Fiscal Instruments for Conservation

Table of Contents

1 HOW DO THEY WORK?

1.1 Overview

While businesses produce goods and services in order to raise revenues, governments raise revenues in order to provide goods and services. Governments primarily raise revenues through taxes – involuntary levies on wealth or income-generating activities.

Some fiscal instruments, such as general income or sales taxes, are based fundamentally on *the ability-to-pay principle*: individuals, households or businesses with adequate wealth or income or with the ability to generate wealth or income are taxed. Other fiscal instruments, such as user fees and access charges for government goods and services, are based on *the benefit principle*: those who benefit from the provision of government-supplied goods or services are charged for its provision.

In the case of ability-to-pay taxes, revenues are redistributed to specific activities including biodiversity conservation through the government's budget-making process. In the case of benefit taxes, collected revenues can be allocated through the government budget, but they can also be directly *ear-marked* to the provision of the specific goods or services. For example, revenues earned from entrance fees at a national park can either be sent to the finance ministry for inclusion in the general government budget, ear-marked to the national park authority or even ear-marked to the park from which they were generated.

With respect to increasing support for biodiversity conservation, existing fiscal instruments can be reformed or new ones can be designed. In either case, it is important to understand both the nature of the instrument – is it an ability-to-pay instrument or a benefit instrument? – and the intended use of the revenue – will it go into the general budget or will it be ear-marked for specific biodiversity-related activities? Regarding fiscal instruments based on the ability-to-pay, conservationists will probably need to focus their efforts on capturing some of these revenues through the budget-making process. Regarding fiscal instruments based on the benefit principle which can ear-mark revenues to specific activities, there is a greater chance of securing direct revenues for conservation.

In addition to raising revenues, fiscal instruments can also be used to directly influence the behaviour of economic actors – individuals, households and businesses. The fiscal instrument itself can provide an incentive for economic actors to conserve biodiversity. Of course, fiscal instruments can also create, unintentionally, incentives to destroy biodiversity. For example, a high tax on city property may encourage a higher concentration of dwellings – more flats than homes within the city. On the other hand, it may encourage more urban sprawl. Either response will have an impact on biodiversity conservation within the urban area.

The main idea behind using fiscal instruments to influence behaviour is to provide *incentives* for biodiversity conservation by directly or indirectly modifying the prices of biodiversity-related goods and services. In this sense, fiscal instruments are part of a wider class of policy instruments called *market-based instruments* or *economic instruments*. These instruments use the logic of the market to encourage more sustainable behaviour on the part of producers, consumers and resource managers.

This approach contrasts with traditional *regulatory approaches* to biodiversity conservation. Regulatory approaches – also called *direct control* or *command and control* approaches – impose direct quantity or quality restrictions and include such instruments as overt bans, quotas and standards. In contrast, market-based instruments aim at creating incentives by altering prices so that they better reflect true biodiversity benefits and costs.

Hence, fiscal instruments cannot only raise revenues for biodiversity efforts but they can also provide incentives for economic actors to conserve biodiversity. Thus, there is a complex array of options and impacts for using fiscal instruments to support biodiversity conservation. How can one begin to approach the use of fiscal instruments? This chapter provides some introductory guidance on this challenging topic.

1.2 Key actors and motivations

As the old saying goes, there are only two certainties in life – death and taxes. Everyone, in virtually every aspect of his or her life, is directly affected by fiscal instruments. This is especially true for developed economies which have, for the most part, established very sophisticated ways of extracting revenues from economic actors to finance governments and their programmes. For developing countries, one of the challenges is to develop a set of fiscal instruments which will both finance the needs of the government and, at the same time, not kill the economic base on which it depends.

No matter what our position is within the economy, we pay taxes. We pay taxes to eat (sales taxes or VAT), to sleep (property taxes, resident taxes and even hotel taxes), to work (income and retirement taxes), to invest (income and capital gains taxes), to save (interest taxes on interest earned), to travel (fuel taxes, road taxes and airport taxes), and even to die (death and estate taxes)!

From a biodiversity perspective, however, we can roughly divide the key actors into four groups: (a) taxpayers, (b) tax collectors, (c) tax spenders, and (4) biodiversity conservationists. For all four of these groups, what we would like to see is an array of fiscal instruments which encourage more biodiversity conservation and less biodiversity destruction. In other words, we would like to see fiscal instruments which promote an increase in "biodiversity goods", including increased revenues to support biodiversity-related activities, and a decrease in "biodiversity bads."

Each of these four groups is actually very complex. Indeed, many economic actors will find themselves in more than one of these groups. This same complexity holds for groups of biodiversity conservationists, which may be individuals, households, businesses, not-for-profit organisations (NGOs), academic institutions, or government agencies. Different conservationists will have a different mix of self-interests and conservation-interests with respect to reforming or designing fiscal instruments for biodiversity.

Hence, to provide an introduction to this topic, this chapter focuses on one, easy-to-recognise group of biodiversity conservationists – the managers of traditional government-owned protected areas. What type of fiscal instruments would protected area managers want to see for biodiversity conservation?

1.3 Types of fiscal instruments

From the perspective of protected area managers (an important subset of the larger community of biodiversity conservationists as discussed above), we can roughly divide fiscal instruments into two categories: (a) revenue-generating instruments, and (b) behaviour-changing instruments. For the most protected area managers, the former is of greater interest.

1.3.1 Revenue-generating instruments

Revenue-generating instruments can be designed at various levels of the political system. Instruments can be designed for the protected area system or even for a specific protected area. They can be designed at local and provincial/state levels of government. They can also be designed at the national/federal level of government.

Depending on the fiscal policies and practices of the government, managers of protected area systems or specific protected areas may have some autonomy to design specific fiscal instruments for the protected area. Entrance fees to parks is one obvious example. User fees for the sustainable use of biological resources – such as backpacking, fishing or hunting fees – are also common. Licensing fees for tourist operations and filming rights are also possible. Such fiscal instruments are based on the benefit principle and generate ear-marked revenues for the protected area authorities.

Protected area managers may also be able to benefit from the design of fiscal instruments at the local or provincial/state level. For example, a portion of a local or provincial sales tax – generated in part from the spending of park visitors in the local economy – may be ear-marked to the protected area. Landowners who benefit from being adjacent to or near a protected area may pay a portion of their property tax to the protected area. Innovative fiscal instruments, such as a state lottery, may ear-mark earnings to a protected area.

At the national/federal level, fiscal instruments which ear-mark revenue may also be possible, though these are likely to be ear-marked to systems of protected areas rather than to specific parks. Examples include ear-marking a portion of a national sales tax or a national lottery. One innovative instrument is to ear-mark a portion of revenues earned from an entry visa into the country or an airport departure tax.

Tax incentives can also be designed to encourage workers and businesses to contribute part of their income to a protected area. Income tax deductions for biodiversity-related contributions can be included in the tax code.

1.3.2 Behaviour-changing instruments

Protected area managers may also be interested in using fiscal instruments to change the behaviour of economic actors with respect to maintaining the protected area and conserving biodiversity. A tax incentive for voluntary contributions, as just discussed, is one option.

Of particular interest to many protected areas is the impact of economic activities in the buffer areas of a park on the integrity of the park and the conservation of biodiversity within the greater bio-region. Local, provincial and/or national fiscal instruments can be designed to encourage biodiversity-benefiting economic activities – such as organic farming and ecotourism – around protected areas. Tax breaks – on income taxes, property taxes, employment taxes, etc – can be given to such biodiversity businesses.

Tourism companies who bring visitors to the park and maintain biodiversity-benefiting standards in the operations could also be given tax breaks. The same holds for other economic activities – such as farming, fishing, hunting, sustainable wild harvesting, and research – which take place within a protected area.

In addition to influencing economic activities in and around protected areas, fiscal activities can also be used to influence household behaviour. For example, if there are sizable settlements within the bio-region in which the park is located, tax incentives may be used to encourage biodiversity-friendly practices in local homes and gardens, including removal of exotic species and the establishment of wildlife corridors within the settlements.

2 STEP-BY-STEP METHODOLOGY

Fiscal instruments provide a wide array of opportunities for increasing support for biodiversity conservation. Additional revenues can be generated for biodiversity-related activities, such as maintaining protected areas, and the behaviour of biodiversity-impacting economic actors can be altered through tax incentives, such as tax breaks for organic farming.

From the perspective of a protected area manager, a step-by-step approach can be adopted to identify, assess and implement or promote an appropriate portfolio of fiscal instruments. This section proposes a simple, practical approach to tackling this complex subject.

Step 1: Clearly define the conservation objectives.

It is crucial to begin by re-affirming conservation objectives, so as to ensure that the fiscal instruments will support the conservation aims of the protected area. In particular, the strictly financial aims of the fiscal instruments 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.

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.

Step 2: Identify the existing stakeholder/customer base.

The existing stakeholder or customer base of a protected area provides the real foundation for its potential revenue. The identification of the customer base should include customers that are currently paying for the relevant goods and services and those that derive benefits free of charge. 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 through the use of ear-marked fiscal instruments.

Step 3: List existing or available fiscal instruments.

This step entails identifying and listing the current sources of financing from fiscal instruments, as well as 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 re-sources (such as reporting requirements, projects or activities which must be undertaken, and deadlines).

A similar list of behaviour-influencing instruments also needs to be made. This list may be more difficult as the protected area managers may not be fully aware of the impact of various fiscal instruments on the behaviours of key stakeholders such as neighbours and potential donors.

In addition to a list of fiscal instruments in use, the protected area manager also needs to know what instruments are available at the protected area system or park level as well as what instruments might be worth pursuing at the local, provincial and national levels. Here insights and information from experiences in other regions and countries may be valuable.

Step 4: Step 4 : Assess the advantages and disadvantages.

A careful analysis of the advantages and disadvantages of reforming existing fiscal instruments or designing new ones needs to be undertaken. Every country has a different tax structure and budget decision-making process. Every protected area system or park has a different set of priorities and challenges. Hence the feasibility of different fiscal instruments to support biodiversity conservation needs to carefully studied.

A very indicative list of advantages and disadvantages follows:

Advantages	Disadvantages
Provides regular and reliable source of income.	A major challenge will consist in keeping the proceeds ear-marked for conservation.
As systems for tax collection usually exist, there is no need to set up a new collection system or bureaucracy.	Need for strong institutional and fiscal capacity. It may be difficult to introduce new taxes – political acceptability may require substantial information efforts which increases costs.
Establishing fiscal instruments with a wide base means that protected area managers are less tied to individual donors.	Increasing the power of local authorities or protected area managers may call for a change in existing legislation.
Taxes that capture the economic benefits from resource uses, guide the economy towards a more sustainable path.	Capturing full environmental costs and benefits is information intensive.

Green taxes can potentially create "double dividends" by lowering existing taxes, such as labour taxes.	New instruments may result in creating perverse incentives. The instruments should be sufficiently flexible so as to allow "trial and error" approaches.

In particular, this step requires that the complexity of the instruments under consideration, 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 need to be assessed. At this stage it may be also be necessary to revisit step 2 and reassess the relevant customer base and reconsider what are appropriate instruments.

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

Step 5: Integrate the fiscal instruments into the financial plan.

Fiscal instruments, especially those which generate revenues for the protected area, need to be integrated into the protected area's financial plan.

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 instrument requires significantly more effort than expected and thus becomes unsustainable, there should be a plan to suspend support for this instrument and reassess the situation.

Furthermore, fiscal instruments are only one source of revenue for a protected area and one means of influencing the impact of economic actors on biodiversity. By integrating the fiscal instruments into the financial plan, they will be assessed relative to other options for raising finance for biodiversity conservation.

3 SUCCESS FACTORS

As indicated above, quite a number of factors will affect the effectiveness and feasibility of the different fiscal instruments. Some of these are presented here.

Adequate information base

Creating new fiscal instruments or reforming existing ones is information intensive. Indeed, information on the costs and benefits of alternative tax systems and the identification of potential impacts on biodiversity of various reforms are needed. Hence, a solid information base will ensure a better use of fiscal instruments.

Administrative and legal capacity

The effective use of fiscal instruments relies on a minimum administrative apparatus, to set, administer, collect and allocate revenues. Tax legislation has to assign clear responsibilities and confer tax collecting powers accordingly. Proper enforcement will require the existence of a legal structure. Implementation, monitoring and enforcement all require appropriate staff and funding.

Political feasibility

With respect to fiscal instruments, political feasibility is an absolutely critical feature. It is no good designing an ideal instrument for biodiversity conservation which has not had the chance of securing the needed political support.

Solid case studies

Reforming existing fiscal instruments or designing new ones is as much an art as it is a science. There is often no obvious right or wrong way to proceed. Hence learning lessons and gaining insights from other experiences in the arena of fiscal instruments are of particular importance. Protected area managers are more likely to be successful in the efforts if they build on the successes and the failures of others.

4 A SELECTION OF CASE STUDIES

This section presents 4 case studies which give an indication of the array of interesting fiscal instruments already in use. More case studies are available on the Internet, at sites such as the Biodiversity Economics Library (http://biodiversityeconomics.org).

4.1 Instruments for raising revenue

Taxes for watershed protection services in Costa Rica

In 1998 Inversiones La Manguera Sociedad Anonima (INMAN), a Costa Rican hydro-electric company, signed a contract with the Monteverde Conservation League (MCL) to pay for ecological services provided by the protected area managed by MCL.

The Bosque Eterno de los Niños (Children's Eternal Rain Forest) is a 22,000 ha private reserve managed by MCL. Approximately 3,000 ha of the protected forest is part of a watershed that is used by INMAN for generating electric power. Recognising the benefits they receive from protection of this watershed, INMAN entered into an agreement with MCL to pay for the protection of the ecological services provided by Bosque Eterno de los Niños.

The contract recognises services such as "stabilization of land, soil protection, humidity and nutrient retention, water protection, protection of species biodiversity" and more. INMAN pays MCL $10 per hectare (a negotiated price) x (a factor that accounts for the amount of energy generated and sold by the hydro-electric plant) x 3,000 (for the hectares in the watershed). The money from this tax is used directly to pay for reserve protection programmes. Although this is an excellent example of a private organisation recognising and paying for environmental services, the process in developing a binding legal agreement took much effort on the part of both parties.

Source: Janzen, Daniel. "Gardenification of tropical conserved wildlands: multitasking, multicropping, and multiusers." Proceedings of the National Academy of Sciences of the United States of America 96(11):5987- 5994 *in* IUCN, 2000, Financing Protected Areas

> Download the document from http://biodiversityeconomics.org/finance/topics-38-01.htm

Using a lottery to help fund protected areas in the UK

Since its launch in 1994, the UK National Lottery has generated large sums of money for "good causes". One of these is "heritage", which includes conservation of nature and landscapes and their enjoyment and understanding by the public. Over £150 million has gone to projects of this kind in the first four years.

The funds are made available to bodies in the public and voluntary sectors, and paid on the basis of approved projects submitted to, and evaluated by Lottery Distributing Bodies (in effect, one of these, the Heritage Lottery Fund, has been responsible for most of the projects funded in this way). Funds have been used to acquire land for conservation (e.g. to create nature reserves), to improve their management, to improve public access and enhance public understanding, and to encourage and train volunteers to work on conservation schemes. An estimated 52,000ha of land of high conservation value have benefited from such projects.

Projects supported in this way include some which are specifically directed at helping the UK meet its CBD obligations (e.g. by improving the management of species-rich heathland, or creating new wetlands for endangered species of mammals and birds). Many of the sites so assisted will be Category IV nature

reserves. Other projects have been directed to helping UK national parks (Category V areas) in landscape protection. A recent study of the impact of the lottery on countryside conservation concluded that it had had "a very significant and positive, if uneven,

impact". Without doubt, it has brought very much more money into conservation than would otherwise have been the case.

Source: IUCN, 2000, Financing Protected Areas

> Download the document from http://biodiversityeconomics.org/finance/topics-38-01.htm

4.2 Instruments for changing behaviour

A tax deduction scheme in Hungary

The Hungarian Government has initiated a scheme which allows Hungarians to contribute 1% of their taxes to a charitable fund and an additional 1% to a religious organisation. Individuals simply collect a form from the local tax office, fill in a section of the form with the bank account number of the foundation of their choice and turn it in with their normal forms. The government then makes the payment to the foundation concerned.

Under this scheme, the Kiskunsag National Park Foundation invests funds in the protected area by sponsoring research projects, staff travel to international events and nature conservation activities. A modest start has been made by raising 160,000 forint in 1998 (about 900 USD). There is, of course, much competition for these funds from other charitable organisations, but the foundation plans an information campaign to take advantage of the opportunities and encourage people in the area, and throughout the country, to contribute to the National Park.

Source: IUCN, 2000, Financing Protected Areas

> Download the document from http://biodiversityeconomics.org/finance/topics-38-01.htm

Green Funds in The Netherlands

Launched in 1995, the Dutch Green Investment Scheme aimed at encouraging private investments into sustainable projects. By attaching a tax break to officially approved Green Projects, the government was providing a subsidy to private investors. As a result, green investments became financially attractive despite low interest rates.

Green Certificates are issued jointly by the Ministry of Housing, Spatial Planning and the Environment and the Ministry of Agriculture, Nature Management and Fisheries. One requirement is for Green Funds to invest at least 70% of their assets into loans to green projects. Another requirement – although later partially lifted – was for projects to be based on Dutch soil.

Many mainstream Dutch financial institutions, including ABN AMRO, Rabobank have been actively involved in the financing of green projects. The ABN AMRO Green Fund, for instance, totaled EUR 336m in green loans by March 2000. Specialised "green banks" have also been established, such as ABN AMRO Greenbank B.V. and Postbank Green.

Demand for green funds far exceeded expectations, resulting in a lack of available projects. This led, initially, to the government widening the scope of relevant projects. It also later prompted the government to revise the tax breaks associated with those investments. The Tax Act 2001, for instance, introduced ceilings for tax exemptions even though this was partially compensated by additional tax measures.

> For more information, visit http://www.triodos.nl/ ; http://www.abnamro.com/ or http://www.rabobank.nl/

5 RESOURCES

5.1 Key Internet resources:

The IISD Compendium of instruments
http://www.iisd.org/susprod/browse.asp

The IUCN Biodiversity Economics Library
http://biodiversityeconomics.org/finance

The OECD / EU database on environmentally related taxes
http://www1.oecd.org/env/policies/taxes/index.htm

5.2 Suggested reading:

Bayon, Ricardo, 1999. *Financing Biodiversity Conservation*, Inter-American Bank.
http://www.biodiversityeconomics.org/business/topics-122-00.htm

Bayon, Ricardo, 2001. *Innovating Environmental Finance*, Milken Institute.
http://www.newamerica.net/articles/article.cfm?pubID=483&T2=Article

Emerton, Lucy, 2000. *Using Incentives for Biodiversity Conservation*.
http://biodiversityeconomics.org/incentives/topics-304-00.htm

IUCN, 2000. *Financing Protected Areas, Best Practice Protected Area Guidelines Series No.5*, Gland, Switzerland.
http://www.biodiversityeconomics.org/finance/topics-38-01.htm

IUCN, 2001. *Guidelines for Financing Protected Areas in East Asia*, Gland, Switzerland.
http://biodiversityeconomics.org/finance/topics-227-00.htm

Kloss, Dirk, 2001. *Guide to Sustainable Financing of Biodiversity and Protected Areas*, GTZ.

McNeely, Jeffrey, 1997. "Achieving Financial Sustainability in Biodiversity Conservation Programs" *in* IDB, *Investing in Biodiversity Conservation*, Proceedings of a Workshop, Washington DC, September 1997, No. ENV-111
http://www.iadb.org/sds/doc/env97-104e.pdf

OECD, 2001. *Environmentally Related Taxes in OECD Countries: Issues and Strategies.*

http://www1.oecd.org/publications/e-book/9701101e.pdf

Spergel Barry, 2001. Raising Revenues for Protected Areas, A Menu of Options, World Wildlife Fund, Washington DC, USA.

http://www.biodiversityeconomics.org/finance/topics-226-00.htm