

Participatory Planning for Biodiversity Protection in the Western Balkans

Author(s): Radoje Laušević and Mirjana Bartula

Source: Natural Areas Journal, 36(3):339-344.

Published By: Natural Areas Association

DOI: <http://dx.doi.org/10.3375/043.036.0315>

URL: <http://www.bioone.org/doi/full/10.3375/043.036.0315>

BioOne (www.bioone.org) is a nonprofit, online aggregation of core research in the biological, ecological, and environmental sciences. BioOne provides a sustainable online platform for over 170 journals and books published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Web site, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/page/terms_of_use.

Usage of BioOne content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

Participatory Planning for Biodiversity Protection in the Western Balkans

Radoje Laušević¹

¹Faculty of Applied Ecology FUTURA
University Singidunum
Požeška 83a
11000 Belgrade Serbia

Mirjana Bartula^{1,2}

¹ Corresponding author: mirjana.bartula@futura.edu.rs; +381 63 8801 572

ABSTRACT: The rich Western Balkans biodiversity and ecosystem services suffer from negative anthropogenic activities. Solving those problems requires a coherent strategy for biodiversity conservation with a focus on the involvement of relevant stakeholders. This paper presents a Local Biodiversity Action Plan (LBAP) as a tool for biodiversity protection and conservation on a local level in five countries of the Western Balkans. Results indicate that the LBAP improved local planning practices and secured stakeholder involvement by adequate stakeholder analysis and well defined incentives in the form of pro-biodiversity business (PBB). LBAP also enabled municipalities to assess biodiversity potential on their territory, and to develop a comprehensive planning document and biodiversity protection action plan.

Index terms: local biodiversity action plan, pro-biodiversity business, stakeholder involvement, Western Balkans

INTRODUCTION

Despite the fact that increasing anthropogenic pressures are expected to shrink natural ecosystems and, as a result, cause a worldwide decline in biodiversity (MA 2005), it is difficult to justify conservation for biodiversity's sake without demonstrating its benefits for people. The concept of ecosystem services offers a framework for characterizing and communicating the numerous benefits of biodiversity conservation for people, such as food provision, water purification, and flood mitigation (Chan et al. 2011). According to Walters et al. (2010), changes in biodiversity affect the ability of ecosystems to supply services and to recover from disturbances. When a species is lost from a particular location (even if it does not go extinct globally) or introduced to a new location, the various ecosystem services associated with that species are changed.

Many authors argue that the link between biodiversity and ecosystem services is complex (Costanza et al. 2007; Quijas 2010; Cardinale et al. 2011), given that biodiversity has a key role in ecosystem services production directly consumed by humans (Mace et al. 2012). Increasing population and economic growth deepen our dependence on biodiversity, and need for ecosystem services will only continue to grow (Guo et al. 2010). Consequently, the planning of sustainable natural resource management in general, and for biodiversity in particular, has a high position on international and national political agendas. A long tradition of top-down management of natural resources exists in many European countries, but in the new millennium participative procedures and bottom-up perspectives have been increasingly em-

phasized (Vacik et al. 2014).

In order to apply a successful bottom-up approach in conservation of biodiversity, local communities have to receive sufficient benefits, participate in management, and therefore, have a stake in conserving the resources (Gibson and Marks 1995). This new paradigm in conservation planning emphasizes management of biodiversity by, for, and with local communities (Gibbs and Bromley 1990; Gibson and Marks 1995). When communities participate in the management of their resources, there is greater likelihood of success as people are more willing to obey their own regulations than those imposed upon them from outside (Wilshusen et al. 2003).

Community based natural resource management is designed not only to conserve biodiversity but also to alleviate poverty (Suich 2013) and, thus, achieve both environmental sustainability and greater social equity by empowering communities to manage resources for long-term social, economic, and ecological benefits (Phuthego and Chanda 2004; Morales and Harris 2014). Suich (2013) argued that incentives are key to attracting and maintaining participation in community based natural resource management, but they cannot work if people do not know about them, if they are inappropriate, or if they are delivered in insufficient quantities.

In this paper, we describe methodology for the successful stakeholders' participation in the biodiversity conservation planning process at the local level from concept development and planning through implementation. The methodology presented is used in developing Local Biodiversity Action Plans (LBAPs) in six Balkan

countries within the frame of a five-year project: “Biodiversity and ecosystem services for local sustainable development in the Western Balkans.” This project was implemented by ECNC (European Centre for Nature Conservation) and the REC (Regional Environmental Center) from 2009 until 2013.

Study Area

Our study area spans nearly 8625 km² and 18 municipalities in five Western Balkans countries (Figure 1), with nearly 512,460 inhabitants (Laušević et al. 2014).

The Western Balkans is a center of biodiversity and harbors an exceptional wealth of plants and animals. Many of these species are of global or European conservation importance. The vast majority of the area is covered by the Dinaric mountain range and a small part of the area in the north-east belongs to the Carpathian mountain range. Especially worth mentioning is Tara National Park, consisting of a group of mountain peaks that make the Tara River gorge, the deepest river canyons in Europe, protected by UNESCO as a Biosphere Reserve. Other examples include Šar National Park, between Macedonia and Kosovo, and Durmitor National Park, which is the refuge of many glacial species from the Great Ice Age. The Western Balkans region belongs to the water catchment basins of three seas: the Adriatic, Black, and Aegean. Other important features of the area are the three big lakes shared by neighboring countries: Ohrid Lake (Albania and Macedonia), Prespa Lake (Albania, Greece and Macedonia), and Shkoder Lake (Albania and Montenegro) (Cil et al. 2011).

The region’s biodiversity and natural habitats have faced a series of threats, including habitat fragmentation or destruction, over-harvesting, illegal logging, deforestation, introduction of alien species, urban sprawl, infrastructure development, acidification, eutrophication, desertification, and climate change (EEA 2010). Coastal zones, rivers, and wetlands face the most threats in the short term; in the long term, mountain meadow ecosystems are also vulnerable. The root causes of these threats are changes in economic activities, sociopolitical fac-

tors, and the failure of conventional economics to recognize the economic values of natural capital and ecosystem services (Walters et al. 2010).

METHODOLOGY

We used the following methodology to develop Local Biodiversity Action Plans—LBAPs (Cil et al. 2011; Cil and Civic 2013), which enable a comprehensive participatory process, divided into the three main phases described below.

In the first phase, local Biodiversity Action Groups (BAGs)—a forum for involvement of different institutions and affected individuals (Walters 2010; Laušević et al. 2014)—were established in each municipality.

In the second phase, BAG representatives were invited to participate in two regional workshops to perform detailed stakeholder analysis with the aim to secure all relevant stakeholders’ participation in the planning process. In addition, BAG representatives had to define the main biodiversity related issues, and brainstorm incentives that would keep all identified stakeholder groups involved in both the planning and implementation phases of the LBAP. For stakeholder analysis, we used focus group and interest–influence matrices methods (Reed et al. 2009). Identified stakeholders were classified in four groups: key players, context setters, subjects, and crowd (Eden and Ackermann 1998; Reed et al. 2009; Bryson et al. 2011). After defining the main stakeholder groups, each BAG focused on how to involve the most influential uninterested stakeholder groups and how to keep them interested and involved throughout the process.

The third phase of the participatory planning process secured involvement of all identified stakeholders through public consultation meetings organized by local BAG in each target municipality. Also, an official adoption of the LBAP by local government was required in this phase.

RESULTS AND DISCUSSION

Local biodiversity action planning was

performed in 18 municipalities. In the first project phase (2009–2011), LBAPs were developed in 10 local communities: Bajina Bašta, Čajetina, Goražde, Gostivar, Dragash, Mavrovo and Rostuša, Peshkopi, Pljevlja, Srebrenica, and Žabljak. The second project phase (2012–2013) has built on the successes of the first one and is being implemented in eight municipalities: Bujan, Debar, Ljubovija, Margegaj, Plužine, Prizren, Foča-Ustikolina, Višegrad (Laušević et al. 2014).

Stakeholder Mapping

Interest and influence matrix of key stakeholder groups clearly showed, as expected, four main stakeholder categories (Laušević et al. 2015):

- Key players (have both significant power and interest over biodiversity conservation): local government, farmer associations, local public utility companies, protected area managers, tourist organizations.
- Context setters (have power, but little direct interest): polluters, wood processing companies, hotels.
- Subjects (have interest, but little power): local people, farmers, NGOs (fishermen societies, hunting clubs, mountaineers, sport clubs, environmental associations), tourist organizations, media, experts in nature protection.
- Crowd (have both little interest and little power): illegal plant gatherers, illegal fishermen, illegal hunters. They have little interest and little power but could endanger the sustainability of biodiversity conservation.

A fifth transitional category between key players and context setters, however, was identified for each municipality participating in the project. This transitional group consisted of ministries of environment and other governmental bodies at the national level, as well as national public utility companies dealing with management of forest and water resources. They have high decision-making power but average direct interest to act at the local level in relation to biodiversity issues.

In all countries, the local government is the

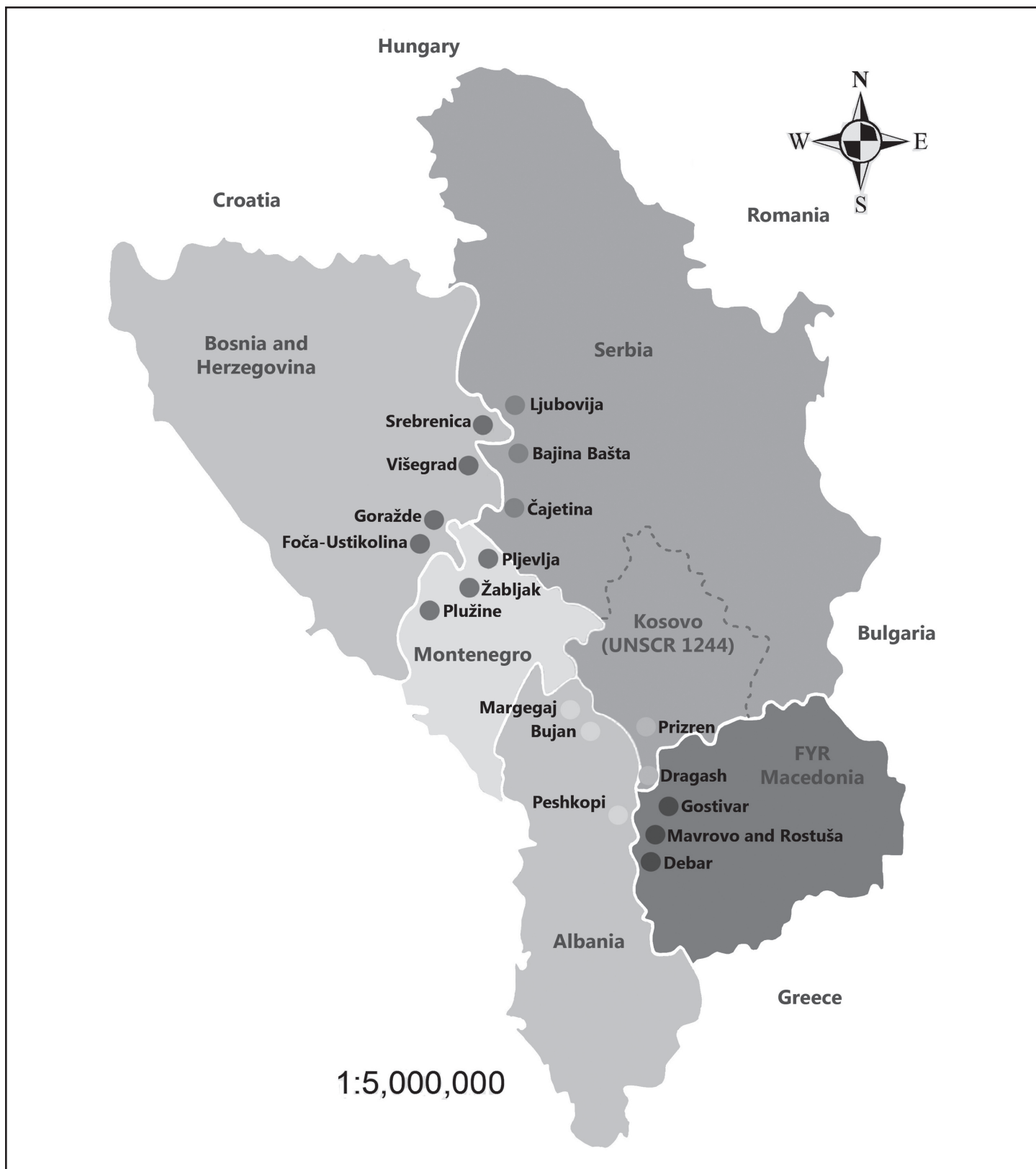


Figure 1. Local Biodiversity Action Plan study area.

dominant player with high decision-making power and high interest to participate in the LBAP process. Although NGOs are considered to be public opinion representatives, they are not key players, contrary to expectations. High interest in the LBAP process but limited influential power positioned them in the subject category. The group crowd is quite homogenous and is made only of poachers. They lack any power and interest but are dangerous for the LBAP process. The strict enforcement of law by governmental institutions is necessary to overcome this problem. Polluters are clear context setters, with high power to influence the decision-making process but without any interest to be part of the LBAP process. Since the pollution they generate is a significant threat to biodiversity, a plan for involving them in the process was made.

Main Biodiversity Related Issues

Each Biodiversity Action Group (BAG) identified threats to biodiversity that were the main obstacles in using biodiversity as a resource for local socioeconomic development. The main threats to biodiversity are presented in Figure 2.

Water pollution is identified as the main reason for biodiversity loss in 11 out of 18 target municipalities.

Illegal landfills and overexploitation of biological resources, in particular medicinal plants, were identified as issues in eight municipalities, while low level of public awareness and knowledge was identified as a threat in seven municipalities.

Polluted air, lack of strategic documents, abandonment of traditional agricultural practices, lack of funds, and lack of biodiversity inventory were recognized as threats in only two municipalities, while lack of cooperation between key actors and exploitation of gravel were recognized as threats in only one municipality. Only three BAGs recognized climate change as a biodiversity loss-related issue.

Based on presented results, water pollution, inappropriate waste management (illegal solid waste landfills), and overexploitation

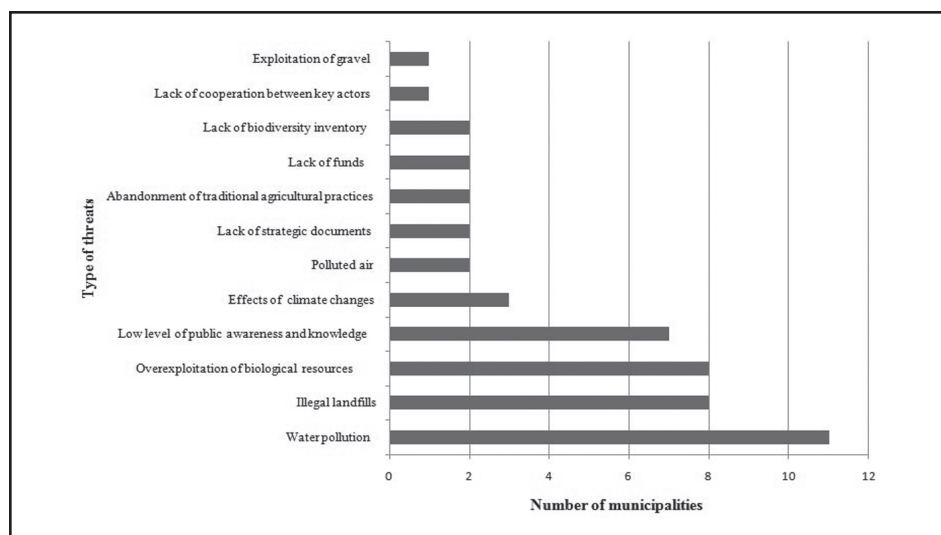


Figure 2. Threats to biodiversity according to Biodiversity Action Groups (per municipality).

of medicinal plants could be regarded as regional threats. On the other hand, polluted air, lack of strategic documents, abandonment of traditional agricultural practices, lack of funds for biodiversity inventory, lack of cooperation between key actors, and exploitation of gravel are supposed to be threats of local character according to BAGs' findings. However, none of these threats are of specific local character except gravel exploitation (which is characteristic for the Drina River that flows thorough the Ljubovija municipality in Serbia), and to a certain extent, polluted air, which is an issue in more industrialized municipalities such as Pljevlja in Montenegro and Gostivar in Macedonia. These misleading conclusions are due to miscommunication between key stakeholders and low level of comprehensive understanding of social and ecological linkages as pointed out by Larson et al. (2013). Such challenges of the participatory planning process could be overcome by involvement of relevant external experts assisting BAGs in their analyses.

Pro-Biodiversity Business

In order to motivate local stakeholders and secure their participation in the implementation of the LBAP, each BAG identified Pro-Biodiversity Businesses (PBBs) in forestry, fishery, tourism, agriculture, and the renewable energy sector, as well as business related to direct use of

biodiversity that represents the local needs well. Proposed PBBs were later discussed during the consultation process (third phase of the participatory planning process) with a well-established pool of stakeholders organized in each of 18 municipalities. The final list of accepted PBBs for each sector is summarized in Table 1.

Special attention was drawn to the inclusion of marginalized groups into Pro-Biodiversity Business. Women and minorities were identified as marginalized groups in all participating countries due to similar socioeconomic and cultural conditions. Their inclusion was analyzed in relation to collection of medicinal herbs. The results of analysis performed by each country's BAG show that Albania is the most advanced country in the field of medicinal herbs collection and involving local people that generate revenue from this direct pro-biodiversity business. This advantage was used to streamline the process in other countries with less experience in such activities.

CONCLUSIONS

Based on presented results, the success of participatory local biodiversity action planning depends on balanced stakeholder involvement in the process. In order to achieve that, detailed stakeholder mapping and strategy for the involvement of the most influential but uninterested (or with

Table 1. Identified Pro-Biodiversity Businesses (PBBs).

Industry	Proposal for Pro-Biodiversity Business
Forestry	Production of seedlings for reforestation Chestnut production
Fisheries	Sustainable fishponds Springs of mineral water
Tourism	Fairs and public events for promotion of biodiversity Horse races Eco villages Agro-ecotourism, mountain climbing, biking Medical tourism Observation of animals (photo safari) Rafting on the Drina River Cultural heritage - crafts from wool, leather (souvenirs)
Agriculture	Fruit growing and production of fruit products Beekeeping Autochthonous cattle and sheep raising, thus securing grassland Wine production Watermill for grains Production of organic food Processing of meat and dairy products, honey, chestnut puree
Direct use of biodiversity	Collection of nontimber products (medicinal herbs, mushrooms, etc.) Collection of herbal teas and mushrooms (certified and sustainable)
Renewable energy	Small hydropower plants

small interest) stakeholders are necessary. Such an approach secures a transparent and democratic planning process, a sense of ownership, and stable funding for the implementation of an action plan. In addition to that, well-done stakeholder analysis secures identification of the “key players,” stakeholder groups that should be leaders of the planning, and afterwards of the implementing, process. In the case of LBAPs, the local government is a key player, thanks to the highest interest for the process and the highest decision-making power.

However, values of stakeholder participation must not be taken for granted and there are issues that require expert input. Due to lack of knowledge and low understanding of multidisciplinary issues, local stakeholders may give wrong inputs to the planning process. The case study described above proved that lack of comprehensive

understanding of a system’s social and ecological linkages leads to wrong or incomplete identification of biodiversity related issues, which consequently could result in an LBAP that does not meet the realistic local needs.

While success of the planning process is secured by balanced stakeholder involvement, success of the implementation phase depends on well-defined incentives for local communities. This case study shows that well-defined Pro-Biodiversity Business that meets the local needs is the best incentive for local communities, especially for marginalized and vulnerable groups such as women and minorities.

This case study also shows that official adoption of the LBAP by local government is a precondition for success of the implementation phase. It gives political

support to the process and provides better funding opportunities.

The presented approach for biodiversity protection is considered to be innovative, as municipalities did not previously have the opportunity to assess biodiversity potential on their territory and develop a comprehensive planning document and action plan for biodiversity. By protecting biodiversity at the local level in such way, ecosystem services are safeguarded and sustain human well-being in the long term.

ACKNOWLEDGMENTS

This paper is based on the results of project “Biodiversity and ecosystem services for local sustainable development in the Western Balkans,” funded by the Finnish Ministry of Foreign Affairs in 2009–2013 and implemented by ECNC (European

Centre for Nature Conservation) and the REC (Regional Environmental Center).

Radoje Lausevic holds a PhD in hydrobiology from the University of Belgrade, where he was teaching in General Hydrobiology as an Assistant Professor from 1996 to 2006. He is currently an Associated Professor at University Singidunum, Faculty of Applied Ecology in Belgrade (Serbia), and Deputy Executive Director for Environmental Policy in the Regional Environmental Center in Hungary (www.rec.org). He has 25 years of diverse work experience, including project design, development, implementation, and evaluation in the environmental field.

Ms. Mirjana Bartula is an educated biologist and works with University Singidunum, Faculty of Applied Ecology in Belgrade. She is a specialist in protected area management and integrated natural resources management with more than 15 years of experience.

LITERATURE CITED

- Bryson, J.M., M.Q. Patton, and R.A. Bowman. 2011. Working with evaluation stakeholders: A rationale, step-wise approach and toolkit. *Evaluation and Program Planning* 34:1-12.
- Cardinale, B.J., K.L. Matulich, D.U. Hooper, J.E. Byrnes, E. Duffy, L. Gamfeldt, P. Balvanera, M.I. O'Connor, and A. Gonzalez. 2011. The functional role of producer diversity in ecosystems. *American Journal of Botany* 98:572-592.
- Chan, K.M.A., L. Hoshizaki, and B. Klinkenberg. 2011. Ecosystem services in conservation planning: Targeted benefits vs. co-benefits or costs? *PLoS ONE* 6.
- Cil, A., D. Ognjanović, E. Atmis, and J.L. Walters. 2011. Local Biodiversity Action Planning for Southeastern Europe: Spotlight on the Activities. ECNC, Tilburg, The Netherlands.
- Cil, A., and K. Civic. 2013. Local Biodiversity Action Planning for Western Balkans: Spotlight on the Activities. ECNC, Tilburg, the Netherlands.
- Costanza, R., B. Fisher, K. Mulder, S. Liu, and T. Christopher. 2007. Biodiversity and ecosystem services: A multi-scale empirical study of the relationship between species richness and net primary production. *Ecological Economics* 61:478-491.
- Eden, C., and F. Ackermann. 1998. *Making Strategy: The Journey of Strategic Management*. Sage Publications, London.
- EEA Report. 2010. Environmental trends and perspectives in the Western Balkans: Future production and consumption patterns. European Environment Agency, Copenhagen, Denmark.
- Gibbs, C.J., and D.W. Bromley. 1990. Institutional arrangements for management of rural resources: Community-property regimes. Pp. 22-33 in F. Berkes, ed., *Common Property Resources: Ecology and Community-Based Sustainable Development*. Belhaven Press, London.
- Gibson, C.C., and S.A. Marks. 1995. Transforming rural hunters into conservationists: an assessment of community-based wildlife management programs in Africa. *World Development* 23:941-957.
- Guo, Z., L. Zhang, and Y. Li. 2010. Increased dependence of humans on ecosystem services and biodiversity. *Plos ONE* 5.
- Larson, S., M. DeBora, M.D. De Freitas, and C.C. Hicks. 2013. Sense of place as a determinant of people's attitudes towards the environment: Implications for natural resources management and planning in the Great Barrier Reef, Australia. *Journal of Environmental Management* 117:226-234.
- Laušević, R., M. Bartula, and A.S. Solujić. 2014. Local planning for biodiversity protection in the Western Balkans. International Conference "Ecological Improvement of Devastated Locations for Sustainable Development." Regional Conference, Proceedings: 176-182. University Singidunum, Faculty of Applied Ecology Futura, Belgrade.
- Laušević, R., M. Bartula, and A.S. Solujić. 2015. Stakeholders Involvement in Biodiversity Action Planning. The Eleventh Regional Conference, "Environment to Europe," Belgrade. <EnE15-ENV.net>.
- [MA] Millennium Ecosystem Assessment. 2005. *Millennium Ecosystem Assessment - Ecosystems and Human Well-being: Synthesis*. Island Press, Washington, DC.
- Mace, G.M., K. Norris, and A. Fitter. 2012. Biodiversity and ecosystem services: A multilayered relationship. *Trends in Ecology and Evolution* 27:19-26.
- Morales, C.M., and M.L. Harris. 2014. Using subjectivity and emotion to reconsider participatory natural resource management. *World Development* 64:703-712.
- Phuthago, T.C., and R. Chanda. 2004. Traditional ecological knowledge and community-based natural resource management: Lessons from a Botswana wildlife management area. *Applied Geography* 24:57-76.
- Quijas, S.S. 2010. Plant diversity enhances provision of ecosystem services: A new synthesis. *Basic and Applied Ecology* 11:582-593.
- Reed, M.S., A. Graves, D. Norman, H. Posthumus, K. Hubacek, J. Morris, P. Christina, C.H. Quinn, and L.C. Stringer. 2009. Who's in and why? A typology of stakeholder analysis methods for natural resource management. *Journal of Environmental Management* 90:1933-1949.
- Suich, H. 2013. The effectiveness of economic incentives for sustaining community based natural resource management. *Land Use Policy* 31:441-449.
- Vacik, H., M. Kurttila, T. Hujala, C. Khadka, A. Haara, J. Pykalainen, P. Honkakoski, B. Wolfslehner, and J. Tikkanen. 2014. Evaluating collaborative planning methods supporting programme based planning in natural resource management. *Journal of Environmental Management* 144:304-315.
- Walters, J.L., R. Catchpole, A. Mladenović, A. Čil, M. Snethlage, K. Čivić, A. Schrauwen, S. Sušić, and A.S. Solujić. 2010. *Local Biodiversity Action Planning for Southeastern Europe*. ECNC (European Centre for Nature Conservation), Tilburg, the Netherlands.
- Walters, L.C. 2010. *Local Biodiversity Action Planning for Southeastern Europe*. ECNC (European Centre for Nature Conservation), Tilburg, the Netherlands.
- Wilshusen, P.R., S.R. Brechin, C.L. Fortwangler, and P.C. West. 2003. Conservation and development at the turn of the twenty-first century. Pp. 1-22 in S.W. Brechin, P.R. Wilshusen, C.L. Fortwangler, and P.C. West, eds., *Contested Nature: Promoting International Biodiversity with Social Justice in the Twenty-first Century*. State University of New York, Albany.