



GEF/UNDP PIMS 5024: National Biodiversity Planning to Support the Implementation of the CBD 2011-2020 Strategic Plan in Montenegro

Mechanisms for mainstreaming  
a sustainable biodiversity economy,  
including payments for ecosystem services

*Technical Report*

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## List of Acronyms

CAP	Common Agricultural Policy
CBD	Convention on Biological Diversity
EU	European Union
GEF	Global Environment Facility
MSDT	Ministry of Sustainable Development and Tourism
NBSAP	National Biodiversity Strategy and Action Plan
PES	Payments for ecosystem services
UNDP	United Nations Development Programme

# 1. INTRODUCTION:

## scope and content of the report

### Background to the assignment

The UNDP/GEF/Government of Montenegro project “National Biodiversity Planning to Support the Implementation of the CBD 2011-2020 Strategic Plan in Montenegro” aims to integrate the country’s obligations under the Convention on Biological Diversity (CBD) into its national development and sectoral planning frameworks through a renewed and participative biodiversity planning and strategizing process, in a manner that is in line with the global guidance contained in the CBD’s Strategic Plan for 2011-2020.

The current assignment is being carried out over a period of 25 days between June and October 2013. It seeks to identify and recommend appropriate economic information, approaches and tools to strengthen biodiversity planning, implementation and the achievement of national and global targets. In particular, it is envisaged to contribute to the following project outcome:

*Montenegro’s National Biodiversity Strategy and Action Plan (NBSAP) is revised/updated and it fully integrates new aspects of the CBD strategic plan, such as mainstreaming and anchoring the implementation of the plan into national development frameworks, valuing ecosystem services and promoting ecosystem-based adaptation and resilience.*

As laid out in the terms of reference, the assignment focuses on three aspects of the economics of biodiversity:

- Assessing and integrating ecosystem services through **economic valuation**;
- Defining mechanisms to **mainstream biodiversity into economic growth and development**; and
- Developing detailed guidance for the implementation of **Payments for Ecosystem Services (PES)**.

### Aims and scope of the report

The report deals with the second and third of the topics listed above: mechanisms to mainstream biodiversity into economic growth and development, including payments for ecosystem services. According to the workplan and following the terms of reference for the assignment, the current document is intended to provide a final report on “models for long term, sustainable biodiversity economics and prepared guidance for Payment of Ecosystem Services”. Its aim is *to review national policy frameworks and instruments as well as international best practices and lessons learned, so as to recommend opportunities, entry points and concrete mechanisms for mainstreaming the economics of biodiversity in Montenegro.*

The report is one of three being delivered under the assignment. The other two comprise: an inception report detailing the agreed workplan and reviewing initial findings on biodiversity economics in Montenegro, and a technical report on the economic value of biodiversity and ecosystem services.

The report contains four chapters, including this one:

- Chapter 2 assesses the existing policy and legal framework so as to identify opportunities and entry points for **mainstreaming measures for a sustainable biodiversity economy**;
- Chapter 3 reviews best practices, lessons learned and niches for developing payments for ecosystem services so as to provide **guidance on PES implementation**; and
- Chapter 4 proposes a strategy for mainstreaming a sustainable biodiversity economy through **addressing Aichi targets 3 and 4 in the revised NBSAP**.

## 2. MEASURES FOR A SUSTAINABLE BIODIVERSITY ECONOMY: needs, opportunities and entry points

### Operationalizing a sustainable biodiversity economy

Aichi Biodiversity Targets 3 and 4 deal with the development of positive incentives and the dismantling of perverse incentives, and the achievement of more sustainable production and consumption. These two targets explicitly recognise the need to mainstream biodiversity into the actions of other sectors, via the use of economic policy instruments that support activities beneficial to biodiversity and encourage public and private production, consumption and investment to take place within sustainable limits.

The concept of “green economy” provides a useful framework within which to operationalize these goals. A green economy can be characterised as one that “results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities ... growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services” (UNEP 2011).

The goals articulated in Aichi Targets 3 and 4 echo the core elements of a green economy approach: most notably, the aim to decouple value creation (growth) from resource use, grow within limits, and stay below critical environmental thresholds (Mazza and ten Brink 2012). Green economy approaches however go beyond conventional biodiversity economics measures in a number of important ways. Not only do they attempt to manage the environmental impacts of the economy, but they also endeavour to tap into the opportunities that the natural environment offers to stimulate and enhance economic growth. Green economy therefore provides a comprehensive, “bigger picture” development planning framework within which to embed measures for sustainable biodiversity economy – as well as to mainstream them into national and sectoral policies, strategies and plans. To a large extent, a sustainable biodiversity economy can be seen as a sub-set of a green economy: this is the approach that is taken in the current document.

A major reason for posing measures for a sustainable biodiversity economy within the green growth paradigm is to ensure that the revised NBSAP is embedded in, rather than separated from, the content and approach of other Montenegrin development strategies and plans. It is important to note that “the concept of a green economy” is mentioned as the first of the five principles upon which the current Montenegro Development Directions 2013-16 is based. Using a green economy as the overarching framework for economic measures in the revised NBSAP thus aims to reflect more general shifts in the way in which economic growth is being conceptualised and operationalized at the national level, and across different sectors. In addition, it adds a degree of coherence and consistency with the content and focus of current EU-level strategic plans which integrate green economy approaches and tools, including the EU strategy for sustainable growth and jobs, “Europe 2020” (EC 2010) and the EU Biodiversity Strategy to 2020 (EC 2011).

The key point is that moving towards a green economy requires significant policy reforms, and the revised NBSAP provides an appropriate and timely planning framework with which to articulate and roll out these measures. Biodiversity valuation is one important tool, as is the realignment of development indicators and measures so as to incorporate both the costs of ecosystem degradation and benefits of conservation (these relate to Aichi Targets 1 and 2, and are dealt with in the accompanying report “Montenegro: the economic value of biodiversity and ecosystem services” (Emerton 2013b)). Another key element of a green economy is economic instruments for sustainable production, consumption and investment, including the reform of perverse incentives as well as the provision of positive incentives (these relate to Aichi Targets 3 and 4). The intention is to encourage activities that can foster economic growth and development while ensuring that

biodiversity and ecosystems continue to provide the resources and services upon which wellbeing relies. Biodiversity-related economic instruments and incentives form the main focus of this chapter.

## Review of biodiversity incentives in existing policy and legal frameworks

Following on from the preliminary analysis provided in the inception report (Emerton 2013a), the paragraphs below look at the extent to which national and sectoral policy and legal frameworks provide (or fail to consider) incentives which would support the transition to a sustainable biodiversity economy. Particular attention is given to the sectors that particularly depend or impact on biodiversity, are emphasised as particular priorities and/or seen as major areas of opportunity for future economic growth in current development policy, and which play a major role in securing the basic livelihoods and economic wellbeing of much of Montenegro's population. These have already been identified in the earlier technical report on economic valuation (Emerton 2013b), and include: tourism, agriculture, forestry, fisheries, water, energy, manufacturing and human settlement/infrastructure.

Command and control measures have long been used to provide **disincentives against activities that lead to biodiversity and ecosystem degradation**. Thus both the Law on Nature Protection 2008 and the Environment Law 2006, as well as laws in biological resource-dependent sectors (for example marine fisheries, freshwater fisheries and forests) clearly lay out a system of penalties, fines and sanctions for unsustainable or illegal land and resource utilisation. The Energy Law 2010 stipulates that environmental costs should be considered as a component of pricing, as reflected in the principles laid out in Article 18 for the determination of tariffs. Both the Law on Environmental Impact Assessment 2005 and the Law on Strategic Environmental Assessment 2005 specify fines for project and programme developers, as well as the supervising government authorities, which violate the requirement to conduct environmental assessment or fail undertake the environmental measures envisaged. Although stating environmental sustainability and preservation to be a key objective of agricultural resource management, the Law on Agriculture and Rural Development 2009 however makes no explicit mention of disincentives to unsustainable land use practices. It only mentions that that producers should abide by "good agricultural practice", and will be fined if they fail to do so.

The current legal framework allows for a variety of market, fiscal and financial instruments to be used to provide **positive incentives for biodiversity and ecosystem conservation and sustainable use**. Several laws explicitly mention environmental incentives, although few elaborate them in detail. For example, Article 24 of the Environment Law deals with "stimulating measures", and mentions that separate regulations will be developed to set the terms for instruments such as tax exemptions to encourage and reward for "good" environmental behaviour. Similarly, Article 7 of the Law on Nature Protection includes incentives under the list of general measures for nature protection and conservation. Article 2 of the Law on Agriculture and Rural Development mentions measures for sustainable agriculture, mainly involving financial support to the development of areas with limited production opportunities, agro-environmental measures and agroforestry programmes. The Law on Organic Agriculture 2004 also mentions that producers will be provided with special support from the Government, although does not specify what this might include.

**Incentives for sustainable production and consumption** are also accorded repeated emphasis in national and sectoral development policies, strategies and plans. At the national level, the 2007 National Strategy for Sustainable Development suggests that the "application of market mechanisms may stimulate the change of behaviour, that is to bring about the establishment of public-private partnerships and investments into protection measures, cleaner production and new technologies ...". The 2012 Ecological State Montenegro +20 similarly recommends various "policies and measures to create a favourable

framework”, including fiscal and market-based instruments, standards and regulations. Montenegro Development Directions 2013-16 calls for the introduction of “special incentives” to “establish voluntary environmental management systems in the [manufacturing] plants, to recycle water and to modernise the plants with clean, efficient technologies and techniques”.

The policies and strategic plans of the sectors that depend and impact on biodiversity also set the stage for the introduction of incentive measures to stimulate more sustainable production and consumption. The Agriculture and Rural Development Strategy 2007-13 lays out a series of market and price reforms which aim to reward for farming practices that will have positive effects on biodiversity and natural ecosystems. Reflecting the provisions of the Agriculture and Rural Development Law, it specifies direct payments to support production in less-favoured areas, introduce and expand organic agriculture, encourage the conservation and utilisation of indigenous breeds and species, and promote the sustainable use of mountain pastures and agro-forestry. The Fisheries Development Strategy 2006 likewise commits fiscal and financial support for “compensating for the use of aquaculture production methods helping to protect the environment and conserve nature” and “promoting organic aquaculture”. The Energy Policy of Montenegro to 2030 emphasises the provision of financial incentives “to improve energy efficiency and reduce energy intensity in all sectors” as well as “incentives for research, development, transfer and application of ecologically-sustainable new technologies”.

While repeatedly underlining the importance of environmental sustainability, it is noticeable that the Tourism Development Strategy to 2020 does not explicitly include incentives to promote environmentally-responsible tourism or eco-tourism (even though these segments of the market are considered to be a major strength and opportunity for future growth). It focuses more on the use of command and control measures to discourage and penalise environmental damage, emphasising the importance of restrictions on infrastructure development in ecologically-sensitive areas, the regulation of waste disposal and pollution, and penalties against the contravention of environmental planning, standards and impact assessment requirements.

Despite the generally positive incentives for biodiversity and ecosystem conservation that are offered in current legal and policy frameworks, there remain some **perverse incentives** which run the risk of encouraging activities that are harmful to biodiversity. These are mainly found in the policies and strategies of biodiversity-dependent sectors of the economy. The Agriculture and Rural Development Strategy is primarily concerned with increasing production, stimulating commercialisation and expanding trade. Alongside the positive incentives mentioned above are measures which may encourage expanding the area under cultivation and increasing the size of livestock herds. This is because only farms or herds above a certain minimum size are eligible for direct payment schemes. The incentives offered by the Fisheries Development Strategy also run the risk of increasing pressure on the natural resource base: for example via the grants and financial support offered to upgrade vessels and equipment, and to expand aquaculture and capture fisheries production and exports. Likewise, the 2008 National Forest and Forest Land Administration Policy includes a system of incentives for forest owners to expand forest production, processing and marketing, including subsidies to road construction.

National and sectoral development policies and strategies do however recognise the need to **dismantle subsidies** that may lead to biodiversity degradation and loss. The Ecological State Montenegro +20 explicitly calls for the removal of subsidies to environmentally unsustainable activities, and subsidy reduction is also one of the “fiscal anchors” stated in the Government’s Economic and Fiscal Programme 2010-13. This reflects a more general concern of reducing the level of subsidies in the economy. The Agriculture and Rural Development Strategy clearly states an intention to reduce the level of subsidies and



price support that is accorded to farming, and the Energy Policy is concerned with correcting price distortions and subsidies so as to promote improved energy use, efficiency and cost-recovery.

## Opportunities and entry points for mainstreaming

The preceding paragraphs indicate that Montenegrin policy and legal frameworks lend considerable support to – and offer important entry points for – the mainstreaming of biodiversity incentives and measures for sustainable production and consumption. There are two aspects to this: explicitly orienting NBSAP measures towards already-stated development goals, and making efforts to better incorporate biodiversity into the measures that are being used in support of national and sectoral development policy.

The overarching, and probably the most powerful, framework for a sustainable biodiversity economy is provided by Montenegro Development Directions 2013-16. This document sets a coherent and integrated “umbrella” for economic development in the country and for harmonising and coordinating national and sectoral development measures, as well as guiding the allocation of government budgets and prioritisation of public investments. It is explicitly founded on green economy principles, including goals and targets under the “sustainable growth” pillar of green jobs, efficient use of resources and preservation of natural capital. At the level of sectoral policies and strategies, particular opportunities for biodiversity mainstreaming emerge in relation to:

- The Agriculture and Rural Development Strategy 2007-13 prioritisation of organic agriculture, ecologically-friendly production and the maintenance of indigenous species as core growth areas;
- The Tourism Development Strategy to 2020 strategic orientation and vision which relies heavily on biodiversity and natural landscapes, and identifies nature-based tourism and eco-tourism as key sub-sectors;
- The Fisheries Development Strategy 2006 emphasis on sustainable fisheries and organic aquaculture;
- The Forest Policy 2008 focus on the development of markets in sustainable timber and non-timber forest products, and on climate mitigation and adaptation; and
- The Energy Policy to 2030 concern with sustainable energy development, especially renewable sources, and with climate mitigation.

Following on from this, ongoing fiscal and economic reforms at national and sectoral levels provide important entry points to orient policy measures towards a sustainable biodiversity economy, including:

- Working to improve **markets and prices** is a core part of any strategy to encourage producers, consumers and investors to engage in activities which are more beneficial to biodiversity;
- **Fiscal instruments** also offer a powerful means of adjusting the incentives that people face as they make production, consumption and investment choices and go about their day-to-day economic business;
- At the same time, **fiscal reform** can increase the overall efficiency and targeting of the public budget as regards biodiversity (including addressing the negative impacts of subsidy programmes), as well as reorienting spending so as to leverage new investments and shift the way in which key infrastructure, services and technologies are provided; and
- It is worth noting that **subsidies** to encourage the transition to a sustainable biodiversity economy, although traditionally popular, may prove to be costly, and are often less effective than efforts to stimulate markets and investment.

## Economic measures for biodiversity with potential for further development

Nine sets of economic measures are recommended as having particular potential for further development as part of the revised NBSAP<sup>1</sup>, and are elaborated further below (Figure 1). Although primarily targeted at providing economic incentives to stimulate behaviour changes on the part of producers, consumers and investors (in response to Aichi Targets 3 and 4), several also have the added advantage of generating revenues or financing for biodiversity conservation (and thus have relevance to Aichi Target 20). These measures aim to provide positive incentives and mainstream a sustainable biodiversity economy by:

- **Rewarding sustainable land and resource uses and resource-efficient production and consumption**, by making them relatively more profitable and cost-effective than biologically and ecologically unsustainable options;
- **Enhancing and expanding markets in green products and services**, by making them more attractive in price terms for both producers and consumers;
- **Building green jobs and skill-sets**, so as to generate income at the same time as redeploying labour to activities and sectors that are beneficial to biodiversity, and providing the capacities that are required for these sectors to grow;
- **Promoting public and private investment in green infrastructure**, including built infrastructure options that avoid negative biodiversity impacts or serve to enhance biodiversity, as well as encouraging investments in the maintenance of “natural infrastructure” as a means of delivering on key services and facilities; and
- **Stimulating public and private financing to biodiversity business, technology and innovation**, by working to overcome the barriers to accessing funds, and improving the returns from such investments.

Figure 1: Fiscal, price and market measures to encourage a sustainable biodiversity economy

	Taxes & subsidies	Environmental charges & fees	Agri-environmental payments	User-financed PES	Offsets & tradable permits	Cost-sharing & partnerships	Certification & labelling	Green finance & funds	Ecological-fiscal transfers
Reward sustainable and resource-efficient production and consumption									
Enhance and expand markets in green products and services									
Build green jobs and skill-sets									
Promote public and private investment in green infrastructure									
Stimulate financing to biodiversity business, technology and innovation									

It is important to emphasise that the focal areas, activities and targets of the revised NBSAP had not yet been formulated when this report was prepared. It is therefore impossible to be specific about exactly which instruments will be the most appropriate and feasible to support the achievement of NBSAP goals. At the moment, it is only possible to propose a series of fairly general measures and incentives to promote a sustainable biodiversity economy, and to respond to the directions that are laid out in other national and sectoral policies, strategies and plans. Once the NBSAP revision process has advanced somewhat, it will be possible to update, refine and focus the list that is presented below.

<sup>1</sup> It is important to note that a range of other social, technical, technological and informational instruments will also be required, and that economic policies will in many cases need to be complemented by supportive legal and institutional reforms.

### *Taxes and subsidies*

Taxes and subsidies have long been one of the main instruments used by governments to manipulate prices, profits and costs so as to encourage (or discourage) certain types of production and consumption, or to stimulate growth in particular sectors. A wide range of opportunities exist to use fiscal instruments to influence production, consumption and investment in favour of biodiversity, including reorienting the tax and subsidy systems that encourage biodiversity and ecosystem degradation and loss. Fiscal instruments can also exert a substantial influence over the development of green jobs and skill-sets, as well as facilitating investment and finance flows to biodiversity.

The use of subsidies to encourage biodiversity conservation is not seen as a measure that has major potential for further development in Montenegro. This is because the current policy direction is to move away from costly, and often inefficient, subsidies and price distortions. Ongoing fiscal reforms and attempts to harmonise with EU systems however offer a series of entry points for “greening” the tax system as well as for dismantling subsidies which may have perverse effects on biodiversity and ecosystems. There is both a need and an opening to introduce biodiversity conservation as a key element of the fiscal reform that is ongoing in key biodiversity-dependent sectors (agriculture, fisheries, energy, tourism, forestry and manufacturing). A wide range of possibilities also exist to utilise differential rates of land and product taxes, export duties and import tariffs, tax breaks and tax holidays, for example, to encourage sustainable production and consumption. There are also important needs and opportunities to reorient the system of investment incentives towards encouraging financial flows towards emerging markets, businesses, technology and innovations that are supportive of biodiversity and ecosystems.

### *Agri-environmental payments*

A variety of direct payments are made to Montenegrin farmers, aiming to stimulate particular agricultural practices, products and technologies. These measures have recently been realigned towards the framework of the Common Agricultural Policy (CAP), including incorporating agri-environmental payments. There is considerable potential to further extend the scope of these schemes, and in particular to better integrate measures to compensate for the costs incurred in conserving biodiversity and to reward for the provision of biodiversity and ecosystem benefits.

Examples of the kinds of agri-environmental incentives for biodiversity and ecosystem conservation that can be incorporated into existing direct payments to Montenegrin farmers include both action-based and outcome-based payments for the preservation of natural landscape features such as wetlands, woods and hedgerows, conservation of high-value habitats, ecological set-asides, low-intensity or extensive pasture management, extensification of farming practices, utilisation of indigenous crop and livestock varieties, and organic agriculture.

### *Environmental charges and fees*

Charge and fee systems are primarily used as a tool for public revenue generation. They can however also serve the function of managing demand and resource use, minimising pollution and environmental damage, and may be a prerequisite for the emergence of new markets and cost-sharing arrangements (see below).

There are several opportunities to use charge systems to better manage the links between biodiversity and the economy. A variety of fees are already charged for the consumption, extraction and use of biological resources (such as timber royalties, fishing licence fees or charges for entry into protected areas), as well as

to penalise or fine for damages caused to the natural environment. In most cases these rates remain very low. The charges that are made neither fully reflect market prices nor capture consumers' willingness to pay, and penalties and fines do not act as adequate disincentives or raise enough funds to cover environmental damage mitigation and remediation. Such under-pricing may also serve to encourage inefficient, unsustainable or damaging activities. Rationalising charges and fees to reflect real costs and values provides a potentially powerful tool for encouraging more sustainable and efficient production and consumption.

### *User-financed payments for ecosystem services*

In addition to the charge systems and direct payments which are based on generating and using public revenues, various other options exist for developing markets for ecosystem services that are based on payments made by the users or beneficiaries of these services and rewarding public and private land and resource managers for the provision of economically-valuable ecosystem services. The intention is to increase the funding to and profitability of conservation-based land uses, especially in relation to other, degrading or harmful, alternatives.

In Montenegro, a large number of sectors and groups depend on ecosystem services, but currently receive these benefits free or at minimal cost. There may be particular opportunities to develop payments for ecosystem services (PES) for watershed, fish breeding/nursery habitat, and biodiversity/landscape ecosystem services. Based on the sectors that already depend critically on biodiversity and ecosystem services, these could be funded via payments from hydropower and urban water supply facilities and consumers (for watershed PES), fisheries enterprises (for fish breeding/nursery habitat PES) and the tourism industry (for landscape and biodiversity PES). Opportunities and implementation mechanism for PES are discussed in detail in the following chapter.

Carbon finance is a special form of PES, relating to climate mitigation services. There currently however seems to be only limited potential to use carbon PES as an incentive or financing mechanism for biodiversity and ecosystems. There is as yet no domestic market or targets for emissions reductions, and Montenegro is only in the early stages of transposing EU emissions trading system, non-emissions trading system, carbon capture and storage legislation. As a Non-Annex I Party to the UNFCCC and non-Annex B to the Kyoto Protocol, the Clean Development Mechanism offers some potential – although it should be noted that none of the four CDM projects that are currently registered for Montenegro concern afforestation and reforestation. There are also no major voluntary forest carbon projects underway.

### *Biodiversity offsets and development permits*

Biodiversity offsets are most commonly used as a mechanism to encourage extractive industries and large-scale infrastructure projects to balance or compensate for biodiversity or ecosystem damages caused on-site by investing in the conservation, restoration or rehabilitation of equivalent sites or habitats elsewhere. The aim is to ensure to ensure “no net loss”, and preferably a net gain, of biodiversity. Biodiversity offsets are typically pursued as a last resort, at the end of the mitigation hierarchy, after on-site impacts have been reduced and alleviated as much as possible. They are usually implemented on a voluntary basis (i.e. they take place in addition to the legal and regulatory requirements for companies to manage and compensate for environmental impacts).

Tradable development permits are a similar, and to some extent overlapping, measure. Here, the principle is that developers wishing to convert or modify land in particular zones or ecologically-sensitive sites are required to obtain a permit indicating that habitat of at least an ecologically-equivalent value (and usually

area) is restored elsewhere. Tradable systems involve allowing a market to emerge, whereby permits may be purchased from third parties which have already carried out the restoration elsewhere. Unlike biodiversity offsets, permits are often introduced as a mandatory requirement, and have most commonly been applied in the context of large-scale residential and commercial construction schemes.

Some potential may exist for offsets and permits in the context of extractive industries. Opportunities are however likely to remain fairly limited: the mining and quarrying sector is modest, and oil and gas activities are still at a largely exploratory stage and primarily concern offshore fields (where the concept of offsets or development permits is harder to operationalize). There is probably the greatest potential for introducing biodiversity offsets or development permits in the construction sector. Urban settlements and tourist developments are expanding rapidly, and there are ambitious plans to construct new ports, roads, hydropower facilities and other infrastructure (including the planned Ionian-Adriatic gas pipeline). Many of these proposed developments are located in ecologically sensitive areas or areas of high biodiversity.

### *Cost-sharing and management partnerships*

In most parts of the world there has been a devolution to the private sector of certain biodiversity management functions and responsibilities that were formerly the preserve of government. For example protected area tourism facilities, natural resource harvesting and marketing operations, and in some cases biodiversity research and monitoring are often now managed or provided under contract, lease or concession by private companies (often locally-based enterprises or joint ventures with local communities). In many cases this has led to management arrangements that have proved to be more effective in both cost and conservation terms. As well as freeing up government budget and increasing private participation in biodiversity conservation, cost-sharing and management partnerships provide an important opportunity to promote the development of new market and income opportunities, as well as to enhance private investment flows. It is also critical for the development of green jobs.

In Montenegro, the State plays a central role in the management and conservation of biodiversity and ecosystems that are of key national significance (such as the protected area network), but is increasingly pursuing more business-oriented approaches (for example through the operation of PENP as a public enterprise). Current legislation and policies also accord a much greater role for the private sector and civil society to participate in biodiversity and ecosystem management, especially on privately-owned lands (for example for forest and agroecosystems). Some efforts are being made on a pilot basis to operationalize these arrangements in order to enhance income generation and job creation in areas of high biodiversity (the ongoing Joint UN Programme “Improving livelihood and employment opportunities in Montenegro through the promotion of green jobs, cluster development and institutional capacity building” provides one example of this). The Law on Participation of the Private Sector for the Delivery of Public Services 2002 also offers interesting opportunities for developing private-public partnerships in relation to biodiversity and ecosystem services (although is designed more to cover services relating to public utilities and infrastructure, rather than biodiversity and ecosystem services). There would seem to be considerable potential to increase still further the extent to which the private sector, including small and medium-sized enterprises, are actively engaged in cost-sharing and management partnerships for key biodiversity services, facilities and sites.

### *Certification and labelling*

Although eco-labelling and certification has some effect on the quality, availability and choice of products for consumers, its main aim is to allow producers to benefit from premium prices and markets for biodiversity-friendly products. The intention is enable businesses to add value to sustainable production,

capture markets and expand sales, as well as to improve their image and reputation. Mechanisms such as the Forest Stewardship Council (for forest products), Marine Stewardship Council (for fish and seafood), EU organic logo (for agricultural production), Green Globe Standard (for tourism) or EU Ecolabel (for a wide range of manufactured products) are all examples of accredited international or regional standards, certification and labelling schemes which denote that products and services have been produced in an environmentally-sustainable manner. A wide range of national-level certification and labelling schemes are also in existence in many countries.

There are clear opportunities to use eco-labelling and certification as a tool to stimulate green production in Montenegro, and to enhance opportunities for sustainable consumption. Particular potential exists in relation to those industries and sectors that have already developed, or are in the process of developing, domestic or export market niches based on ecologically sustainable products and services. Examples include organic agriculture, sustainable fisheries, ecotourism and renewable energy. Eco-labels and certification offer a market-based mechanism which can be used to reinforce and support the policy instruments and incentives currently being offered by government to these sectors, and encourage a move towards more sustainable production and consumption.

### *Green finance and funds*

The availability of finance remains a critical constraint to the development of businesses, products, markets, technologies and infrastructure that are beneficial to biodiversity (and, by implication, to the creation of the green jobs and income opportunities that are associated with these developments). Various mechanisms are available with which to help to overcome the “green finance gap” which have potential for further development in Montenegro. These involve both mobilising public funding, and attracting new sources of private finance and investment.

Government can play a potentially powerful role in directly providing funds or financing facilities for research and development into green technology and innovation, and for the development of new businesses, markets and products. Ecological-fiscal transfers and earmarking of public revenues (see below) are one way of generating and allocating public funding for these purposes. Fiscal instruments, as outlined above, can provide an effective instrument for encouraging and mobilising private investments. While subsidies are not generally recommended, for cost reasons as well as due to the risk of distorting markets and competitiveness, there may be some grounds for the government to intervene in finance and credit markets. Tools such as below-market interest rates or preferential repayment terms can all overcome bottlenecks in the availability of credit and investment funds to the private sector. At the same time, incentives such as tax relief on biodiversity investments, or loan guarantees, can also stimulate the flow of private funds.

Private finance, or joint private-public investments, are however likely to provide the most important long-term source of financing for biodiversity businesses, green infrastructure, innovations and research. A range of funding instruments exist which aim to mobilise private capital for green investments, and which have potential for further development in Montenegro. Mutual funds and venture capital funds are emerging which are targeted towards biodiversity investments. “Green bond” concepts are being actively promoted in a number of countries, including both forest and climate bonds. These are capital market instruments issued by government or corporate entities to fund sustainable development or conservation.

### *Ecological-fiscal transfers and earmarking of public revenues*

The public budget currently provides the main source of financing for biodiversity and ecosystem conservation in Montenegro. Various options exist to strengthen public funding flows within the existing budget envelope, or to improve their efficiency and targeting as regards biodiversity. One possibility is to earmark all or a part of particular revenue streams for conservation purposes, either from products and services which use or impact on biodiversity and ecosystems, or from other sectors. Public revenues that were formerly allocated to perverse subsidies may be one source of such funds. Another is to facilitate transfers – particularly between biodiversity-dependent sectors and the sectors that are responsible for managing the environment, or across spatial scales.

Ecological-fiscal transfer schemes have been adopted in several countries in Europe and elsewhere (further examples and details are given below, in Chapter 3). They operate mainly to facilitate vertical flows of funds from national to local government (although in some cases have been used as an inter-sectoral transfer mechanism). Their purpose is to reward and compensate for the expenditures incurred in conserving biodiversity and generating ecosystem services. Funds may be allocated in the form of lump-sum or general purpose (unconditional) transfers, or as specific-purpose (earmarked or conditional) transfers that are allocated for use in particular sites or towards agreed goals and activities.

### 3. PAYMENTS FOR ECOSYSTEM SERVICES: enabling frameworks and mechanisms for implementation

#### Locating PES as measures for a sustainable biodiversity economy

Chapter 2 of this document recommended a number of economic policy instruments that can be used as incentives to encourage and mainstream a sustainable biodiversity economy, and are proposed to have particular potential for further development as part of the revised NBSAP. The intention is to stimulate activities that will foster economic growth and development while ensuring that biodiversity and ecosystems continue to provide the resources and services upon which wellbeing relies.

Payments for ecosystem services (PES) are one such instrument which have been accorded a particular priority by UNDP and the Government of Montenegro. They typically serve to generate funds for the government agencies that are mandated to manage and conserve key biodiversity and ecosystems, and/or provide tangible economic and financial incentives for landholders and communities to manage land and resource sustainably through rewarding them for the ecosystem services they provide. PES thus contribute to Aichi Target 20 as well as to Targets 3 and 4.

The paragraphs below review regional and global best practice and lessons learned in PES application, assess the extent to which current legal arrangements in Montenegro enable the development of PES, identify key legal and institutional needs for PES, and propose concrete steps for their further development.

In line with the scope of the assignment, the current chapter focuses particularly (although not exclusively) on PES for protected areas. It considers biodiversity and ecosystem conservation in the broader protected area landscape (including buffer zones): in other words it covers arrangements that could potentially involve payments to any or all of the groups that play a role in providing ecosystem services, and/or bear the costs of biodiversity and ecosystem conservation. These include Public Enterprise National Parks (PENP), Forestry Administration, local authorities and municipalities, private landholders, businesses and community/civil society groups undertaking conservation in and around protected areas.

PES could potentially be developed in relation to any economically valuable ecosystem service that is being generated from Montenegro's protected area landscapes. This chapter pays particular attention to the services (watershed, fish breeding/nursery habitat and biodiversity/landscape) and sectors (hydropower, water supply facilities, water consumers, fisheries enterprises and the tourism industry) that have been highlighted in Chapter 2. It does not consider agri-environmental payments and subsidies made by government to private landholders. While such direct payments can be (and often are) defined as PES, they are considered as a separate category of incentives due to their rather specific political and policy context. Ecosystem-based carbon payment and trading schemes are also not included, as these tend to involve quite distinct legal and institutional mechanisms, and conform to principles which have already been set at the national, EU-wide or global level.

#### Characterising PES

PES are based on the recognition that ecosystem services have a high economic value: many different sectors, industries and human populations rely on them, and stand to incur substantial costs if they are degraded. Examples include hydropower facilities, irrigation schemes, the fisheries sector, tourism industry, urban water consumers and farmers, to name but a few. These beneficiaries are however often physically and spatially removed from the ecosystems which generate the services they benefit from. It is other



groups (such as government conservation agencies and rural communities who live in ecologically important areas) which manage these ecosystems, and whose actions influence the quality and quantity of services that are supplied. PES have emerged as a response to the fact that many ecosystem services do not have a market or a price, even though they generate high economic values. Providers of ecosystem services cannot earn income from selling them, and ecosystem conservation goes unrewarded and uncompensated.

PES is a way of extending the “user pays” principle to the beneficiaries of ecosystem services, ensuring that they pay for the services they receive just as they do for other types of goods and services that they consume. It is also a means of generating funds to cover the costs of conservation for the people and agencies which manage the ecosystem that provide these services, and ensuring a sufficient level of returns to enable conservation to compete with other, more destructive land and resource uses. The core principles of PES are therefore that ecosystem service providers should be rewarded for the services they generate at a level and in a form that adequately compensates them for the costs they incur from conserving ecosystems. Meanwhile, those who benefit from the services should pay for their use at a level and in a form that accurately reflects the values they receive.

PES are yet to be defined in a Montenegrin context. Although the concept is variously understood by different authors and in different contexts, the most widely accepted definition of PES (and the one taken in this report) is: *“a voluntary, conditional transaction with at least one seller, one buyer and a well-defined environmental service”* (Wunder 2005). Following this definition, there are several key elements which are usually taken to be essential to the principle and practice of PES (from Emerton 2012, Wunder 2005):

- Most basically, PES must involve **at least one buyer (user)** of an ecosystem service, and **at least one seller (provider)**;
- Neither buyers (ecosystem service users) nor sellers (ecosystem service providers) can be forced to enter into a PES arrangement. The agreement between these parties is **voluntary** and the levels of both ecosystem service provision and payment, and the terms and conditions under which this takes place, is negotiated between them. However, once this agreement has been entered into, it is **mutually binding** to each party;
- PES must involve a **clearly-defined ecosystem service (or bundle of services) and specify a land or resource use that is known to provide that service**. Payment is tied to the continuous provision of that service over time. This also means that the service, or the land use which is known to provide it, must be able to be monitored and measured; and
- PES must also involve some kind of **payment or benefit flow** from the buyer to the seller. This is most commonly a cash payment, but may also sometimes involve other types of in-kind benefits.

In addition to these characteristics, PES schemes require a supporting **institutional infrastructure**. They must be enabled by laws which allow payments to be charged and channelled to land users, government agencies or other organisations, as well as secure and clear resource and land tenure regimes. Systems need to be in place for **monitoring** both the provision of ecosystem services, and the functioning of PES schemes. Finally, it is also important that both buyers and sellers have access to accurate and sufficient **information** on the ecosystem service that is being provided.

## Experiences of implementing PES

Although PES is a relatively new concept (it first entered into mainstream conservation thinking and practice only about a decade ago), it has rapidly gained currency and popularity. Schemes now encompass a wide range of types of payments, institutional mechanisms and financing structures, involving different

agreements within and between government, industries, groups of service users, private landholders and rural communities.

At a global level, PES are most developed in relation to forest ecosystem services (particularly water supply and quality) and biodiversity/landscape services (particularly in relation to tourism). There are as yet few examples of payment schemes having been developed for the services that associated with other ecosystems, for example marine and coastal. The first PES schemes were developed in Latin America, and it is still this region of the world that yields the most wide-ranging and long-standing experiences. While there are a growing number of examples of PES in North America, Asia and Africa, there remain relatively few instances of PES having been operationalized in Europe outside of direct payments from government (including agri-environmental payments). Although a number of protected area PES schemes have been proposed over recent years in Central, Eastern and Southern European countries (see, for example, Andonovski 2007, Barbu and Kazakova 2007, Emerton 2009, Getzner 2010, Sekulić 2012, Todorova *et al* 2007, Todorovic and Znaor 2007, Vuletić *et al*; 2011, WWF 2007), the current study was unable to find any examples of schemes that were actually operational or being implemented.

One possible PES model is the use of **ecological-fiscal transfers**. These usually involve earmarking a portion of national or subnational public revenues (such as tax income) and allocating it to the municipal or local authorities of areas which host high biodiversity, contain large protected area territories or face intense conservation threats. Ecological-fiscal transfers are most commonly used as a way of indirectly compensating or rewarding for ongoing conservation efforts: it is usually left up to the recipient authority as to how the allocated funds will be used. Example 1 and Example 2 illustrate how conservation-related ecological-fiscal transfers have been implemented in practice.

#### Example 1: Ecological-fiscal transfers for nature conservation, Portugal

Portugal is the first European country to incorporate the consideration of Natura 2000 and other nature conservation areas into its new local finances law (in force since January 2007), taking them as indicators for financial transfer to the local level. As of 2007, land use and environmental criteria have been considered in the criteria used to determine the annual fiscal transfers made from the central government to municipalities. The rationale is that municipalities incur costs in maintaining conservation areas which generate benefits which extend beyond local boundaries. The Local Finances Law establishes that 5-10% of the General Municipal Fund shall be distributed according to the amount of territory in a municipality that is under protected areas or land with Natura 2000 status. Transfers per hectare of protected area are also higher if the coverage in relation to the total municipal area is above 70%. Once the lump sum payments are made, it is up to municipalities to decide on the use of the funds.

*From: Santos et al 2010*

#### Example 2: State-level “ecological value-added” taxes, Brazil

A state levy is imposed in Brazil on the circulation of goods, services, energy and communications, specified by the Federal Constitution. Under the Federal Constitution, 25% of these tax revenues are allocated to the municipalities. Of this share, 75% are distributed according to an index of municipal economic output, and the remaining quarter are distributed according to criteria defined by each state. A growing number of states are using these fiscal revenues to pay for the provision of ecosystem services. In the states of Paraná and Minas Gerais, municipalities receive five percent of the state sales tax to finance upper watershed conservation programs to protect drinking water sources. It is a way of compensating local authorities that have protected areas and other conservation zones. This programme has generated \$17.5 million annually and led to the conservation of one million hectares of land in the state of Paraná, and has provided funds of \$5.2 million a year to protect over one million hectares in Minas Gerais.

*From: May et al 2002*

Another commonly-used mechanism for funding the conservation actions of local-level government authorities or agencies (including protected area authorities) is **introduce a new fee, charge or levy for ecosystem service-dependent products or sectors**. These direct payments are then reinvested in

conservation activities. Example 3 illustrates a case of a government conservation agency being funded via payments made by ecosystem service users.

#### Example 3: Municipal PES, Ecuador

In Cuenca in the southern Ecuadorian Andes, around 60% of the city's water supply comes from nearby Cajas National Park. The protected area lies under the overall jurisdiction of the Municipal Company of Telecommunications, Potable Water, Sewage and Wastewater Treatment (ETAPA), and is managed by a local government agency, the Municipal Corporation of Cajas National Park. Much of the National Park authority's funding comes through surcharges levied on water bills and other payment systems for water users in Cuenca (such as a hydropower facility), channelled through ETAPA. In addition to covering the administrative and running costs of the Corporation, money has been used to purchase additional lands in the watershed to be set aside for protection, to finance watershed management projects, and to provide revolving credit and technical advice to farmers in the mid-watershed to help them increase their water use efficiency. In 2003, the Corporation's budget was around \$700,000, of which approximately \$200,000 came from water fees and from tourism entrance fees for the National Park.

*From: Espinosa 2005*

**Earmarked public revenues are also used as a way of paying private landholders** for the provision of ecosystem services. Example 4 illustrates a case of government-led efforts to channel funding to private landholders. It is quite common for some kind of a national fund to be established as a mechanism for retaining, channelling and administering these payments. Example 5 shows how a national fund can be used to administer these payments.

#### Example 4: The New York City watershed scheme, USA

This scheme, instituted by New York City authorities, aimed to reduce microbial pathogens and phosphorus in urban water supplies by conserving forest in the Catskill/Delaware and Croton Watersheds. It was justified by the fact that the costs of not having to invest in a new water purification plant were some \$ 6-8 billion, as compared to a cost of only \$1.5 billion over ten years for ecosystem conservation. It was also cheaper for water consumers in New York City – to finance new water infrastructure their bills would have doubled, whereas the PES scheme only required a 9% increase in water fees. New York City also issued bonds for additional financing, and established two trust funds. Under the scheme, farmers and foresters in these upstream catchment areas received compensation and subsidies to remove ecologically-sensitive lands from production and to improve their production practices. Conservation easements were negotiated with some landowners to retire environmentally sensitive lands from production. In return for improving forest management practices, the timber industry was allocated additional permits and granted access to new areas. Differential land use taxes were applied so that forest owners who agreed to develop a management plan were eligible for an 80% reduction in local property taxes. In some cases, New York City directly purchased ecologically sensitive lands, and put them under a regime of permanent protection.

*From: Isakson 2002*

#### Example 5: The National Fund for Forest Financing, Costa Rica

The National Fund for Forest Financing (FONAFIFO) in Costa Rica is enabled by the Forestry Law, which recognises and defines four environmental services: carbon sequestration, watershed protection, biodiversity and ecosystem conservation, and scenic beauty for tourism. The law provides the regulatory basis for the government to contract landowners to provide these services, and establishes FONAFIFO as a financing mechanism for these purposes. In the case of watershed protection, four types of land-use are recognised: forest plantations, conservation, agroforestry and natural regeneration. A separate programme aims at financing protected areas. The fund is financed through allocating 3.5% of the fossil fuel sales tax, agreements with industrial water users (including hydropower, water bottling companies, irrigated farmers and hotels), municipal water supply systems, conservation fees on water tariffs, as well as through grants from overseas donors. Environmental service buyers are sold "environmental service certificates" that pay for the conservation of one hectare of forest in a specified area. To receive payments, landholders must present a sustainable forest management plan certified by a licensed forester, and adopt the specified practices. Contracts last for 5 years for forest conservation and are renewable by mutual consent, and reforestation contracts provide a 5 year payment but call for the landholder to continue the specified land use practices for 15 years. Between 1997 (when the scheme started) and 2008, around \$150 million had been allocated to issue around 8,500 covering almost 700,000 ha of land (mostly for forest protection).

*From: Pagiola 2005*

PES may also take the form of a **payment made paid directly by the beneficiary or user to the provider(s) of an ecosystem service**. Here there is usually no intermediary or fund mechanism, and some form of an

agreement or contract is negotiated directly between the two parties. As the examples below show, these kind of negotiated agreements can involve various types of ecosystem service providers, including individual landholders (Example 6), non-governmental organisations (Example 7) and community associations (Example 8).

#### Example 6: Payments to farmers from Perrier Vittel, France

Perrier Vittel S.A., the world's largest bottler of natural mineral water, came to realise that protection of water sources is more cost effective than building filtration plants or moving continuously to new sources. Vittel designed and implemented a PES scheme in order to improve water quality by reducing nitrates and pesticides and restoring natural water purification in a sub-basin of the Rhin-Meuse watershed in north-eastern France. The scheme has two elements: property acquisition and compensation for ecosystem services. Under the first, Vittel has purchased 1,500 hectares of agricultural land around the Vittel springs. It enticed landowners to sell their lands by offering prices higher than the market price and by offering to give back to those farmers willing to improve their management practices a free usufruct of the land. Under the second, Vittel has signed 18 to 30 year contracts with farmers who agreed to switch to less intensive dairy farming technology and pasture management. This compensates farmers for the risk and the reduced profitability associated with the transition to the new technology. Vittel pays each farm about US\$230 per hectare per year for seven years. The company also provides the farmers with free technical assistance and pays for new farm equipment and the modernisation and construction of farm buildings. Over the first seven years of operation, Vittel has paid almost \$25 million, and entered into agreements to improve conservation on more than 10,000 hectares of farmland.

*From: Perrot-Maître and Davis 2001*

#### Example 7: La Esperanza hydropower scheme, Costa Rica

The agreement was developed between La Esperanza Hydropower Project (downstream water user) and the Monteverde Conservation League, a conservation NGO that owns and manages the Children's Eternal Rain Forest protected area which covers most of the hydropower plant's upper catchment. The objective of the mechanism is to ensure the conservation of forest cover where it already exists, since forests are perceived to provide a range of downstream hydrological services for which the hydropower producer is willing to pay. The mechanism is centred on a private contract between two parties, where the hydropower producer commits to paying the forest owner in exchange of the latter's commitment to maintain the forest cover on its property. The payment increases through the first five years of the contract from \$3 to \$10/ha/yr, and from the fifth year onwards \$10/ha/yr is used as a reference value in a formula that factors in power produced and the tariff at which the power is sold. Under the agreement, the hydropower producer makes payments to 3,000 ha in the watershed, which is equivalent to 88 percent of the total area. The contract was signed for 99 years. This PES scheme represents a considerable increase in the operating and maintenance costs of the power plant (approximately a 21% increase) and is a significant contribution to the annual budget of the conservation NGO (between 10-25% of the annual budget).

*From: Rojas and Aylward 2002*

#### Example 8: Cauca Valley Water Users Association, Colombia

Based on an institutional mechanism created by the 1974 Natural Resources Law, Associations of Water Users were established in Colombia in the late 1980s and early 1990s. Due to a growing concern with the supply of water for agricultural purposes, large-scale agricultural water users in the Cauca valley decided to take action to voluntarily fund the watershed conservation in order to secure their water supplies for irrigation. User fees levied on members are channelled into watershed protection and the implementation of watershed management plans. Associations have undertaken a long list of projects to benefit the communities in the watersheds, including the protection and regeneration of degraded forests, reforestation with native species, community organization, technical assistance, production activities, training and environmental education. Since its inception, this scheme has led to the adoption of conservation measures in over one million hectares of land. The system raises \$600,000 annually in revenues from water user fees.

*From: Echavarría 2002*

## Synthesis of best practices and lessons learned

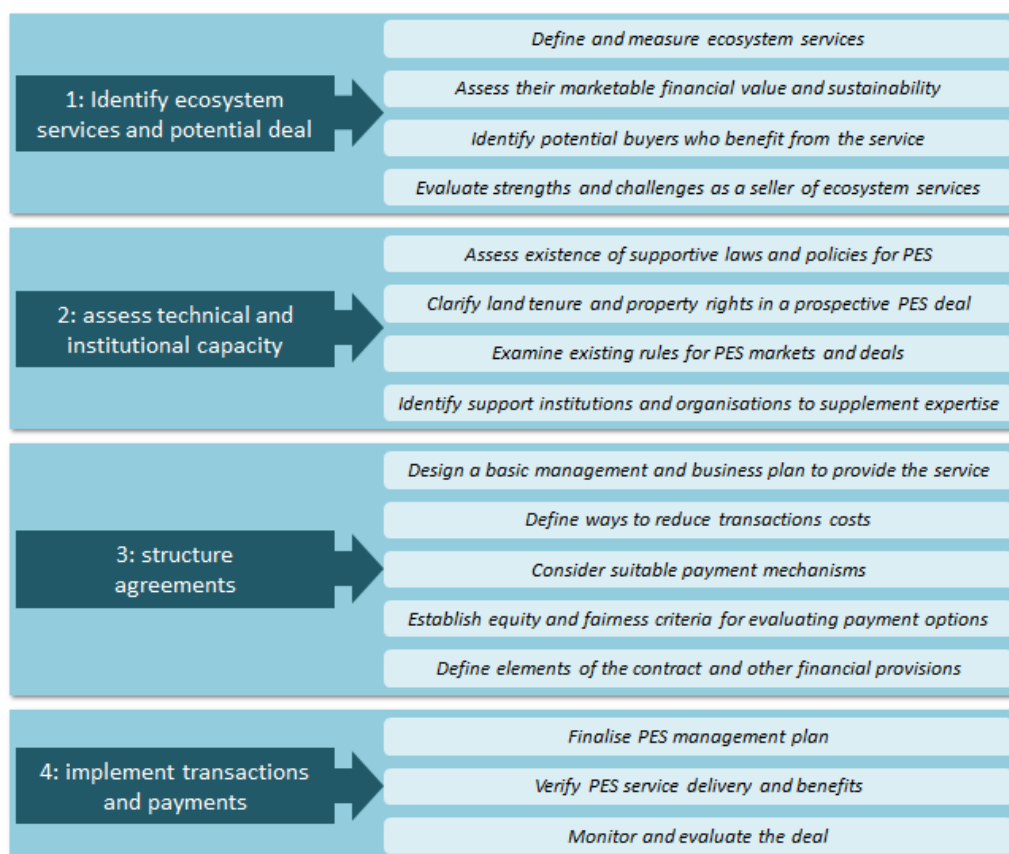
There is now a decade or more of experience in implementing PES, world-wide. Although a multiplicity of models coexists, and no single one has so far emerged as the standard approach, these experiences yield a number of common lessons learned as to what makes for a successful scheme. They show that PES schemes tend to work best when they have the following characteristics (from EC 2012, Emerton 2012, Landell-Mills and Porras 20002, Pagiola *et al* 2002, Wunder 2005):

- They are founded on a **clear and scientifically-proven link** between particular land uses and the provision of specific ecosystem services. If a buyer is being asked to pay for their consumption of a particular ecosystem service, then the PES scheme must guarantee that this will be provided. Demonstrating these links requires significant knowledge, rather than broad assumptions and unverifiable hypotheses. In most cases, potential buyers are interested in a very specific service (erosion control, clean water supply, and so on), and will want to be shown the proof that this is what they are getting.
- **There is a clear demand and willingness to pay among users.** PES schemes often start from the supply-side, and build up considerable expectations among ecosystem service providers, and only then begin to look for a buyer of these services. Yet in most cases it is relatively easy to identify how and from where ecosystem services are being generated – but it is much more difficult to identify buyers who are willing to pay for them. Without demand, there can be no market.
- **Payments are performance-based, and enforced.** Ideally, payments should be ex-post and conditional on performance or delivery. Where this is not possible, effort-based payments are a second-best alternative, provided that there is a high degree of certainty that changes in ecosystem management practices will bring about the desired change in service provision.
- **Schemes are feasible in financial terms.** All too often, PES schemes rely on subsidies from outside to operate. They do not function as a stand-alone market mechanism, and when external funding and expertise run out, so the scheme comes to a halt. One particularly important element is to look at the long-term staffing, operational and administrative costs of running the PES scheme, and ensure that there will be adequate funds to sustain them. A second element is to ensure that the running costs are not so high that they leave insufficient funds for the actual payments to be made for ecosystem services – these after all, are the reason for PES in the first place. A third element is to ensure that the payments to be made are of a high enough level to cover the costs of ecosystem conservation – if ecosystem service providers are not earning sufficient returns, then the scheme is unlikely to be sustainable. A fourth element is to investigate the transactions costs for the parties involved. If procedures are too cumbersome and time-consuming, neither buyers nor sellers will find it worthwhile to participate.
- **Schemes are founded on negotiation and stakeholder participation.** While sound science and financial appraisal are critical in designing successful PES, whether schemes actually take off – and in what form they are implemented – is largely down to buyers and sellers negotiating an agreement that they are both happy with, and willing to abide with. The amount of time that such negotiations take is often underestimated, as is the effort that must be made to ensure broad consensus among all of the buyers and all of the sellers in a particular scheme. If even one participant is unhappy with the arrangements that have been defined, then the scheme may fail.
- **There is a supportive regulatory and institutional framework.** Although they are almost always voluntary agreements, PES require that the broader conditions are in place to enable and support them, and to protect the rights of both buyers and sellers. A dedicated law is not necessarily required, but existing regulations must enable PES, and certainly should not contradict or disallow them. Key points to bear in mind relate to the definition of ecosystem services, the terms and conditions under which they can be rewarded or compensated, who can receive funds and who must pay, penalties for non-compliance by either party, contracts, and the retention and use of funds for conservation. Property rights are absolutely key to the success of PES: the individual or community whose land or resource use decisions affect the provision of ecosystem services must have clearly-defined and enforceable property rights over that land or resource. With few exceptions, PES also require a neutral and independent third party mediator or negotiator, as well as technical advice and expertise. Without the institutional capacity to deliver this support, PES run the risk of failing.

- **There is close monitoring of compliance and the ongoing provision of services.** Monitoring is essential for ensuring that buyers are getting what they are paying for and that sellers are being rewarded or recompensed adequately. It is also necessary in order to adapt to changing conditions and adjust the functioning of the PES mechanism should problems arise.
- **Efforts are made to maximise income to sellers/providers.** Joint provision of multiple services can provide opportunities to increase the income earned from PES, while reducing transactions costs. Bundling (several different types of services are sold from one location or by one seller) or stacking (multiple services are combined into one payment type) can provide effective means of achieving this.
- **Efforts are made to avoid leakage.** Leakage occurs when measures to enhance the provision of ecosystem services in one location leads to increased pressures or a decline in the provision of ecosystem services in another location. If the risk of leakages is expected to be high, the scope of monitoring may need to be expanded to detect and address these.

A number of best practices and lessons learned have also emerged in relation to the procedures and basic steps to be followed in identifying, designing, negotiating and transacting PES. These suggest that, for a potential seller of ecosystem services, four basic steps are involved in moving from the stage of identifying a potential deal through to actually implementing a successful PES scheme (Figure 2). Key points include the need to establish that a clear demand and market exists for the identified ecosystem services, that the necessary financial, institutional and legal conditions are in place to enable the deal to proceed, that sufficient capacity and expertise are available to ensure that the agreed services and activities can be delivered according to plan, that contracts or agreements are negotiated which specify the rights and responsibilities of all parties, and that cost-effective management and monitoring plans are in place.

Figure 2: Best practices in identifying, designing and negotiating PES



Synthesised from: DEFRA 2013, Forest Trends *et al* 2008, Katoomba Group 2013, World Bank 2013.

## Legal and institutional issues to be addressed

The scope of the current assignment, as well as the non-availability of English language versions of key legal documents, does not permit a comprehensive review of Montenegrin law in relation to PES. It is also important to note that, until preliminary targets, sources and design options for PES have been agreed, it is impossible to predict what the most appropriate legal and institutional basis will be. At this stage, it is possible only to summarise key aspects of the enabling institutional and legal environment in Montenegro, to draw general conclusions about the extent to which this lends support to different PES models, and to identify what might be key gaps and barriers that will need to be further investigated or addressed in the future in order to develop further the concept and practice of PES.

The key point is that a supportive and enabling legal and institutional framework is required if PES schemes are to function effectively and fairly. While this does not automatically translate into a need to develop a dedicated PES law or institution, it often requires that existing laws are amended or that institutional capacities and mandates are expanded. Different types of PES arrangements however have varying implications as regards enabling legal and institutional conditions, particularly depending on whether PES are conceived as market arrangements that take place between purely private buyers and sellers, also involve public sector agencies as buyers and/or sellers, or involve a strong degree of external regulation or intervention either by government or through the formation of dedicated financial instrument or institution. In the Montenegrin case, existing legal frameworks variously enable or constrain these different PES models.

Purely private PES schemes which involve **payments being made directly from ecosystem service users to landholders**, either on an individual or collective basis, usually do not require a specific legal framework. Such agreements could expect to be governed by the basic contract law that is already in place in Montenegro, which already specifies the rights and obligations of buyers and sellers as well as procedures for mediation and dispute resolution. Regulations are also in place governing the formation and registration of legal entities that might be required if ecosystem service sellers were to operate collectively, as companies, cooperatives or not-for-profit organisations and associations (for example the Business Organisation Law and the Law on Non-Governmental Organisations). In Montenegro there are well-defined and transferable property rights over land, resources and the proceeds of their sale. A variety of laws also stipulate tax liabilities and exemptions on income and earnings from the sale of goods and services. It is however worth noting that these laws have however been designed to target more conventional contracts and market arrangements, and not to tackle the specific circumstances and conditions of PES.

Another important gap is the absence of supporting institutions, guidelines and procedures for PES development, implementation, monitoring and reporting in Montenegro. For private schemes, the exact modalities of PES (such as payment levels and schedules, procedures for monitoring, enforcement and compliance, and sanctions and penalties against non-compliance) would not necessarily be specified in law. They would usually be negotiated between the parties involved, and specified in the agreement or contract. While there are grounds to argue that the degree of external intervention in private PES schemes should be minimised, it is important to remember that there is little capacity or prior experience in negotiating PES deals on the part of either ecosystem service sellers or buyers in Montenegro, and no clear precedent as to how such agreements should be structured.

For these reasons, it would be desirable to ensure that it is possible for PES participants to have the option of recourse to third-party advice or support in order to ensure that agreements are formulated appropriately, legally and in the best interests of both buyers and sellers. While this would be unlikely to take the form of a regulation or law, some form of voluntary standards, guidelines or best practice



procedures, backed up by the provision of expert advice and support, is usually required to facilitate private PES. It should be noted that these kinds of institutional and informational facilities are usually considered to be equally important to the development of PES schemes which involve the government as a buyer, seller and/or intermediary.

For PES schemes which involve **payments being made directly from ecosystem service users to the government agencies or public enterprises that are responsible for managing natural ecosystems**, a number of legal conditions need to be in place. These include establishing PES as a permissible income source for that agency or enterprise, as well as the ability of that agency to enter into a legally-binding agreement or contract with an external party, to collect and retain any revenues earned, and to earmark and reinvest them in the conservation activities that are required to maintain given ecosystem services. The regulations and procedures which govern the public budget and the budget of state enterprises are of relevance, as well as laws which relate to the functions and responsibilities of the agencies that are primarily responsible for biodiversity and ecosystem management: Public Enterprise National Parks (PENP), Local Government and the Forestry Administration.

Legal provisions for PES are currently most advanced in relation to National Parks:

- The Law on National Parks contains a clear definition of ecosystem services. Article 19 defines ecosystem services according to the framework provided by the Millennium Ecosystem Assessment (MEA 2005) to include provisioning, supporting, regulating and cultural services.
- The Law on National Parks also allows for the use of ecosystem services in Article 19, and specifies the development of contracts or agreements between users and PENP which are to lay out the service(s) involved, payment mechanism, mutual obligations, description of use and jurisdiction for non-compliance.
- Article 21 of the Law on National Parks requires the payment of fees for the use of National Park land and resources, to be collected and used by PENP for the protection, development and improvement of the National Park. Although the detailed list of chargeable uses refers only to direct uses (including recreational facilities and services, land rental, water, minerals, fishing, collection of non-timber forest products and use of the NP logo), it is mentioned that payments will be made for “other actions, activities and services in accordance with the law”. This is further elaborated in the Decision on the Amount and Method of Payment of Fees for Use of Resources of the National Parks, Operations and Services in the National Parks.
- The Law on Nature Protection specifies that the protected area management authority is competent to set the level of fees for the use of that area. Article 68 establishes the basis for the levying of charges for the use of protected areas.
- Revenues earned from the use of ecosystem services are specifically mentioned as a source of funds for PENP in Article 32 of the Law on National Parks.
- It should however be noted that these enabling conditions for PES remain at the level of general statements. As yet, no specific regulations or guidance has been provided as to the procedure by which PENP would enter into an agreement to sell or supply ecosystem services, or what the applicable rates or procedures for calculating payments would be.

While legal frameworks do not forbid or contradict the development of PES schemes as a mechanism to fund other categories of protected area (such as those managed by Local Government or the Forestry Management Authority), they also do not explicitly enable it. Neither the Environmental Law nor the amended Law on Nature Protection define ecosystem services, mention the possibility of charges being



levied on their use or users, or list PES as a source of funding for the managing agencies. Although both laws clearly articulate “user pays” and “polluter pays”, these principles are subsequently applied to a relatively limited range of (mostly extractive and polluting/degrading) land and resource uses, activities and industries.

It is only the National Forest and Forest Land Administration Policy 2008 that raises the possibility of pricing or charging for the broader services associated with biodiversity and ecosystems. It mentions, in relation to funding, the “valorisation of non-market forest functions” which generate substantial social and economic benefits for the country. The Forest Policy also states that “the budget programme of forestry will start from fees charged for forest utilization, but will gradually increase with maintaining overall forest benefits, which are higher than just market value of timber” and that “new mechanisms for charging for services related to protection of nature and environment will be studied based on the defined goals and characteristics of protection of nature in forests and on forest land”. As yet, these provisions are not however incorporated into the Forest Act.

While it is to be expected that private schemes will be based on market principles, with payment levels and mechanisms being negotiated and agreed between buyers and sellers, **PES payments to the government as a seller of ecosystem services** may either be based on pre-determined rates and charges or negotiated on a case by case basis. If payments are to be based on fixed charges and fees, these will need to be regulated and listed. **PES schemes in which the government is a buyer of ecosystem services or acts as an intermediary to pass payments on to private landholders** through budgetary revenues or via some kind of a national or local fund also require appropriate supporting legislation to establish payment rates and terms.

For public PES schemes, specific legislation may be required if **new instruments are to be established with which to capture or distribute PES payments**. Taxes, fees, levies, tariffs, subsidies and direct payments may, if not already covered under existing legislation, necessitate the development of new regulations. Furthermore, the powers to collect, retain and administer PES revenues at the level of the public agency concerned (rather than remitting revenues to the central treasury), as well as the purposes for which they can be used and the groups or activities to which they can be allocated, would need to be clearly legislated.

If a **dedicated financial instrument or institution** (for example a local or national trust, fund, special account, agency or organisation) is to be set up to collect, administer or monitor PES payments, it is also necessary to investigate the conditions under which this fund or institution can be established, and how it will be operated and managed. This process can be expected to be somewhat more complex if the instrument or institution is to be run or managed by government.

The overall conclusion is that although current law does not prohibit or preclude the development of either public or private PES arrangements, and in many ways allows for and enables them, it lacks clarity. The supporting legal and institutional framework for PES is implied rather than explicit, and certain key elements are ill-defined or lacking. While this flexibility and ambiguity may to some extent be desirable over the short-term, as it can enable workable models to be tested and developed gradually, it also runs the risk of hindering or discouraging the adoption of effective and equitable PES that work to the benefit of both biodiversity conservation and sustainable development. Incoherent legislation, unclear criteria for interpreting relevant provisions, as well as the absence of implementing regulations and supporting institutions can all result in a lack of certainty, trust and confidence among potential PES participants (Greiber 2009).

## Next steps and ways forward in operationalizing PES

It has been proposed that guidance on PES implementation should be developed as a legal document to be adopted by the Ministry of Sustainable Development and Tourism (MSDT). Based on the preceding analysis, it is not recommended that either a PES law or regulations on PES procedures and steps are developed at this point.

One reason is that as yet there remains **very little knowledge or experience of PES in Montenegro**. It is not clear which targets, sources and design options for PES will emerge as being the most appropriate and acceptable to the national context. It would not be wise to establish any binding PES requirements or frameworks until some on-the-ground pilots experience of piloting and operationalizing PES in a Montenegrin situation has been built up, and considerable dialogue, consultation and buy-in has been secured from relevant stakeholders. Ongoing efforts to develop and operationalize a methodology for watershed PES in Durmitor National Park provide a model for this (see Dakovic 2013).

A second reason is that **it is not self-evident that a dedicated PES law or institution is, in fact, required**: further analysis is required to determine what the needs and appropriate frameworks are. A cursory review of key enabling legal conditions, gaps and needs has been provided in the preceding section of this document. Based on the PES options that are identified as being most appropriate for further development in Montenegro, specific legal requirements and instruments will have to be determined.

A third reason is that a **key characteristic of PES is that they are usually posed as voluntary, not mandatory, arrangements**, which are negotiated between ecosystems service providers/sellers and users/buyers. Thus, while an enabling legal framework, a supportive institutional structure and appropriate guidance on best practices are all required for the successful operationalization of PES, it may be desirable to avoid imposing fixed procedures or a “one size fits all” approach which prescribe how PES must be implemented.

### *Develop a PES “White Paper” concept or strategy document through a consultative process*

It is recommended that an initial step would be for MSDT to develop, in close consultation with relevant stakeholders and potential PES participants, a PES concept or strategy document.

This “White Paper” would serve a number of important purposes. Firstly, it would embed the concept of PES in public policy, and establish PES as a key priority of government. Secondly, it would provide a vehicle to initiate dialogue with the many different agencies, sectors, individuals and groups that would be potential participants in PES schemes in the future. Not only would this increase acceptance and buy-in for the concept of PES, but it would also be an important tool for raising awareness. Thirdly, there is a need to determine what the most appropriate, acceptable and viable models for PES are in Montenegro before rolling out specific plans, procedures or recommended practices for PES development and implementation. This cannot be accomplished without extensive consultation with all interested stakeholders.

At the minimum, a PES concept or strategy document would:

- Interpret the **concept and relevance** of PES in a Montenegrin context;
- Define PES **terminology**;
- Lay out the **government’s intention** to encourage the development of PES as an incentive and financing mechanism for biodiversity and ecosystem conservation;

- Link PES to other **national and sectoral development goals and priorities**;
- Identify the **main opportunities** for PES in Montenegro;
- Lay out **possible options and models** for PES;
- Establish the **guiding principles and general directions** that could be followed by parties in practical PES development and implementation; and
- Specify the **role of government** in further supporting and developing the potential for PES on the ground.

### *Identify and establish the legal and institutional architecture for PES*

A parallel activity would be to identify the legal and institutional architecture that is required to enable, support and deliver on the vision of PES that is articulated in the concept or strategy document.

As already mentioned above, it is not self-evident that a dedicated PES law or institution is required. It is however necessary to ensure that key aspects are covered and a comprehensive regime for PES is in place. This would normally include the following aspects (from Greiber 2009):

#### **General regulations on:**

- Purpose, scope and cross-cutting purpose; and
- Terminology.

#### **Financing regulations on:**

- Sustainable PES financing sources;
- Percentage to be dedicated to PES; and
- Establishment of specific PES funds/accounts.

#### **Institutional regulations on functions and responsibilities relating to:**

- Supporting PES development (e.g. scientific research and project planning);
- Fundraising (e.g. collecting and managing financial resources);
- Managing access to information, participation and conflict resolution (e.g. capacity-building, stakeholder dialogues, facilitation or negotiations);
- Monitoring compliance (e.g. contractual obligations, management of public funds); and
- Enforcing laws, regulations and contracts.

#### **Implementing regulations on:**

- Contractual issues;
- Property and tenure issues;
- Land use planning issues;
- Compliance and enforcement issues; and
- Legislative conflicts.

## 4. ADDRESSING AICHI TARGETS 3 & 4 IN THE NBSAP: a strategy for mainstreaming a sustainable biodiversity economy into national and sectoral policies, strategies and plans

Together, the instruments and measures outlined in the previous chapters of this report provide a set of tools to assist in encouraging and promoting a sustainable biodiversity economy in Montenegro. The revised NBSAP provides a vehicle for rolling out and operationalizing these approaches in concrete terms, and mainstreaming them into national and sectoral development policies, strategies and plans.

As already mentioned earlier in the report, the focal areas, activities and targets of the revised NBSAP are still under development. It is therefore only possible to propose a general strategy for mainstreaming sustainable biodiversity economy approaches. This is done by drawing together the conclusions and recommendations presented above so as to suggest key actions and measures that can be incorporated into the revised NBSAP. Once the NBSAP revision process has advanced, it will be possible to update, refine and focus the strategy and measures that are presented below.

To these ends, a strategy comprising three key elements is suggested for the revised NBSAP, namely:

- Incorporation of green economy principles and goals;
- Development of fiscal, market and price-based policy instruments for biodiversity conservation, sustainable production and consumption; and
- Establishment of a legal, institutional and implementation framework for Payments for Ecosystem Services.

### Incorporation of green economy principles and goals into the NBSAP

At a general level, it is recommended that the transition to a sustainable biodiversity economy as part of a green economy should be a guiding principle and a stated objective in the revised NBSAP. This provides an overarching strategy for mainstreaming biodiversity into development policy and practice. It aims to ensure that the revised NBSAP is embedded in and supportive of, rather than separated from or in conflict with, other national and sectoral strategies and plans. The revised NBSAP provides a key opportunity to articulate, operationalize and roll out biodiversity aspects of the green economy principles which underlie current development policy.

To these ends, the revised NBSAP should explicitly recognise, and attempt to address, needs to:

- Reward sustainable land and resource uses and resource-efficient production and consumption, by making them relatively more profitable and cost-effective than biologically and ecologically unsustainable options;
- Enhance and expand markets in green products and services, by making them more attractive in price terms for both producers and consumers;
- Build green jobs and skill-sets, so as to generate income at the same time as redeploying labour to activities and sectors that are beneficial to biodiversity, and providing the capacities that are required for these sectors to grow;
- Promote public and private investment in green infrastructure, including built infrastructure options that avoid negative biodiversity impacts or serve to enhance biodiversity, as well as encouraging investments in the maintenance of “natural infrastructure” as a means of delivering on key services and facilities; and

- Stimulate public and private financing to biodiversity business, technology and innovation, by working to overcome the barriers to accessing funds, and improving the returns from such investments.

## Development of fiscal, market and price-based policy instruments for biodiversity conservation, sustainable production and consumption

At the level of specific actions and targets, it is recommended that revised NBSAP includes concrete fiscal, market and price-based policy instruments to be used in support of biodiversity conservation, sustainable production and consumption. This relates both to the provision of positive incentives, dismantling of perverse incentives and achievement of sustainable production and consumption (Aichi Targets 3 and 4), and to setting in place the necessary economic and financial conditions to address the threats to particular sectors, species, habitats and biomes (Strategic Goals B, C and D).

This aims to ensure that the economic threats to biodiversity and ecosystems are addressed, at the same time as setting in place the broader fiscal, market and price conditions that are required to encourage and stimulate producers, consumers and investors in different sectors to shift towards a sustainable biodiversity economy. There are two aspects to this: explicitly orienting NBSAP measures towards already-stated development goals, and making efforts to better incorporate biodiversity into the measures that are being used in support of national and sectoral development policy.

To these ends, the following measures are recommended as having particular potential for incorporation into the revised NBSAP:

- Using preferential fiscal regimes to increase the profitability and decrease the costs of sustainable production and consumption and actively support the development of new products, markets and employment opportunities, such as through differential rates of land and product taxes, export duties and import tariffs, tax breaks and tax holidays;
- Extending the concept of agri-environmental payments to better incorporate measures to compensate for the costs incurred in conserving biodiversity and to reward for the provision of biodiversity and ecosystem benefits, such as through action-based and outcome-based payments for the preservation of natural landscape features such as wetlands, woods and hedgerows, conservation of high-value habitats, ecological set-asides, low-intensity or extensive pasture management, extensification of farming practices, utilisation of indigenous crop and livestock varieties, and organic agriculture;
- Reorienting the fiscal regime towards encouraging the flow of private investment funds towards emerging markets, businesses, technology and innovations that are supportive of biodiversity and ecosystems
- Working with the financial services industry to develop and support the mobilisation of investment funds, loans and credit targeted specifically at green enterprises and business;
- Mobilising public funds to establish green finance facilities;
- Investigating the possibility of ecological-fiscal transfers or enhanced public budget allocation to locations or sectors that play a key role in maintaining biodiversity and ecosystems which generate broader benefits to society and the economy;
- Rationalising natural resource fees to better reflect market demand and willingness to pay, so as to generate public funding for biodiversity conservation, manage demand and encourage more efficient consumption and use;

- Rationalising penalties and fines for environmental pollution and damage, so as to generate public funding for mitigation and remediation, and discourage inefficient, unsustainable or damaging activities;
- Working with extractive industries, infrastructure developers and the construction industry to investigate possibilities for biodiversity offsets and tradable development permits as a means of generating funds for biodiversity and ecosystem restoration, rehabilitation and conservation;
- Enabling and fostering cost-sharing and partnerships with the private sector and civil society in managing and using biodiversity; and
- Developing and facilitating eco-labelling and certification as a means of incentivising more sustainable production and consumption, supporting the development of biodiversity-positive products and markets, and enhancing their profitability.

## Establishment of a legal, institutional and implementation framework for Payments for Ecosystem Services

The development and operationalization of PES is recommended as a specific action area or programme of work under the revised NBSAP. This can directly support the achievement of Aichi Targets 3 and 4, as a positive incentive for the conservation and sustainable use of biodiversity and for sustainable production and consumption. It also contributes towards Aichi Target 20 as a means of mobilising financial resources for public and private actors.

In addition, if targeted at specific sectors, species, habitats and biomes, PES provide a potentially powerful measure to assist in addressing specific goals and themes relating to Strategic Goals B, C and D. Particular opportunities are foreseen in relation to the development of PES for watershed, fish breeding/nursery habitat, and biodiversity/landscape ecosystem services.

To these ends, the following actions are recommended for incorporation into the revised NBSAP:

- Developing a strategic roadmap for PES in a Montenegrin context through a process which includes, informs and seeks the input of relevant stakeholders and potential PES participants;
- Identifying and setting in place the legal and institutional architecture that is required to enable, support and deliver PES in Montenegro;
- Piloting concrete efforts to develop models for private and public PES for key sites, sectors and services.

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