

World Commission on Protected Areas (WCPA)

Economic Values of Protected Areas

Guidelines for Protected Area Managers

Task Force on Economic Benefits of Protected Areas of the
World Commission on Protected Areas (WCPA) of IUCN
in collaboration with the Economics Service Unit of IUCN

Adrian Phillips, Series Editor



Best Practice Protected Area Guidelines Series No. 2

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Guidelines for Protected Area Managers

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The Department of City and Regional Planning, Cardiff University is pleased to be a partner in the production of this important series of guidelines for protected area planning and management. The Department, through its Environmental Planning Research Unit, is actively involved in protected areas research; runs specialised courses on planning and environmental policy; and has a large Graduate School offering opportunities for persons interested in pursuing research for a PhD or as part of wider career development. If you are interested in learning more about the Department, its research capabilities and courses please write to us at the address given below.

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Table of Contents

Editorial preface	vii
Acknowledgements	viii
Executive summary	ix
Introduction	xi
Testimonials	
Dr. G. R. Hughes	23
Bruce Amos	24
PART I	1
1. A new vision for protected areas.	3
1.1 The global mandate for protected areas.	3
1.2 The need for innovative approaches	6
1.3 The ‘client’ approach	8
2. Economic values of protected areas	11
3. A framework for valuing protected areas	15
3.1 Define the audience	15
3.2 Determine the scope in terms of the time, data, resources and institutional structure	16
3.3 Choose the analytical technique	18
4. Conclusion	23
PART II	25
1. Valuation study examples	27
2. Case studies.	31
2.1 Opportunity costs of protected areas in Uganda	31
2.2 Contingent valuation and costless choice methods in Kenya	34
2.3 Loss of productivity and contingent valuation in Madagascar	34
2.4 Stakeholder identification for Indonesian coral reefs	35
2.5 The value of forest reconstruction to the Croatian tourism industry	36

2.6	Willingness to pay for a protected area in India	38
2.7	Opportunity costs of alternative forestry practices in Nepal	39
2.8	Using a valuation study to capture revenues in South Africa	40
2.9	Benefit cost analysis in South Africa.	41
2.10	The economic contribution of key conservation areas in South Africa	42
2.11	Total economic value in Kenya	43
2.12	Financial benefits to a local economy in Australia	44
2.13	Financial benefits to a regional economy in Australia	44
2.14	The effect of environmental quality on consumer demand in Honduras.	45
2.15	Local and national financial benefits from protected areas in Belize	46
2.16	The opportunity cost of a Fijian mangrove	47
	Bibliography.	49
	Boxes and tables	
	Box 1. Six categories of protected areas	4
	Box 2. Total economic value.	11
	Box 3. Economic valuation and financial analysis	12
	Box 4. Total economic values of protected areas	13
	Box 5. Analytical matrix for protected areas	15
	Box 6. Markets and some means of capturing direct use values.	18
	Box 7. The Money Generation Model.	20
	Box 8. Willingness to pay and willingness to accept	21
	Table 1. Summary of the case studies	28

Editorial preface

This is the second in a new series of Best Practice Guidelines produced by the IUCN World Commission on Protected Areas (WCPA) in partnership with the Environmental Planning Research Unit, Department of City and Regional Planning, Cardiff University, Wales, UK.

WCPA, which is an integral part of IUCN – The World Conservation Union – is a world-wide network of some 1,300 protected area experts. Its members work in a volunteer capacity to raise the standard of protected areas planning and management. The Department of City and Regional Planning at Cardiff University is the UK's leading school of planning. It has a strong international reputation and a high profile in research and teaching related to environmental topics. Together the two bodies are working to produce and distribute a series of world best practice guidelines. There will be two publications a year, prepared through experts drawn from WCPA's network, initially over a three year period. Drafting of each individual guideline publication will normally be led by a main author, usually assisted by a task force and subject to peer review with WCPA. The first in the series dealt with National System Planning for Protected Areas. The series will address other key issues facing protected areas around the world such as marine protected areas, tourism and protected areas, financing of protected areas and training.

The guidelines series is intended to be used by all those concerned with the policy and practice of protected areas, not only the practitioners but also decision-makers at the various levels of government, others such as non-governmental organisations, academics and students and international funding agencies. Through the publication and distribution of these guidelines, WCPA and Cardiff University hope to improve understanding of the needs of protected area management and the standards of management on the ground.

As series editor, I welcome feedback from readers.

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and Environmental Planning at the Department
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This guide is a publication of IUCN – The World Conservation Union. It has been prepared jointly by the Task Force on Economic Benefits of Protected Areas, a part of the World Commission on Protected Areas (WCPA) and the IUCN Economics Service Unit.

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The clearance process for the guide has included a review of the text by all members of the Economic Benefits of Protected Areas Task Force, Jeff McNeely, Chief Scientist and other selected IUCN professional staff, and final approval of the IUCN Director General. This process ensures that the document incorporates comments by members of the organisation, but views expressed in this publication do not necessarily reflect those of IUCN. Although IUCN assumes no responsibility for the content of the case studies, any queries can be directed to <indaba.iucn.org>. The publication is also available at: <<http://economics.iucn.org/valuationparks.htm>>.

The Economic Benefits Task Force wishes to acknowledge the generous support of the IUCN Economics Service Unit and Environment Australia which have assisted in funding the publication of these Guidelines. This funding has contributed to a significantly increased print run and wider distribution of these Guidelines than would otherwise have been possible.

The Task Force and ESU would like to thank Mr Francis Grey, Ms Jill Blockhus and Mr Sebastian Winkler for their contributions to the Guidelines. Comments and assistance from Mr Geert Creemers, Mr Jerry Harrison, Mr Dick Stanley, Dr Luc Peron and Dr Ken Hornback are also acknowledged.

Executive summary

Protected areas contain some of the world's most beautiful scenery and outstanding natural and cultural landscapes. These feature wildernesses, mountains and volcanoes, rain forests, untouched crystal-clear marine waters, white sandy beaches and unique cultural sites – to mention but a few.

The natural and near-natural features of protected areas offer attractions which in many countries have become the cornerstone of tourism and recreation. However promoting tourism for the economy is not the primary role of most protected areas. Their primary role is the conservation of species biodiversity, and provision of a rich natural resource which permits scientists, educators and the community at large to meet their various needs. Generally speaking, however, the market alone does not support a system of protected areas – hence society, through its various levels of government, must provide environmental protection as a public service in the same manner that it provides health, education, defence and legal systems. Failure to provide these public services impoverishes the quality of life for individuals and indeed for entire nations.

The debate over environmental protection is often about the balance between leaving areas in their natural or near-natural state, and developing and exploiting them. This choice is fraught with tension – for example should a forest be left uncleared, or logged and converted to agriculture? Should wetlands and mangroves be left in their natural state or cleared and developed?

These Guidelines are intended to help answer such questions. Part I gives an overview of how the economic values of protected areas can be assessed, provide new insights and inform the debate. The case studies in Part II identify those sites where protecting the environment has made a significant contribution to the economy – increasing national wealth, national incomes and levels of national economic output.

Public policy has a broad focus on the welfare of the community, and much work has been done by economists systematising the evaluation of welfare benefits from protected areas. The current political process largely focuses, however, on the economy and monetary returns. It is hoped that the awareness developed through these Guidelines can help to place environmental protection issues nearer the centre of the economic policy argument.

The Guidelines reveal that protected areas are often significant revenue-earning entities and can make an important contribution to local economies. For instance recent studies indicate that Canada is expected to create \$C6.5 billion dollars in annual Gross Domestic Product from the expenditure of participants in wildlife-related activities; this sustains 159,000 jobs and creates \$C2.5 billion in tax revenue each year. Australia receives over \$A2 billion in expenditure from eight national parks - at a direct cost to Governments of some \$A60 million. In Costa Rica, about \$US12 million is spent

annually to maintain the national parks but foreign exchange generated in 1991 was more than \$US330 million with 500,000 overseas visitors; park-generated tourism is the second largest industry in the country.

Numerous other examples abound. In Tanzania, poaching and uncontrolled hunting of elephants to the south-east of Tarangire National Park led to an increase in woody plants within the park, causing in turn an increase in tsetse flies and hence livestock losses; conservation of elephants would have enhanced the productivity of the livestock industry. Zaire (now Democratic Republic of Congo) receives 75% of animal protein from wild sources; 40% of the diet in Botswana comes from animal protein produced by wild sources; firewood and dung provide 90% of the energy needs in Tanzania, Nepal and Malawi, and exceed 80% in other countries. In Australia, water production in the Upper Thompson dam in Victoria was found to be more valuable than timber production from the same land. Tourism and fishing are more economically valuable than logging in the Philippines. Fijian mangroves are more valuable for firewood collection, fishing and sewage disposal than when cleared as agricultural land. The destruction of US coastal estuaries between 1954 and 1978 cost the US economy \$200 million in fish production on an annual basis. In Italy, the Abruzzo National Park has been so popular that it has regenerated the economy of a poor area that previously suffered from severe depopulation. In each of these cases, the economy is demonstrably receiving a boost from the existence of protected areas, wildlife and natural and near-natural landscapes.

There is a clear message from the above that investment in protected areas can provide a significant benefit to national and local economies. Far from being locked up and lost to local users, these areas represent an opportunity for sustainable industries and for the generation of financial returns. The concept of total economic value (TEV) identifies the goods and services or “products” protected areas offer and which are suitable for capturing revenues for the protected area. With proper management, the “product” on offer can be sold over and over again without diminishing its value and revenues can be used to maintain the protected area. Unlike extractive industries, the string of returns can be maintained over a long period for the benefit of a wide range of users and stakeholders. Managers need to prepare business plans for parks and reserves so as to assess and capture these potential benefits, and thus ensure the long-term financial sustainability of protected areas in their care.

Case studies reviewed in this report show that the different approaches to valuation can lead to inconsistent reporting of outcomes. The Guidelines therefore recommend a standardised valuation methodology, based on the concept of TEV, which is described in the text. The methodology provides sound guidance for those unfamiliar with measuring costs and benefits. The adoption of a standardised approach will reduce the incidence of impacts remaining unvalued and unappreciated. Measuring the benefits of protected areas in a standard way also enables comparisons and aggregations to be made of studies in different parts of the world.

Introduction

The aims of these Guidelines are:

- to introduce protected area managers to the concept and tools of economic valuation, and
- to demonstrate the potential uses of economic valuation for protected area financing and management.

Economic valuation can be useful for protected area managers since it can help:

- support requests for funding from traditional sources,
- identify additional sources of finance,
- expose marginalised stakeholders who may impose threats to protected areas,
- indicate ways of capturing values of beneficiaries, and
- guide management practices.

An effective valuation study should be conducted by a professional economist who is servicing the needs of the protected area manager. It is the protected area manager's task to work with the economist to establish the end use of the study, and the framework for the analysis. This guide is meant to help the manager ask the right questions of the economist.

While these Guidelines should equip protected area managers with the knowledge and information needed to commission a valuation study by an economist it will not prepare either of them to undertake a study independently. A successful valuation study needs the strong guidance and concrete objectives, which the protected area manager should provide, as well as the sound understanding and knowledge of valuation tools and frameworks, which the professional economist can provide.

These Guidelines for protected area managers are in two parts:

Part I provides core information about economic valuation, and

Part II summarises a series of case studies.

Part I outlines the concepts, methodologies and language of economic valuation and is intended to be read in its entirety. The text explains the mandate for protected areas, introduces a client approach to managing protected areas, and establishes the need for valuation against a background of shrinking traditional funding sources. Part I also establishes a three-step framework for valuing protected areas, demonstrates the

valuation process through a worked example, and draws some important conclusions for protected area managers. Part II summarises a number of case studies with the aim of introducing the manager to valuation in practice. These summaries can be read selectively. The collection as a whole provides examples of the array of situations and levels at which valuation studies can be and have been undertaken.

These are guidelines for protected area managers; they are complemented by guidelines for practising economists available separately¹. The practising economists' guide will provide background information on how valuation tools can be and have been used for protected areas and supply a tool kit of references and case studies to demonstrate 'best practice'. The two guides are intended to provide protected area managers and their economists with the common framework and language needed to work together effectively and efficiently. An effective valuation study is one which results in policy and management outcomes which improve the long term viability of the protected area; an efficient one achieves these policy and management outcomes in the most expedient and least costly way.

The hope of IUCN's World Commission on Protected Areas (WCPA) is that this guide will become a dynamic document which will be progressively refined as more protected area managers use valuation tools to aid management and finance decisions. The electronic version of the document (<http://economics.iucn/valuationparks>) will be updated as appropriate, as the ideas presented in this guide are shared and practised in the field. As this experience accumulates, it is hoped that the hard copy version will also be revisited and new cases included. To achieve such dynamism, we look to users of this guide to share experiences by contributing case studies to the Commission <economics@indaba.iucn.org>. These studies can be made available on the Internet, thereby initiating the exchange of experience in the economic valuation of protected areas.

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¹ The economists' guidelines are being prepared and are expected to be completed by the end of 1998.