative system of protected areas. The financial flexibility and options to exercise financial innovation which are advocated in these guidelines should be viewed in this context and, of course, should be followed within the prevailing legal and planning framework.

1.3 The scope of this document

This guide brings together lessons from a broad range of protected areas and management structures to highlight the financial options available to protected area managers. It is intended to encourage protected area managers in East Asia to work towards diversifying the sources of funding that they draw upon.

The guidelines advocate a number of principles that will help protected area managers cope with the financial challenges that they face. These include:

- taking a business approach to financing protected areas, which entails defining relevant consumers and identifying ways of capturing a fair return from them;
- developing business plans, but only *within* the overall context of protected area management plans and legal frameworks, so that increased revenue is seen as a means towards the end of more effective biodiversity conservation, and not as an end in itself; and
- recognising the importance of both public and private revenues, and of the need to link public revenue streams to public goods and private revenues to private goods.

Part 1 of these guidelines introduces the concept of a business approach to protected areas. It then reviews the means available for securing resources for protected areas. This is followed by an assessment of the feasibility of different financial options and strategies and a review of specific sources of finance for protected areas. Because Part 1 sets out to explain the general theory behind making protected areas more financially self-sufficient, it is not written to be specific to the region of East Asia.

However, the case studies (Part 2) and institutional funding sources (Part 3) demonstrate how protected area managers have, in practice, made use of these various options within the region. These examples also show that success in funding depends on: skilled personnel to analyse financial needs and opportunities; sufficient infrastructure to implement financial strategies; a supportive policy environment; and meaningful community participation.

2. A business approach to protected areas

Developing a financial plan for a protected area or system requires a shift in thinking for many protected area managers. Though most managers are already familiar with budget preparation and management, a financial plan's main purpose is to match financial opportunities with the short and long-term requirements of the protected area. Thus, it requires more innovation and forethought than preparing a budget. To spur such thinking, protected areas are treated here as both a business and a public good; this demonstrates how protected area managers can be entrepreneurial in the context of their financial plan, while not losing sight of the fundamental conservation aims of protected areas. The section therefore starts by outlining the array of benefits that protected areas provide to individuals and society as a whole. These benefits are then linked in Section 2.2 to a discussion of customer groups, the need for caution in developing a customer base for the protected area, the nature of the goods and services flowing from the protected area, and their implications for the financial plan. Section 2.3 suggests how protected area managers can get their customers to pay for the benefits they derive from the protected area.

2.1 Benefits from protected areas

Viewed from the perspective of a financial planner, a protected area can be seen as a business operation – perhaps not unlike a shopping mall[1]. A shopping mall offers its visitors a number of goods and services, such as clothes, shoes, cosmetics, toys, meals and entertainment. A protected area also provides its customers with a number of goods and services. These could include goods such as thatching grasses, wild berries and genetic materials, and services such as biodiversity conservation, crop pollination, water purification, game viewing and recreational opportunities. Such goods and services provide society with a stream of benefits from the existence of the protected area. The benefits can be divided into two categories: so-called 'use' (comprising direct and indirect values) and 'non-use' (comprising option, bequest and existence values) benefits.

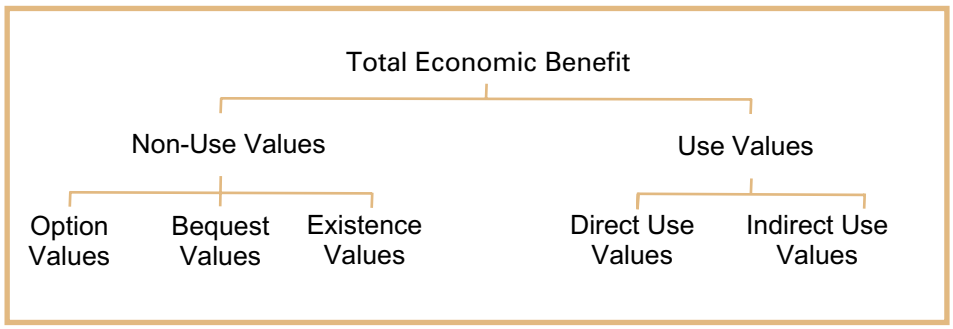
Direct use values of protected areas derive from the actual use of the protected area for such activities as recreation, tourism, the harvesting of various natural or cultural resources, hunting and fishing, and educational services. Conversely, *indirect use values* derive from the goods and services not directly provided by visits to protected areas. Notably these include ecological functions such as watershed protection, the provision of breeding or feeding habitat, climatic stabilisation and nutrient recycling. Such indirect use values are often widespread and significant, but have been under-valued, if not totally ignored by past economic valuation systems. Indeed, most of the studies that have attempted to value these indirect goods and services have found that they have far greater value than the more easily measured direct values. Case Study 6 in Part 2 provides an example of the importance of indirect values from Chinese protected areas.

[1] Some may consider that it is misleading to see protected areas, and those who benefit from them, in such a crudely commercial light, but the discipline which a business approach imposes is helpful in understanding how to secure more funds for the management of protected areas.

Option value refers to the potential for individuals or society to use the protected area in the future. For example, many people value a particular protected area even though they have never visited the park, but feel that at some future date they might like to do so. *Bequest value* relates to the benefit of knowing that others (e.g. children or grandchildren) benefit or will benefit from the goods and services provided by the protected area. Finally, *existence value* derives from the benefit of knowing that the protected area exists and provides valuable goods and services. Even if they do not plan on ever visiting a particular protected area or protected area system, many people attach value to the mere existence of such sites (e.g. for the indirect benefits they provide or as sources of local or national pride).

Figure 2.1 presents these categories in diagrammatic form (for a more detailed discussion of these concepts, please see *Economic Values of Protected Areas,* (IUCN, 1998)[2]. For instance, fishing is of direct use to a person who actually visits the protected area and fishes its streams and lakes. Fishing may also be an option benefit for a person who may one day wish to visit the protected area to fish, but has not yet done so, or a bequest benefit for a person who would like future generations to have the chance to fish the stream or lake. Table 2.1 shows how the types of benefits generated by a number of protected area goods and services relate to one another.

Figure 2.1 Protected area economic benefits



2.2 Customer groups

Each of the benefits noted in Table 2.1 can be associated with a customer base or beneficiary group. Different types of protected areas may cater to different sets of beneficiaries, depending on the types of goods and services offered by the protected area. The array of benefits flowing from a protected area, or protected area system, will be largely determined by their ecological or landscape character. However, their accessibility to stakeholders and customer bases, as well as the institutional structure and policy environment of the protected area, will also help determine which benefits are present. For instance, a marine protected area in the vicinity of a cruise ship route will be more likely to provide direct recreational use benefits than an isolated marine protected area. It is the task of the manager to identify the relevant beneficiaries and to build these stakeholders into the financial plan of the area or system in a way that is compatible with conservation objectives.

[2] This publication, which is in the IUCN/Cardiff series of best practice guidelines, can be downloaded from http://biodiversityeconomics.org/valuation/topics-34-00.htm, or purchased through the IUCN bookstore [e-mail: books@iucn.org].

Table 2.1 Indicative benefits of protected areas

Use values		Non-use values		
Direct use	**Indirect use**	**Option**	**Bequest**	**Existence**
Recreation/ Tourism	Watershed protection	Future information from site	Use and non-use values for legacy	Ecological functions
Harvesting plants	Climate stabilisation	Future use of site (creating indirect and direct values)	Value that their descendants will derive from site	Ritual/spiritual or religious values
Harvesting wildlife	Flood control		Value that others' descendants will derive from site	Local/regional or national pride
Harvesting fuelwood	Groundwater recharge			Economic benefits to self/community
Grazing livestock	Carbon sequestering			Aesthetic appreciation
Agriculture	Natural disaster prevention			Preservation of heritage values
Gene harvesting	Nutrient retention			Artistic value to self/community
Education	Natural services (e.g., habitat, food sources for animals)			Natural services
Research				

Adapted from IUCN, 2000

The issue of compatibility is of key importance when designing a financial plan. When assessing compatibility with conservation objectives, it is useful to refer to IUCN's six management categories of protected areas, which are based on nine main objectives of protected area management, ranging from scientific research to maintaining cultural attributes. Each of the six categories of protected areas can, broadly speaking, be associated with primary, secondary and potential management objectives. These relationships are demonstrated in Table 2.2. In turn, the objectives of each category relate to a number of uses and corresponding benefits. For instance, scientific research is a direct use of protected area resources; the corresponding beneficiary group could include academics and private sector research teams. Thus, the categories provide some indication whether a particular use is appropriate or not.

Protected areas from each category will produce some level of benefits for everyone, but the relative level will tend to be different for each category. In general, however, direct local benefits will increase proportionate to other benefits as the category number rises (see Figure 2.2). However, the customer base for each area is greatly influenced by the context of the protected area.

Compatibility among and between the beneficiaries and users of a protected area is also important to the success of a financial plan and the effective management of the area. The existence of incompatible user groups can cause conflict and lose investment. For instance, a bird watcher may not wish to mix company with a trophy hunter, and may indeed be prevented from undertaking his or her activities by the presence of hunters. In such cases, a protected area manager must choose between customer groups or identify management strategies such as separating conflicting users through zoning, so as to

Table 2.2 Matrix of management objectives and IUCN Protected Area Management Categories

Management objectives	IUCN protected area management category						
	Ia	**Ib**	**II**	**III**	**IV**	**V**	**VI**
Scientific research	1	3	2	2	2	2	3
Wilderness protection	2	1	2	3	3	–	2
Preservation of species and genetic diversity	1	2	1	1	1	2	1
Maintenance of environmental services	2	1	1	–	1	2	1
Protection of specific natural and cultural features	–	–	2	1	3	1	3
Tourism and recreation	–	2	1	1	3	1	3
Education	–	–	2	2	2	2	3
Sustainable use of resources from natural ecosystems	–	3	3	–	2	2	1
Maintenance of cultural and traditional attributes	–	–	–	–	–	1	2

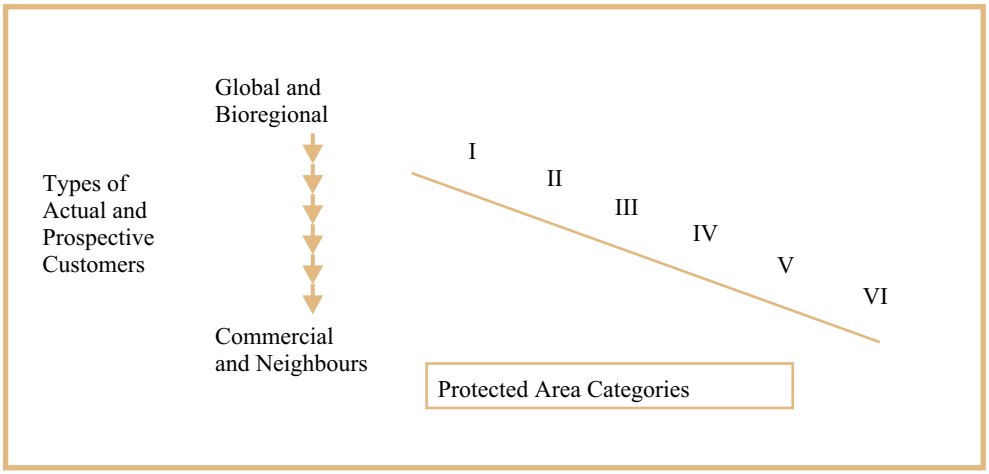
Key:

1 Primary objective; 2 Secondary objective; 3 Potentially applicable objective; – Not applicable

Ia Strict Nature Reserve; Ib Wilderness Area; II National Park; III Natural Monument; IV Habitat/Species Management Area; V Protected Landscape/Seascape; VI Managed Resource Protected Area

Source: IUCN, 1994

FIG. 2.2 Relationship of types of customers to IUCN Protected Area Categories (adapted from Bridgewater *et al*., 1996).



ensure that the groups do not adversely affect the quality of each others' recreation/ tourism experiences.

The uses and benefits of a protected area may be considered as 'public goods', 'private goods' or a combination of the two in the form of 'toll goods' or 'common property goods':

- A *public good* is any good or service whose provision is 'non-excludable' and 'non-divisible', meaning that once it is provided it is available to everyone. Examples of public goods generated by protected areas are watershed protection, carbon sequestration and critical habitat protection.
- *Private goods* are both excludable and divisible: i.e. once they have been provided to someone, they are only available to that individual. Examples include regulated hunting, fishing, and non-timber forest products; for example, once an animal is hunted, a fish is caught or a non-timber forest product is harvested by an individual, no one else can use them (i.e. they are not divisible).
- *Toll goods* (e.g. controlled entry to protected areas) may be excludable but not divisible; these are similar to roads with tolls.
- *Common property goods* are divisible but not excludable, meaning access to them is open to anyone but that once they are used, no one else can use them. For example, harvesting medicinal plants for personal use in a protected area may be open to all, but once they are harvested, no one else can use them.

Table 2.3 shows the relationship between these four categories of goods.

Table 2.3 The nature of goods and services

	Non-divisible	**Divisible**
Non-excludable	Public	Common property
Excludable	Toll goods	Private

Understanding the nature of goods and services provided by protected areas is critical for identifying potential sources of finance. The purely public goods provided by protected areas require public funding, whether from traditional government allocation, overseas development assistance or foundation grants. The private good aspects of protected areas, on the other hand, can be commercialised and therefore funded by private sources of financing, such as tourism investments, hunting fees and licensing arrangements. Toll goods are also accessible to private financing through mechanisms such as gate fees, but combined public and private financing may be needed for common pool goods. Protected areas provide all types of goods and services, and protected area managers, faced with insufficient public funding, will therefore need to consider funding from both public and private sources.

Several countries have incorporated the critical difference between public and private goods in their revenue policies. For example, the principle guiding Parks Canada's revenue policy is that tax dollars should pay for the cost of establishing and protecting national parks and national historic sites, while those who use them should pay for the additional personal or commercial benefits that they receive. Services providing both a

public good and personal benefit, such as heritage presentation programmes in parks and sites, should be financed through a combination of tax-based appropriations and fees (Parks Canada, 1998).

Finally the financial plan for the protected area should, of course, relate well to the context in which the protected area exists. These factors are very relevant to the financial options available to the protected area manager:

- the size and category of protected area;
- zoning regulations within the protected area;
- management responsibility, including legal mandates;
- ownership of land and associated resources and features;
- regional variations (e.g. size and socio-economic characteristics of surrounding population or prevailing political climate);
- external zoning regulations, including buffer zones; and
- international designations (e.g. World Heritage, Ramsar or Biosphere Reserve status).

These factors influence how the protected area should be managed, the uses and customers which could help finance the protected area, and the opportunities for channelling finances back into the protected area. For example, a protected area which has a densely populated buffer zone may be able to capture more financial resources from the local community than one situated in a remote area; sites with multiple international designations may be more able to attract international funding agencies; and an unstable political climate may impede attempts to increase funding levels.

To summarise, developing a successful financial plan for a protected area requires:

1. a management plan;
2. a review of the array of benefits generated by the protected area;
3. the identification of the public and private users and beneficiaries; and
4. a review of institutional features which facilitate or inhibit the provision of benefits.

2.3 Getting customers to pay

Having identified the potential uses of the protected area, the relevant beneficiaries, and the appropriateness of these, the next step is to identify how beneficiaries might pay for the goods and services they derive from the protected area. *This guide strongly encourages protected area managers to explore all public and private options for financial resources*. Protected area managers need to service both their public and private customers, and receive a fair return from them through the appropriate financing mechanisms.

Protected areas around the world have historically been managed primarily for their public goods benefits. The result is that all too often protected area systems rely on dwindling public sector transfers and philanthropic grants. It is critical for governments and philanthropic bodies to continue providing such funds, as they represent a societal

payment for the public benefits of a protected area. At the national level, this funding can be tied to the provision of indirect use benefits, such as watershed protection, while at the global level it could be tied to existence benefits, such as conserving critical habitats for endangered biodiversity. However, as most systems of protected areas are managed by government agencies for their public goods, they have not always capitalised – or been allowed to capitalise – on potential private goods and services. Customers desiring private goods from a protected area are often either excluded or acquire these goods free of charge. This section looks at the array of protected area customers and how they might pay properly for the various goods and services they demand from the area.

Protected area customers can be roughly classified into four groups:

1. neighbours as customers;
2. commercial customers;
3. bioregional customers; and
4. global customers.

Each of the four customer groups, who are described in greater detail below, values the protected area differently, and derives different benefits from it. By understanding the interests of these groups, the protected area manager can help capture financial resources from servicing their various demands.

Of course, a single protected area may not be able to provide goods and services to all these groups, and attempting to do so may produce conflict between groups. It is important therefore to design a compatible portfolio of revenue flows. Returning to our analogy of a protected area as a shopping mall, the various customers should be managed so that potentially conflicting uses are either temporally or geographically separated. For example, photo safari clients are unlikely to want to see lions being shot by a hunting safari. Research also suggests that motorised and non-motorised visitors usually wish to be separated. Generally, small groups wish to avoid large ones; visitors with different values do not mix; nor do those with contrasting behaviour.

2.3.1 Neighbours as customers

A protected area has a host of "neighbours" who value the protected area both for its direct and indirect benefits. Since many protected areas have a resident population (especially those in Categories V and VI) the term "neighbours" has to be understood as including those residing within the protected area. Inside or outside, these neighbours include both local communities and local businesses.

Local communities potentially derive a number of benefits from protected areas. Where they are allowed to harvest products from the protected area, they can benefit from the direct consumption or sale of these goods. Products that local communities may harvest from protected areas include fish, fuelwood, rattan, building poles, thatch, wild game and foods, products of cultural or religious significance, and medicines. In cases where such goods are used by local communities and the activity is legal, the protected area may sometimes be able to charge for extraction rights. Additionally, neighbours may value the protected area for recreational uses, as pasture land, for transport linkages, or for fresh-water. In these cases it may be suitable to charge the communities for access rights. However, the social impacts of new or increased fees must be considered and

monitored. A consultation process before, during and after the implementation of user fees will usually maximise local support for these mechanisms.

Where there is a well-developed property market around a protected area, the neighbouring property prices may rise with the establishment or successful management of the protected area. For example, the establishment of protected areas has sometimes led to an increase in property prices in neighbouring areas (or within it, in the case of Category V areas). Thus the land owners may derive some very real financial benefits from the presence of the protected area. A property tax, levied when private properties are sold, or on the provision of services to householders, could capture some of this value for the protected area.

Local residents may also benefit from employment opportunities related to the protected area. There can be direct employment by the protected area, such as rangers, instructors, guides, managers, gate keepers, bookkeepers, shop assistants. They may also benefit from jobs in businesses dependent on the protected area, such as hotels, restaurants, gift shops, craft stores or research organisations. It is unlikely that the protected area manager could capture these benefits directly through charges, though they may be able to share in the revenues of business operations near or within the protected area. Local volunteer concepts, such as 'friends of the park' donation drives and charity events, are another way of enabling neighbours to support the protected area.

Many local businesses (e.g. hotels, restaurants, gift shops, and craft stores) benefit from sales resulting from their geographic and commercial relationship to protected areas. This is particularly the case where protected areas are managed for their compatibility with tourism. These businesses may be interested in investing in the protected area to improve their profits, and there are ways to capture such potential investment. Local taxes are one such mechanism, another is a voluntary "visitor pay-back scheme", where a voluntary tax is paid by visitors purchasing goods or services, the proceeds of which are earmarked to assist the protected area. A protected area manager may allow a number of businesses to operate within the protected area, and could charge these businesses for the privilege (the concession system). The protected area may capture even more revenue from such operators if they invite bids from several companies, thereby using competition to drive up the price of concessions.

The protected area manager could launch a series of associated products to be sold in local businesses, or in an on-site store. A portion of the profits from such sales could then be returned to the protected area. These product lines could be associated with the characteristics and natural products of the protected area: for example, honey, traditional medicines, native seed packets or herbal foods. It is also appropriate to sell educational materials relating to the site, such as nature guides, picture books or videos, or nature-based products such as garden supplies and bird houses and feeders.

The protected area may also be able to establish a fund to capture revenues from businesses not directly associated with the protected area, but which are interested in contributing to it. Businesses may sponsor specific developments or events in the protected area – a building company, for example, may be willing to contribute materials, time or funds to a new visitor centre, bridge or footpath. Alternatively, a photography studio may be willing to fund an exhibition of nature photography or donate photos of the protected area for auction. Similar projects could be arranged with local artists and crafts people.

2.3.2 Commercial customers

Commercial customers of a protected area, such as tourists, hunters, bio-prospectors and commercial filming companies, derive direct use benefits. Gate fees and user fees are two of the more traditional means of capturing these values, but some innovation may also be called for: donation boxes, equipment rental, specialised tours or packages and other means may be used to capture additional visitor-generated funds.

A protected area manager may need to invest considerable time and resources into identifying and developing appropriate markets for the protected area. This work may include formal market surveys, similar to those conducted for tourist destinations, but the method chosen should always be based on a clear understanding of the goal and objectives of the protected area. Without firm adherence to the fundamental aims of the protected area, the manager risks developing a customer base that is incompatible with the conservation purposes of the protected area, and so undermining the very resource he or she is trying to conserve. Furthermore, being clear about the aims of the area will help focus any surveys. For instance, if the objectives of the protected area include public education, a market survey could examine the needs of schools or universities as well as the market for more informal educational experiences such as guided tours or specially designed courses.

Once the range of markets for potential commercial consumers has been identified, appropriate products can be selected. This requires:

- an understanding of the niche or 'competitive edge' of the protected area;
- the compatibility of various uses, both between the various commercial customer groups, and between commercial customers and other customer groups;
- the particular strengths or limitations of the staff including the potential for capacity development;
- the interests of the local communities, and the possible secondary benefits flowing to the local community;
- the amount of money able to be generated; and
- the impacts of the increased profits within the park and local community (for example, commercial enterprises that create or increase financial/social inequities within the community, may be harmful to both the community and the protected area).

Developing and marketing products may require a campaign to develop awareness of the protected area. This could use traditional communication tools, such as leaflets and brochures and newer, electronic means such as the Internet. In specialised cases where the market is wealthy and exclusive, it may be necessary to invest in personal communications with key individuals. For instance, should a protected area manager wish to develop a service for the film industry, it may require an investment in one-on-one communications with film makers.

A final note of caution: commercial markets are subject to significant shifts that are beyond the control of the manager. Relatively small changes in taste or fashion, or more fundamental changes in economic or security circumstances (for instance, the near-collapse of the Asian economies or civil unrest in parts of the Philippines) can have a big impact on the protected area's customer base. It is possible to some extent to insure

against such events by planning for a diversified customer base, and including a range of direct use customers and other types of customers.

2.3.3 Bio-regional customers

The bio-regional customer base of a protected area can include downstream beneficiaries of watersheds and other ecosystem services, those benefiting from flood control or storm protection, and beneficiaries of nutrient retention or micro-climate benefits. The first step is to identify the customers and the benefits they derive. This requires an identification of the indirect goods and services of the protected area. The indirect nature of such goods and services often makes it difficult to identify and capture revenues. Many bio-regional customers will live outside the country and indeed will never visit it, making it harder to assess their received benefits and capture the revenues related to these benefits.

Capturing the bio-regional values that people hold for a protected area is also difficult because indirect uses, such as watershed services and storm protection, are often non-excludable, public goods. In most cases, therefore, the high transaction costs make it too difficult to capture these indirect benefits through market mechanisms. Also, many governments are unwilling to pay for these previously 'free' services.

Even so, it may be helpful to undertake an economic valuation of the benefits provided by protected areas that serve the nation. Such information can help lobby government agencies and overseas development agencies or multilateral donors for additional 'one-off' funds or annual allocations (Barbier, Acreman and Knowler, 1997). Moreover innovative thinking and restructuring of regional governmental frameworks can sometimes be used to capture such indirect benefits. A classic example of capturing bio-regional values is shown in Box 2.1.

2.3.4 Global customers

Because of the interdependence of natural systems, both present and future generations stand to gain from conservation efforts. Natural areas and their related biophysical components are vital to our existence. They are truly a global resource. The global customer is the customer who usually receives most of these intangible benefits, often without having to pay for them. In developing a strategy to access such groups, it may help to view global customers in their different institutional groupings: for example, intergovernmental organisations, donors, or nature advocacy organisations. A protected area financial plan should identify the values which these global customers hold and the benefits provided to them.

The global values represented by protected areas and biodiversity have been recognised by the majority of nations in drawing up several global conventions. Protected areas play a vital role in the World Heritage Convention (WHC), the Convention on Biological Diversity (CBD), the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on Migratory Species (CMS), and the Ramsar Convention on Wetlands; they may also be relevant to the Climate Change Convention. Under each convention, the government signatories commit themselves to the protection of natural resources for the benefit of global customers. Furthermore, these conventions not only reinforce the protection of natural areas for the common good, but also provide mechanisms to support such efforts. Additional information about each of the following conventions is available on the web sites indicated.

Box 2.1 The New York City – Catskills Watershed Agreement

Approximately 90% of New York City's (NYC) water supply, which serves approximately 9 million people, comes from the Catskills. Farming is vital to the economy of the Catskills, with nearly 500 farms situated throughout these watersheds, in addition to approximately 90 other agricultural enterprises.

When NYC proposed tough new watershed regulations in September 1990, the agricultural community in the region expressed concern that regulations would place undue financial burden on the Catskills region. The question was asked, "Why not teach and encourage individuals how to protect water quality in ways that will stimulate business, instead of encumbering them with additional regulations?" NYC responded with a landmark decision to fund voluntary programs designed to protect water quality without compromising the economic viability of the farming and forest industries in the region. Basically, instead of spending money on water treatment, NYC decided to fund projects that would stop the pollutants from entering the watershed, thereby making additional water treatment unnecessary. This partnership between NYC and the agricultural community led to the creation of the Watershed Agricultural Council (WAC).

A not-for-profit, governing body of the Watershed Agricultural Program, the WAC's voting membership is made up of watershed farmers, agribusiness leaders and the NYC Department of Environmental Protection (DEP). Non-voting WAC membership consists of a cross-section of government and private organisations. The WAC is responsible for reviewing and approving each 'Whole Farm Plan' submitted by Watershed Planning Teams.

According to the WAC, the principles of a successful partnership include:

1. **Voluntary participation**: Participation in the Watershed Agricultural Program is strictly voluntary. Farmers are able to address priority environmental issues on their farm without fear that implementation of the plan will threaten the farm's economic viability.
2. **Full funding**: The NYC DEP, through the WAC, fully funds (a) the development of each farmer's Whole Farm Plan under the guidance of Watershed Planning Teams, according to predetermined water quality goals achievable for that farm, (b) scientific support for managing on-farm pollution sources, and (c) the implementation of all structural changes and management.
3. **Agency partnerships**: Professional staff are provided from the Cornell Cooperative Extension, Soil and Water Conservation Districts, and USDA Natural Resources Conservation Service. Working as teams, the staff collaborate with farmers in developing a Whole Farm Plan. These interagency Watershed Planning Teams are supported scientifically and technically by the NYC DEP, NY State Department of Environmental Conservation, and Cornell University through the NY State Water Resources Institute.
4. **Local leadership**: Consisting primarily of watershed farmers and agribusiness leaders, with a representative from the NYC DEP, the WAC maintains open lines of communication with farmers and the NYC DEP throughout the watersheds.

The Convention on Biological Diversity (CBD) *(www.biodiv.org)*
As noted, the CBD identifies protected areas as an integral part of *in situ* efforts to conserve biological resources and use them sustainably. The CBD has a fully developed funding mechanism that supports initiatives relating to its implementation: in effect, the Global Environment Facility (GEF) compensates national efforts to meet the objectives of the CBD for the benefit of the global customer. Additional information on the GEF is provided in Part 3 of this report.

The Convention on Migratory Species (CMS) *(www.wcmc.org.uk/cms/toc.htm*)
The signatories of the CMS recognise that many species ignore the presence of political borders, necessitating intergovernmental efforts to conserve species whose life-histories make them vulnerable to exploitation in more than one nation. This convention provides protection for endangered species throughout their range by protecting both the species and their habitats. Protected areas play a vital role in conserving habitat for many migratory species. The convention also administers financial support to agreements between nations for the protection of migratory species.

The World Heritage Convention *(www.unesco.org/whc/)*
This convention provides special designation for natural and cultural sites "considered to be of outstanding universal value". Although World Heritage designation does not provide any automatic compensation for managing these areas, there is a World Heritage Fund to assist developing countries in certain circumstances. More importantly, this prestigious designation, which has to meet strict criteria, adds status to the protected area and can thus be beneficial in terms of commercial (tourism) and non-commercial (philanthropic grants) funding. In particular it can attract GEF and UN funds and other multilateral and bilateral funding.

The Convention on the International Trade in Endangered Species of Wild Fauna and Flora* (*CITES) *(www.cites.org)*
This convention seeks to protect species through various regulatory mechanisms. Because protected areas are an integral component of endangered species protection and recovery, CITES can be of assistance in promoting protected areas as effective mechanisms for species recovery and conservation.

The Ramsar Convention on Wetlands (Ramsar) *(www.ramsar.org)*
The Ramsar Convention seeks the protection of a specific ecosystem – wetlands – through general global programmes and the use of a designation process. Like the World Heritage designation, Ramsar adds status to world-class sites. Also, the Ramsar Secretariat provides a framework for wetland protection that includes both scientific and management guidance, as well as specific funding mechanisms including the Ramsar Award and the Ramsar Small Grants Fund.

The Framework Convention on Climate Change *(www.unfccc.de)*
The Framework Convention on Climate Change is an attempt by many of the governments of the world to address in a united manner the numerous problems arising from potential changes in our global climate. One important aspect of this convention is the concept of Joint Implementation, which enables countries to invest in activities such as forest regeneration and conservation that could become a means for promoting forest conservation and management. The Clean Development Mechanism under the convention has the potential to provide a useful source of financing for protected areas.

In summary, understanding who the customers of a protected area are and how they might offer a return to protected areas is an important step in creating a financial plan. The basic framework provided here seeks to divide customers into discernible groups based on the types of benefits they receive from a protected area. Every protected area will provide benefits to each of the above customer groups. Which group receives a larger relative share of the benefits will be based on the management objectives of the protected area. To develop a system of capturing financial resources from these customers, a strategic financial plan needs to consider the goods and services that a protected area provides (based on management objectives) and link these goods and services to a customer base. The following section reviews the available financial mechanisms through which funding may be secured.

3. Financial mechanisms

Once the potential customer base of the protected area has been identified, the next step is to determine what mechanisms, from a wide array, are available to capture revenue from these consumers. The choice depends on: (a) the type of customer targeted; (b) the benefits provided by the protected area; and (c) the institutional structure of the protected area management. Local cultural norms and legal regimes will also play a significant role in selecting appropriate mechanisms.

Table 3.1 lists the various mechanisms, summarising their characteristics and noting where and when they are likely to be suitable or applicable. The rest of this section provides more detail on each of these mechanisms. In the interest of space, the descriptions have been kept relatively brief but guidance on where to go for more detailed information is provided where available.

3.1 Government appropriations

Funding from national and/or regional governments has traditionally been the dominant source of support to protected areas. Generally these appropriations are long-term and cover basic staff and operational costs. However, they often fall short of meeting the full financial needs of the protected area. For instance, infrastructure projects, staff development and special maintenance costs are rarely met in full by government appropriations. Allocations usually occur annually, but such year-by-year planning is hard to mesh with strategic thinking, especially as such annual allocations are liable to short-term fluctuations. The situation is made more difficult when across-the-board budget reductions occur. When this happens, cuts are made in protected area appropriations regardless of the strength of the case.

These guidelines do not attempt to provide guidance on the appropriations process of countries around the world. But it is important to stress once more that support for the indirect benefits provided by protected areas, such as biodiversity conservation and watershed protection, is a fundamental responsibility of the state – it cannot be shifted to private and non-governmental entities. Long-term financial plans must therefore include a financial commitment from the national government for the public good aspects of the protected area (even if the funds for this have to be obtained from external sources).

Securing sufficient government revenue to ensure the provision of public benefits is a challenge for most protected areas. Often, governments do not recognise the array of goods that protected areas provide and thus ignore or underestimate their value. If this is the case, economic valuation tools can help to demonstrate the value of protected area goods and services.

Table 3.1 Types of financial mechanisms and their associated characteristics

Source or mechanism	Description	Who can use it	Advantages	Disadvantages	Primary consumer groups
Government appropriations	Funds appropriated in national budgets for protected area management agency.	National protected area agencies.	Regular, recurrent income. Maximum compatibility with national environmental priorities.	Usually inadequate to needs. Funds sometimes not available in timely fashion or when needed. Complex budgeting and accounting rules.	Commercial Bio-regional Global
Taxes, levies, surcharges	Fees and levies imposed on certain classes of activities, sales or purchases.	Government (or local government) prerogative to impose and collect; proceeds may be earmarked for annual use, trust funds, etc.	Regular, recurrent income; use generally unrestricted. Can capture economic benefits from resource uses (tourism, water consumption, hunting/fishing, boating, tourism, etc.).	Can result in promotion of inappropriate activities as a means to capture income. May require special authorising legislation. May generate controversy, especially among constituencies to be taxed (requires public education on advantages and purposes of levy).	Bio-regional Global
Entry fees	Charge for visitation, usually "per person" or "per vehicle"; may include such variations as seasonal or annual passes, charges to tour firms bringing escorted groups.	The entity with jurisdiction over a protected area can collect fees itself or designate another party to do so on its behalf, depending on applicable law.	Regular, recurrent income; use generally unrestricted. Embodies "user pays" principle. Can be used to regulate access, control over-use, manage visitation flow among protected areas. Easy to implement in areas with limited number of access points.	Not appropriate for little-visited areas (projected revenue should exceed cost of collection). Potential equity issues (can be addressed by lowering fees for national/local residents, scheduling one free day per week). Introducing fees for areas that previously were free can generate controversy (requires local outreach and education before implementation).	Commercial Neighbours
Leases and concessions	Legally binding agreements between the entity with authority over the protected area and private organisations or entrepreneurs, who market goods and services related to the protected area and return some share of the profits, or a flat fee.	Protected area agencies, private reserves, NGOs, and businesses.	An effective mechanism to provide services with little up-front investment by the protected area. Concessionaire incurs the risks associated with potential unprofitability. Concessionaires bring marketing and business skills to the table. Frees management agency to focus on resource protection. Provides opportunities for local entrepreneurs.	Concessionaires operate for profit motive, may not share values of protected area and need to be carefully monitored. Estimation of fees is complex and difficult; need to ensure healthy and safe service at reasonable price to visitor; fair return to both protected area and entrepreneur. Not appropriate for little-visited areas.	Neighbours Commercial

Source or mechanism	Description	Who can use it	Advantages	Disadvantages	Primary consumer groups
Sale of goods and services	Gift and souvenir shops, sale of items such as maps and guides, fee-for-service tours, anchorage, mooring, equipment rental, camp or picnic space rental, entry to exhibits, etc.	Parks agencies, NGOs, and concessionaires.	Goods and services can do double duty as sources of income and visitor education and promotion. Generally does not require additional legal authorisation; easy to keep proceeds within area.	Initial investment required for production of inventory of goods, recruitment of providers of services. Goods and services should be limited to those related to protected area purposes. Potential for competition with other local providers of goods and services.	Neighbours Commercial
Cause-related marketing	Sale of mostly intangible items (membership, "adopt an Acre," voluntary add-ons to hotel and restaurant bills, etc.) whose primary value is the purchaser's knowledge of having helped conservation.	Most often used by NGOs.	Combines promotion, education, and fundraising. In some cases contributions may be tax-deductible. Markets can be easily identified (park visitors, NGO members, etc.). Involves local business community in protection.	Many areas have no built-in market, must develop visitor logs, etc. Requires fairly sophisticated understanding of marketing and what will sell, or an experimental approach.	Global
Debt-for-nature swaps	Transactions involving the forgiveness or buy-back of foreign debt in return for commitments to conservation (usually local-currency payments into a conservation project or fund).	Key actors include national government (Ministry of Finance); country or commercial bank to whom the debt is owed; intermediary organisation that raises funds to purchase discounted debt (in commercial swaps); national beneficiary entity (often a parks trust fund). The country must have a significant amount of commercial or bilateral debt in arrears.	Reduction of national debt, substituting local-currency payments to national fund or bonds for hard-currency debt service. Donor increases conservation investment by buying debt notes below face value and redeeming them at full value. Net transfer of funds to conservation purposes. Can help to capitalise national protected areas trust funds.	Potentially controversial due to debt legitimacy issues. Valuable only when debt is deeply discounted or creditor is willing to write off. Requires policy authorisation and full participation of national government.	Global

Source or mechanism	Description	Who can use it	Advantages	Disadvantages	Primary consumer groups
Grants from multilateral and bilateral donor agencies	Most developed countries have donor agencies which provide grants to developing countries for conservation activities. There are also a number of multilateral donor agencies.	Most often national governments are eligible for donor funding.	Significant source of revenue, particularly for start-up costs and public involvement in protected area management.	Funds are often restricted to activities of interest to the donor agencies and often do not cover recurrent costs. Lengthy application processes and reporting requirements are also a disadvantage.	Global Bio-regional
Grants from philanthropic foundations	Grant-giving organisations.	Generally available only to non-profit organisations.	Can be a significant source of revenue for specific project activities or start-up of new programmes. May come with relatively few "strings".	Not a source of recurrent funding. Intense competition for limited funding often leads to significant investment of effort in proposals with low-to-medium chance of funding. Language may be an issue (most foundations accept proposals only in their own language).	Global Bio-regional
Loans from the private sector	Banks and lending agencies provide loans at market interest rates.	Parastatal and privately managed protected areas.	Loans are usually readily accessible with minimum paperwork or reporting requirements.	Loans and the accrued interest must be paid back. Generally higher interest rates for developing countries means that they are not a suitable source of financing for long-term requirements and there is some risk of default. Not always possible/legal.	Not applicable (the motive of the lender is to make a profit, not derive benefits from the protected area).
Loans from the public sector	Government agencies and bilateral agencies such as the International Finance Corporation provide loans with below-market interest rates.	Generally any parastatal or privately managed protected area in a developing country.	These loans are also usually readily accessible with minimum reporting requirements. Additionally, the lower interest rates may alleviate the high interest rate problems faced by developing country borrowers.	These loans are generally not available to protected areas in developed countries. There remains the responsibility to pay the loan back with interest.	Global Bio-regional

Source or mechanism	Description	Who can use it	Advantages	Disadvantages	Primary consumer groups
Donations from corporations	Sponsorship or other types of voluntary payments by companies.	Parks agencies and NGOs.	Generally a means of raising both national and international support for facilities or management. Corporate donors' expectations often can be met with simple acknowledgement placards. Means to link companies that benefit from protected areas to supporting them (tourism, hospitality industries).	Often corporations desiring to be sponsors are those with whom the protected area may not wish to be associated (e.g. resource exploitation sector). What corporate sponsors get in return needs to be carefully limited before donations are solicited and accepted.	Commercial Bio-regional Global
Individual donations	Gifts by individuals through a variety of mechanisms – direct gifts, memberships, and bequests, etc.	Generally NGOs but sometimes protected areas agencies.	Potential donors come to you and only need to be asked. No cumbersome application process. Can build donor loyalty over time. Usually unrestricted gifts.	Requires insight into potential givers and what motivates them. Some gifts, especially bequests, may take years to cultivate and eventually realise.	Neighbours Commercial Bio-regional Global

Advice on economic valuation methods can be found in the following:

- in *Economic Values of Protected Areas* (IUCN, 1998) which includes a step-by-step guide to undertaking a valuation study. This can be downloaded from http://wcpa.iucn.org/pubs/pdfs/Economic_Values.pdf or purchased through the IUCN bookstore (books@iucn.org);
- the IUCN Ecosystem Valuation web site also provides excellent tools for valuing ecosystem services, at http://www.ecosystemvaluation.org/default.htm;
- the National Parks Service in the United States had developed a "Money Generating Model" (MGM) (National Parks Service, 1995) which allows researchers to calculate the economic impact of protected areas. A new version, the MGM2, has recently been published (Stynes, Probst, Chang and Sun, 2000). The purpose of the MGM2 model is to estimate the impacts of protected area visitor spending on the local economy. Economic impacts are summarized in terms of sales, income, employment and value added. Both versions are available on the Internet at http://www.nps.gov/planning/mgm/, and may help give managers ideas on how to estimate the impact of park visitor spending on the regional economy.

Unfortunately, few protected area managers and administrators have the detailed knowledge of economic theories and models required to undertake economic valuations. However, local or regional universities or colleges often have faculty members (e.g. in an economics or similar department) who may be able to undertake such studies, often at a substantially reduced or even no cost. Students may be given academic credit for completing an economic valuation exercise in a protected area.

Protected area managers can use a number of strategies for capturing government revenue, including:

- Public-private partnerships that provide incentives or matching funds to government contributions; and
- Encouraging the adoption of taxes, levies etc., operated by the central or local government, which secure revenues to support increased appropriations (see next section).

3.2 Taxes, levies, surcharges and subsidies

Government's power to tax can be used in a variety of ways to raise funds for conservation and promote conservation activities in general. Some countries charge a tourist tax for each passenger arriving in the country by plane or cruise ship, with the proceeds going to a national conservation trust that supports protected areas and other conservation activities. Other countries impose a tourism tax on the price of hotel rooms, some of which is earmarked for conservation. Taxes can be applied to the sale of just about anything, including recreational equipment, forestry concessions, licences for fishing or hunting, and electricity and water bills.

Similarly, subsidies (including fiscal measures) can be used to encourage activities, such as land donations and easements, which reduce the expenditure side of the protected area budget.

There are a number of advantages in using the tax structure to generate income flows for conservation:

1. Financial resources are generated reliably and sustainably, year after year;
2. The burden of payment can be targeted towards visitors to the protected areas (e.g. hotel guests or trail users), who are the people gaining most of the direct benefits of the protected area(s);
3. Finances generated can be used to suit protected area management needs, as accountability is to the public at large and not to a specific donor's agenda;
4. Finances generated in this manner can often be used as a national "matching" component of funding from international donors;
5. There is usually no need to set up a new collection bureaucracy, nor to burden parks staff with this task, as the existing systems for collection of taxes, levies, and surcharges will undertake the job.

The main disadvantages of such systems are the difficulty of winning political and public support for new taxes, and of keeping the proceeds earmarked for conservation once they have been collected. For these reasons the up-front costs of lobbying for and building such systems should be weighed against their potential benefits. These concerns are also relevant to user fees, discussed in the next section.

3.3 User fees

The term "user fees" covers a number of means of charging, including fees for park entry, admission to special events or attractions, camping sites, picnicking facilities, parking, and yachting or cruise-ship visit permits. They may also be levied on concessionaires involved in lodging, food and beverage, guiding, or charter boats (these include fees that may be charged for licensing the operation, and/or per-person fees they collect). Parks that provide a valuable service, such as water supplies for cities downstream, may be able to collect user fees by a tax or levy on water or electricity users (see Section 3.2).

Like government allocations, user fees have a long history of providing funding to protected areas. Traditionally, user fees provided a relatively insignificant (usually less than 5%) of total park and park system budgets. However, in recent years, this financing mechanism has been increasingly used to replace declining government allocations, both in developed and developing nations. Protected area managers should be aware of the potential offered by user fees.

The potential earnings from user fees vary with level of visitation and use, but the right combination of fees and levies can often provide as much as half the operating costs of any given area. Some heavily-used parks in North America, Africa and South America provide revenues sufficient to support their own operations and even subsidise less visited sites in their national protected area systems.

On the positive side, user fees can:

- be inexpensive to establish, (though they are not without costs to collect) and are familiar to most users;
- generate substantial revenue in some high use parks;

- be used as a management tool (e.g. to control crowding and over-use or promote seasonal equity);
- be used to promote a 'user-pays' equity (only the users pay for the direct benefit they obtain);
- reduce unfair competition with the private sector (i.e. by providing private goods at the same price as the private sector);
- encourage national treasuries and international and private donors to help fund protected areas, when the area is generating a significant portion of its operating income ("helping those who help themselves").

However, there are also dangers in establishing a user fee system, including:

- alienating constituencies used to free access;
- causing displacement of traditional users;
- creating the expectation of higher standards of facilities by users;
- restricting use by certain sectors of the population (e.g. lower income earners); and
- focusing managers' attention on direct rather than indirect benefits, and on highly visited as against less-visited areas.

These potentially serious dangers are discussed in greater detail in Section 3.3.1 below.

Though protected areas operate facilities that generate significant revenues themselves, the trend in some regions seems to be toward privatising resort and lodge facilities within the parks. Such a development reflects the forces at work within society at large: particularly during the past dozen or so years, many government departments have moved away from a 'public good' philosophy to a 'business approach' stance (Crompton, 1998).

Concessions granted for these private operations are a form of user fee that can provide a significant source of revenue. Concession operations can include gift shops, souvenirs, beverage and food sales, and equipment rentals and sales. In theory, just about any function of the protected area, including the management of the entire park, can be contracted to a concessionaire. However, the importance of public good benefits flowing from a protected area means that governments, in the case of publicly-run protected areas, should remain closely involved in their management. One particularly difficult question in operating concessions is determining the correct balance between the amount that the concessionaire will earn by exploiting the resource, and the amount that will be returned to the protected area agency. However much is let out to the concessionaire, it is important for the manager to retain sufficient control over the operations to assure that resources are not over-exploited or damaged, and that protection and management functions are not neglected in favour of profit-making functions.

Leases can also be used to generate revenue. A lease allows an individual or group to use the land or sea for an agreed-upon fee and for an agreed period of time. Protected area lands have traditionally been leased for mineral exploration, oil development, forestry activities, grazing, and agricultural uses. But extreme care must be taken to ensure that income-generating is compatible with the core conservation objectives. Other potentially less damaging uses that may be leased are the gathering of fallen trees, ornamental plants, seeds and fruits.

User fees can also obtained from reservations and permits (for example, for back-country hiking or campground use), boat launching and picnic shelter use fees, anchorage fees and trail use fees. Some protected areas obtain revenues by charging "publicity fees" to corporations using the protected area as a location or backdrop for advertising, films, posters and other uses. Some charge fees for the installation and use of such facilities as transmission towers, marine platforms or research stations.

Many protected areas earn income by selling products in book and gift shops, or providing services for which the user pays, such as guided hikes, float trips, interpretation, museums and exhibitions, films and entertainment, rental of equipment, maps and guides.

3.3.1 Cautionary notes on user fees

Though user fees can be useful for raising much-needed revenue, there are several dangers in this funding mechanism. One is the risk of over-commercialisation. A protected area which emphasises user-fee revenues can lose sight of its primary conservation objectives and over-develop facilities designed to produce income rather than protect natural resources. Other risks include deploying scarce resources toward collecting fees rather than protecting resources, creating controversy and public opposition, and the increased likelihood that when protected areas collect user fees, they will be held liable for accidents suffered by users (Leclerc, 1992).

Moreover, recent research has provided other insights into how the public reacts to user fees. Local users, in particular, appear to be least supportive of user fees, especially for goods or services previously obtained at no or little cost. Also, local users often provide the greatest number of visits to protected areas, meaning that they may be unfairly burdened by the fees. Given that one of the clearest lessons protected area agencies have learned is that parks must be supported by their local populations in order to survive in the 21st century, it is worrying that a user fee strategy may alienate them. Certainly, the creation of new user fees for services which previous generations received at no monetary cost, and in fact helped to maintain and conserve for many years, is hard to justify. The research suggests that what is needed is a meaningful debate with local constituents who may be affected by a user fee before the fees are put in place. Local residents will support reasonable fees for certain goods or services if it is shown to be in their best interests. For example, if the protected area manager can show that instigating a user fee will lead to the long-term conservation of an important resource (e.g. a medicinal plant found in the park), and bring benefits to the local community, then the user fee may be accepted.

Indeed, a general rule is that parks must justify new or increased fees, and that the introduction of fees for no other apparent reason than to generate revenue is unlikely to be supported by any user, local or foreign. It is also important to develop a plan for what will be done with the increased revenue. People are much more likely to support fees that relate to the conservation and recreation functions of protected areas than ones that raise funds used as 'general revenue' elsewhere. For example, the public is more likely to support projects that will enhance the ecological integrity of the protected area, protect threatened wildlife habitat, or pay fees that will make the park a safer and more pleasant place to visit. Thus, if the protected area agency is able to apply, say, 75% of the revenue generated by user fees to uses within the protected area, public opinion may well support the introduction of such fees. Their support will also be secured more readily if park

users are told of the specific improvements to the park made possible by the user fees (before, during or after their payment). For example, managers can place a sign at the trailhead of a new or improved trail to notify the users that their hard-earned money is being well spent in the areas they enjoy visiting.

Users make decisions as to whether a user fee is 'fair' or not. People seem to judge fairness by making comparisons with similar goods and services in other areas and through their previous experiences in paying for that particular (or related) good or service. Thus, paying 20 units of currency in a park for a camping site, for example, where a similar site would cost 10 units in the private sector, or if a previous camping trip had cost 10 units, would not likely be supported. Also, research suggests that the public is more resistant to paying first-time fees than reasonable increases to existing fees. So if, for example, camping sites had previously been free in the protected area, or were typically free outside the park, the user would be more likely to believe the new camping fee was unfair, and might not use the facility at all. In any case, as fees for goods or services increase, so do users' expectations of quality and standards (McCarville, Reiling and White, 1996; More, Dustin and Knopf, 1996; Barton, 1998).

Fee structures should not exclude local residents in favour of high-paying foreign visitors, nor should they appear to restrict public access. Therefore, some protected areas systems charge reduced fees for local residents and/or provide free access on certain days or for special events. For example, India recently instituted a two tier fee system for many of their protected areas and World Heritage Sites. Thus Indian residents visiting the Taj Mahal pay approximately US$0.50 for entry, while foreigners pay over US$20.00. Anecdotal evidence suggests that visitors are reacting to this increase by continuing to visit the Taj Mahal, but may be cutting short their stay in the Agra area, and perhaps are less eager to visit other, less famous sites within the city. If surrounding attractions, hotels and restaurants in the Agra area can prove that their profits have declined as a result of the fee changes, and so local tax revenues are down too, the new fee structure may lose local support. It might help to make the relatively high visitor fees more acceptable if a justification were given for these increases, and if a portion of the additional revenues earned were to stay at the site (or similar cultural sites) rather than being earmarked for federal government coffers.

The establishment of appropriate user fees becomes more critical where the protected area system is the foundation of the local tourism economy. While an entry fee is generally a small part of the overall cost of a trip, the tourism industry is a global market in which countries compete with each other. In such a competitive market, an inappropriate strategy to charges and fees may drive customers away. Some market testing is advisable before major price hikes for visitors are implemented.

User fees are not without their costs: for example, they require contracts, the installation and maintenance of toll stations and equipment, and associated administrative supplies. Additional costs will be incurred in the form of accounting and control, data processing and report generation, with associated spending on personnel training, security and public relations. A simple user-fee system, involving an entry fee, will cost less to implement than a complex range of service fees charged directly or by third parties; and fees that can be collected at one location (e.g. a single entry/exit point or trailhead) will be far easier to administer than those that must be collected at many sites.

Finally, there are often up-front costs involved in establishing user fees, whereas the revenue streams may not occur until the longer term. Short-term loans or donations from

bilateral and multilateral agencies or donors may help in start-up phases, who may be attracted to the prospect of long-term financial sustainability.

3.3.2 Necessary steps to establish user fees

As with taxes and levies, the effectiveness of user fees as a financing mechanism for protected areas is, to some extent, determined by the legal structures within which the protected area operates. Ideally as much of the revenue as possible should be available to the protected area system, or the specific protected area, where it is collected. But national laws often require income from government entities to be returned to the national exchequer, thereby creating an incentive to establish parastatal or private organisations which can retain the funds to manage the protected areas. Another option is to seek to amend legislation so that funds earned by user fees are earmarked for use by the national parks. While this may take years to bring about, some countries have made this change. Systems of this kind probably provide the best basis for long-term, sustainable financing of protected areas.

As noted above, the collection of user fees will require start-up funding to enable stakeholder participation in discussions of the pros and cons of proposed fees. Creating a meaningful dialogue with various interest groups, and incorporating their concerns whenever possible, will help maximise public support for the use of fees. It also helps to explain the conservation-related rationale behind introducing such fees.

The agency should define the objectives of the user-fee programme (revenue generation for specific or general purposes, management of visitor numbers, discouraging specific activities or uses at certain times or locations, encouraging or discouraging commercial uses, etc.), and select fees appropriate to those objectives. The cost of collecting the fee needs to be determined so that it is high enough to cover costs and provide a profit. Voluntary and third-party fee collections may not produce 100% compliance, but because these are cheaper to administer, they may be more attractive options. Market analysis can help define current and potential visitation, and the response to new fee arrangements should be monitored.

Administering the collection of user fees can be as simple as training staff at existing visitor centres, or it can involve significant investment in park infrastructure for long-term returns. In most cases it is probably preferable to begin with programmes that are simple to operate, and move to more capital-intensive systems as revenues are generated to support their development.

3.4 Cause-related marketing

Cause-related marketing is the sale of items (primarily intangibles) whose primary value is to make the purchaser feel that they have personally aided a conservation cause. Examples of cause-related marketing include special events, sales, adoption schemes and collection schemes. Special events can include anything from dinner auctions to members-only excursions. In general, a great deal of money can be made from such special events if they meet these conditions:

- volunteers rather than paid staff should be used to do most of the work (most special events, from small, local events to mega-events like the Olympics, rely heavily on volunteer donations);

- goods and services should be donated for little or no cost (e.g. the film, the hall, the food, the drinks, the performers, the waiters);
- the event should not clash – in terms of both time and theme – with other special events being held in the region;
- the event needs to have social appeal, to be "the thing to do".

Sales can be a big revenue earner for protected areas. Generally, merchandising works best for those who can market unique products and those who can collaborate rather than compete with the existing sales industry. Visitor centres are often ideal locations for shops and sales. The best way to get started is with a brainstorming session including representatives of park management, any NGOs that will be involved, and interested members of the business community. A sound business plan is essential.

Most of the organisations that have been successful in sales have experimented with various products, expanding production of those that sell well and discontinuing those that do poorly. Clothing such as T-shirts and caps, souvenir items such as post cards, photo books, and key chains, and maps, guidebooks, and other items specifically related to the site are usually successful. Whenever possible, the goods sold should relate to a conservation-related image. Only goods considered by local people and visitors to be culturally appropriate should be put on sale.

Adoption programmes have also been used to generate revenue for specific sites, species or projects. The Nature Conservancy's partners in several countries in Central America have raised money for park protection and for park endowment funds by selling "deeds" to an acre, or hectare, of land within a protected area. For about US$35 to 120, the donor receives a certificate acknowledging his/her "adoption" of the unit of land and its wildlife. The certificates have been popular as gifts for Christmas and special events, and classes of schoolchildren have got together to raise enough money to buy an acre or two. In Japan, the Sheri Town Trust's "100m^2" funding drive encourages individuals or groups to donate 8000 yen (approximately US$65) to buy 100$m^2$ of privately owned land within the boundaries of Shiretoko National Park. This type of programme can work well for organisations and protected areas that have already established an audience to which marketing can be directed (members, gift-shop customers, retail or catalogue merchants who will display and sell certificates, etc.). It is also easier of course to operate such schemes in a wealthy country. The success of adoption fund-raising schemes depends heavily on personal communications with supporters. This can be time-consuming, and so it is helpful to have a group of volunteers to undertake work such as producing and mailing certificates, sending personalised thank-you letters and answering correspondence.

There are many kinds of collection schemes. Ideas which may work include:

- placing a can or piggybank next to the cash register to encourage people to donate their change to the protected area;
- collecting any leftover currency from visitors at the end of their trip. Ways to do this include: providing visitors with a self-addressed envelope to use to mail back any leftover currency, and collecting such currency from departing visitors, at airports or other international exits, or on an airline;
- erecting displays in or near the park that ask for voluntary contributions and provide a place to deposit these. Fairs and other local events are often well suited to collecting contributions;

- creating a "friends scheme" with various tiers of subscription which provide entitlement to different levels of service (e.g. providing friends with a varying amount of information about developments in the park) – see also Section 3.11.2 below on the donor as against marketing potential of friends' schemes;
- organising volunteers to undertake door-to-door collections;
- where tax systems permit, including a voluntary "check-off" on income tax forms that allows taxpayers to donate a portion of their tax or refund to wildlife conservation.

All these ideas for income generation work. Some take more effort to set up and maintain than others, depending on the characteristics of the protected area or project that they are designed to support. The most common mistake is trying too many at once, not putting enough investment into each one, and failing to evaluate its true potential. Once a scheme of this kind has been put in place, its success, or otherwise, should be monitored and the lessons learnt and applied. As in protected areas management itself, adaptive management of such fund-raising initiatives is necessary.

3.5 Debt-for-nature swaps

Since 1987, when the first debt-for-nature swap took place, over 125 million US dollars has been leveraged through that mechanism for conservation. Much of this funding has gone into conservation trust funds or endowments for specified protected areas.

Table 3.2 below shows the world-wide history of debt swaps for conservation. It shows the date of the swap, the country whose debt was refinanced, the name of the purchaser (NGO or government), the face value of the debt (the amount that was actually cancelled), what it cost the donor to cancel the debt, and the conservation funds yielded. Most countries that have so far benefited have been in Latin America and Africa, but the mechanism could be applied in any developing country with a heavy debt burden.

In general, a swap can be carried out when a country has debt that is not being reimbursed. This is especially the case where a creditor tires of waiting for repayment of a commercial debt and starts trading it at a lower price, usually on the international secondary market. Discounts on this market can be 20, 50, 80 cents on the dollar, attracting purchasers, such as conservation NGOs. With the debt in hand, the purchaser approaches the government in debt, and requests a redemption of the debt in local currency, either at face value, or at some negotiated value higher than that which was actually spent in hard currency to acquire the debt. The country benefits by cancellation of hard currency debt, and – if the purchaser is a conservation body – protected areas can benefit from the local currency resources which are acquired in this way.

While debt-for-nature swaps can generate large amounts of local currency, an NGO, protected areas or trust fund manager should look at a number of factors before deciding to go through with a debt-for-nature swap. It can go wrong: for example, if a country's own currency is very unstable the gain may be wiped out quickly. Or if hard currency is required to purchase equipment, it is no help to be stuck with local currency that cannot be reconverted. Further, the proceeds of a debt swap may be difficult to invest locally or provide poor returns.

Table 3.2 Debt-for-nature swaps: exchanges to date by country

Date	Purchaser	Face value of debt	Cost to donor	Conservation funds
Bolivia				
5/93	CMB	NA	NA	$397,000
6/92	TNC/WWF/JPM	$11.5 M	NA	$2.8 M
8/87	CI	$650,000	$100,000	$250,000
Brazil				
6/92	TNC	$2.2 M	$746,000	$2.2 M
Costa Rica				
2/91	Rainforest Alliance	$600,000	$360,000	$540,000
3/90	WWF/TNC/Sweden	$10.8 M	$1.9 M	$9.6 M
4/89	Sweden	$24.5 M	$3.5 M	$17.1 M
1/89	TNC	$5.6 M	$784,000	$1.7 M
7/88	Holland	$33 M	$5 M	$9.9 M
2/88	CI/WWF	$5.4 M	$918,000	$5.4 M
Dominican Republic				
3/90	TNC/PRCT	$582,000	$116,000	$582,000
Ecuador				
6/92	Japan	NA	NA	$1 M
3/92	WWF/DKB	$1 M.	NA	NA
4/89	WWF/TNC/MBG	$9 M	$1.1 M	$9 M
12/87	WWF	$1 M	$354,000	$1 M
Ghana				
91	DDC/CI/SI	$1 M	$250,000	$1 M
Guatemala				
5/92	CI/USAID	$1.3 M	$1.2 M	$1.3 M
10/91	TNC	$100,000	$75,000	$90,000
Jamaica				
10/91	TNC/USAID/PRCT	$437,000	$300,000	$437,000
Madagascar				
05/94	CI	$200,000	$50,000	$160,000
10/93	CI	$3.2 M.	$1.5 M	$3.2 mil
1/91	CI/UNDP	$119,000	$59,000	$119,000
8/90	WWF	$919,000	$446,000	$919,363
7/89	WWF	$2.1 M	$950,000	$2.1 M
Mexico				
11/96	CI	$670,889	$440,360	$560,752
7/96	CI	$495,674	$327,393	$442,622

Date	Purchaser	Face value of debt	Cost to donor	Conservation funds
1/96	CI	$391,000	$191,607	$254,000
12/95	CI	$488,000	$246,000	$336,500
11/94	CI	$290,000	$248,395	$290,000
06/94	CI	$480,000	$399,390	$480,000
06/94	CI	$280,000	$236,000	$280,000
6/93	CI	$252,000	$208,000	$252,000
1/92	CI/USAID	$44,100	$355,000	$441,000
8/91	CI/BA	$250,000	NA	$250,000
4/91	CI/MF	$250,000	$183,000	$250,000
Nigeria				
7/91	NCF	$149,000	$65,000	$93,000
Panama				
3/92	TNC	NA	NA	$30 M
Philippines				
2/92	WWF	$9.9 M	$5 M	$8.8 M
4/91	USAID/WWF	NA	NA	$8 M
8/90	WWF	$900,000	$439,000	$900,000
1/89	WWF	$390,000	$200,000	$390,000
Poland				
1/90	WWF	NA	NA	$50,000
Zambia				
8/89	WWF	$2.3 M	$454,000	$2.3 M

Box 3.1 How to maximise the potential of debt swaps

- When negotiating redemption with the Finance Ministry or central bank, ask to have the maximum amount of debt redeemed;
- Negotiate the redemption rate – e.g. full face value, or 80% – the higher the better;
- Consider the options for redemption in the form of cash, bonds, length of maturation, and amount of interest;
- Try to obtain an account within the treasury that is indexed to a hard currency, so that redeemed funds retain their value;
- Shop around looking for debt. Talk to traders and investment bankers, and try to find debt that is trading cheaply;
- Consider setting up an arrangement under which funds are made available in repeated tranches, so providing a source of recurrent income.

Debt swaps are a good idea when debt is very cheap. Under those conditions, a swap can produce a good premium. Even when debt is not cheap, a swap will be attractive when good investment possibilities and low inflation rates operate in the country concerned. A debt swap may also succeed when it is the only way to access a specific source of support – for example, if a government or creditor is willing to make a gift of the debt, in order to be seen to be making a contribution to conservation. They can be used to set up and finance a trust fund for conservation. Debt swaps may also appeal to bilateral agencies.

In Box 3.1 above are some tips on how to maximise the results of a debt swap.

3.6 Joint implementation and carbon offset projects

Joint Implementation and carbon offset projects stem from agreements developed under the Framework Convention on Climate Change (see above). Their fundamental aim is a reduction of the concentration of "greenhouse gases" in the atmosphere by conserving forests that sequester carbon in their biomass. The implementation of such a project, subject to carbon emission restrictions, requires a partnership between a firm and an entity (usually an NGO or an NGO-government partnership). This partnership must demonstrate that there will be specific carbon offset benefits from forest conservation, and assure that such conservation takes place. These projects are complex and expensive, must conform to detailed regulations, require the endorsement of the national government and must be approved by the governing body of the Climate Change Convention. Time will tell if they can be used to support protected areas.

3.7 Grants from multilateral and bilateral donor agencies

Multilateral donor agencies (e.g. the World Bank, Inter-American Development Bank and Asian Development Bank) and bilateral donor agencies (e.g. the U.S. Agency for International Development [USAID], the European Union, Danish International Development Agency [DANIDA] and Japan International Co-operation Agency [JICA]) provide a significant amount of financing for conservation and are often particularly interested in financing protected area activities. Funding from these sources may be used to help countries fulfil commitments made under the biodiversity-related conventions (such as Article 8m of the CBD mentioned in Section 1.1).

In general, multilateral bank funding is available only to governments or to private-sector projects expressly approved by governments. Typically a development bank grant or loan for the establishment and maintenance of national parks and protected areas would be provided as support to implement a national conservation plan. Sometimes conservation funding might also be attached to an infrastructure development project; for example, as mitigation for the environmental effects of developing roads, railways, dams, etc.

Projects submitted to development agencies, especially multilateral banks, must usually have the backing of the appropriate government agencies, and generally be submitted by or with those agencies.

Box 3.2 Some sources of information on foundations and charitable giving

- Guidance on Unites States-based funding organisations can be found on the Internet at the Foundation Center, web site: www.foundationcenter.org. It sells directories and guidebooks, including the Foundation Directory, Foundation Grants Index, and directories of international and environmental grantmakers, offers reference librarian services, and gives short courses on donor research and proposal writing, among other subjects. Their web site includes digests from philanthropy-oriented publications on trends in philanthropic giving.
- Many public and other libraries include reference books on topics touched on in this publication.
- Other Internet-based lists of environmental organisations, some of which provide funding, can be found at:
  - http://dmoz.org/Science/Environment/Organizations/;
  - http://www.oingo.com/topic/49/49394.html;
  - http://directory.netscape.com/Science/Environment/Organizations.

3.8 Grants from foundations

Philanthropic foundations also provide significant amounts of financing for conservation activities around the world. Foundations usually have specific missions, areas of focus, or geographical interests that guide their choice of which projects and activities to fund. Thus, it is important to understand the foundation's aims and specific interests, and to tailor proposals to these. This may simply mean fashioning the language of the proposal to reflect the language of the mission, goals and objectives of the foundation; but on occasion it may require rethinking plans entirely. Generally speaking, it is best to identify foundations that have missions, goals and objectives closely aligned with those of the protected area. Case Study 10 provides an excellent example of accessing funding from foundations (Part 2 of the document).

In general, foundations are most interested in activity or project-based financing, and so are not usually a useful source of income for recurrent or core costs. Often too they want the projects or activities that they support to become self-supporting or financing. Thus, they may be a source of revenue for start-up costs or one-off projects such as infrastructure development.

Most foundations favour community involvement. The projects or activities which a foundation supports, reflect not only on the protected area but also on the foundation. Therefore, foundations often have a keen interest in remaining involved throughout the lifetime of the project. This can strengthen projects or activities, as foundations can be a 'free' resource for advice and support, but it can also result in added management costs. Again, it is important to identify a foundation whose mission, goals and objectives are compatible with those of the protected area. Box 3.2 summarises information about foundations etc.

3.9 Loans from the private sector

Private sector banks and lending agencies provide loans at market rates to individuals and organisations with adequate credit ratings. These loans can range from short-term overdrafts on bank accounts (usually at higher interest rates) to long-term mortgages (usually at lower interest rates). Because the lender is not interested in the goods or services provided by the protected area, but in making money from the interest accrued, loans differ from the other instruments mentioned in this section. However, they can be a useful source of funding and are thus included here.

Loans can provide a protected area with funding, but should not be considered a source of income. Loans of this kind require the repayment of both the principal amount borrowed and the accrued interest. They can, however, assist a protected area to invest in training, infrastructure or other activities that will provide a long-term return. However, market interest rates in most developing countries are too high, and the risk of defaulting on a loan should discourage protected area managers from relying on this source. Moreover, many governments will forbid the managers of government-run protected areas from seeking loans – even if it is allowed under legislation – as it may be seen as a tacit acknowledgement that protected areas are under-funded.

3.10 Loans from the public sector

Public sector entities such as the International Finance Corporation (IFC) provide loans at below-market interest rates (http://www.ifc.org). The IFC was established to assist private sector corporations interested in investing in developing countries but discouraged by the high interest rates in those countries. It can provide a useful source of finance for privately run protected areas or concessions in developing countries. It may also assist protected areas to identify additional sources of finance for non-private sector

Box 3.3 Some tips for working with the corporate sector

- Brainstorm a list of the companies most involved or likely to contribute, and recruit a corporate representative to chair the solicitation process;
- Start with a small, tangible effort – a trail, an interpretative signboard, a beach clean-up, for example – that can be supported by a limited number of corporate patrons; say, 10 corporations contributing $250 each;
- Be flexible about accepting in-kind as well as cash contributions;
- Have a backup financing plan to make sure the project gets completed even if only some of the corporate sponsors are supportive;
- Make sure that the sponsors get good publicity and recognition for their efforts;
- Build on goodwill with further events, calling on corporate officers pleased with earlier outcomes to assist with future projects;
- Work with local branches of international firms to gain access to their corporate foundations and corporate giving programmes;

Cont.

Box 3.3 Some tips for working with the corporate sector (cont.)

- Include among supportive corporations a number that use the protected area, and analyse whether there is a way to issue permits or capture use fees – even if on a voluntary basis – rather than asking for straight donations;
- Think of the possibilities for corporate sponsorship of popular events – a school science day, a student conservation poster exhibit, or student conservation clubs;
- Do not take on activities outside the mission of the protected area simply to win corporate support, but use schools and students, for example, to reach service industries such as banks, insurance companies, travel agencies, and soft-drink bottlers as potential sponsors;
- Maintain a visitor registry that asks people for their name, address, telephone or e-mail, business affiliation, and comments. Review the registry for frequent visitors who may have helpful affiliations;
- Talk to business leaders about the social and charitable activities that their companies support and why they do so. Ask them for advice about how to structure a corporate giving programme that would appeal to them and their colleagues.

investments. IFC funding can be used to match GEF grants or other multilateral and bilateral donations.

Of course, the funds from the IFC or other public sector lending organisations are loans, not grants, and must therefore be paid back with interest. Thus, they must be invested in projects or activities that will produce returns within a time horizon compatible with the loan.

3.11 Donations from corporations and individuals

3.11.1 Corporate fundraising

Corporations are increasingly interested in assisting conservation activities. This may be driven by a desire to develop a "greener" image but also by a true sense of charity towards the aims of the environmental community. Corporations are often as unsure and wary of conservation organisations as the environmental community is of them. Therefore, securing corporate donations may require an investment of time in meetings and presentations and an effort to cultivate mutual understanding. Many corporations operate complex and time-consuming decision-making processes. Corporations that need to bolster their "green" image (e.g. resource exploitation companies) or corporations with a direct stake in the success of the conservation area or programme (e.g. cruise lines, the food and beverage industry, travel and tourism concerns) may move more quickly.

Visitors to protected areas often have greater levels of environmental awareness than non-visitors, and they may be suspicious of parks that rely too much for funding on companies that they consider to be "anti-environmental" (e.g. extractive industries with a poor environmental record).

Advice on working with the corporate sector is set out in Box 3.3 above.

3.11.2 Gifts from individuals

Generally, individuals are the easiest source from which way to raise money: there need be no proposals, deadlines or guidelines. Individuals are also the most flexible, and most likely to give donations that managers can use according to their own priorities. The trick is to identify individuals who are likely to be willing to give and then ask them to make a contribution. The "ask" is an art and act of courage, but it is a rare donor who gives without being asked. The more personal the request, the more likely success will be. Basically, there are three steps to the successful solicitation of individual donors:

1. inform and educate the donor about the conservation programme and what needs to be done;
2. inspire them, helping them to develop a personal vision of how their contributions will make a difference; and
3. ask them to help make that difference.

Generally, a specific request is also better than a general one (one very successful visitor-outreach campaign told potential donors: "we need $50,000 to build a boardwalk interpretative trail through this marsh, that's $20 a board, won't you contribute a board or two?"). Several protected areas have used devices such as a visitor registry or raffle to collect names and addresses of visitors, following this up with a personal letter requesting a donation. Even simple programmes such as a "spare change" box in a gift shop, or a pitch by tour guides (with special donation envelopes) at the end of a tour can generate donations. Always remember to get the names and addresses of people who give, thank them, tell them how their gift has helped, and ask them to consider giving again.

An important factor in asking for donations from individuals is the relative incomes of those individuals. In general wealthier people are of course more able to donate to charitable causes, such as a protected area. Tailoring the requests for various income groups may be one approach, as is allowing "in kind" gifts such as volunteer services or building supplies which enables those with less disposable income to donate. Private donations, whether money or gifts in kind, help create a relationship between the donor and the protected area. Thus, neighbours and visitors can become "friends" of the protected area and can be mobilised to support the area financially in future, or campaign for its protection. (See also Section 3.4 on the marketing potential of friends' schemes).

Planned giving

Planned giving – that is, charitable donations made through a person's will or estate, or

Box 3.4 Some options for developing income by planned giving

- Designating a gift to a protected area or conservation organisation in a will;
- Naming a conservation organisation as the beneficiary of a life insurance policy;
- Donating property or securities with or without provisions for the donor's "life estate" (right to continue living in or using the property throughout his/her lifetime) or lifetime income from the securities;
- The establishment of charitable trusts; and
- The purchase of annuities which will benefit protected areas.

by other mechanisms such as insurance and annuities – is one of the fastest growing and most lucrative aspects of charitable giving in developed countries today. There are many options available to individual donors, though these will not necessarily be appropriate in all countries. Options include those set out in Box 3.4.

Most protected area system managers and conservation organisations will have less knowledge of these options than the potential donors themselves. Therefore, when approaching individual donors for contributions, it is worth developing some knowledge about the inheritance and tax laws that might affect local and international donors inclined to set up their giving as part of their estate or investment plans. In some countries, it may be possible to get *pro bono* guidance from a financial advisor.

Memberships

Membership programmes provide a means to secure voluntary support from people who may or may not actually visit the site concerned. Members can be individuals or entities (businesses, for example) who join an organisation (usually by paying a membership fee) and in return receive membership benefits. The main attraction of membership is to be part of an organisation that supports a cause in which they believe. Additional benefits may include free or discounted admissions, discounts on merchandise, a subscription to a bulletin or newsletter and invitations to special events. However, a common mistake is to offer so many benefits to potential members that the programme eventually costs more to run than it brings in. Never forget that the main benefit of membership is the financial support of the cause (i.e. the protected area).

Membership schemes are well-suited to protected areas. A "Friends of the Park" programme, or collaboration with existing NGOs, provides an excellent opportunity to channel individual contributions directly to protected area management. Staff can set up the means to collect donations on site, or to obtain visitors' names and addresses for later fund-raising contacts. Some protected areas make this information available to NGOs for co-operative fund-raising efforts.

The annual subscriptions from individual members will be modest (say in the range US$20–50). Corporate membership subscriptions will be higher (say US$50–5,000). Experience suggests that between 1% and 10% of those targeted for individual membership will join; success in recruiting corporate members will be helped by the corporate peers who are connected with the organisation soliciting the donation. In both cases renewal of annual membership is essential to the long-term success of a membership programme.

While membership dues can be a significant source of income, the existence of a conservation NGO or a park-supporting group is more than a source of funds. It can bring influence both in the political process and in convincing potential donors to invest. Members can also contribute by offering to volunteer time for park-related tasks, and by buying products and tickets to benefit events, and by identifying potential donors. Membership development involves a continuing process of building, renewing, upgrading, and maintaining members so that these benefits continue to flow.

Much advice is available on memberships, and how to build them – see for example Resources for Success by The Nature Conservancy (Bath, 1993) (for information on ordering this booksee http://nature.org/international/about/art872.html).

4. Assessing the feasibility of funding options

It often makes good sense to develop a financial strategy for the protected area. Whether such a strategy is feasible will depend on the protected area's *internal* capacities and on *external* factors. The former involves an assessment of the strengths and weaknesses of the human and financial resources, and the characteristics of the site itself. The latter includes legal structures such as taxes, subsidies, land tenure and zoning regulations, as well as the social, cultural and political context of the protected area. Each of these factors is described below.

4.1 Factors relating to internal institutional capacity

4.1.1 Human capital

A key issue is the strength of the human resources of the organisation. A financial plan which relies on capturing revenues from direct customers such as hunters, students, birders or tourists, will require the capacity to conduct tours, provide safety demonstrations, enforce regulations and create an atmosphere conducive to the needs of each group. Language, presentation and communication skills will be particularly important. On the other hand, a financial plan which focuses more on securing grants from national or international donors will need different skills, such as writing (sometimes in a foreign language), developing proposals and communicating innovative ideas.

4.1.2 Financial

Some strategies require significant short-term investment in infrastructure, human resources or time, all of which may need to be financed. It may be possible to implement other strategies without significant investment. For instance, a tourism-based financial plan will probably call for investment in roads, accommodation, dining facilities, and a marketing campaign before the first tourists arrive, entailing significant up-front investment.

4.1.3 Infrastructure/natural capital

Access from major cities or transportation hubs may determine if the protected area can tap into urban or international tourism markets. Proximity to other tourist attractions may also be a factor. The availability and quality of on-site infrastructure – accommodation, dining facilities, research facilities, footpaths etc. – is also important. So too are the attractions offered by natural and cultural features in the protected area.

4.2 External institutional factors

4.2.1 Legal frameworks

The legal structures affecting protected areas will have significant bearing on the financial options available to that protected area. Existing laws will often limit the mechanisms that can be used. For example, some national park legislation restricts the charging of entry fees to parks, while permitting fees for the use of huts, trails or parking. Tax structures at the local, regional or national levels may determine whether indirect customers are able to pay for services provided to them by the protected area. For example, where there is a local-level home-owners' tax, local residents may be able to pay for ecosystem services provided to them by the protected area; where no such tax exists, it may prove difficult to capture the value attributed to these services by local residents. Tax structures can also work against protected area managers' efforts to achieve financial sustainability: for instance, where non-profit status frees protected areas from tax obligations, the protected area manager may be unable to access commercial finance (e.g. bank loans).

4.2.2 Fiscal frameworks

Like taxes, subsidies can work both for and against conservation and sustainable use goals. Protected areas may benefit from subsidies provided by the government for conservation or sustainable use activities or projects: for example, it may operate a policy of subsidising wetland restoration. The protected area could make use of this subsidy to reclaim and manage a wetland within its boundaries. More often though, subsidies work against protected areas achieving ecological and financial sustainability. Subsidies which encourage unregulated extraction enterprises, such as fisheries, timber and mining, often have a damaging ecological effect on the protected area; in so doing, they may also impose a financial demand, as it falls to the protected area manager to combat their effects.

Land tenure and zoning regulations may also affect the protected area manager's ability to pursue financial objectives. The ownership structure of the protected area determines who are the stakeholders of the protected area, who receives the benefits and costs of certain activities, and who holds the rights and responsibilities for activities conducted within the protected area or its buffer zone. Clearly, these are all factors that determine which fund raising options are available. Zoning regulations can have a direct impact on the types of uses that are, and are not, allowed within and adjacent to the protected area.

The overall governance structure for the protected area is very relevant to the shape of its financial strategy. A nationally-owned protected area, which is managed by a central government agency, will have very different obligations, criteria and expectations for its financial plan than a protected area owned and managed by a local community-based organisation, an NGO or a private individual or company.

4.2.3 Social, political and cultural context

Every protected area's financial plan must be developed within the political and socio-cultural context of the particular country and region.

A country's political situation will have a considerable impact on a protected area's financial strategy. Political stability is linked to economic stability, an important factor in determining a protected area's financial prospects. For instance, the political and economic stability of a country is conducive to long-term endowment funds, whereas sinking funds may be more appropriate for a protected area in a country which is located in a less stable region.

Furthermore, political stability could determine if some options are feasible. For instance, a country which is war-torn or prone to terrorist attacks, is unlikely to be suited to tourism-based financing strategies for their protected areas. This is an especially important consideration when attempting to capture a piece of the international tourism market. In such a market, each protected area is in direct competition not only with other protected areas in the same country but also with protected areas world-wide. Civil unrest, terrorism and highly-publicised kidnappings can affect tourism numbers; so too will outbreaks of dangerous disease, even livestock diseases like foot and mouth. Such events, often occurring far from the protected area itself, can undermine tourism-based funding strategies.

Programmes that fail to account for socio-cultural contexts are still promulgated from time to time through a lack of experience, understanding or sensitivity. While it is often very hard to comprehend fully the socio-cultural landscape, there are social research methods and approaches which can be used to help place a strategy within the appropriate socio-cultural context. Any attempt at drawing up a financial strategy should include an examination of the socio-cultural issues and their relevance to financing the protected area. For example, it would be unwise to sell articles considered "taboo" or sacred by indigenous peoples; it may also be inappropriate to charge for their traditionally-free rights to hunting, gathering and fishing.

Staff of the Jiangxi Nature Reserve Management Office at the Meixi Hu sand dunes, Po Yang Hu Nature Reserve, Jiangxi Province, China. *©WWF-Canon/Soh Koon Chng*

5. Steps for developing a financial plan

This section draws on the ideas set out above so as to guide protected area managers through the process of developing a financial plan. The seven steps are to some extent sequential, but are not all exclusively relevant to developing a financial plan. In fact, protected area managers may find that they have already completed many of the tasks as part of some other activity for which they are responsible. Briefly, the steps are:

1. Define protected area goals and objectives
2. Identify the existing customer base
3. List existing financial resources and demands on these resources
4. Identify new customers and relative levels of use versus contribution
5. Identify mechanisms to capture income from customers
6. Evaluate the feasibility of the proposed mechanisms
7. Clearly state the financial plan

Each of these is described in turn throughout the rest of this section.

5.1 Define protected area goals and objectives

It is crucial to begin by re-affirming protected area objectives, so as to ensure that the financial plan supports conservation aims. The strictly financial aims of the financial strategy should never be allowed to overtake the core conservation objectives of the protected area. Financial security is not an end in itself, but a means to reaching the goal of conservation.

5.2 Identify the existing customer base

The existing customer base of the protected area provides the foundation for its potential revenue. In identifying the existing customer base, the protected area manager should include both the customers that currently pay for the goods and services they derive from the protected area, and those that derive benefits free of charge. It is useful to be explicit about who is paying and who is not at this stage, to give an idea of potential additional sources of finance.

5.3 List existing financial resources and demands on these resources

This entails identifying and listing the current *sources* of financing, their *timing* (e.g. how long the funds will last, when they are actually paid, and what are the possibilities for further financing from this source), and the *obligations* linked to these financial resources (such as reporting requirements, projects or activities which must be undertaken, and deadlines). At this stage it is also important to identify the protected area's financial

needs. These needs might be classified as core, secondary or tertiary. Some, such as salaries of core staff or payments on loans, *must* be met; others are less important and could be deferred; others again may be considered optional. Such needs should include preferred time horizons, so that they can be matched against the timing of the various sources of funding.

5.4 Identify new customers and relative levels of use versus contribution

It will normally be the case that the needs exceed existing sources of funding, either in the short or long term, so it will be necessary to identify new customers and assess their levels of use against their levels of contribution. This involves going back to the information gathered in step 2 (Section 5.2) and determining who is benefiting from the protected area but not paying for the goods and services they derive. This step also requires an assessment of how much revenue can be collected by the protected area from potential customers and comparing that to the amount of input that would be needed to develop the customer base. Thus information about various customer groups provided in Section 2.3 is important in determining which beneficiaries are worth pursuing as revenue sources. Note too that the advice in Section 4 above can be useful in deciding which customer bases to develop.

5.5 Identify mechanisms to capture revenue from customers

Once the new customers have been identified, the relevant mechanisms for capturing revenue from them need to be selected. Often this step, and step 4, will be carried out at the same time, since the mechanisms needed to capture revenues will affect the decisions about the customers. The information in Section 3 on the characteristics of the different types of financing mechanisms should be helpful.

5.6 Evaluate the feasibility of the proposed mechanisms

Step 6 entails identifying the various constraints and underlying assumptions of the mechanisms. In particular, the step requires that the complexity of the mechanisms be considered, as well as the risks associated with their implementation, the levels of effort and investment needed to make them work, and the timelines of both the returns on these investments and of the needs posed by the protected area. At this stage it may be necessary to revisit steps 4 and 5, and reassess the relevant customer base and reconsider what are appropriate mechanisms.

A scenario-building approach to analysing the various options available through steps 4, 5 and 6 may prove useful. In this exercise, the protected area manager would identify different sets of customers and mechanisms, and then subject them to various scenarios built up from those listed above. The protected area manager would then choose the group of customers and mechanisms which best holds up under the various scenarios.

5.7 Clearly state the financial plan

The plan should be contained in a document which links the financial plan to the protected area management plan and to the goals and objectives of the protected area.

The financial plan should contain projections, setting out expected accomplishments in terms of financial sustainability alongside the financial needs of the protected area in future. Finally, the plan should clearly state planned courses of action should certain expectations not be met. This means that, for instance, if a chosen mechanism requires significantly more investment than expected and thus becomes unsustainable, there should be a plan to suspend investment in this mechanism and reassess the situation.

5.8 Additional items to consider

In addition to the steps described above, protected area managers engaged in financial planning should consider asking themselves a range of questions, as set out in Box 5.1.

Box 5.1 Some questions that should be asked in preparing a financial plan

- What are the current sources of funding? Can these be relied on indefinitely? What can be done to increase, extend, or strengthen each one of them?
- Who are the protected area's constituents? Sightseers? Hikers? Campers? Boaters? Fishermen? Tourism service operators (e.g. shops, hotels, restaurants, and guides) in the area? What do they currently contribute to the costs of managing the area? Could they do more?
- What services are currently provided? Parking? Trails? Campsites? Picnic areas? Boat launching, anchorage, or mooring? Do the users pay for these services? Are the fees appropriate and fair? Would the users pay more?
- What new services might be provided? What is the likelihood of their profitability?
- What organisations are interested in the conservation of this area? Can a partnership be formed to launch and share the costs of a fundraising campaign? Can campaign services be secured *pro bono* from local companies (radio/TV, newspaper, advertising agency, celebrity appearances, site/food/music for a special event, etc.)?
- What donors, on a global or regional scale, have supported activities similar to what is included in the conservation plan here? Are they aware of the area? What are the plans to sound out their interest?
- Has the government considered special taxes or levies? What are the pros and cons of such programmes in the area/country? Can a case be made for establishing such a programme, and the necessary coalition to support it be built? Are there one or two key leaders who might be instrumental in establishing a "conservation sales tax" or some other type of surcharge or levy? Who could enlist them in the campaign? (UNEP, 1999)

6. Issues and options regarding financing protected areas in East Asia

Up to this point, these guidelines have distilled global experience and have not specifically addressed the needs of the East Asian region. *A central message for protected area managers in the region is that while obtaining additional funding for protected area management is possible, it is often a challenging process.* This is particularly true for individual managers who lack the training, background or ability to assess financial issues.

There are a number of funding agencies – both within and outside the East Asia region – that are prepared, or even specifically designed, to provide funding to protected areas in East Asia. Often it is simply a matter of being aware of the funding options and spending the time and energy to create a funding proposal. Distributing this document as widely as possible throughout the region will encourage managers to adopt a business approach so as to maximise the opportunities to raise funds for their protected areas.

The approach advocated here can also be helpful in identifying the many direct and indirect benefits which protected areas provide. By listing, and perhaps quantifying, some of these through economic valuation studies, park managers and administrators can advise government decision-makers about the full financial value of the benefits provided by protected areas. This education process may lead to increased government allocations.

Funding will probably be easier to access in countries that have a higher GNP and standard of living. Countries like Japan have a far greater number of environmental regulations, larger protected area budgets, and many more government and NGO funding sources. Some of these sources in wealthier countries are now ready to support protected area projects throughout the East Asia region. There are also a growing number of international organisations (e.g. GEF, World Heritage Fund, United Nations Fund, UNESCO, IUCN, WWF and Earthwatch) that will provide funding for protected areas in the region. Parts 2 and 3 identify these sources in greater detail.

Specific options for East Asia protected area managers and administrators are difficult to isolate. This is because of the wide range of (a) existing knowledge on financing among protected area managers, (b) managers' access to information on this subject, (c) financial resources available to assess potential financial mechanisms and create a business plan, (d) financial mechanisms available, and (e) national GNP in the East Asia region. These differences are such that each protected area system – often each individual protected area – will need to assess its needs and ability to attract additional funding.

Nonetheless, combining the often limited organisational capacity, personnel and finances available in East Asia to create a 'team' funding proposal within a country, or part of it, may also be a useful approach. While attempts at the individual park level can gain relatively small-scale funding, multi-park, long-term funding proposals will probably require a team approach. By combining forces, the team of

managers/administrators may be able to create a much higher quality, and ultimately successful funding proposal.

Meetings of the East Asia WCPA members could be used for park managers and administrators from throughout East Asia to initiate a trans-regional assessment of the most appropriate funding sources. For example, by using the list of potential funding agencies provided in Part 3 of this report, a team of administrators and other interested persons could develop a funding proposal addressed to one or more regional or international funding agencies. A specific theme (e.g. tourism management), a need (e.g. improved Internet and e-mail access), category of protected area (e.g. national parks), or sub-region(s) (e.g. Mongolia and China) could also be used to focus a funding proposal.

Finally, Box 6.1 sets out some options for promoting more successful approaches to funding protected areas in the region:

Box 6.1 An agenda for WCPA-EA members in financing protected areas

1. Create a task force of WCPA-EA members to explore financing issues and options. Charge it to report within a year.
2. Identify a protected area, or a small group of protected areas, to create a pilot business plan. Criteria for selection include: ability of park staff and/or managers to create a financial plan; the number and level of benefits that the protected area provides; the presence of distinct and large consumer groups that could be tapped to provide funding.
3. Hold a workshop to agree how protected area managers and administrators could move forward with obtaining additional financing.
4. Place the topic of financing protected areas on the agendas of meetings of WCPA-EA; invite representatives who could help identify the most likely funding sources for various projects.
5. Prepare a small number of 'pilot' financial plans in selected protected areas around the East Asia region; distribute these, so as to give managers an idea of the content and process required to create such a plan.
6. The Mongolian Environmental Trust Fund (METF) seems to be an excellent funding model that could be imitated elsewhere in the East Asia region.
7. Develop a training seminar or package for use within the region to help train managers in the identification of consumer groups and the creation of financial plans.
8. The results of existing valuation studies undertaken in the region could be consolidated and publicised, or new valuation studies could be targeted throughout the region.
9. Translate this document for use by protected area managers throughout the region.

The IUCN website

IUCN is in the process of developing an Internet site on financing protected areas (see http://www.biodiversityeconomics.org/finance/topics-38-00.htm).

The site will provide a collection of documents and links on financing protected areas. All materials will be available on the Internet as a combination of HTML pages and PDF documents, and users will be able to print any components they require.

When completed, the overview section of the site will provide a concise introduction to the topic of financing protected areas. The core documents section of the site will provide annotated links to this document. The site will also include a reference section providing annotated links to selected materials, such as those referred to throughout the document. There will also be a number of case studies and a set of linked pages providing details and contacts of potential sources of grant financing for protected areas.

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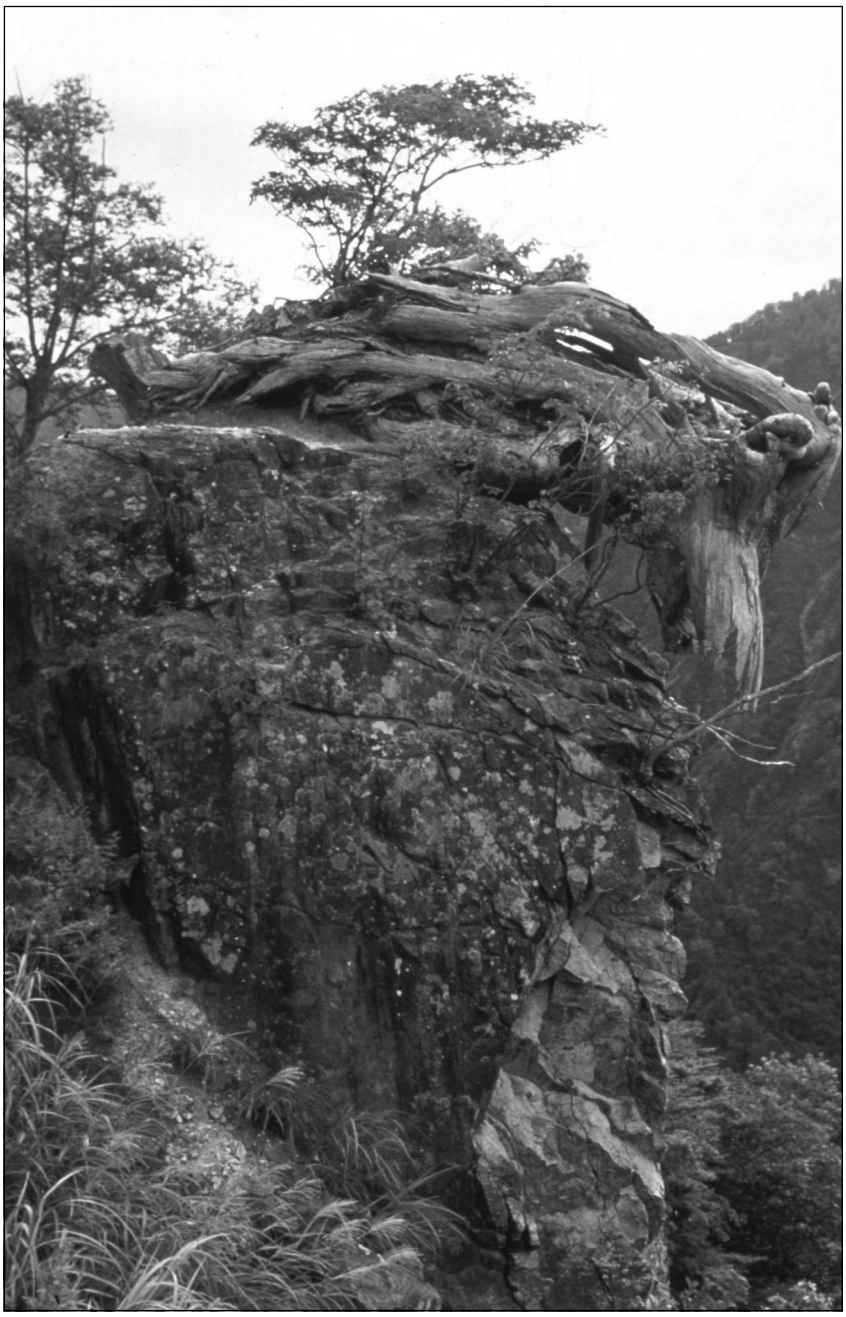
PART 2

Selected case studies relevant to financing protected areas in East Asia



Hakusan National Park, Japan. *©Thierry Jolly, UNESCO*

Case study 1

NGO support to protected areas in East Asia

Generally, higher levels of GNP and education will create the circumstances that favour the growth of NGOs involved in funding environmental projects. Thus, in the East Asia region, **Japan** has the greatest number of NGOs associated with environmental issues. Examples include The National Trust, Golfer's Green Fund, Takara Harmonist Fund, Nature Conservation Volunteer Fund, Taisei Construction Natural and Historic Environmental Fund, Suntory Bird Protection Fund, Amway Nature Fund and the Seven-Eleven Green Fund. Some NGOs (e.g. Keidanren Nature Conservation Fund and Japan Fund for Global Environment) will fund projects in foreign countries.

The **Maeda Ippoen Foundation** was established in 1983 to manage 4,300ha of the Akan National Park (87,498ha). The Foundation serves to preserve the forests, to fund or provide materials to appropriate organisations, and to support projects that promote nature conservation.

The **100m^2 Movement in Shiretoko National Park** collected over US$2.3 million by obtaining a minimum contribution of 8,000 yen from some 35,000 individuals for the purchase of land within the Shiretoko National Park to prevent it from being developed for industrial purposes.

The **Natural Parks Beautification and Management Foundations (NPBMF)** is a public corporation that collects admission fees in the form of parking fees in 13 of Japan's national parks. It uses the annual income of about 1 billion yen (US$8.1 million) for park management activities.

NGOs can help build public support for protected areas by promoting and managing tourism in the area, channelling technical assistance to protected area management agencies or strengthening financial and technical cooperation between research institutions. Web-based lists of environmental organisations, some of which can provide funding, can be found at:

- dmoz.org/Science/Environment/Organisations/;
- www.oingo.com/topic/49/49394.html: and
- directory.netscape.com/Science/Environment/Organizations.

Within China, the work of the Japan-based **Wildlife Conservation Society's** field division has made important contributions to protected areas designed to conserve the giant panda and associated flora and fauna. Its wildlife surveys in Tibet (Xizang) and Xinjiang led directly to the identification of protected areas, including the 4.5 million ha Arjin Mountains Nature Reserve and the 33 million ha Chang Tang Nature Reserve, the world's second largest protected area (www.wcs.org).

Case study 2

Bioprospecting: potential source of finance for protected areas in East Asia

Conservationists often argue that the untapped potential of rainforest species for yielding useful pharmaceuticals, resins, gums and other natural products is a justification for forest protection. As the commercial potential of biological resources expands in response to an increased demand for natural products, a number of partnerships have been formed to bring new products, derived from naturally occurring compounds, onto the market. Several models (not all evident in the region) illustrate how "bioprospecting" is evolving to become a source of financing for protected areas (McNeely, 1998).

The ***first model*** involves collaboration between a pharmaceutical company and a national research institute. Under an agreement between Merck and the National Institute of Biodiversity (INBio) in Costa Rica, Merck gains access to scientific material required in the development of new pharmaceuticals. In return, INBio receives royalties on the profitable new products, which are then partially diverted to Costa Rica's protected area system.

A ***second model*** involves co-operation in developing pharmaceuticals from species valued by indigenous peoples. Shaman Pharmaceuticals sees the benefits of collaborating with indigenous groups. It pools the risk and profit among all its indigenous co-operators. It has established a non-profit organisation to channel a portion of the profits directly to the co-operating indigenous peoples, while other funds will go to protected area management agencies.

The ***third model*** involves building the capacity to screen biological materials in developing pharmaceuticals in the country of the material's origin. For example, Andes Pharmaceuticals transfer state-of-the-art screening technology to laboratories in the country where the material is being collected. The host country may also receive the right to file for the patent of this technology. Thus it benefits from the institution-building, and acquires a substantial proportion of the value of the final product (without the patent, royalties would be only 1–2%).

A ***fourth model*** is based upon cooperation between major biotechnology companies and national research institutions. The scope of such agreements is suggested in the following table, illustrating a few examples from **China**. While the linkage to protected areas is not apparent, many of the plants being studied are found in protected areas (and sometimes only in such sites). For example, the forests of the Biosphere Reserve Xishuanbanna, in southern Yunnan, support over 1,000 species that can be used for economic profit, including 500 species that have medicinal values.

Bioprospecting appears to be self-financing, involving the sustainable use of biological resources found in protected areas, and generating funds for their conservation. Nevertheless, there are doubts about whether many of the requests made for bioprospecting will in fact be realised. Also, most large pharmaceutical companies now put

more resources into approaches such as computer-based molecular modelling than into research on the natural products themselves. Also, as more and more countries enter the biochemical prospecting market, market niches may become smaller, and profits could decline.

Protected area system managers and conservation organisations interested in biodiversity prospecting as a potential source of income should consult *Biodiversity Prospecting* (Reid *et al*., 1993) (see also http://www.igc.org/wri/biodiv/bp-home.html). This book describes the Costa Rica programme, lists pharmaceutical companies and offers sample contracts for biodiversity prospecting agreements.

Collaboration between Chinese research institutions and international pharmaceutical firms	
Ciba-Geigy (now Novartis) Active since: Collectors: Therapeutic groups:	 1989 (marine); 1992 (tropical plants) Chinese Academy of Sciences Anticancer, cardiovascular, anti-inflammatory, CNS, respiratory, anti-allergy
Glaxo Holdings Active since: Collectors: Therapeutic groups:	 1988 Institute of Medical Plant Development (Beijing) Gastrointestinal, respiratory, anti-infective, cardiovascular, metabolic and infectious diseases, dermatology, anti-cancer, anti-inflammatory
Rhone-Poulenc Rorer Active since: Collectors: Therapeutic groups:	 1991 Beijing Medical University, Shanghai medical University, Tianjin Plant Institute, independent collectors Cardiovascular, anti-infective, AIDS CNS, respiratory, bone disease, anti-cancer
Syntex Laboratories (now Roche) Active since: Collectors: Therapeutic groups:	 1986 Chinese Academy of Sciences Anti-inflammatory, bone diseases, immunology, anticancer, gastroenterology, cardiovascular, antiviral, dermatology, contraceptives
Upjohn Active since: Collectors: Therapeutic groups:	 1986–87 Shanghai Institute of Material Medical CNS, cardiovascular, anti-infective, AIDS

Case study 3

The Asian Development Bank and protected areas in East Asia

During the past decade there has been a growing recognition in the Asian Development Bank (ADB) of the important contributions that protected areas can make to a wide range of development projects. In 1987, the 'Environment Unit' was created to provide a focus within the Bank for review of the environmental aspects of projects and to promote awareness and institution-building in the environmental field. In 1995, the newly-named 'Environmental Division' was given the mandate to ensure that environmental protection measures were incorporated into relevant ADB operations. A working paper on the ADB's environmental policy was released in February, 2001.

According to ADB's website (http://www.adb.org/Environment/default.asp), "Promoting sustainable development and environmental protection is a key strategic development objective of the bank. ADB is committed to promoting environmentally sound development in the region. To fulfil this objective, ADB:

- reviews the environmental impacts of its projects, programmes, and policies;
- encourages governments and executing agencies to incorporate environmental protection measures in their project design and implementation procedures, and provides technical assistance for this purpose;
- promotes projects and programmes to protect, rehabilitate and enhance the environment and the quality of life; and
- trains ADB and DMC staff in, and provides documentation on, environmental aspects of economic development".

In **China**, the ADB's North China Marine Culture and Coastal Resources Management Project includes activities on environmental protection of coastal areas. In Hebei Province, the network of protected areas is planned to increase from 0.4% of the land to 2%. Expenditure on marine reserves under the project will amount to US$450,000. The project also involves increasing commercialisation and business development, abalone and sea cucumber hatcheries, mudflat and shallow water aquaculture of clams, and freshwater fisheries.

In another project focused on a protected area in China, the Hainan Agricultural and Natural Resources Development Project, ADB provided technical assistance to set up an environmentally sound management system to protect the scenic surrounding buffer zone, including the management of non-timber resources and other products. It also provided equipment and training for the protected area itself, and established a zoning system in the park. Finally the project helped in drafting strategies for ecotourism development, including a detailed plan for a nature interpretation centre and nature trail.

Case study 4

North Korea's Mount Kumgang Development Plan

Government authorities in **North Korea** have tried to preserve Mount Kumgang's scenic beauty for a number of years. In 1986, a law was enacted for its environmental preservation; in the 1990's, several other laws attempted to prevent foreign companies from investing in activities that could damage the site. However, more recently, the site's tourism potential has been of primary concern. Presently, the Republic of Korea's "sunshine policy", which opens North Korea and Mount Kumgang up to corporate investment, is aiming to attract three million tourists within 10 years.

Hyundai, a Korean conglomerate, finalised an ambitious 1.6 trillion *wan* development plan, which includes the construction of hotels and condominiums at Haegumgang, Samilpo, Onjongri and Shijoongho, motels at Haegumgang and Onjongri, golf courses at Samilpo and Shijoongo, and a ski resort at Tongchun. An international airport at Kumran and a railroad station at Onjongri are also part of the development plan, as are a theme park and folk village at Samilpo, a marine museum, sports and entertainment centre in Haegumgang, a marina in Jangjongman and a shopping centre. All facilities are expected to be built by 2004.

As part of this plan, Hyundai has agreed to pay US$940 million over the next six years for the exclusive right to make Mount Kumgang a tourist wonderland. Despite reported conflicts with local authorities, the company began running tours in November 1998. In only three months some 27,000 visitors scaled Mount Kumgang's icy slopes.

There are some concerns on the way the development plan has been completed. The potential effects of its proposals on the environment of Mount Kumgang, and the social and economic well-being of its local peoples require further investigation and debate. This may be an example where funding efforts are proceeding without regard to the conservation functions of the protected area.

Case study 5

Mongolian Environmental Trust Fund

Mongolia provides an example of an innovative approach to funding protected areas through the creation of the Mongolian Environmental Trust Fund (METF). This funding agency was established by the Mongolian Government and the United Nations Development Programme (UNDP) in November 1997. The objectives of the METF are "to fund projects which will contribute to the conservation and sustainable management of the land and its resources, including the diverse ecosystems, the wildlife and abundant biodiversity of Mongolia and to the reduction of desertification in Mongolia".

It is expected that the Fund will complement foreign-funded activities that have a limited time span, while offering better coordination of activities with national strategies and reduced transaction costs.

Structure of the METF

The METF is a non-profit, non-governmental foundation; it is legally established in the Netherlands with a registered office in Ulaanbaatar. The METF is managed by a nine-member Board, with representatives from government, international and national environmental NGOs, donors, the scientific community and two independent members. METF has a Scientific and Technical Advisory Committee which reviews project proposals and advises the Board on funding priorities, and a Financial Advisory Committee on all matters relating to finance in Mongolia and abroad. The day-to-day running of the METF is managed by the Trust Fund Office, which has a small administrative staff.

METF economy and fundraising

The Fund is being capitalised through donations from a wide variety of sources, including the private sector and an annual funding allocation from the Government of Mongolia.

The Global Environment Facility (GEF) and UNDP have pledged US$2 million and US$500,000 respectively to the Trust Fund. In May 1999, the Mongolian Government made the decision to contribute Tg 1.6 billion (about US$1.6 million) to the METF from the 1999 budget. Local organisations have contributed about Tg 3 million to the METF.

Until mid 1999, the administrative expenses for running the METF were assumed by two UNDP/GEF funded projects. The METF is also seeking a change of status to secure a "debt-for-nature swap" of a Finnish loan of US$5 million to the Mongolian Central Bank. The METF has also started negotiations with JPIB Investment Services Co. Ltd in order to employ an Investment Manager for the Trust Fund. It is currently seeking funding from international donors, such as those supporting the "Stabilisation of Water Resources in Tuul River Basin" and the "Creation of Forest Strips as Windbreaks" (http://www.un-mongolia.mn/metf/).

Additional information on the METF is provided in Part 3 of this report.

Stream in mixed broadleaf/conifer forest in Mount Wuyi, People's Republic of China. ©*Les Molloy*

Case study 6

The value of forest protected areas in China

Forests are the most important ecosystems in **China** in terms of biodiversity and the other essential goods and services that they provide. Indeed, China's forested uplands provide watershed protection to the country's lowland river valleys, which prevents soil erosion, reduces the severity of flood and drought, and underpins the country's intensive irrigated agriculture system.

Several studies on the value of these non-market services (e.g. water conservation, soil protection, nutrient cycling, pest control) show that they greatly exceed that of timber production etc., thus:

- At the national level, the economic value of the water storage function of China's forests is estimated as 7.5 trillion *yuan*, three times the actual timber value of the wood in those forests;
- At the regional level, the economic value of the environmental services provided by Changbaisan Mountain Biosphere Reserve in northeast China is estimated as 1657 million yuan, or 16 times higher than the opportunity cost for regular timber production (Xue and Tisdell, 1999);
- The annual added value of water and soil conservation, air purification, acid rain buffering and other functions in three forested areas in China was calculated at between two and ten times the gross output value of timber, wood processing and orchard production.

China's network of forest protected areas can also benefit from Joint Implementation and carbon sequestration projects under the Climate Change Convention, which might contribute to further strengthen cooperation between highly industrialised and less-developed countries of East Asia.

Case study 7

Tourism in China's protected areas

The rapid growth of the protected area system in **China** during the 1980's was not accompanied by a commensurate increase in governmental allocations. The principle of unified co-ordination of protected areas, combined with decentralised management, has left the autonomous provinces and counties with a growing financial burden. Only a few reserves can rely on funds from the central government: most of China's 608 protected areas depend on provincial and county governments for support. Since the central authorities are unable to provide reserve managers with regular financial support, they have urged them to diversify their funding sources.

Within this context, tourism is often seen as an environmentally friendly activity for revenue generation. In the past decade, the industry has grown rapidly but unevenly, with some protected areas receiving more than 100,000 visitors per year while other areas, less marketable, struggle to fill their tourist facilities.

Tourism is already making a significant contribution to the upkeep of many sites and fulfils an important function in the development of the protected areas system in general in China. However, the lack of sustainable tourism guidelines and contradictory income-related policies have led to widespread illegal collection of wildlife, as in the case of children catching butterflies in Xishuangbanna National Nature Reserve. It has also led to increased threats to forests and waters, as at Jiuzhaigou Valley Scenic and Historic Interest Area World Heritage site (see below). Indeed, heavy tourist pressure in some sites has made it difficult to fulfil conservation objectives: such has been the case with the internationally-famous linked nature reserves of Wolong, Dinghu Mountain, Changbai Mountain and Fanjing Mountain.

The tourism sector in China

China's tourism sector is thriving. In 1995, China received 5.88 million tourists. Data from the World Trade Organization (WTO) indicates that in 1993 China ranked fifteenth in tourist arrivals and had the highest annual growth rate of 16.5%. Much of this tourism has been Asian-based; nevertheless the rate of increase in European and American tourists promises to replace part of the currently declining Asian tourism. It is estimated that China will rank among the top five most visited countries by the year 2005 with 20 million foreign tourist arrivals (Swanson *et al*., 1998). In addition, China is experiencing an unprecedented growth in domestic tourism.

Tourism in China's World Heritage Sites

Cultural and scenic features as primary interest
As a sacred pilgrimages site for the Chinese emperors, Mount Taishan in Shandong Province receives an estimated 2.5 million visitors per annum. The proliferation of facilities to transport and accommodate such numbers is the biggest management

challenge facing the site. Taishan site administration plans to determine the carrying capacity of the site, and may then limit visitor growth by increasing road tolls or cable car charges (over 80% of visitors reach the Visitor Information Centre by road and cable car, rather than by historic walking routes).

In Mount Huangshan, Anhui Province, the pressure of visitors is also the most obvious factor affecting the site. One of the most popular scenic landscapes in China, Huangshan has an annual visitation of 1.2 million, which is increasing at an estimated 10% per annum.

Local participation and benefit-sharing
In Sichuan Province there are many protected areas with outstanding scenic, cultural and biodiversity values. The development of tourism in them brings direct and indirect benefits to local communities.

For example, Jiuzhaigou Valley Scenic and Historic Interest Area World Heritage site is a place of outstanding scenic value, with travertine lakes formed from calcareous *tufa*. Tourist hotels have been kept outside the World Heritage site and the only tourist accommodation within the site is within some of the Tibetan villages.

The greatest management achievement for the improved site conservation is the close partnership with the community of 930 Tibetan people living in the valley. Over 120 of them are now employed in site protection and monitoring activities. Tibetan people also accommodate visitors, sell handicraft, guide visitors through an interpretative "model" Tibetan village, lease horses and perform cultural events.

The site managers at Jiuzhaigou consider that this economic development has allowed them to handle, with relative success, over one million visitors since the site was added to the World Heritage List in 1992. On the other hand, the most difficult task for the current management is the inability to regulate visitor flows. Visitor congestion has reached an acute stage that requires radical measures. From only 5,000 in 1984, the annual visitation was expected to reach 300,000 for 1998. In 1992 there was only one hotel outside the entrance; now there are at least 20.

The scenic value of nearby Huanglong, also a World Heritage site, lies in its travertine pools, coniferous/deciduous forest and the backdrop of Mount Xuebaoding (the easternmost glacial peak in China). Within the valley, whose landscape has been modified by the Tibetan people, there is a thriving horse-trekking ecotourism business. The site is well managed, with a 7km boardwalk and trail system protecting the fragile calcareous *tufa*. Most of the 140,000 visitors per annum come during the summer/ autumn season because of the severe winters at the site (the path ranges in altitude from 3,100m to 3,600m and the road into the head of the Fujiang valley crosses a 4,200m pass). These visitors can visit a small commercial village at the site entrance, and can stay either at the very limited tourist accommodation facilities at the entrance of the area or at the town of Chuan Zhu Si, 40km away on the main highway in the Min River valley.

Final comment

Despite the important revenues generated at these sites, the national or provincial financial support provided for site administration is inadequate. In 1998 the annual budget for management and conservation of 119 scenic areas at the national level was around 10 million yuan (US$1.2 million).

The effective management of ecotourism in protected areas depends upon the distribution of benefits, so that local people come to appreciate the significance of this natural capital base. Significant income and employment benefits will give local communities the incentives to participate in the management and maintenance of the protected area. Any further development of ecotourism should pay greater attention to the effective participation of local communities in the management of these sites, and to the more efficient distribution of the flow of benefits generated. An appropriate framework for the development of sustainable tourism activities and infrastructure is also required.

Giant Panda, *Ailuropoda Melanoleuca*, Wolong Nature Reserve. *©WWF-Canon/John MacKinnon*

Case study 8

The economics of tourism in Wolong Nature Reserve, China

The Wolong Reserve is located in the mountainous territory of Wenchuan County in north-west Sichuan, **China**. It is host to many distinctive species, including a population of about 145 Giant Pandas, which represents nearly 15% of all Giant Pandas that exist in wild. It is also the home of the Giant Panda Conservation Centre, which runs a panda breeding operation. The relatively good accessibility from Chengdu, the capital of Sichuan Province, and the presence of basic infrastructure surrounded by picturesque landscape and cultural features all contribute to the tourism value of the reserve.

The reserve is thinly populated, with most of the Tibetan and Han Chinese settlements concentrated in a narrow strip along the Pitao River. Laws and regulations intended to protect the reserve have reduced significantly the possibilities of these people to make a living within the reserve, resulting in an average income 15% lower than the national average and 7% less than the average in the local county. The government had to abandon its resettlement policy; as a result the human population within the reserve is unregulated and continues to grow. Informal activities such as hunting and gathering continue in a relatively unregulated manner. Such developments have their impact on the Giant Panda.

Specialists from Peking University and University College London (UCL) suggest that what is required are management policies that channel the forces for development rather than attempting to deny them, thus treating the reserve (its wildlife and natural habitats) as *assets* belonging to the local community. The assumption is that once the local people appreciate that they can derive significant values from the natural capital base, and that the maintenance of this base assures a continuing flow of these values, they will have the incentives to preserve and protect the park. In addition, the mere existence of the Wolong Reserve generates substantial flows of value to people living on the other side of the world, but who are willing to contribute to the preservation of the site.

The potential for management of ecotourism in Wolong Reserve
In the Peking University/UCL study, still under review, the potential for developing ecotourism in Wolong is assessed, by estimating and appropriating the greatest possible value of the site. The approach considers how to minimise impact on species and habitat, and aims to distribute a substantial amount of the attendant benefits to local peoples.

The current level of tourism in the reserve is low. Wolong currently receives 50,000 tourists, of whom only 2% are from outside China. The reserve brings in US$250,000 from tourism receipts, of which approximately 12% come from foreign visitors. Only 4% of the receipts go to the local people in the form of royalties, while 18% is devoted to relocation programmes. Such figures provide little incentive for local people to care for the reserve. However, if appropriately channelled, the benefits of well developed tourism operations in the reserve could persuade people of the need to preserve the area and its resources.

Carrying capacity of the reserve
There are different estimates on the number of visitors Wolong Reserve can receive. Some consider that the total number of possible visitors should be around 150,000 per year, while others consider a range between 195,000 and 230,000 more realistic. This variation is attributable to various assumptions about intervention and tourism development.

Willingness to pay (WTP)
The University of Peking/UCL study used the Contingent Valuation (CV) approach to estimate both use and non use values. The CV method applies surveys to construct a hypothetical market revealing people's preferences for environmental goods by ascertaining their willingness to pay (WTP) for these goods. The surveys for Wolong were conducted in relation to the WTP for three ecotourism packages: 1) the current one star hotel; 2) a four star hotel; and 3) a traditional style mountain lodge. Three panda conservation scenarios were also used: conserving pandas in standard cages, in pens, and in their natural habitat.

The survey indicates that people were willing to pay more for an ecotourism package, including a traditional mountain lodge (US$562), as compared to the four star hotel (US$441) and the existing one star hotel (US$285).

Optimal pricing
One of the main principles of sustainable ecotourism is to keep the number of visitors at a level that minimises the impact on the natural habitat. From the financial sustainability point of view, the aim is to identify what price can be charged to visitors so as to maximise revenues within that constraint. In the case of Wolong, the optimal price for lodge-based ecotourism was estimated at US$600, for the current recreational package US$265, and for the four star hotel option, US$500. The analysis also indicates that people are willing to pay an extra US$18 for access to the reserve. Added to the current fee of US$7, the optimal price for the reserve entry fee is therefore estimated at US$25.

Total revenues that can be appropriated from ecotourism
Considering the estimated optimal price for each ecotourism package and the upper and lower bounds for the reserve's carrying capacity, the revenues that can be appropriated from ecotourism lie within the range of US$36.55 to 49.04 millions per year.

Appropriating revenues from an airport tax surcharge: a "Panda conservation stamp"
An airport tax surcharge may be an acceptable method of payment to most foreign tourists, who consider it as a fair means to contribute to financing species conservation. For the success of such an instrument, a considerable portion of it must be channelled back to local communities in the form of royalties. Such a surcharge could be levied on the entry visa to China as a "Panda conservation stamp". The revenues that could be generated from this instrument, using 1995 visitor figures, are estimated to amount to US$57.7 million.

Total maximum value appropriated
The study reveals how the estimation and appropriation of both the recreational and other values associated with the panda can generate substantial revenues (estimated at US$106.74 million per annum). The development of China's Panda Reserves depends upon the appreciation and appropriation of the values of these reserves. It also depends upon the distribution of the benefits from reserve development to the local communities. With the significant flow of benefits, these communities will have the incentives to

participate in the management and maintenance of the capital base, therefore contributing to the reserve's sustainability.

Thus Wolong confirms many of the principles advocated in these guidelines. What is required are mechanisms that will: 1) maximise the values of the area; 2) appropriate these values; and 3) distribute them in a manner that will preserve the capital base from which they derive.

Mai Po Marshes. General view of the Ramsar Site (Hong Kong, SAR, China). *©WWF-Canon/Mauri Rautkari*

Case study 9

The Mai Po Marshes, Hong Kong SAR (China)

The Mai Po and Deep Bay area in the north-west corner of **Hong Kong SAR** (China) comprises a mosaic of natural and man-made habitats. The site supports one of the largest and most diverse mangrove communities along the south China coast. In 1975, the Mai Po Marshes were declared a restricted area under the Wild Animals Protection Ordinance. In 1995, 1,500ha of wetlands around Mai Po and Deep Bay were designated as a Ramsar Site. In February 1996, the protected area was expanded to include the Inner Deep Bay inter-tidal mudflats, an important feeding area for birds migrating along the East Asian/Australian flyway.

Gei wai shrimp farming

In the early 1940's, immigrants from China brought with them the idea of impounding the coastal mangrove forests to make intertidal shrimp ponds, locally known as *gei wais*. Each *gei wai* has an area of approximately 10ha. Although the 24 *gei wais* created at that time were mainly for shrimp production, fish, oysters, algae and brackish water sedges were also harvested. This type of traditional and small-scale aquaculture used low inputs and relied on natural tidal action for water-exchange and stocking. Due to land-use changes around Mai Po over the past 50 years, the only *gei wais* now left in Hong Kong SAR (China) are those at the Mai Po Nature Reserve (380ha).

Management of the Mai Po Nature Reserve

The land inside Mai Po belongs to the Hong Kong SAR (China) Government and for decades had been leased out to private farmers for *gei wai* shrimp production. In the 1970s, the fall of profits in the *gei wai* shrimp production led to their transformation into more profitable fish-ponds, causing the loss of the mangroves and wildlife diversity of the area. As a result, WWF-Hong Kong agreed with the Hong Kong SAR (China) Government to take over management of the Mai Po *gei wais.* In order to do so, WWF Hong Kong had first to raise funds to pay the fisherman managing the pond at the time. The exact amount that would need to be paid was determined by the Agriculture and Fisheries Department, depending on a number of criteria, such as the productivity of the pond for shrimps. In most cases, this amount was approximately HK$800,000 for a 10ha *gei wai*. Whenever WWF-Hong Kong takes over management of a *gei wai,* the organisation would, as far as possible, reemploy the original operator as a full-time staff member of WWF-Hong Kong. The first *gei wai* was taken over in 1984. WWF-Hong Kong now has management control over all the Mai Po *gei wais*.

Funding for managing Mai Po

At present, approximately HK$3–4 million is required annually to manage Mai Po. In the past, this amount has had to be raised by, for example, the sale of the *gei wai* shrimps, charging an entrance fee for visitors (estimated at 30,000 during 1996), the sale of goods

at the reserve's shop, and special fundraising events. Part of this money also comes from the Hong Kong SAR (China) Government's Education Department who "buy" WWF organised educational tours for schools. With the designation of Mai Po and Deep Bay as an internationally important wetland under the Ramsar Convention, the Agriculture and Fisheries Department received a budget to manage this area. Part of this budget included an amount for NGOs, including WWF-Hong Kong, to help in managing this Ramsar site. This amount is sufficient to cover some 50% of the annual running costs of Mai Po.

Case study 10

Hong Kong SAR (China) Country Parks

Almost 40% of the terrestrial component of **Hong Kong SAR** (China) has been designated as country parks. These protected areas, open to the public free of charge, are managed for nature conservation, outdoor recreation, environmental education and tourism. The average government allocation of approximately HK$290 million or US$37 million is sufficient to meet most management requirements and basic infrastructure costs, but is not sufficient to support a wide range of environmental education programmes. A small amount of revenue is generated through permit and concession fees, but these funds are earmarked for the central revenue fund of the government. In order to address the need for environmental education materials, the Country Parks and Marine Park Authority (CPMPA) began to explore various funding mechanism options, and were successful in attracting significant corporate and charitable organisation donations.

For example, the Hong Kong Jockey Club funded the development of five country park videos at a cost of approximately HK$200,000 per video, and the China Light and Power Company sponsored one additional video. CD-ROMs of these videos have been created, and are distributed to schools as educational tools.

A corporate afforestation scheme asked businesses to sponsor the planting and maintenance (for three years) of a minimum of 10,000 trees. These trees have local and regional benefits by improving the appearance of the parks, providing habitat for wildlife, and increasing air and water quality. This contribution was valued at about HK$250,000. In return, the woodlot was named after the sponsoring corporation, the corporation benefits from a "green" image, and it knows it has supported a good cause.

A number of education centres have been created in country parks through generous donations by corporations. The Lions Club sponsored the creation of three display halls in the Lions Nature Education Centre, and, together with the Shell Company and the Environmental Campaign Committee, also contributed funds to create a "Shell House" for the display of shells. The Hong Kong Jockey Club funded the re-design of several displays in various visitor centres. The cost involved in these projects ranged from HK$1 million to HK$5 million.

Various commercial and charitable organisations supported the creation and publication of brochures, leaflets, books and teaching kits on country and marine parks for citizens and schools. Training seminars were also arranged for school teachers. Between HK$30,000 and HK$200,000 was raised in this way to create these interpretative materials.

A "Friends of the Country Parks" organisation was created to assist the CPMPA in organising activities, producing souvenirs, publishing educational materials and undertaking commercial activities that would otherwise not have been funded through government allocations. The profits generated were returned to the parks to fund additional educational materials.

In its experience for seeking private funding, the CPMPA has learnt that projects which have the following characteristics are more likely to receive funding:

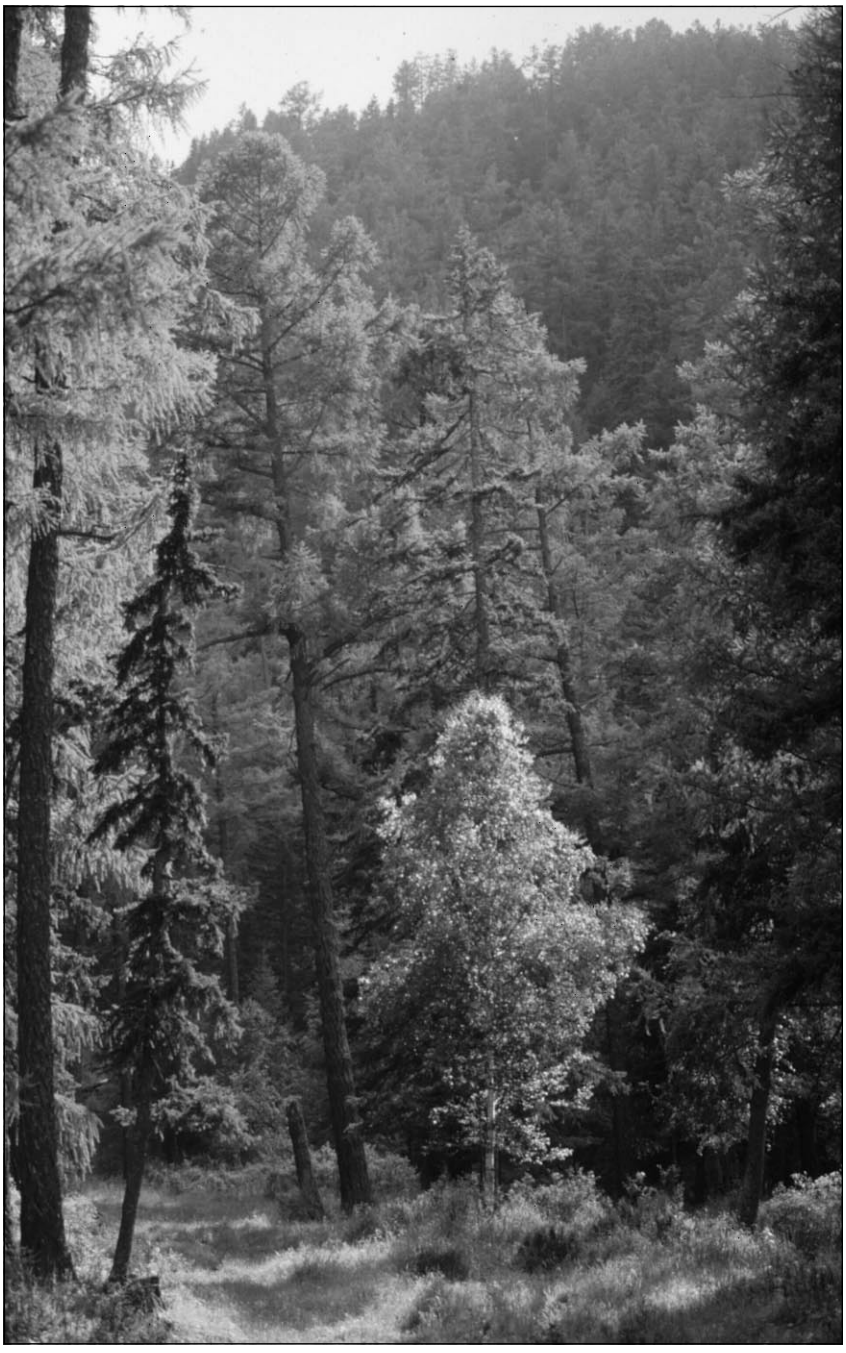
- "one-off" projects with specific, visible outcomes;
- projects that match donor objectives with these outcomes;
- projects which provide the funding bodies with positive publicity value; and
- projects of interest and benefit to the community but which cannot be fully funded through government allocations to the community.

Timing is also important: many corporations have a specific budget allocated to environmental projects, and are pleased to be approached – especially at the beginning of a fiscal year – to help them identify projects worthy of support.

While the CPMPA was fortunate to be located in a region that generates tremendous wealth, they have seized the opportunities available to them to fund activities that directly relate to the park system's objectives. Most, if not all, the activities sponsored by commercial and charitable agencies would not have been possible within the scope of normal government allocations.

PART 3

Institutional sources for financing protected areas in East Asia



Bogdkhan Uul Reserve – Taiga forest: Larch, Pine, Spruce and Birch trees Mongolia. *©WWF-Canon / Hartmut Jungius*

Institutional sources for financing protected areas in East Asia

A global directory of funding sources is being developed and maintained by the IUCN Economics Unit, working in close collaboration with the IUCN's World Commission on Protected Areas. It is organised according to IUCN's regional structure. Generally, institutions are listed in the region in which they are headquartered. Intergovernmental organisations and international NGOs are listed under the International section.

The following entries relevant to East Asia are described in further detail below:

1. Foundation for Advanced Studies on International Development (FASID)
2. Mongolian Environmental Trust Fund (METF)
3. Nagao Natural Environment Foundation (NEF)
4. UNESCO-MAB
5. Global Environment Facility (GEF)
6. Earthwatch Institute, USA
7. Ministry of the Environment, Government of Japan
8. Other potential funding sources

Foundation for Advanced Studies on International Development (FASID)

Kiichi Kurokawa, Director
Keidanren Nature Conservation Fund
22F, Otemachi Financial Center 1-5-4 Otemachi
Chiyoda-ku, Tokyo 100 Japan
Telephone: +81 3-3212-8220
Fax: +81 3-3212-8222
E-mail: LED02117@niftyserve.or.jp

Asako Shimosaka
Committee on Nature Conservation,
Global Environment and Energy Group, Keidanren
1-9-4 Otemachi,
Chiyoda-ku, Tokyo 100 Japan
Telephone: +81 3-3279-1411
Fax +81 3-5255-6233
http://www.fasid.or.jp

FASID was established in March 1990 with the active support and co-operation of the Japan Federation of Economic Organisations (Keidanren) to help train a new generation

of Japanese development professionals. Set up as a private, non-profit organisation, FASID is registered with the Ministry of Foreign Affairs and the Ministry of Education, Science, Sports and Culture.

In April 1991, Keidanren announced its Global Environment Charter. The Charter states that corporations must keep in mind the need to protect ecosystems and conserve resources.

The Keidanren Committee on Nature Conservation was formed in 1992 to facilitate these efforts. FASID has joined forces with the Committee for administration of the Keidanren Nature Conservation Fund (KNCF) to support activities, including aid for foreign and Japanese NGO-administered nature conservation projects in developing countries, training for personnel working on international nature conservation projects, and the promotion of understanding of environmental issues.

The KNCF supports field projects which:

- are in accordance with the aims of the KNCF. In principle, these are to provide assistance for nature conservation efforts in developing countries, particularly in the Asia Pacific region. Priority goes to projects that will enrich biodiversity;
- are well regarded by the host government, both domestic and international non-governmental conservation groups, and the local community, making it likely to qualify for a reasonable level of assistance; and
- do not serve the interest of any specific corporation or individual and are implemented by staff and/or experts with sufficient scientific knowledge.

KNCF supports applicant organisations or groups which:

- are non-government and non-profit organisations;
- have a good record of implementing nature conservation projects in developing countries and are highly regarded both internationally and domestically; and
- are able to make appropriate reports on the progress of the project, budgetary appropriations, and settlement of accounts as necessary.

It is best if the applicant NGO has a representative in Japan who can provide more information about the NGO, the project and the budget. However, alternative arrangements are acceptable, provided that the NGO can demonstrate technological and professional responsiveness to KNCF requests (e.g. timely e-mail or fax responses).

Mongolian Environmental Trust Fund (METF)

Bagatoiruu 44
Government Building #3, Room 404
Ulaanbaatar-11, Mongolia
Tel/fax: +976-1-312771
e-mail: metf@magicnet.mn
http://www.un-mongolia.mn/metf/

Developed by the United Nations Development Programme (UNDP) and the Government of Mongolia, the METF is an innovative approach to raising and targeting funds for the protection of Mongolia's environment. It is a financial and administrative

mechanism that brings advantages to both donors and beneficiaries, and complements more conventional methods of funding.

The METF provides long-term, secure funding for environmental projects, facilitating the planning of activities such as biodiversity monitoring programmes, community conservation projects, or the restoration of natural areas. It complements and provides an alternative to conventional short-term foreign assistance for environmental activities by raising additional funding in Mongolia to augment insufficient government budgets. Moreover, it creates an institutional framework that allows government and non-government actors to co-operate on a long-term basis, so as to stimulate partnerships and mobilise existing knowledge.

The METF can act as a grant-giving body that funds small-scale, innovative projects which often cannot be funded efficiently by the government or international agencies. Another benefit of the METF is that it is relatively non-bureaucratic, keeping administrative costs to a minimum, and – being subject to scrupulous accounting and auditing procedures – it is fully transparent to both donors and beneficiaries.

The objectives of the METF are to fund projects which will contribute to the conservation and sustainable management of the land and its resources, including the protection of the diverse ecosystems, wildlife and abundant biodiversity of Mongolia and the reduction of desertification. It will involve the broadest possible spectrum of Mongolian society in its activities, while endeavouring to achieve its objectives.

The METF is intended to be a highly flexible financial mechanism that can meet the specific requirements of donors by allowing many types of donations to be made.

Endowments

Money is invested in international markets and only the annual income is spent. The advantage of endowments is that they can be expected to yield a return in perpetuity, providing the most sustainable form of finance for environmental activities.

Sinking funds

In contrast to an endowment fund, income plus a portion of the capital is spent each year, drawing down the fund over perhaps 10 to 20 years. While sinking funds have a limited life-span, they still confer greater certainty over a reasonable duration which is often lacking in conventional aid programmes.

Ear-marked funds

Donors can also target money to an existing or proposed specific project, whilst the METF administers and manages the funds as prudently as possible on the donors' behalf. This allows donors to contribute to the protection of Mongolia's environment without requiring direct representation in the country.

Other forms of donation

The METF has been designed to attract and disburse many other forms of donations, including guaranteed donations from the Government of Mongolia, *ad hoc* gifts in local or foreign currency, gifts of property, equipment, stocks or shares.

Administration of the METF

Environmental funds such as the METF provide an innovative means of supporting environmental conservation. They may take many different forms, but all share certain common features. The METF has two accounts: the capital for the METF is invested in an offshore account and managed by an asset manager of an experienced financial institution; the second one is in Mongolia and used for disbursement.

The METF has been established as two parallel legal entities outside government: a non-profit foundation in the Netherlands; and a registered office, legally established as an NGO, in Mongolia. A Scientific and Technical Advisory Committee advises the Board of the METF on the feasibility and environmental impact of projects proposed for funding and on ways to increase participation by local people in METF activities. The Board is also responsible for setting guidelines to evaluate these projects.

Projects to be funded by the Mongolian Environmental Trust Fund

The METF focuses on meeting the long-term, recurring costs of environmental protection in Mongolia, aiding the implementation of national environmental strategies, such as the Biodiversity Conservation Action Plan and the National Plan of Action to Combat Desertification. During the first few years of its existence, emphasis was given to five specific foci:

a) Public environmental awareness and education

For the long-term protection of Mongolia's environment, the people will need to care about the health of the environment. As environmental circumstances and lifestyles rapidly change, greater public understanding of the issues and causes of environmental degradation needs to permeate through all sectors of society – into classrooms, local community groups and the workplace – so as to create the collective responsibility that is required to sustain Mongolia's natural environment.

b) Protected area administration

It is recognised that assistance is needed to support the basic costs of managing and extending Mongolia's system of protected areas. Support will also be given for developing effective management in and around these areas, based on the application of modern principles of ecology, conservation biology and socioeconomics.

c) Species conservation projects

Protected areas can solve only some of the biodiversity conservation problems. Individual projects are needed to protect threatened species, which in Mongolia include the wild ass, Mongolian gazelles, falcons and cranes. The ranges of these animals are not limited to protected areas, and their conservation is handicapped by the lack of baseline information and monitoring systems.

d) Training

Training programmes are needed to equip natural resource managers with the necessary knowledge and expertise to implement environmental protection

activities in Mongolia. Trained personnel are required in the fields of environmental management, environmental impact assessment, ecology, ecotourism, environmental monitoring, protected area management and sustainable land-use planning. The METF will focus funding on meeting the long-term recurrent costs of these programmes.

e) Contingency fund

Conventional donor and government funding mechanisms often lack the ability to respond quickly to urgent requests for funds for environmental activities. Funding might be needed, for example, to meet the essential running costs of a project jeopardised by government cut-backs, or to fund projects to mitigate the impact on protected areas of unforeseen pollution or natural disasters such as fire, dust storms, severe drought or flooding. The contingency fund will enable a quick response to urgent requests of this nature (http://www.un-mongolia.mn/metf/, May, 2001).

Nagao Natural Environment Foundation (NEF)

Yushima 2-29 Bunkyo-ku
Tokyo Japan 113-0034
Telephone: +81 3 3812 3123
Fax: +81 3 3812 3129
Email: aohno@jwrc.or.jp
http://www.jwrc.or.jp/NEF/

Founded in 1989, the NEF is a non-profit and independent organisation dedicated to helping the conservation of natural biological resources in developing countries. Through its scholarship and research grant programmes, NEF currently seeks to promote and encourage the conservation of wildlife, habitat, and biological diversity in developing countries in the Asia and Pacific region. NEF has funded over 60 conservation projects and provided scholarships to more than 60 university students. NEF's activities are supported solely by generous private funds given by Mr Eijiro Nagao, President of Marusan Securities Co. Ltd, and his family.

The NEF research grant programme encourages innovative research proposals from scientists who work full-time at recognised research institutes. The programme sponsors field research projects, workshops, publications and other activities. Applicants should preferably be under 40 years old and must have their permanent and working addresses in developing countries in the Asia and Pacific region. The amount of grant does not exceed one million Japanese yen per project per year. The project can be renewed for up to three years. Prior to the submission of proposals, individuals interested in applying for the programme should write a letter of about 600 words introducing themselves, along with a project summary. Proposals are accepted year around. The grant recipients are obliged to submit a report of around 10,000 words or its equivalent material at the end of the project period.

UNESCO-MAB

UNESCO
Division of Ecological Sciences
1, rue Miollis
F-75352 Paris CEDEX 15, France
Telephone: +33.1.45.68.41.51
Fax: +33.1.45.68.58.04
Email: mab@unesco.org
http://www.unesco.org/mab

The UNESCO Man and the Biosphere Programme (MAB) is an interdisciplinary programme of research and training intended to develop the basis, within the natural and the social sciences, for the rational use and conservation of the resources of the biosphere, and for the improvement of the global relationship between people and the environment.

Biosphere reserves are areas of terrestrial and coastal/marine ecosystems, or a combination thereof, which are internationally recognised within the framework of MAB. They are established to promote and demonstrate a balanced relationship between humans and the biosphere. Biosphere reserves are designated by the International Co-ordinating Council of the MAB Programme at the request of the State concerned. Individual biosphere reserves remain under the sovereign jurisdiction of the State where they are situated. Collectively, all biosphere reserves form a World Network in which participation by States is voluntary.

MAB has several funding opportunities that could be accessed by interested parties in East Asia, all dealing with improving protected area and resource management capacity (see http://www.unesco.org/mab/capacity/capac.htm):

The UNESCO – Cousteau Ecotechnie Programme (UCEP)

UCEP is a joint UNESCO-Equipe Cousteau initiative to promote approaches to education, training and research that integrate ecology, economics, technology and the social sciences.

In 2001, two projects were on-going in China. A project titled, 'Research and Training Course on Natural Resource Use, Protection and Development in the Middle Reaches of the Mekong River' was centred at Yunnan University (Institute of Ecology and Geobotany), and Sichuan Union University (College of Biological Sciences) was associated with the project 'Sustainable Exploitation of Plant Resources in the Black Bamboo Ravine'.

Eco-job training project for young people

This project provides integrated eco-job training for biodiversity conservation and sustainable use. For example, young people within the Sao Paulo Green Belt biosphere reserve (part of Mâta Atlântica BR), Brazil, have been trained to help improve the environment and their chances to get an eco-job.

The MAB Young Scientists Awards Scheme

The MAB Young Scientists Awards Scheme is part of MAB's efforts to support young scientists around the world. The objectives of the MAB Award Scheme are:

- to encourage young scientists to use MAB research and project sites and biosphere reserves in their research and training efforts,
- to encourage young scientists who already use such sites to undertake comparative studies in other sites in or outside their own country, and
- to assist exchange of information and experience among a new generation of scientists.

The Republic of Korea utilised this funding source in 1991 and 2000 to help train two young people, and China has had 10 people access this source since 1989.

In addition, the two following training initiatives from Africa (see below) may be useful models for East Asia to emulate (there is no reason why East Asia member countries could not attempt to create similar training centres in their region):

ERAIFT

ERAIFT (Ecole régionale post-universitaire d'aménagement et de gestion intégrés des forêts tropicales) (Regional School on Integrated Tropical Forest Management), Kinshasa University, Democratic Republic of Congo. This project includes all the francophone countries in Africa. The aim is to educate some thirty African specialists each year in the area of integrated management of tropical forests. Other important aspects are to collaborate with local communities, improve the conditions for the local population and work towards sustainable development.

Pilot project in Mananara Nord Biosphere Reserve, Madagascar

Ten years after its inception, the Mananara-Nord Biosphere Reserve in Madagascar has gained international recognition as a project that merges nature conservation, buffer zone development and participation of local communities in the management of large areas in the northeast of the country. More than 13 projects on integrated conservation and development have been established using the biosphere reserve model.

Global Environment Facility (GEF)

GEF Secretariat
1818 H Street, NW
Washington, DC 20433
USA
Telephone: +1 202 473-0508
Fax: +1 202 522-3240/3245
E-mail: gef@gefweb.org
http://www.gefweb.org

The GEF is a mechanism for international co-operation for the purpose of providing new, and additional, grant and concessional funding to meet the agreed incremental costs of measures to achieve agreed global environmental benefits in the areas of biological diversity, climate change, international waters and ozone layer depletion. Land degradation issues, primarily desertification and deforestation, as they relate to the four focal areas, will also be addressed. The GEF operational strategy incorporates guidance from the relevant Conventions for which the GEF serves as the interim financial mechanism: the CBD and the Framework Convention on Climate Change.

The GEF was launched in 1991 as an experimental facility, and was restructured after the Earth Summit in Rio de Janeiro to serve the environmental interests of people in all parts of the world. The facility that emerged after restructuring was more strategic, effective, transparent and participatory. In 1994, 34 nations pledged $2 billion in support of GEF's mission; in 1998, 36 nations pledged $2.75 billion to protect the global environment and promote sustainable development. GEF brings together 166 member governments, leading development institutions, the scientific community, and a wide spectrum of private sector and non-governmental organisations on behalf of a common global environmental agenda.

Basically, the GEF is a financial mechanism which was created to provide new and additional grants and concessional funds to recipient countries for projects and activities that aim to protect the global environment. It comprises a Trust Fund, a Scientific and Technical Advisory Panel (STAP), and technical assistance programmes. Projects announced in 2001 in eastern Asia include "Conservation of Pu Luong-Cuc Phuong Limestone Landscape" in Vietnam and "Dynamics of Biodiversity Loss and Permafrost Melt in Lake Hovsgol National Park" in Mongolia.

Again, the GEF focuses on five topical areas: biodiversity, climate change, international waters, ozone depletion and land degradation. Each of these areas is described in further detail below, together with an indication of how much funding has gone to it.

Biodiversity

Efforts to conserve and sustainably use earth's biological diversity make up nearly half of all GEF projects. Projects generally deal with one or more of four critical ecosystem types and the human communities found there: 1) arid and semi-arid zones; 2) coastal, marine and freshwater resources; 3) forests; and 4) mountains.

Between 1991 and 1999, GEF allocated $991 million in grants and mobilised an additional $1.5 billion in co-financing (from recipient countries, bilateral agencies, other development institutions, the private sector and NGOs) for biological diversity projects. For more information on biodiversity projects, see the web site http://www.gefweb.org/Projects/Focal_Areas/BiodiversityBooklet.pdf.

Climate change

Projects addressing climate change make up the next largest group of GEF-funded projects. Climate change projects are designed to reduce the risks of global climate change while providing energy for sustainable development. GEF climate change projects are organised into four areas: 1) removing barriers to energy efficiency and energy conservation; 2) promoting the adoption of renewable energy by removing

barriers and reducing implementation costs; 3) reducing the long-term costs of low greenhouse gas-emitting energy technologies; and 4) supporting the development of sustainable transport. From 1991 to 1999, GEF allocated $884 million to 227 climate change projects and enabling activities, which was matched by more than $4.7 billion in co-financing.

International waters

GEF projects to reverse the degradation of international waters are informed by – and help to realise the objectives of – a range of regional and international water agreements. These projects enable countries to recognise and learn more about the water-related challenges they share, find ways to work together and undertake important domestic changes needed to solve problems. The three categories of water projects are: 1) water bodies; 2) integrated land and water projects; and 3) contaminants. From 1991 to 1999, GEF allocated nearly $360 million to international waters initiatives.

Ozone depletion

Phasing out ozone depleting substances (ODS) is seen as an effective means to achieving immediate and future global environmental benefits. The GEF, in partnership with the Montreal Protocol of the Vienna Convention (on Substances that Deplete the Ozone Layer), funds projects that enable the Russian Federation and nations in eastern Europe aned central Asia to phase out their use of ozone destroying chemicals. Between 1991 and 1999, the GEF allocated more than $155 million to projects to phase out ODS.

Land degradation

GEF's interest in financing activities to prevent and control land degradation comes from the nature and extent of its link to global environmental change. Destroyed forests and degraded water resources imperil biodiversity, induce climate change and disturb hydrologic cycles. Taking into account the objectives of the Convention to Combat Desertification, dozens of GEF projects cut across the four focal areas described above to address land degradation. Between 1991 and 1999, GEF has funded more than $350 million worth of projects focused primarily on deforestation and desertification.

Specific funding programmes of the GEF

Several of the GEF's funding programmes may be of interest to interested parties in the East Asia region. Each of the programmes is briefly described below, and web sites (where available) are provided to allow access to additional information and application forms. Forms are also available from the main GEF address provided above.

Full-size projects

GEF's three implementing agencies (UNDP, UNEP and the World Bank) work with the operational focal point in each recipient country to develop project ideas that are consistent both with the country's national programmes and priorities and with GEF's

operational strategy and programmes. Regional or global programmes and projects may be developed in all countries that endorse the proposed activity.

Medium-sized projects

Grants of less than US$1 million are available through expedited procedures that speed processing and implementation. These medium-sized grants increase GEF's flexibility in programming resources and encourage a wider range of interested parties to propose and develop project concepts. To access the MSP Guidelines document, see http://www.gefweb.org/Documents/Medium-Sized_Project_Proposals/MSP_Guidelines/msp_guidelines.html.

Enabling activities

Grants for enabling activities help countries to prepare national inventories, strategies, and action plans in co-operation with the CBD and the UN Framework Convention on Climate Change. This assistance enables countries to assess biodiversity and climate change challenges from a national perspective, determine the most promising opportunities for project development, and subsequently pursue full-scale projects.

Project preparation and development facility

Funding for project preparation is available in three categories or "blocks." Block A grants (up to $25,000) fund the very early stages of project or programme identification, and are approved through GEF's implementing agencies. Block B grants (up to $350,000) fund information gathering necessary to complete project proposals and provide necessary supporting documentation. These grants are approved by the GEF CEO, with attention to the GEF operations committee's recommendations. Block C grants (up to $1 million) provide additional financing, where required, for larger projects to complete technical design and feasibility work. Block C grants are normally made available after a project proposal is approved by the GEF Council.

Small Grants Programme

The GEF Small Grants Programme (GEF/SGP) was launched in 1992 by UNDP. The GEF/SGP provides grants of up to US$50,000 and other support to community-based groups (CBOs) and non-governmental organisations for activities that address local problems related to the GEF areas of concern. Since its inception, the GEF/SGP has funded over 750 projects in Africa, North America, the Middle East, Asia, the Pacific, Europe, Latin America and the Caribbean. The programme is operational in more than 45 countries.

The GEF/SGP recognises the essential role that households and communities, applying locally appropriate solutions, can play in conserving biodiversity, reducing the likelihood of adverse climate change, and protecting international waters. The programme operates on the premise that people will be empowered to protect their environment when they are organised to take action, have a measure of control over access to the natural resource base, have the necessary information and knowledge, and believe that their social and economic wellbeing is dependent on sound long-term resource manage-

ment. By raising public awareness, building partnerships, and promoting policy dialogue, the GEF/SGP seeks to create a more supportive environment within countries for achieving sustainable development and addressing global environment issues.

The principal objectives of the GEF/SGP are to:

1. Demonstrate community-level strategies and technologies that could reduce threats to the global environment if they are replicated over time;
2. Draw lessons from community-level experience, and support the spread of successful community-level strategies and innovations among community-based organisations (CBOs) and NGOs, host governments, development aid agencies, the GEF, and others working on a larger scale;
3. Build partnerships and networks of local stakeholders to support and strengthen community, CBO and NGO capacity to address environmental problems and promote sustainable development.

See 'http://www.undp.org/gef/sgp/main.htm' for more information on this programme.

Small and medium enterprise programme

A partnership with the International Finance Corporation (IFC), a World Bank affiliate, the SME programme finances projects that demonstrate a positive environmental impact and have basic financial viability, thus promoting private sector investment opportunities in developing countries (http://www.ifc.org/sme/).

Earthwatch Institute, USA

680 Mount Auburn Street
or P.O. Box 9104
Watertown, MA 02471
USA
Telephone: +1 617 926-8200
Fax: +1 617 926-8532
Email: info@earthwatch.org
http://www.earthwatch.org

Earthwatch is a research-oriented NGO with about 75,000 individual members and offices in five countries. It currently sponsors more than 165 research projects in 50 countries. Earthwatch is supported by the Center for Field Research (CFR), which is served by an international advisory board of respected scientific and humanities scholars. To date, Earthwatch has sponsored over 1,000 research projects worldwide, contributing over $37 million to scholarship. Over 50,000 volunteers have participated in conservation research since 1972. Research has been undertaken in protected areas in China, India, Sri Lanka, Thailand, Vietnam and Indonesia (www.earthwatch.org).

The mission of Earthwatch is to promote sustainable conservation of natural resources and cultural heritage by creating partnerships between scientists, educators and the general public. Both Earthwatch and CFR are committed to promoting public appreciation of the pure and applied sciences.

Earthwatch awards grants on a *per capita* basis, determined by multiplying the per capita grant by the number of volunteers deployed on the project. Per capita grants average $900 (range $250 to $1,200), and project grants average $25,000 (range $7,000 to $130,000) annually. A typical project would employ from 15 to 60 total volunteers, with 5 to 10 volunteers each on 3 to 6 sequential teams. Each team normally spends 1 to 3 weeks in the field. Shorter and longer-duration teams are encouraged where appropriate.

Earthwatch grants cover the following expenses: food, accommodation, and in-field transportation for the research team (Principal Investigator(s), research staff, and Earthwatch volunteers); Principal Investigator travel to and from the field; leased or rented field equipment; insurance; support of staff and visiting scientists; and support for associates from the host country. Volunteers also donate time, services and skills to the field research and pay their own travel expenses to and from the research site. Earthwatch does not provide funds for capital equipment, principal investigators' salaries, university overheads or indirect costs or preparation of results for publication. The principal investigator's field costs are either volunteered or sponsored.

Ministry of the Environment, Government of Japan

The Official Development Assistance (ODA) programme supports sustainable development and conservation projects throughout Southeast and East Asia. Funds include direct investments, financial or technological co-operation with private enterprises, or assistance to NGOs and private citizens. The emphasis of potential projects should be on achieving:

- Conservation of natural resource bases and restoration and improvement of destroyed or damaged environments; and
- Building up the capacity of developing countries to attain sustainable development, particularly with regard to institutions, government organisations, information and data, human resources, development, etc.

For example, projects have been funded to: (a) assist in the preparation of environmental policies and master plans; (b) train personnel; (c) establish monitoring systems; (d) build emission-source control technology; (e) protect wildlife; (f) protect tropical forests; and (g) assist research and development projects and centres. Since 1990, in concert with the Japan International Co-operation Agency (JICA), the Environmental Agency has provided the JICA Training Course on Nature Conservation and National Parks Management: 10 park rangers from developing countries around the world are received annually for the training programme.

The Global Environment Centre Foundation (GEC)

The GEC was established in January 28, 1992 by the Environment Agency of Japan and the Ministry of Foreign Affairs. It aims to make use of the accumulated knowledge and experience in the field of environmental protection in Japan to support activities of UNEP for *urban* environmental management in developing countries. It undertakes surveys and research which contribute to the preservation of the global environment; holds training programmes, seminars and symposia; and facilitates communications with international, governmental and research organisations in various countries.

The Global Environment Research (GER) Programme

The main objective of the GER Programme, funded by the Environmental Agency of Japan starting in 1990, is to promote comprehensive research and studies on global environmental conservation from interdisciplinary and international perspectives by promoting co-operation with researchers from various fields.

In June 1997, UNGASS (Special Session of the United Nations General Assembly to Review and Appraise the Implementation of Agenda 21) recognised the necessity of increasing investment in research and development and encouraging scientific co-operation to build scientific knowledge. In response to this, the GER Programme promotes research through participating in, and co-ordinating with, international research programmes, such as the International Geosphere- Biosphere Programme, the World Climate Research Programme and the International Human Dimensions of Global Environmental Change Programme.

For additional information on international funding provided by the Government of Japan, see http://www.env.go.jp/en/index.html.

Other potential funding sources

Funding institutions	Country	Contact
Keidanren Nature Conservation Fund	Japan	http://www.keidanren.or.jp (Jap/Eng)
Japan Fund for Global Environment	Japan	http://www.eic.or.jp/jfge
Japan International Cooperation Agency (JICA)	Japan/bilateral	http://www.jica.go.jp/english/
UN Environment Programme	International	http://www.unep.org
UN Development Programme	International	http://www.undp.org
World Bank	International	http://www.worldbank.org
International Fund for Agricultural Development (IFAD)	International	http://www.ifad.org
US-AID	USA/Bilateral	http://www.info.usaid.gov/
World Heritage Fund	International	http://www.unesco.org
Asia Development Bank	Regional	http://www.adb.org
Wild Birds Society of Japan	Japan	http://www.museum-japan.com/wbsj/#NEW
National Parks Association of Korea	Korea	Tel: +82-2-942-2420
Danish International Development Agency (DpANIDA)	Denmark/bilateral	http://www.um.dk/english/
Finnish International Development Agency	Finland/bilateral	http://global.finland.fi/english/

Funding institutions	Country	Contact
Ministry for Cooperation Ministry of Foreign Affairs Ministry of Economic Affairs and Finance (only multilateral aid) Cooperation Aid Fund French Development Fund	France/bilateral/ multilateral	http://www.france.diplomatie.fr/frmonde
Aus Aid	Australia	http://www.ausaid.gov.au/
BMZ, KfW, GTZ	Germany/bilateral	http://www.gtz.de/home/english/index.html
Global Greengrants Fund	USA	http://www.greengrants.org/
The Goldman Environmental Foundation	USA	http://www.goldmanprize.org/goldman e-mail: gef@igc.apc.org
Pew Fellows Program in Conservation and the Environment	USA	http://www.neaq.org/pfp e-mail: crobinson@neaq.org
Rockefeller Brothers Fund, Inc.	USA	http://www.rbf.org e-mail: rock@rbf.org
The Summit Foundation	USA	e-mail: vpssummit@aol.com
The Winslow Foundation	USA	http://www.lancewinslow.org Tel: +1 202-833-4714; fax: +1 202-833-4716
American Express Philanthropic Program	USA	http://home3.americanexpress.com/corp//philanthropy/ Tel: +1 212-640-5661; fax: +1 212-693-1033