

Financing sustainable development: - models and key mechanisms in application to protected areas

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Abstract— Sustainable development is one of the most important global issues today. The needs of modern man in a consumer society such as ours, are limitless. Nature, on the other hand, provides limited options to respond to all human needs. The process of harmonizing human needs and possibilities of environment to react in a way that does not jeopardize their relationship is sustainable development. Increased urbanization, high rate of population growth, exhaustion of natural resources and climate change present the greatest threats to sustainable development, and the risks in small countries like Montenegro are even greater. Although Montenegro can boast with favourable topography and geographical location, as well as significant natural resources and high protected area, it is facing a number of challenges and weaknesses, many of which were increased during the financial crisis. The key issue regarding protected areas is their preservation and overall contribution to the individuals and society either through education and research or visits in order to fulfil their needs. However, if it is possible it is important to establish their actual financial sustainability in order to achieve aforementioned preservation. Lack of success in this process may lead to the decrease of life quality in the society. Even though it is meant to be protector and manager of such areas state sometimes fails to do so. In this paper we are dealing with characteristics of Montenegrin protected areas, specifically when it comes to the financing and financial sustainability. The special attention was given to the models and mechanisms which are identified and recommended to be put in place in order to resolve problem of financial unsustainability of protected areas in Montenegro.

Index Terms— financing, sustainable development, protected areas, self-financing.

1 INTRODUCTION

THE old saying "Don't cut down the forest, but don't come home without wood!" can be taken as the most concise definition of the concept of sustainable development. Sustainable development is one of the most important global issues today. The needs of modern man in a consumer society such as ours, are limitless. Nature, on the other hand, provides limited options to respond to all human needs. The process of harmonizing human needs and possibilities of environment to react in a way that does not jeopardize their relationship is sustainable development.

The concept of sustainable development is central to the consideration of a long-term perspective of the development of mankind. Sustainability is a key precondition, but also the ultimate goal of development on planet Earth. The essence of this concept lies in the improvement of the quality of life within the current capacity of the environment, but not at the expense of future generations. It sets a balance between economy and ecology. If mankind could find a measure in its actions and spending of resources from natural, it would be possible to progressively develop, while leaving a healthy environment for future generations, and not denying them the possibility of further progress and exploitation of resources.

Small countries are characterized by modest resources that impose focus on specific things, such as heavy dependence on international markets and therefore greater vulnerability to developments in these markets, high population density in certain regions, which increases the pressure on already limited resources and their excessive exploitation.

Increased urbanization, high rate of population growth, exhaustion of natural resources and climate change present the greatest threats to sustainable development, and the risks in small countries like Montenegro are even greater. Although Montenegro can boast with favorable topography and geographical location, as well as significant natural resources and high protected area, it is facing a number of challenges and weaknesses, many of which were increased during the financial crisis.

According to the International Union for Conservation of Nature (IUCN) *protected area* represents "an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources and managed through legal or other effective means". Each one of us can imagine the beauty of landscapes and scenery within such areas. Probably such places are among the most beautiful parts of the known world.

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One of the greatest challenges countries facing is the need to develop financially sustainable protected area systems and solid organizations able to efficiently manage these natural assets. Although some progress has been achieved over the past decades, to date most protected area systems around the world are still severely underfunded. In most cases, protected areas are still dependent upon limited national budget allocations, support from international conservation organizations and short-term international funding through projects.

Although in 2004, 188 national governments adopted the Global Program of Action on Protected Areas to support establishment of comprehensive, ecologically representative, and effectively financed and managed regional and national protected areas, which strengthened many government's commitments to finance protected areas, there has not been a significant increase in funding to protected areas.

One of the most important factor for achieving the financial sustainability of national systems of protected areas is related to the need to increase the capacity to self-generate additional revenue at national levels, including market value of payments for ecosystems services such as water service, carbon sequestration, and scenic beauty. On the other hand, it is equally important to improve the institutional capacity to adequately manage financial resources and carry out the necessary legal and regulatory reform to enable reliable long-term funding.

Montenegro's protected areas (PAs) cover more than 12% of the country and form the core strategy in ensuring a sound natural resource base as well as meeting the country's conservation obligations under the Convention of Biological Diversity. In addition, the protected area system contributes significant value to the national economy, primarily in that it underpins a large portion of the national tourism industry, which is the second largest contributor to national income and the fastest growing economic sector.

The economic contribution of the protected area system in Montenegro was evaluated in 2011, with UNDP support and it indicates that the total contribution to GNI, which includes multiplier effects, was estimated to be € 68 million, or 2.2%. The value of tourism and recreational activities, other uses of PA lands and resources, water supply services and watershed/flood protection services is estimated at just under €68 million in 2010. In 2010, the quantified value of PAs equated to some 2.2% of GDP, or economic benefits of €106 generated per capita of Montenegro's population. In 2010, just under a half of PA values accrued to the general public (worth more than €32 million), more than a third generated earnings and cost savings to businesses and industries (€25 million), and around 15% earned revenues for the government (€11 million). PA goods and services supported the output of many different sectors of the economy, including tourism, energy, water, agriculture, and infrastructure and disaster risk reduction.

Choosing of "invest in natural capital" may create a steady increasing value-added to Montenegro's economy and popu-

lation, instead of continuing "business as usual", and generate incremental benefits worth more than €1.5 billion over the next 25 years.

The system of protected areas in Montenegro has been facing many problems and weaknesses. Most of the protected areas has small area, and fragmented. The remaining unprotected ecologically valuable areas, especially on the coast, suffer high pressures due to intense urban and tourism development. There is still not enough technical information on which the borders can be reliably determined, the category and the regime of protection of new protected natural areas. Status, the regime of protection, and management of existing categories of protected areas, does not comply with the current state of biodiversity and the values that were previously the main reason for putting the protection of these areas.

Additionally, lack of technical, operational and / or managerial capacity necessary for protected areas is evident. Revision status of existing protected areas, the formation control for all categories of protected natural areas, and defining the optimal management model (based on a participatory approach) are basic measures for the protection of biodiversity and nature conservation in general.

Number of negative direct threats are present: the haphazard management of forests and illegal logging, illegal hunting, illegal trade and uncontrolled collection of medicinal plants; pressures stemming from more intense development (tourism, urbanization) in these areas and their surroundings especially at the coast. Conflict between the protection of biodiversity / nature conservation and development is challenge not easy to resolve and there are no simple solutions. As it is not realistic to stop further development, it is not possible to ensure preservation in total - absolute protection of nature.

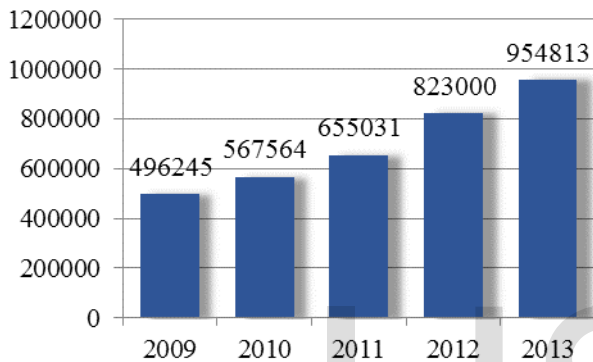
Yet an increase in protection requires more financing, which at the current number of protected areas is already lacking and thus a weakness. The fact that there are opportunities for increased tourism and increased eco-tourism specifically implies that more funding could be generated from users. A system wide user fee must then be implemented and enforced. More users however mean that more management capacity will be needed and again, current management capacity is low and weak.

A lack of financing and capacity are inter-related issues. Without proper funding, managers cannot train staff and build capacity of the government and of communities to better manage and participate in protected area management and conservation. Concurrently, without management capacity, available funding is not used as efficiently as possible, and financial planning and management are lacking. Also, additional funding may be hard to secure.

2 FINANCIAL UUTLOOK OF PROTECTED AREAS IN

MONTENEGRO

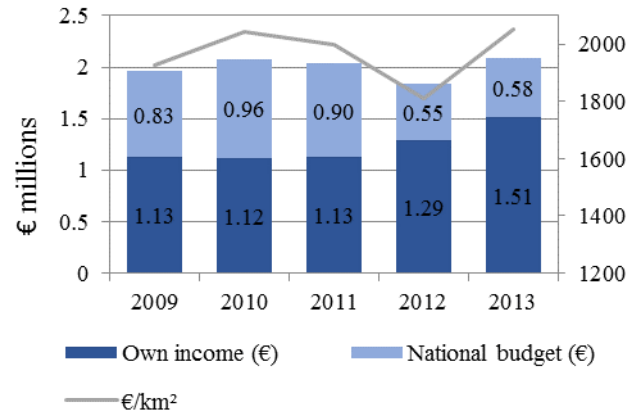
According to the report developed by UNDP in 2014 - "Development of National Protected Area Financial Plan (NPAFP) and support in its adoption and establishment of a business support 'help desk' to assist in improving the cost-effectiveness of PA institutions" (NPAFP), revenues that are generated by PAs are only related to the National Parks that earn revenues. According to the collected data from National Parks, average annual revenues that National Parks earned amounted around €1.5 million. In the past years, the level of the realized revenues had a positive trend. Annual revenues that National Parks gained in 2007 amounted €1,071,323.00, while in 2013 it was €1,511,511.00.



Source: National Parks Financial Reports
 Chart 1: National Park revenues from tourism 2009-13

About 70% of these revenues are earned from tourism. The rest comes from concessions and other uses of PA lands and resources.

Also taking into account indirect or occasional funding from the public budget, and considering all categories of PAs, increases this figure slightly. Total funding to all categories of PAs from all sources to be in the region of €2,2 million a year (including donations), or an average of €1,698/km².



Source: National Parks, calculations of ISSP
 Chart 2: public investment in National Parks 2009-13

Funding is also not sufficient to maintain the PA network. The on-the-ground reality is that the majority of PAs are operating on a budget that is effectively zero. Only National Parks are under active management and staffing – and even they face a pressing shortage of funds for essential conservation activities and investments. For other categories of PA, the situation is even more critical.

Lack of financing caused National Parks to focus on everyday operations, while neglecting capital investments. We can differentiate between two types of expenditures: operations and maintenance, and investments. Operations and maintenance requirements are those funds needed to carry out everyday operations at a park unit. On the other hand, investments are significant one-time costs that parks incur in order to fix current problems or provide for future park management. Investments may include projects such as a resource inventory necessary to establish a credible baseline before beginning a monitoring program, as well as constructing a new building.

Expenditures in PAs, have been increasing significantly since 2007 to 2013 year. This is result of endeavour of management to improve protection and surveillance function, and to improve the existing infrastructure. It is obvious that the government has been supported the management plans, and efforts of PAs management.

Total PAs expenditures increased from euro 1,500,000 to 2,080,000 between 2007 – 2013 year. Total personnel costs, including salary and benefits for full-time, part-time, term, and seasonal employees, averages 55% of total expenditures. The electricity, fuel, supplies, and other services categories represent relatively significant portions of total expenditures because of the high costs associated with getting staff and equipment to the field. These categories include the costs of fuel, other operation and maintenance, and transportation services. Significant fixed assets (maintenance) expenditures reflect the replacement of the existing vehicles, and accumulation for replacement fixed assets. Other expenditures include administrative, and others.

On the basis of empirical parameters and analysis of requirements of PAs, based on NPAFP, the first scenario requirement for annually financing of National Parks is €2,187,828.30, and for the second scenario €2,358,003.37. If taking into account other protection areas, the required level of funding of PAs for the basic scenario is €2,367,828.30 and for the optimal scenario is €2,608,003.37.

Because of the significant financial gap, PAs in Montenegro must find the appropriate financial mechanisms that will enable to achieve levels of revenues to finance that gap.

PAs in Montenegro are underfunded. However, protected area financing is about more than money; it involves mobilizing and managing funds to address a range of challenges associated with biodiversity conservation. It is necessary to provide secure sources of funds. Securing adequate funds is a necessary but not sufficient condition for PAs to be managed effectively and financed sustainably. It is also necessary to consider the quality, form, timing, targeting, uses and sources of funding.

3 MODELS AND MECHANISMS FOR FINANCIAL SUSTAINABILITY OF PROTECTED AREAS

The most simple to implement financial mechanisms are the following: (i) increasing ticket price; (ii) new entrances, (iii) souvenirs production; (iv) Fee for jeep tours; (v) promotional activities; (vi) improving control of entrances, (vii) fees concession for tourist facilities etc.

NPAFP for Montenegro proposed following mechanisms for generating income which are not used properly:

1. Tourist services;
2. The fee for the exploitation of water;
3. Charging for the use of temporary and permanent facilities;
4. The fee for the electrical facilities in Pas;
5. Billing for telecommunication facilities and installations, antenna installation fee;
6. Fees for transport infrastructure
7. Setting up billboards;
8. Voluntary contributions;
9. Public-Private Partnership in tourism;
10. Public-Private Partnership in agriculture;
11. Public-Private Partnership in fishing;
12. Other.

Building a diverse, stable and secure funding portfolio

PAs in Montenegro rely heavily on central government allocations to cover the bulk of their operating costs. Foreign donor grants are another important source of funding, mainly used for development projects. Some but not all PAs are able to supplement their budgets by earnings from tourism and other resource use charges.

Relying on just one or a small number of funding sources is risky. PAs compete against many other demands for government and donor funding, and they are rarely considered a high priority when difficult budget decisions must be made. In the face of public sector cutbacks and budget constraints, and in the context of an overall trend of declining development spending on the environment, funding for PAs has sometimes declined dramatically. That happens in 2012 year, the budget for PAs declines from E 950.000 to 550.000.

Earnings from tourist visits, a staple element of PA funding in Montenegro, can also be insecure and subject to fluctuations.

For these reasons, combining different sources of funding is a key element of long-term PA financial sustainability. A diversified financial portfolio can better enable PA managers to cope with risk and uncertainty, and provide a measure of security should any single source of funding decline or fail.

Improving financial administration, effectiveness and efficiency

Financial flows are not always managed effectively, either in relation to PA financing needs or conservation priorities. In many cases, PA funding is skewed towards recurrent costs, especially staffing, while critical investment needs remain under-funded. In many instances, the priority given to recurrent costs means that few funds are available for core conservation investments, such as buildings and infrastructure, the purchase of vehicles and other equipment, wildlife inventories, etc. This practice has to be changed.

Changes in overall patterns of public expenditure can likewise affect both recurrent and capital spending by PAs.

PAs operate on an annual budget cycle. Yet cash flow requirements for conservation finance rarely conform neatly to an annual budget or project calendar. Similarly, donor-funded projects may involve very irregular or delayed transfers of funds. When combined with uncertainty about the level of funding that can be expected in the future, this means that it is often difficult to match cash availability to actual needs, or to undertake long-term planning and investment. In many cases the release of funding does not coincide with the timing of PA costs and financial needs.

PA financial sustainability thus requires funding to be released in a timely manner, and to be administered and allocated in ways which supports long-term conservation goals. Financial sustainability can also be enhanced by increasing PA financial autonomy, i.e. the opportunity to generate and retain funds at the PA level.

Another challenge of PA financing is ensuring that funds are used efficiently. Financial resources will always be limited and it is therefore imperative that funds are allocated strategically and used as efficiently as possible.

Taking a comprehensive view of PA costs and benefits

PA financing has focused on meeting direct operational and management costs – in other words funding the salaries, infrastructure, equipment and maintenance required to establish and run PAs. The total cost of a PA, however, is far greater than this, while those bearing the costs of PAs are not limited to the entity charged with managing it. PA costs also include the various benefits or economic opportunities that are diminished or lost due to the establishment of the PAs, such as the value of foregone output from prohibited resource uses or from potential conversion of the area to an alternative use, as well as possible wildlife damage and congestion effects on other sites and stocks that remain available for extractive uses and alternative developments.

Creating an enabling financial and economic framework

A wide range of external factors influence PA funding opportunities and financial status. These include market, price, policy and institutional conditions in economic sectors that have indirect but often significant impacts on PAs. It is serious challenge in Montenegro.

A more fundamental challenge is that many PA goods and services are seriously under-priced or not priced at all, by the market. At the same time there are often weak incentives provided for investment in PAs. This can have a major impact on the ability of PAs to generate funds. For example, PAs provide valuable watershed protection services to downstream towns and cities. However, PAs are not able to capitalize on the value of their contribution to secure water supplies.

Overcoming market, price and policy distortions that act as obstacles to funding is a key element of PA financial sustainability. Without taking action at this broader level it is often difficult either to raise sufficient funds for PAs, to ensure that costs are adequately covered, or to foster an economic environment that encourages investment in PAs.

Building capacity to use financial tools and mechanisms

Just as managers in the private sector are expected to understand financing issues and tools, PA managers are increasingly required to develop the same competency. No private business manager could expect an enterprise to thrive without good information on costs, cash flow, investment strategies and potential sources of funds. PA managers and park system managers need a similarly detailed understanding of the financial implications of managing their site or system.

4 CONCLUSION

Small and relatively open Montenegrin economy is very dependent on activities in the tertiary sector (mainly tourism), agriculture and the production of aluminum and steel, as well as the production of coal and bauxite - economically vulnerable sectors. The energy sector has great potential (renewable sources of energy with a high percentage of hydropower), but only if it is developed in a sustainable manner.

Achieving sustainable development requires a modern approach to the development of the Montenegrin economy, business, education, urban planning. It imposes the need to define a long-term vision and involvement of the whole community and every individual in the implementation of policies and principles of sustainable development.

The main obstacle for embracing sustainability, as a way of life and behavior in the 21st century, is a poor understanding of the ethical dimensions of this concept. There is also a lack of information about the practical solutions available to all of us. The knowledge about these solutions can help us make responsible choices.

Our everyday choices affect the lives of everyone around us. They affect the planet, climate change and the generations to come. By taking care of our land, water and air we support the basic concepts of sustainable tourism. The preserved nature, tradition, culture and historical heritage represent interesting combination that will produce an authentic experience interesting enough for both visitors and hosts.

Further work on strengthening the environmental aspects of the country is the obligation of all of us, as a responsible society with a planned approach to the exploitation of scarce resources. This implies a radical change in habits and putting an end to the uncontrolled growth of production and consumption, taking responsibility for the damage incurred to date, as well as the responsibility for the future that belongs to the generations that come after us.

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