

Report on Institutional Capacity Assessment with Recommendations

Twinning Project MK 13 IPA EN 02 17

Strengthening the capacities for effective implementation of the acquis in the field of nature protection

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1. Introduction, methodology and key recommendations

Institutional capacity forms backbone for efficient implementation of nature conservation tasks, like any other tasks in the society. This is especially true when the system is facing new challenges, e.g. starting to implement requirements of EU Habitat and Bird directives. The aim of the Twinning is in general to support institutional capacity building in the sector in question. For that reason, one of the main outputs in this project is to prepare institutional capacity assessment with the recommendations.

Evaluation of institutional capacity and preparing recommendations has been a topic on many previous studies as well. The IPA project “Strengthening the capacities for implementation of NATURA 2000 - EUROPEAID/136609/IH/SER/MK” prepared a report “Plan for strengthening the administrative capacity for NATURA 2000 implementation on central and local level with training programme“, which contains assessment and a set of recommendations. Also recently adopted Strategies, National Biodiversity Strategy and Action Plan for the period of 2018 - 2023 and National Strategy for Nature Protection for 2017 - 2027 identifies a set of recommendations for the development of institutional system in nature conservation. In general, we can say that there is no shortage on the assessment and recommendations but resources for implementation.

The results of previous studies have been taken into account when preparing this document. E.g. the importance of establishment of professional Expert body for Nature Protection or to have government budget funding for nature protection administrations is repeated as crucial actions, but justification is now based on the need for implementing the requirements of EU Habitat and Bird Directives. Hope, that finally there will be real movement for implementing these recommendations. The possible start for opening negotiations for EU membership give a new momentum for this, because the existing institutional structure and funding is definitely inadequate comparing to the needs of potential EU member state.

The content of the document in on one hand based on case studies and findings from interviews of site and system level professionals, on the other hand from the experience gained during the implementation of the Twinning project. Selected topics, where “issue papers” are prepared are as follows:

1. Institutional Capacity Assessment in System Level
2. Institutional Capacity Assessment in Site Level
3. Funding of nature conservation and management of protected areas
4. Expertise for Implementing the Birds and Habitats Directives
5. Natura 2000 Habitat Interpretation Manual
6. Natura 2000 Management planning
7. Appropriate Assessment

Each of these topics are handled in structured form; first describing the issue itself, then current situation, future prospect with the answer of the question “Where should we go” and finally presenting practical recommendations for the future.

Additionally, this document contains summary recommendations from two study visits and one internship implemented within this Twinning project.

Key findings from the issue papers and recommendations are combined into a comprehensive Table of recommendations for strengthening institutional capacity in the beginning of the document. Totally 27 recommendations are presented with justification, lead responsibility, timing, priority and indicator. Wider background for these recommendations can be found in issue papers.

2. Table of recommendations for strengthening institutional capacity

Recommendations for strengthening administrative capacity for implementation of EU nature directives and Nature Protection Legislation.						
	Recommendation	Justification / remarks	Lead responsibility	Implementation period	Priority	Indicator
1	Adopt the new Law on Nature Protection	A new draft for the Law on Nature Protection is expected to be subjected to public notice during year 2019. Following the public notice and corrections as well as legislative editing of the new act, it should be adopted without any delay.	MoEPP	2019 - 2020	1	New law adopted
2	Agree on sufficient coordination and cooperation on national process to implement EU nature directives and Nature Protection Legislation in all sectors.	Issues to be agreed upon are leadership and participation of the process for revision of legislation of all sectors to be compatible with Natura 2000 requirements, and timeline for the implementation.	MoEPP and MAFWE, other ministries when needed, commitment from Prime Minister	2020	1	MoU or corresponding document; requirements of Habitats and Bird Directives integrated into the sector legislations
3	Nominate Natura 2000 Advisory Group.	Advisory Group for Natura 2000 takes consultative function. Advisory Group is crucial to secure momentum and strong political “push” for timely action and co-operation between ministries and stakeholders. This group would consist of the representatives from different ministries, other government agencies and non-governmental stakeholders to ensure appropriate decisions at political level, in particular regarding identification of potential Natura 2000 sites,	MoEPP	2020	1	Advisory group established

		legislative development and funding of the Natura 2000 implementation process.				
4	Establish Expert Agency for Nature Conservation.	It is necessary to establish a professional, stable and adequately resourced national expert body to secure sufficient coordination on technical aspects related to EU nature legislation implementation and supporting protected area management in general.	MoEPP	2020	1	Agency established and adequately resourced
5	Appoint Natura 2000 Focal Point.	Natura 2000 Focal Point (or Unit) should locate in new Nature Conservation Expert Agency. The Focal Point (or Unit) should coordinate the designation processes of Natura 2000 sites, including the SPAs, the protection of species, and the monitoring and reporting of Natura 2000 as well as communication, information and consultation with the public.	MoEPP	2020	1	Focal Point nominated
6	Secure permanent government budget line to allocate funds to cover solely nature conservation obligations in the Republic of North Macedonia in agency and protected area (Natura2000 site) level.	Earmark state funding for permanent and long-term tasks and obligations deriving from EU Bird and Habitat Directives. Core funding shall cover new institutional arrangements on national level, but also Protected Area management bodies core tasks shall be financed from government budget. Long-term and high quality preparation for EU membership can only proceed once new institutional structures - new Nature Conservation Agency and Natura 2000 Focal Point - have been set up and financed.	Prime minister, MoEPP, Ministry of Finance	2020	1	Sufficient funds allocated to nature conservation in government budget
7	Establish Advisory Working Groups for particular habitat and species groups.	MoEPP or the newly established Nature Conservation Agency should establish Advisory Working Groups for particular habitat and species groups. The role of the groups is to advise the MoEPP on Natura 2000 issues, especially on	MoEPP	2020-2021	2	Advisory working groups established and are functioning

		defining management principles and measures for habitats and species. It is important to invite experts from scientific and non-governmental organizations to the WG's in addition to the representatives from sector ministries and agencies. Natura 2000 Advisory Group should guide the work of thematic working groups.				
8	Clarify division of responsibilities and competencies between MoEPP, new Nature Conservation Agency and PA management authorities.	<p>MoEPP shall be responsible on policy and legal issues and general coordination acting horizontally with key Ministries;</p> <p>Nature Conservation Agency would act nationally in a coordinating role, supporting relevant national level organizations and in particular Protected Area Management bodies with technical expertise;</p> <p>Protected Area Management bodies have responsibility at protected areas site level on law enforcement and operational management and monitoring of biodiversity.</p>	MoEPP, Nature Conservation Agency and PA management authorities	2020-2022	2	Needed administrative decisions and co-operative structures functioning
9	Appoint legal management body with dedicated nature conservation department/ unit / site manager for each protected area/potential Natura 2000 area that have values defined by the EU Nature Directives.	Main criteria in appointing the site management bodies is their ability to carry out obligatory nature conservation tasks determined by EU nature directives. Most appropriate organization model on site level should be regarded on a case-by-case basis according to the conservation values, size and management needs of the Protected Area / Natura 2000 site.	MoEPP	2020-2025	2	Each potential Natura 2000 site has appointed management body with nature conservation department
10	Keep Protected Area Management bodies role as independent juridical entities	Self-financing schemes (together with project funding) will obviously play important role in the future and should remain as a source of funding for Protected Area Management Bodies. Evaluate	MoEPP, Ministry of Finance	2020-2025	2	Reports of PA financing

	including self-financing mechanism.	existing and new potential sources of self-financing taking into consideration that they are in full compliance with the conservation requirements defined by the EU Habitat and Species Directives. In parallel of the self-financing schemes, new additional government financing for the Protected area Management Bodies need to be increased and earmarked to secure core funding for nature conservation obligations rising from the implementation of the EU Bird and Habitat Directives.				
11	Strengthen national nature conservation administration(s) by key expertise, in particular conservation biologists.	On the national level, emphasis in recruitments should be placed on nation-wide expertise on habitat types, such as forests, pastures and water ecosystems, as well as key species groups. For very specific, narrow expertise, such as profound knowledge of the ecology of rare species, it is most appropriate to recruit conservation biologist(s) whose expertise can be used in whole country. National level experts function includes building and maintaining active, continuous co-operation with other sectors, such as forestry, pastures, water use, recreation and nature tourism and to support protected area administrations. These experts should be recruited mainly to the new Expert Agency for Nature Conservation.	MoePP, new Agency for Nature Conservation, Natura 2000 Focal Point.	2020-2025	1	List of personnel and their qualifications in government nature conservation administration
12	Strengthen Protected Area Management Bodies capacity by increasing the number of experts on nature	Key expertise to be recruited are nature conservation biology, database management, visitor management, marketing & communications and law enforcement.	Protected Area Management Bodies	2020-2025	2	List of personnel with expertise in government nature conservation administrations

	<p>conservation and communication tasks.</p>	<p>Conservation biologist(s) should have knowledge on the habitat types and species that are characteristic to the protected area in question, ability to work independently in the field as well as familiarity with local stakeholders.</p> <p>Conservation biologist(s) tasks on site level are typically operational and would require eg. the following skills:</p> <ul style="list-style-type: none"> - practical, field-oriented knowledge on habitat mapping, species surveys and inventories; techniques for delineation of Natura 2000 sites with GPS tools and GIS software; - skills to prepare and implement specific operational management/action plans for active habitat conservation or ecological restoration; ability to support appropriate assessments procedures in the protected area. <p>Protected area “umbrella” management bodies, such as Macedonian Forests and PE Pastures, as well as municipalities, may consider forming national expert team to act as a common resource, with the function to support site management bodies on their operational field-related work in site level. National expert team may be responsible for common tasks such as annual planning, database development and reporting obligations, as well as operations that require specific expertise, such as profound knowledge of the ecology of rare species.</p>			
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13	Strengthen Protected Area Management Bodies by field workers and rangers to secure effective law enforcement and conservation on the ground.	<p>At Protected area site level, there is a shortage of field workers and rangers with expertise or technical ability to support nature management / ecological restoration, building and maintenance of recreational and nature tourism infrastructure, and law enforcement.</p> <p>Field workers / rangers shall have good skills on social interaction since they play crucial role in maintaining daily and practical contacts with local people and actors in the Protected areas and its surroundings. Rangers shall be equipped and trained to use new technology e.g. hunting cameras, drones and social media to monitor Protected Areas;</p>		2020-2025	2	List of personnel with expertise in government nature conservation administration
14	Develop long term human resource development plan for nature conservation sector in the Republic of North Macedonia	<p>Human Resources plan should set prospects of the vacancies and qualifications required in national level (MoE/Agency) and Protected Areas Site Management bodies, as well as for implementing training programme for current staff to develop professional skills (e.g. training plan prepared by Twinning project).</p> <p>Invest in permanent core personnel from the very early stages of the designation process to build long-term institutional stability and to accumulate knowledge. When entering the EU membership have full permanent human capacity in place to ensure long-term tasks and core administrative functions related to the management of the Natura 2000 sites.</p> <p>Increase “critical mass” of nature conservation expertise in Republic of North Macedonia by recruiting fixed-term staff, hiring consultants or</p>	MoEPP, MAFWE, Protected area Management Bodies	2020-2021	2	Long term human resource development plan prepared; training plan implemented

		purchasing external services to implement cyclical or project-based tasks, such as field inventories or investments on National park's visitor facilities.				
15	Monitor and analyze nature conservation staff's working time to get information on labor cost / time allocation of the core tasks related to management of Natura 2000 network and national protected areas.	Most important cost element in nature conservation organizations is staff working time, thus it should be systematically monitored and analyzed in all levels by time sheets and other tracking tools. Many of the nature conservation tasks are completely new for the Republic of North Macedonian nature conservation sector and time tracking will provide valuable information for the annual planning, monitoring and reporting (labor cost, productivity) of the core tasks related to Natura 2000 network as well as developing and managing projects.	MoEPP, New Agency for Nature Conservation, Protected area Management Bodies	2020-2025	2	System for time sheets available and results reported annually
16	Organize training for current staff on existing nature conservation administrative bodies.	Training to focus on detailed knowledge of legislative, ecological and technical aspects of Natura 2000 designation process before and during the designation of sites pursuant to the Birds and Habitats Directive.	MoEPP, new Agency for Nature Conservation	2019-2025	2	Reports on training
17	Update universities training and education curriculums and increase education on nature conservation sciences and the use of natural resources in all levels.	Increase the education on conservation biology and practical management of protected areas to satisfy growing demand in labor market. Nature Conservation administration shall cooperate with academies and high schools to develop curriculums based on forecasts on labor qualifications.	MoEPP, new Agency for Nature Conservation, Universities	2021-2025	2	Training curriculums in Universities, number of graduated students in key sectors
18	Combine forthcoming national inventories of the pastures (by PE Pastures) and habitat and	There seems to be clear option for having win-win situation in combining forthcoming national inventories of the pastures (by PE Pastures) and	MoEPP, New Agency for Nature	2020-2025	2	MoU for joint work, inventory results, EU

	species mapping required by the EU directives.	EU Nature Directives (habitat and species mapping). MoEPP and PE Pastures are encouraged to co-operate and agree on EU habitat directives classification and management principles on pastures; finding out how field inventories for the PE Pastures register update and EU habitat directive designation process could be combined. All this would form basis for co-operation for future management of the pastures on Natura 2000 sites, developing eco-tourism, as well as basis for channeling EU subsidies for the management of pastures on Natura 2000 sites.	Conservation, PE Pastures			agrienvironment schemes
19	Develop Natura 2000 Interpretation Manual for the Republic of North Macedonia.	<p>The Manual will aim at constituting national understanding and consensus clarifying in practice to all actors how Natura 2000 sites are to be identified, managed and protected according to Article 6 of the Habitats Directive.</p> <p>Involve and engage all administrative agencies and relevant stakeholders, scientific bodies and NGOs in the process. The participatory process aims at committing all actors nationally to the Manual and eventually will reduce potential conflicts on Natura 2000 implementation on the site level, as well as the need for detailed regulation through secondary legislation;</p> <p>The manual should serve especially Protected Area Management Bodies: it is intended to become a practical tool for enforcing the law and for determining the conservation-driven management of the Natura 2000 sites.</p>	MoEPP, New Agency for Nature Conservation, stakeholders	2020-2023	1	Habitat Interpretation manual covering all habitats found in the country

20	Secure expertise to carry out Appropriate Assessment processes in protected area administrations.	Increase capacity in all administrative levels for conducting appropriate assessments. When feasible, carry out appropriate assessments on a level of a regional/ areal management plan eg. assessing management plan for the forestry or pasture, or other natural resources management in the protected area as well as in development processes which have impact on potential Natura 2000 sites.	MoEPP, New Agency for Nature Conservation, Protected area Management Bodies	2020-2025	2	Number of assessment reports, number of trained personnel
21	Performance indicators for nature conservation.	Develop performance indicators for nature conservation institutions and monitor systematically results and effectiveness. Performance indicators should ideally demonstrate effectiveness of nature conservation measures, such as the trends on conservation status of habitats and species, the number of visitors and visitor satisfaction in protected areas, and the economic impact of protected areas.	MoEPP, New Agency for Nature Conservation	2020-2022	2	Set of performance indicators developed and taken into use
22	Develop future finance mechanisms based on Payments for Ecosystem Services.	Evolving new finance mechanisms based on Ecosystem Services should be actively tested and developed in co-operation with other EU countries. At present and in the near future, it is unrealistic to build up funding for nature conservation via payments for ecosystem services, but these should rather be seen as long-term prospects as additional financial source for nature conservation.	New Agency for Nature Conservation, Universities	2020-2025	3	Initiatives for applying or generating funding from Ecosystem Services

23	Increase income from recreation and nature tourism	<p>Recreational use and nature tourism are the most potential sources that may provide direct income funding for nature conservation in the Republic of North Macedonia.</p> <p>The attraction factors of national parks and other larger protected areas should be explored together with the tourism sector. Expertise on sustainable nature tourism, marketing and communications should be increased in protected area management bodies.</p>	New Agency for Nature Conservation, Protected area Management Bodies, tourism sector	2020-2025	3	Generating funding from tourism and other local livelihoods
24	Communicate and raise awareness on benefits of Natura 2000	<p>It is important to demonstrate the multiple social as well as economic benefits of a well-managed Natura 2000 Network to encourage all relevant land use sectors and political decision makers to take better account of the value of Europe's natural capital in their decision-making processes.</p> <p>In order to promote and communicate of the benefits of Natura 2000 and ecosystem services for local people and wider public, it is important to strengthen the expertise on visitor management / communication / marketing, especially in national parks and other protected areas with potential for recreation and nature tourism.</p>	New Agency for Nature Conservation, Protected area Management Bodies.	2020-2025	2	Inquiries among visitors, citizens and partners
25	Involve Non-governmental Organizations (NGOs) to the process to implement EU's Bird and Habitat Directives.	Non-governmental organizations (NGOs) play important role in civil society and their involvement in the process to implement EU's Bird and Habitat Directives is crucial for the sake of administrative transparency. Many non-governmental organizations have information about different habitats and species, such as	MoEPP	2020 -2025	2	The number of joint initiatives

		birds, and this “citizen science” should be utilized in an appropriate and fair manner. Organizations often act as independent and their source of income is membership fees and state subsidies. Therefore, it would be justified that government will support the NGOs activities through the aid schemes.				
26	Establish National Information System for Nature (NISN)	Twinning project has prepared a rulebook for establishment of NISN with four pillars, that contain information on several aspects of natural heritage of the Republic of North Macedonia. The baseline for the pillar structure is formed by a platform through which to include information into the database by scientific and other organisations. The four pillars are constructed of the information gained from inventories and monitoring of 1) species, 2) habitats, 3) geodiversity, 4) national ecological network of the Republic of North Macedonia. The roof resting on the pillar structure shall be the user interface through which an access to the data shall be provided by desktop or web based applications.	MoEPP	2020 - 2022	2	Functional NISN available for users
27	Renew the system for management planning	The process and content of compiling management plans for Natura 2000 sites and protected areas should be simplified. The content of study for valorization of nature values and management plan should be merged into one document. Management Plan should be short and clear strategic document supporting daily active management of the values of the site. It is also important to introduce action planning for	MoEPP	2021	3	New regulation and system for management planning

		practical implementation of needed conservation measures.				
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3. Main themes

3.1. Institutional Capacity Assessment in System Level

The Issue

Implementation of the EU's Birds and Habitats Directives requires the identification and designation of competent authorities to take the necessary measures. EU legislation generally leaves member states a large freedom as to how they organize their administration to implement the EU Acquis. The essential aspect is that the institutions designated to implement the European law are clear, competent and endowed with the necessary capacity, resources and equipment.

Several consultative projects have previously been conducted on the subject, assessing options whether there is a need to establish (a) specific institution(s) for the implementation of the Birds and Habitats Directives, or could existing institutions do so, and if they should be modified, enlarged or strengthened to meet the needs of implementation.

Based on evaluation of the national documents for institutional capacity (Samec 2017, National Biodiversity Strategy and Action Plan (2018-2023), National Strategy for Nature Protection (2017-2027), and information received from the workshops that were held between the EU Twinning project and national level organizations in March - May 2019, as well as discussions with the beneficiary, the following chapters summarize the current situation and give some recommendations how to strengthen institutional capacity on system (national) level for the implementation of the Birds and Habitats Directives.

Current situation

Implementation of the Habitats and Birds Directives and setting up the Natura 2000 network requires appropriate institutional structures and capacities. The following chapter describes the system / national level key actors in the nature conservation administration of the Republic of North Macedonia and summarizes the institutional challenges in relation to the implementation of EU's Bird and Habitat Directives. Nature conservation administration on a site level, such as the capacities of Public Institutions of National Parks, are described in the separate Issue Paper ("Institutional Capacity Assessment in Site Level).

Ministry of Environment and Physical Planning

The main state institution focused on improving of the quality of the environment in the Republic of North Macedonia is the Ministry of Environment and Physical Planning (MoEPP). Integral part of MoEPP is Administration for Environment, that also includes Department of Nature, and which is responsible authority for the execution of the works in the field of nature protection. The Department is divided into four divisions / units: Unit for Natural Heritage Protection, Unit for Biodiversity, Unit for Spatial Planning in Protected Areas and Geodiversity and Unit for Genetically Modified Organisms. The Department of Nature has currently 13 employees distributed in these four divisions.

Other units within MoEPP that are also relevant for implementation of the Nature Directives, specifically the appropriate assessment according to Art. 6 HD, are Unit for Environmental Impact Assessment (included in the Department of Environment) in regards to assessment of potential impacts of certain projects on the environment, and Unit for Strategic Environmental Assessment (included in Department of Spatial Planning which is not part of the Administration for Environment) in regards to assessment of potential impacts of certain plan on the environment.

Nature conservation is closely linked also to protection of specific components of environment thus other departments and units within MoEPP are relevant for integrated approach. Department for Water is responsible for the implementation of water management legislation and the coordination of all related activities, and the Soil Unit has key responsibility to ensure soil conservation. Part of the MoEPP is also Office for Spatial Information System which is responsible for integrating spatial information and presenting this information on the internet in order to form a single environmental information system, for production, shaping, updating and distribution of spatial information according to current needs.

According to the current Law for Nature Protection (LNP) MoEPP supervises over the management and protection of protected areas that is performed by protected areas management bodies. Supervision and enforcement shall be carried out by the State Environmental Inspectorate (SEI), through state inspectors of nature protection (state inspectors). SEI is authority for inspection and supervision over the enforcement of laws and regulations in the area of environment on national level. It holds status of a legal entity with its own budget, one of the constituent bodies within MoEPP. However, at the moment there are only two nature inspectors for the whole country.

According to the Law of Nature Protection – specifically for the purposes of monitoring, achieving and promoting the protection and the use of natural wealth, a National Council for Nature Protection, an advisory body to the Minister managing the body of the state administration responsible for the affairs of nature protection was established. However, this Council has not been operational yet.

Ministry of Agriculture, Forestry and Water Economy

Ministry of Agriculture, Forestry and Water Economy (MAFWE) which has 33 regional offices distributed in all regions in the Republic of North Macedonia is closely linked to implementation of nature conservation. It is responsible inter alia for use of agricultural land, forests and other natural values, for hunting and fishing, for monitoring and assessment of the status of water, maintenance and promotion of the water regime, for research and assessment of meteorological, hydrological and bio-meteorological processes, or for inspection over the implementation of the related national legislation and other activities.

The most important department within MAFWE related to implementation of Habitats and Birds Directives is the Department for Forestry and Hunting which consists of Unit for Regulation and Use of Forests, Unit for Afforestation and Cultivation of Forests, Unit for Forest Protection from Biotic and Abiotic Factors and Unit for Hunting, Regulation of Hunting Grounds and Game Concessions.

Forests

According to 2012 statistics, the total area under forest in the Republic of North Macedonia measures 0,99 million ha and during the last 10 year period forest cover has increased by 3.5%. The annual increment is around 1.97 million m³, and potential annual quantity available for cutting is 1.486 million m³ gross timber.

Macedonian Forests is the Public Enterprise that is responsible on managing state owned forests which cover about 90 % of the forests in North Macedonia. Macedonian Forests is spread throughout the national territory through its branch offices.

Forests and forest land within the borders of protected areas are managed by the entities responsible for the management of the certain protected area. According to the Law on Nature Protection (article 54) these entities are obliged to include certain elements of the special/separate forest management plans in the protected areas management plans. The conservation and protection of forest ecosystems shall be provided according to the principles of sustainable development, conservation and maintenance of the natural composition of species and their natural renewal, as well as maintenance of ecosystem services.

These provisions are overlapping and might be in potential conflict with the Law on Forests, which regulates issues related to planning, management, use, protection of forests and its provisions are applied to all forests and forest land regardless of the ownership and use.

Pastures

Pastures occupy almost half of the total agricultural land, altogether around 700.000 ha of the country are identified as pastures. Most of the pastures are owned by the state and managed by the Public Enterprise for pasture management.

PE Pastures implement the law on pastures and is divided into 17 regional offices, and which is supporting a traditional manner of management of pastures. Law on pastures regulates the management, promotion and use of pastures in state ownership. Pasture, under this law, is agricultural land covered by grass, whose use is made rational with grazing cattle and mowing. Pastures are to be managed so as to preserve their surface and increase their value, to provide the greatest growth of grass by natural conditions. Pastures are available to farmers/users through separate agreements signed for period of 5 to 10 years. PE Pastures plans to initiate a project together with the MAFWE for setting a proper digitalized inventory and register of pastures in the Republic of North Macedonia.

National Strategy and Action plan for Biodiversity recommends, that in the future, determination of actual condition of pasture (especially high mountain pastures) should be undertaken through responsible ministries, public enterprises and agencies, by introducing cadastre, aerial photos, topographic maps, linking with forest information system, digitalized and other data sources. Furthermore, it is necessary to classify the pasture by type of vegetation and elevation, and establish a complete register of pastures in the Republic of North Macedonia.

Law on Nature Protection, Article 60 prescribes that protection of biological diversity of pasture habitats and grasslands is secured through their traditional use. The manner of use and the protection of important or endangered types of pasture habitats shall be prescribed by both Ministers responsible for nature protection and in consent with the Minister responsible for the affairs of agriculture and forestry. Additionally, protection measures for grasslands should be prescribed by the Law on pasture management. However, the existing law (adopted in 1998) does not regulate contemporary trends / needs of the area and does not comply with other relevant laws, so its full revision is required.

According the National Strategy and Action plan for Biodiversity (2018) protecting biological and landscape diversity of the high-mountain habitats and ecosystems, any anthropogenic activity shall be forbidden, except the one related to the traditional stockbreeding, as well as ecotourism in compliance with the principles of sustainable development.

Water and wetlands protection

General provisions for waters protection and conservation of biological and landscape diversity in wetlands are contained in the Law on Nature Protection (Articles 55-59), including prohibition of watercourses partition in a way that contributes to degradation of the habitat, reduction of water quantity below biological minimum, drying out, covering of springs, marshes and other wetlands, undertaking measures and activities to prevent pollution of aquatic habitats and waters that enter aquatic habitats, prohibition of construction of facilities or management of natural resources along natural springs, along the banks of natural watercourses, shore areas of natural or artificial lakes, as well as flooding plains of watercourses. However, according to the National Strategy and Action plan for Biodiversity (2018) these regulations are insufficiently enforced in practice.

The Law on Waters stipulates several specific measures for conservation of wetlands, the goal of which, inter alia, is to provide: protection, conservation and permanent improvement of available water resources, improvement of the status of riverine land, aquatic ecosystems and water dependent ecosystems, protection and improvement of aquatic environment through rational and sustainable use of waters, as well as progressive reduction of harmful discharges and gradual elimination of emissions of dangerous matters and substances into waters.

According to Article 96 of the Law on Waters, the Government of the Republic of Macedonia determines areas designated as protected natural heritage where maintenance and improvement of the status of waters is an important factor. Protection measures should be specified for zones intended for protection of plant and animal species living in or depending on water and are economically important. Such areas have not been designated yet.

EU Framework Water Directive (2000/60/EC) marked a turning point in water treatment from a resource into natural good that has to be protected. Major part of this Directive has been transposed into legislation of Republic of North Macedonia – Law on Waters. This Law regulates issues concerning management of waters, shore land and wetlands, water distribution, protection and conservation of waters, protection against harmful effects of waters, water management facilities and services, etc. At the same time, the Law defines rules for wastewater treatment and maintenance of the relevant water management infrastructure. Its enforcement is under the competence of the Water Department under MoEPP.

Scientific and Research Institutions

There are also numerous scientific and research institutes, museums and academic institutions whose work is important for nature conservation sector. Main academic institutions are the Macedonian Academy of Sciences and Arts and the University of St. Cyril and Methodius which includes also Faculty of Natural Sciences and Mathematics, Faculty of Forestry, Faculty of Agriculture, and Institute for Agriculture. In Ohrid is located Hydro-biological Institute. Macedonian Museum of Natural History in Skopje is the oldest institution in biological science established in the country. The Museum is funded by the Ministry of Culture. The main tasks include gathering and presentation of museum collections, and research on species taxonomy. In the process of Natura 2000 mention institutions can involve as an organization or individual experts for investigation in the field.

Non-governmental Organizations

For the purpose of implementation of Habitats and Birds Directives is very important also role of non-governmental organizations (NGOs) that are focused on nature conservation and its scientific, educational, social, administrative and legal aspects. Experience from all EU member states, old and new, shows that NGOs are important partners in the process of identifying and proposing suitable sites for Natura 2000. NGOs are often servicing the process through the preparation of “shadow lists” of proposed areas based on their respective scientific expertise. Good communication between governmental and nongovernmental actors in the process is essential so that the possible synergies can be reached.

Key observations and challenges

According to the recently launched National Biodiversity Strategy and Action Plan (NBSAP, 2018-2023) the following obstacles in the implementation of the First Action Plan for biological diversity have been identified:

- Lack of financial resources;
- Conservation of biological diversity is not priority (lack of political will, accent on economic development);
- Lack of capacity in MoEPP and other institutions;
- Insufficient coordination and cooperation between departments in MoEPP, as well as with other relevant ministries, agencies and organizations;
- Unadjusted legal solutions, non-compliance with the legislation (poaching, illegal fishing, illegal wood cutting, etc.);

- Slow procedures for designation of new protected areas and non-adopted developed documents.

These shortcomings also make it difficult to implement the EU Bird and Habitats Directives and manage future Natura 2000 network. To overcome the obstacles lot of strategic and coordination work is needed at different administrative levels as well as communication and stakeholder involvement.

According to EU IPA project report by Samec (2017) and information received from this EU Twinning project's workshops from stakeholders, it seems that co-operation and interaction between nature conservation administration and other administrative sectors has been too low and sporadic.

Due to incomplete structure of the nature conservation administration, and insufficient human resources of the MoEPP, there are not well-established routines on information exchange and knowledge sharing either within the MoEPP departments internally (Unit for EIA and SEA, Department of Water, Department of Spatial Planning) nor externally between the key administrations, in particular between MoEPP and MAFWE. Furthermore, there is not yet effective mechanism established in the country to engage stakeholders for implementing EU's Bird and Habitat Directive and managing Natura 2000 network. Therefore, the capacity of the scientific institutions and NGOs and their habitat and species data gathered is not yet fully contributing to the national biodiversity databases.

Relevant departments of the MoEPP are understaffed, as measured against the scope of work and obligations deriving from the implementation of the Law on Nature Protection, EU Directives transposition and implementation and other international Conventions. Generally, there is clear indication that the number and qualification of staff - in particular in the field of conservation biology - is not sufficient at any level of nature conservation administration.

Obviously the most significant shortcoming in the institutional framework of nature conservation is the absence of technical expert agency or institution. This finding has been expressed in number of occasions, and most recently in the National Biodiversity Strategy and Action Plan (NBSAP, 2018-2023) and the National Strategy for Nature Protection (NSNP, 2017-2027), an in previous institutional assessments (eg. Samec 2017) and in several policy documents, such as the 5th CBD Report.

Other major gap in the national institutional framework is the absence of Natura 2000 Focal Point. Experiences from other EU countries show that it would be advisable to have a dedicated focal point or unit for Natura 2000 to ensure sufficient coordination at different administrative levels and specifically to ensure technical coordination during the designation process.

The roles and responsibilities of the MoEPP, other ministries, government agencies and stakeholders are not clear. There are overlapping competences between MoEPP and MAFWE in protected areas, and unclear status of Environmental Inspectorates which create risk for duplication of effort and pose potential conflict between the obligations deriving from the EU Bird and Habitat Directives and other uses, such as forestry and hunting.

Where we should go

Implementing EU's Bird and Habitat Directive and managing Natura 2000 network will require lot of strategic and coordination work between different administrative levels. Ministry of Environment and Physical Planning (MoEPP) is the responsible ministry for negotiating with the EU on the accession process on the Birds and Habitats Directives. Obligations deriving from the EU Directives require application of transparent approaches, which means in practice having in place good communication, cooperation and coordination mechanisms between the MoEPP and other line Ministries, especially the MAFWE. Successful implementation of the EU Nature Directive require also involvement of relevant stakeholders and there is need for closer coordination and respectful cooperation between state administration and the scientific institutions and NGOs. There needs to be

clear differentiation between responsibilities of key players, which is crucial to avoid overlapping of competences between MoEPP and other entities.

It is necessary to strengthen the capacity of MoEPP's Nature Department and establish new Agency or Institute for nature conservation as an independent technical body being responsible for issues related to the nature conservation sector, such as designation and management of Nature 2000 network. Establishment of the new Nature Conservation Agency has been considered as main priority as it will strengthen the cost-effective implementation of the Birds and Habitats Directives, will give the administration of the Natura network a solid basis, and more generally, it will strengthen nature protection in the Republic of North Macedonia.

A special issue is "Appropriate Assessment" of plans and projects which may have negative impacts on Natura 2000 sites required according to Article 6 of the Habitats Directive. The institutional implications, also for administrative strengthening depend on how this requirement will be implemented in the Republic of North Macedonia.

Recommendations

1. Open dialogue between MoEPP and MAFWE to agree on sufficient coordination and cooperation on national process to implement EU nature directives and Nature Protection Legislation. Issues to be agreed upon are:
 - How to set up national process to implement EU nature directives;
 - Leadership and participation for the process of identifying Natura 2000 sites;
 - Need for National Natura 2000 steering group (or similar) and form and tasks for expert level subgroups;
 - Joint revision of legislation to be compatible for Natura 2000 requirements;
 - Timeline for practical actions.

Also, other key players such as Macedonian Forests and PE Pastures, show high level of interest and motivation for co-operation on political and expert level with MoEPP towards fulfillment of the requirements of the EU Nature legislation.

2. There is strong support for the institutional arrangements that have been recommended by previous consultancies, and most recently in the Macedonian National Strategy and Action plan for Biodiversity Conservation (2018):
 - Nominating "Steering Group for Natura 2000" with consultative and steering function;
 - Establishment of the national Nature Conservation Expert Agency;
 - Appointing Natura 2000 focal point in Expert Institution or MoEPP Department for the implementation of the Birds and Habitats Directives;

Steering group was considered crucial to secure momentum and strong political "push" for timely action and co-operation between ministries and stakeholders. This group would consist of the representatives from different ministries, other government agencies and non-government stakeholders to ensure appropriate decisions at political level, in particular regarding funding of the Natura 2000 implementation process.

New Expert Agency and Natura 2000 Focal point were considered necessary since they would establish stable and continuous expert bodies, "Hubs". They would fill the critical gap in expertise on conservation biology and its accumulation to an 'institutional memory', as well as secure sufficient coordination on technical aspects related to EU nature legislation implementation.

The Focal Point will coordinate the designation processes of Natura 2000 sites, including the SPAs, the protection of species, and the monitoring and reporting of Natura 2000 as well as communication, information and consultation with the public.

3. MoEPP or the newly established Nature Conservation Agency may wish to establish Advisory Working Groups for particular habitat and species groups whose role is to advise the MoEPP on Natura 2000 and especially on defining management principles and measures for habitats and species. Therefore, the recognized experts from scientific and non-governmental organizations would be invited to the WG's in addition to the representatives from sector ministries and agencies. The role of Working Groups will be exclusively advisory.

4. Clear division of responsibilities and competencies between MoEPP, new Nature Conservation Agency and PA management bodies is needed, with the key principles as follows:
 - MoEPP shall be responsible on policy and legal issues acting horizontally with key Ministries and national stakeholders;
 - Nature Conservation Agency would act nationally in a coordinating and method development role, supporting relevant national level organizations and in particular PA management bodies with technical expertise;
 - Protected Area management bodies have responsibility at site level on law enforcement and operational management and monitoring.

5. New permanent separate government budget line is needed to allocate / earmark funds to cover solely nature conservation obligations in Republic of North Macedonia. This core funding for nature conservation would cover new institutional arrangements on national level as well as on PA site manager level. However, PA site managers self-financing mechanism shall remain unchanged, however taken into account that generated income from activities in the protected areas are in full compliance with the requirements of future Natura 2000 requirements.

6. Main criteria in appointing a PA management body is the ability to carry out obligatory nature conservation tasks determined by EU nature directives.
 - In this respect, Macedonian Forests have good potential to be considered as PA site manager for a number of future Natura 2000 sites that contain large areas of forest habitats, especially in the areas which are now on their management responsibility.

7. Pastures are in general considered very high in terms of biodiversity values within EU, and Republic of North Macedonia with abundant and relatively well-maintained pastures could add lot of value for the EU Natura 2000 network. There seems to be clear option for having win-win situation in combining forthcoming national inventories of the pastures (by PE Pastures) and habitat and species mapping required by the EU directives, and the MoEPP and PE Pastures are encouraged to co-operate and agree on the following:
 - EU habitat directives classification and management principles on pastures;
 - Find out how field inventories for the PE Pastures register update and EU habitat directive designation process could be combined (methodology, database, etc);
 - Initiating practical co-operation for example in NP Pelister and PE Pastures eg on management plan;

This would form basis for co-operation for future management of the pastures on Natura 2000 sites, developing eco-tourism, as well as basis for channelling EU subsidies for pastures on Natura 2000 sites. PE Pastures is also preparing a new 10 year National Strategic Program for Pastures where the role of future Natura 2000 sites should be defined and highlighted, since there is already a tendency among shepherds to make a shift towards ecological agri-farming and local eco-products.

8. There is strong support for the concept of developing “Natura 2000 Interpretation Manual” for Republic of North Macedonia. The Manual will aim at constituting national understanding and consensus clarifying in practice how to identify valuable areas and how Natura 2000 sites are to be managed and protected according to Article 6 of the Habitats Directive.
 - The process should be led by MoEPP / new environmental institute (or Natura 2000 Focal Point) and it is important to involve and engage all administrative agencies and relevant stakeholders, scientific bodies and NGOs in the process;
 - The participatory process aims at committing all actors nationally to the Manual and eventually will reduce the conflicts on Natura 2000 implementation on the site level, as well as the need for detailed regulation through secondary legislation;
 - The manual should serve especially Protected Area Site Managers: it is intended to become a practical tool for enforcing the law and for determining the conservation-driven management of the Natura 2000 sites.
 - The manual should guide the process of management planning and defining practical management measures in the future.

3.2. Institutional capacity assessment in Site Level

The Issue

Implementation of the EU’s Birds and Habitats Directives requires the identification and designation of competent authorities to take the necessary measures. EU legislation generally leaves member states a large freedom as to how they organize their administration to implement the EU Acquis. The essential aspect is that the institutions designated to implement the European law are clear, competent and endowed with the necessary capacity, resources and equipment.

Several consultative projects have previously been conducted on the subject, assessing options whether there is a need to establish (a) specific institution(s) for the implementation of the Birds and Habitats Directives, or could existing institutions to do so, and if they should be modified, enlarged or strengthened to meet the needs of implementation.

Based on the evaluation of the national documents for institutional capacity, interviews with national stakeholders and discussions with the beneficiary, the following is a summary of the current situation with recommendations regarding institutional arrangements on a site / protected area management level for the implementation of the EU’s Birds and Habitats Directives.

Current Status

Organization and administration of the protected areas

Currently in the Republic of North Macedonia 86 protected areas have been designated in accordance with the Law for Nature Protection (LNP): 2 strict nature reserves, 3 national parks, 67 monuments of nature, 12 nature parks, 1 protected landscape and 1 multi-purpose area. Protected areas network covers about 9% of the territory of the country.

National protected areas categorization has been prescribed in the LNP, more or less harmonized with IUCN (Table 1); however, noting that at present National Parks does not fulfil the IUCN criteria for category II National Park. The network of protected areas in Republic of North Macedonia is not a coherent system – it covers areas proclaimed in different periods, according to different categorizations and with different goals (NBSAP 2018).

Table 1. Number and area of protected areas in different category of protection (Source: MoEPP, CDDA 2014)

Category of protection according to IUCN	Number of sites	Coverage (ha)	% of the country territory
Ia Strict Nature Reserve	2	7787	0.3
Ib Wilderness Area	-		
II National Park	3	114 870	4.48
III Natural Monument	67	78967.5	3.0
IV Park of Nature	12	3045	0.12
V Protected landscape	1	108	0.04
VI Multipurpose Area	1	25305	0.98
Total	86	230083	8.9

According to LNP, Ministry of Environment and Physical Planning (MoEPP) may award the protected area site manager tasks to accredited legal entities. The law defines requirements on the expertise and prescribes adoption of a rulebook (not yet adopted) to define conditions regarding the equipment and business premises that need to be fulfilled by PA management bodies.

Currently the only operational bodies formed as the main responsible bodies for daily management and conservation are the public institutions of the three National Parks Pelister, Calichica and Mavrovo, and to some extent the Public Enterprise managing Multipurpose Area “Jasen”. Each public institution for National Park consists of the National Park Management Board, Director, expert collegium and the Board for control of finances. The National Park Management Board consists of five members: two staff members of the national park, two representatives of MoEPP and one representative of the municipality.

According to law, non-governmental stakeholders can be involved in a National Park Management Board through the establishment of a Council of Stakeholders and that way having the right to provide opinion on e.g draft management plan for a park. The law also provides for the establishment of Scientific Councils for National Parks. E.g. in Pelister NP these Councils are starting their work in this year.

The Municipality of Resen is nominated to manage the Natural Monument “Prespa Lake” and Park of Nature “Ezerani”. Resen municipality employs efforts to strengthen its management capacity with the support of international projects (UNDP/ SDC). Other municipalities obliged as managing entities of protected areas have not established appropriate management body and face real problems with the enforcement of the legislation on nature protection.

There are some good examples of transferred management right by municipality to a non-governmental organization with adequate capacity, such as the case of the NGO “Izvor” from Kratovo which manages the Natural Monument “Kuklica” and NGO Ursus Speleos obliged by the Municipality of Makedonski Brod to manage the Natural Monument “Slatinski Izvori”.

Funding of protected areas

Funding of protected areas is great challenge because no resources for their funding is allocated from the Budget of the Republic of North Macedonia. The LNP stipulates different manners in which National Parks (Article 141-a) and other protected areas (Article 161) may generate financial resources and keep their own revenues e.g. through fees for entrance, for performance of activity, compensation for use of resources, navigation, logo use on products and services for commercial use, ecosystem services and other sources. National Parks are self-financing institutions, which need to undertake entrepreneurship approach to cover their own expenditures.

Most of the Parks take advantage of the proposed possibilities and support by donors, for the purposes of construction of infrastructure, preparation of management plans and support to technical staff. There is general expectation that investments made in tourist infrastructure development will contribute to the generation of significant revenues for management upon project completion. The tourism potential however varies between PAs significantly. There is also a risk that the need for revenues generation in future might cause diverting the management towards commercial activities which is far from generating revenues required for protection focused management.

Protected area management

Protected areas management plans are prepared by the entity nominated for management within 2 years from the area proclamation, in accordance with the content specified in the Rulebook (Official Gazette of the Republic of Macedonia no. 26/12); they are prepared for a period of ten years (Article 99), and the adoption procedure includes compulsory public consultation through organization of public debates.

Three protected area management plans for NP Pelister (SDC Project), NP Galichica (KfW project) and PN Ezerani (GEF/UNDP/MoEPP Project) have been prepared with the support of foreign donors and adopted by management entities upon prior consent issued by MoEPP. Additionally, draft management plans have been prepared for 7 areas, but have not been adopted yet due to uncompleted procedure adoption of new act to proclaim or re-proclaim the protected area (preparing study for valorisation of nature values). Protected areas that have management plans in place lack external evaluation of their implementation with regard to the achievement of the goals for which the protection has been established.

Spatial plans are adopted for the purpose of regulating and using the space in the protected areas (Article 103 of the Law on Nature Protection) – compulsory for the category of National Park, and as required for other categories of protected areas. The first Spatial Plans for NP Galichica, NP Pelister and NP Mavrovo were adopted in 1988 and they remain valid until the adoption of new plans. In the course of 2011, draft Spatial Plan was prepared for NP Galichica (for the period 2009-2020), and in the course of 2013-2014, the draft Spatial Plan for NP Mavrovo (for the period 2012- 2030), but these have not been adopted yet. Also draft Spatial Plan for Pelister has been prepared in 2018, but its approval is pending for preparation of Study for Valorisation of Nature Values.

Aiming to harmonize the system of protected areas with existing legislation, the LNP prescribes an obligation for revalorization and preparation of new acts for proclamation under the new categorization of protected areas in the period of 6 years starting from 2005. Process includes defining the boundaries of the protected area, different zones and allowed activities within the area – zone of strict protection, zone of active management, zone of sustainable use and buffer belt, as well as entity nominated to manage that area. The re-proclamation procedure has realized very slowly thus only 12 protected areas has passed the process at the moment.

Immediate protection of protected areas is implemented by ranger service established or appointed by the management entities (Article 108), and the manner of protection application is specified in Articles 109-112 and several bylaws. Ranger service has been established only in the three National Parks, Multipurpose Area “Jasen” as well as for PN Ezerani and NM Prespa Lake by the municipality of Resen.

Key findings from Pilot Areas

In order to create realistic and up-to-date understanding of the institutional situation on protected area management bodies, the EU Twinning project organized workshops in March 2019 with its pilot areas, in the National Parks of Calichica and Pelister, and Natural Monument of Prespa Lake managed by Municipality of Resen. The following chapter summarizes the discussions and conclusions, complementing the previous chapters that were collated from earlier consultative project reports conducted on the subject.

1. Organization, resources, way of work

All pilot PA management bodies have limited number of personnel to maintain key administrative responsibilities and patrolling services in the field. All have low human capacity in the field of conservation biology, visitor

management, communications & marketing. Rangers are often tied to forestry activities in national parks and have only limited time available for law enforcement tasks. Also rangers in Resen municipality have another tasks, not only patrolling on the area.

PA management bodies are self-financing entities, Pelister NP is almost fully dependent of forestry income mainly selling firewood for local communities and timber for wood processing companies, whereas Calichica NP get nowadays half of the income from tourism revenue. Resen municipality is in charge of financing the activities in Prespa Lake and Ezerani.

All PAs find it necessary that in the future they should receive governmental funding to secure basic resources especially in nature conservation activities. However, it has to be noted, that there is some concern if this would imply their administrative status and independence. Government funding should be implemented in a way, that different kind of administrations could get it without jeopardising the existing way of financing the activities.

During the last decade project funding has played important role as a source of finances. Projects have in many cases significantly contributed PA via purchases of equipment & vehicles but too often failed to make permanent improvements since investments on human expertise have disappeared when projects ended. Mental ownership of projects and their results is also a topic where is room for improvements.

The concept of ecosystem services was discussed what it may bring as a source of income in the future. It can be concluded, that all PAs already use many ecosystem services to finance their operations, such as firewood, timber, pasture for livestock, entrance fees, income from berry picking etc.

2. Data on the area

Borders and ownership status of PAs are generally well known and documented, and they are mostly available as maps or as GIS layers for the PA management bodies. However, in for instance in Pelister NP it was informed, that land use changes are not always updated in cadaster, e.g. there are a lot of areas which are still classified as pastures although they are overgrowing and becoming forest areas.

Biodiversity data coverage and quality varies. Species list are most reliable, although some of the species groups are not properly inventoried. EU habitat types have not been fully recognized, but Twinning project has supported this work significantly in Pelister and Prespa, where also MES has done habitat mapping. Information on distribution of species and habitats is in general poorly known. Some data on habitats and species occurrences have been collected in field surveys by scientists, NGOs and park managers, but not in harmonized way and data content. Most of this data is on paper archives and not yet in effective operational use for PA management.

Most of the PA management bodies do not have GIS-based databases in place and lack of professional expertise on database management is clear shortage. Nationwide solutions for these problems should be introduced.

3. The role of different actors in management

The management and use of natural resources in PAs are based on land use rights and specific legislation of other government sectors. However, land use rights in the PA are often complex, insufficiently documented and there are unclear procedures how to co-operate between PA management body and other agencies e.g. on forestry, grazing, agriculture and fishing.

According to the Nature Conservation Act, all protected areas shall have management plan endorsed by the Ministry of the Environment. Pelister and Galicica NPs have management plan effective (NB, Pelister NP management plan is outdated and new is under preparation, also Galicica has started updating if management plan), and Prespa PA is in process to finalize the plan in near future. There is some confusion though concerning roles of the PA Spatial Plan and PA Management plan since they are overlapping and create double work.

All PAs have created good relations and trust with local people and key stakeholders. Traditionally NPs have served local people with reliable firewood supplies, areas for cattle grazing, drinking water supplies and other natural sources for wellbeing. In both NPs, co-operation is organized in accordance with the Nature Conservation Act through the Stakeholder Council and the Scientific Council.

Resen municipality in Prespa Lake NM has created strong links with local population, businesses and municipal infrastructure. This provides excellent basis for the holistic PA management and sustainable development, with the potential to promote recreation, nature tourism, environmental education and other activities in the area in the future if the sustainable funding is available.

4. Law enforcement

The most common pressures facing PAs are fires, illegal harvesting, urbanization, garbage, water pollution mainly from agriculture, soil extraction, unauthorized movement and opening of power lines and other infrastructure.

Prespa PA management has succeeded to decrease pressures from agriculture by having increased human and technical capacity and awareness raising among local people, however the agricultural practises are still far from organic farming. In Pelister NP some problems exist on forest fires, mainly expanding from grazing pastures or visitors. In Galicica NP some problems have been observed on illegal construction/urbanization and some illegal harvesting of forests close to Albanian border.

All pilot PAs have shortages on number of rangers to guarantee extensive law enforcement and interacting with local communities for preventive approach. Rangers mandate and role are somewhat unclear to take action in cases of violence.

One important part of law enforcement in Natura 2000 sites (when being as a member of EU) is to conduct appropriate assessment of all kind of project, which suppose to have an effect on values of protected area. This is totally new obligation and challenge, not only to PA administration but for all actors, e.g. other government agencies who has different kind of rights in the protected area or in vicinity. At the moment this kind of biodiversity expertise in the administration can not be found, actually, this kind of conservation biology expertise is still uncommon in the whole country in all administrative levels.

5. Nature Management

All pilot PAs have low experience on active nature management of habitats and species and virtually none ecological restoration activities.

Forestry has been and is common practice in NPs and so far, no major contradictions were considered between the objectives of forest management and the nature conservation. However, the aim for Galicica NP is to reduce the areas of forestry significantly to be able to fullfil IUCN II category as National Park.

Grazing has long history in many PAs and it has created and still maintains pastures and meadows with high conservation values. Grazing has decreased during the last decades thus semi-open pastures have disappeared and natural forest succession is taking place. Protected area administrations have at the moment limited tools for influencing the situation. In many countries EU agri-environmental schemes has support grazing in protected areas.

Invasive species has spread in many areas, e.g. False-acacia (*Robinia pseudacacia*) is the most common and spreading invasive tree species in Republic of North Macedonia. So far there has not been management programs for removing invasive species from protected areas.

6. Visitor management

All PAs have developed some visitor services and infrastructure for recreation and nature tourism eg. parking lots, hiking trails, signs and picnic/resting places. Mountaineering clubs have played important role in introducing services in mountain area and nowadays also more visitor infrastructure is planned and/or built for mountain bikers. However, all PAs lack human capacity and expertise on marketing and communication of services in co-operation with recreation and nature tourism sector.

Pelister NP attracts some 30-35,000 visitors a year. In Pelister NP circa 80% of the visitors are local residents and 10-12% foreign tourists. In Galicica NP strong growth in income generated from recreation/nature tourism took place year 2017-18, as revenue were tripled and reach almost 45% share of PA's total revenue.

Both NPs charge visitors entrance fees, typically it is about 1e / person. The importance of entry fees varies greatly between national parks: in the Pelister NP, entry fees are just marginal income compared to forestry, while In Galicica NP effective collection of entrance fees tripled revenue in 2018.

Prespa PA has organized some environmental education activities with primary schools in the Resen municipality. In both NPs work on environmental education is low due to lack of resources.

Where we should go

Protected area management bodies play key role in the transposition and implementation of the EU Directives. The tasks of protected area management bodies are operational: they are responsible on actual management of Natura 2000 sites, monitoring and research in the field, carrying out appropriate assessment processes and other law enforcement duties. The performance of their tasks directly affects on the implementation of EU's Bird and Habitat Directives on nature conservation.

National park directors, conservation biologists and field rangers in National Parks and other protected areas are also the eyes, ears, and mouths of the nature conservation administration for interaction with local communities and visitors of the area. The importance of protected area management bodies for the social acceptability of Natura 2000 is crucial: it is on their responsibility to create and maintain good relations and trust with local people and key stakeholders.

In order to carry out these tasks successfully, it is important that the government of Republic of North Macedonia will allocate sufficient resources to the protected area management bodies, thus ensuring the core tasks of nature conservation will be met. Protected Area management bodies self-financing schemes and project funding by donors will obviously play important role also in the future, but financing of permanent nature conservation tasks should not be left solely to own income generating activities or project financing.

The management planning process for protected areas needs to be streamlined so that the EU's Bird and Habitat Directives obligations will be always taken fully into account, and duplication of planning between different administration shall be avoided. New obligation to carry out appropriate assessments will require that Protected area management bodies should have expertise to evaluate the possible impact on any planned projects on habitats and species of EU interest, and define mitigative actions which should be taken in order to avoid the reduction of conservation values.

Recommendations

Based on background documents, mission tour's workshops and discussions on pilot PAs, discussions with beneficiary, recommendations are the following:

1. All Protected areas having values of the EU nature directives shall have legal management body with dedicated nature conservation department/ unit / site manager, which has clear mandate to ensure effective conservation and law enforcement.
2. Main criteria in appointing a Protected Area management body is the ability to carry out obligatory nature conservation tasks determined by EU nature directives. Most appropriate organization model on site level should be regarded on a case-by-case basis according to the conservation values, size and management needs of the PA;
3. PA management bodies shall remain independent juridical entities and role as they are currently defined in relevant legislation e.g. their self-financing mechanism should remain as a source of funding for all Protected Area management bodies. However, it is important to assess these sources of funding are in full compliance with the conservation requirements defined by the EU Habitat and Species Directives.

4. In parallel of the self-financing schemes, new additional government financing for the Protected area management bodies need to be increased and earmarked to secure core funding for nature conservation obligations rising from the implementation of the EU Bird and Habitat Directives.
5. PA management bodies capacity shall be strengthened significantly: most important is to increase human and technical capacity on nature conservation biology, database management, visitor management, marketing & communications and on patrolling for law enforcement.
6. Management of Natura 2000 sites, monitoring and research and appropriate assessment processes are tasks that require particular expertise on conservation biology hence conservation biologist(s) should be recruited in Protected Area management bodies. Conservation biologist(s) should have knowledge of the habitat types and species characteristic to the protected area, ability to work in the field for inventories and management planning, as well as good social skills to deal with local stakeholders.
7. Appropriate assessment process carried out on site level case-by-case basis would be laborious and slow process. It is recommended that the appropriate assessment will be carried out on a level of a regional/areal management plan eg. assessing management plan for the forestry or pasture, or other natural resources management in the protected area.

3.3. Funding of nature conservation and management of protected areas

The issue

Effective management and restoration of sites in the Natura 2000 network requires significant investments. Based on data received from 25 Member States it is estimated that a minimum of 5.8 billion EUR per year will be needed for EU-27 to manage and restore the sites in the network. In total, Natura 2000 covers almost a fifth of the EU land area as well as substantial parts of the surrounding seas. Averaged over the terrestrial land area of the network, the total investment needs amount to €63 per hectare per year.

However, these costs are greatly outweighed by the benefits provided by the network. According to recent Commission studies, the benefits that flow from Natura 2000 are estimated to be in the order of €200 to 300 billion/year, or 2 % to 3 % of EU GDP¹⁷. It is estimated that there are between 1.2 to 2.2 billion visitor days to Natura 2000 sites each year, generating recreational benefits worth between €5 and €9 billion per annum. In Europe, around 4.4 million jobs, and €405 billion in annual turnover, are directly dependent on the maintenance of healthy ecosystems, a significant proportion of which is situated within Natura 2000. Although these figures provide only a first estimate, they show that the economic benefits derived from the Natura 2000 Network compares very favorably to the costs associated with managing and protecting this important resource.

The main responsibility for financing Natura 2000 lies with the Member States. It is obvious, that the implementation of the EU Nature Directives in Republic of North Macedonia involves significant costs. Until now, the Government has demonstrated low commitment on investing on nature conservation, and no government budget for Natura 2000 implementation is foreseen with the exception of co-financing of few internationally financed projects that have advanced some preparatory activities linked to Natura 2000 network. A long-term sustainable funding strategy with increased national state budget is needed to ensure core funding for the implementation of Natura 2000.

Current situation

Legal framework for financing nature conservation

The financing of the protection and management of protected areas is regulated by the Law on Nature Protection. Article 161 of the Law covers the fees through which nature protection, that is, protected areas can be financed. In this respect, as the Law stipulates, funds for the protected areas may be provided from:

- protected area entrance and visit fee,
- parking fee in the protected area,
- fee for visits to special facilities in the protected area,
- fee for collection of wild plant species, fungi and animals and their parts and sustainable use of natural resources (management of forest habitats and ecosystems in protected areas),
- fee for the stay in a protected area,
- funds acquired through activities in a zone of active management (Article 105 of the Law) and a zone of sustainable management (Article 106 of the Law),
- fee for performing an activity in a protected area, Ministry of Environment and Physical Planning
- fee for the use of the logo of a protected area on products and services for commercial purposes,
- fee for sailing in a protected area,
- fee from ecosystem services
- other sources (donations, grants, loans, renewable loans, gifts, etc.).

In addition, Article 141-a of the Law on Nature Protection specifies the same fees, but refers to the financing of public institutions – national parks. Article 162 of the Law prescribes that the funds for nature protection, and therefore for the protected areas, may be provided from the Budget of the Republic of North Macedonia and the budgets of the local self-government units.

Annual Environmental Investment Programme

Funding activities in the field of environment and nature is carried out on the basis of the Annual Environmental Investment Programme (Article 172 of the Law on Environment). The programme is prepared in accordance with National Environmental Action Plan (NEAP), Spatial Plan of the Republic of Macedonia, other strategies, programmes and acts in the field of environment and in accordance with international agreements ratified by the Republic of North Macedonia.

The programme includes the preparation of educational, research and development studies, programmes and projects for the protection and improvement of the environment and nature, including projects for the protection of biological diversity and nature, supporting scientific research and raising public awareness and education. The beneficiaries of the programme funds are municipalities or associations of municipalities, legal and natural persons, universities and other scientific institutions, non-profit and non-governmental organizations, non-governmental organizations that implement programmes and projects in the field of environment and nature protection.

Developing additional financial models for sustainable financing of protected areas

In order to ensure sustainable financing of nature protection, and thus of protected areas at the national level, some new models for providing funding has been considered and developed in the Republic of North Macedonia. New financial instruments are included in the National strategies launched 2018, namely in the National Biodiversity Strategy and Action Plan of the Republic of Macedonia (NBSAP) for the period 2018-2023, and in the National Strategy for Nature Protection for the period of 2017-2027.

Pursuant to Article 164-a of the Law on Nature Protection, the payment for ecosystem services is regulated by means of negotiations and is carried out on the basis of a contract. Based on the model, the entity that manages the protected area concludes contracts for collecting National Strategy for Nature Protection ecosystem service fee with all operators who benefit from the ecosystem services. Payments for ecosystem services have two main objectives: first, mobilization of funds for the entities in charge of protected area management and secondly, providing financial incentives for land owners to engage in the preservation of ecosystems.

The following new financial instruments have been introduced to ensure efficient and sustainable financing of protected areas:

- payments for carbon emissions,
- establishment of a Renewable Nature Fund,
- various types of trusts,
- redistribution of existing revenues from taxes, fees and payments from the production and trade in fossil fuels, from the registration of vehicles, water management, etc.,
- Public Private Partnership,
- compensation for damage caused to ecosystems in protected areas,
- fees for bioprospecting, i.e. for the use of resources, paid by companies that cultivate wild species, intended for commercial purposes, etc.
- Using funding opportunities from Prespa-Ohrid Nature Trust

Current national funding for nature conservation

According to the National Biodiversity Strategy and Action Plan (NBSAP) one of the main obstacles to the implementation of biodiversity conservation actions in Republic of North Macedonia is the constrained financial ability. The level of investments in the area of nature protection has been low and does not secure full and constant financial support to the system of biological diversity conservation.

The level of public environmental investments has been on a very low level and even decreasing during 2008-2013 (from EUR 44,3 to 14,4 million). According to NBSAP 2018, government's central budget allocates around 0.15% of environmental demands, posing a major risk for Republic of North Macedonia to comply with the requirements of the EU Habitat and Bird Directives.

Starting in 2007, through the Programme for Environmental Investments every year (except in 2009 and 2012 when the Programme was not adopted), a total of 585 400 euros are awarded from the budget line for biodiversity and nature protection.

Current international funding for nature conservation

Activities for nature protection in the Republic of North Macedonia have been financed to the greatest extent by foreign funds, such as Global Environmental Facility, EU funds, and donations/ grants from other countries, among which Switzerland, Germany, Netherlands, Norway, Finland, Austria, Italy and other countries have provided the most significant support. Significant funds for protection of biodiversity are obtained from private foundations as well. Beneficiaries of these funds and projects are different state institutions, research institutes and international and national NGOs.

In the period 2007-2013, EU funds, through the Instrument for Pre-Accession Assistance (IPA) a number of projects for nature and biological diversity conservation have been awarded support and implemented under the programme for cross-border cooperation between Republic of North Macedonia and the neighbouring countries: Albania, Bulgaria and Greece. Thus, within the cross-border cooperation programme between Republic of North Macedonia and Bulgaria (2007-2013), eight projects were supported with relevance to nature and/or biological diversity conservation, with a total budget of around EUR 2 million. The respective programme with Greece

supported six projects with relevance for nature with a total budget of around EUR 4 million, and with Albania – six projects.

Current funding for Protected areas management bodies

The Law on Nature Protection provides a legal basis for the collection of fees to be performed by the entities that manage the protected areas. The funds from the fees are the income of the entities in charge of the management of the protected area, and are used for performing the activities of nature protection and management in the protected area in which they are collected.

In 2013, in accordance with the Law on Nature Protection, the public institutions NP Pelister, NP Mavrovo and NP Galichica prepared Decisions for determining the amount of entrance, visit and parking fees at a national park, fees for the stay in the park at special designated places for that purpose, fees for the visit of special facilities and collection of wild plant species. The Government of the Republic of North Macedonia has adopted the decisions for granting consent to the decisions for determining the amount of fees at the NP Pelister, NP Galichica and NP Mavrovo. This has enabled national parks to generate revenues from alternative funding sources, which is realized in practice through the collection of national park entrance fees.

During the EU Twinning project Protected Area management bodies, three pilot areas, National Parks of Galichica and Pelister, and Natural Monument of Prespa Lake managed by Municipality of Resen, were assessed in a joint workshop, and summary of their financing is the following:

- Pelister National Park is almost fully dependent of forestry income mainly selling firewood for local communities and timber for wood processing companies, whereas in Galichica National Park the importance of forestry income has decreased significantly during the last years, accounting for about half of the income;
- Natural Monument of Prespa Lake and Ezerani main source of income is from Resen municipality's budget.
- National Parks receive minor income from fees for collection of wild berries, mushroom and game animals and birds. Berry picking (mainly blueberry) is important raw material for local food industry in Pelister NP. Some 150 - 200 000 kg blueberries are collected annually mainly by local people who sell the berries to companies.
- Both National parks charge visitors on entrance fees, typically it is about 1e / person. Income from recreation and nature tourism increased significantly in Galichica National Park during the years 2017-18, mainly due more effective collection of entrance fees, and reached almost 45% share of their total revenue.
- Pelister National Park attracts some 30-35,000 visitors a year, circa 80% of the visitors are local residents and 10-12% foreign tourists. However, in Pelister entry fees play marginal income compared to forestry
- International project funding has played important role as a source of finances during the last decade. Projects have in many cases significantly contributed protected areas via purchases of equipment & vehicles but too often failed to make permanent improvements since investments on human expertise have disappeared when projects ended. Mental ownership of projects and their results is also a topic where is room for improvements.

The evolving concept of ecosystem services was discussed and it was concluded, that all pilot protected areas already apply the concept and they benefit economically from number of ecosystem services to finance their operations, such as firewood, timber, pasture for livestock, entrance fees and income from berry picking.

To sum up, all three pilot protected area management bodies found it necessary that in the future they should receive governmental funding - in addition to their self-financing - to secure core funding to implement increasing and permanent nature conservation obligations. However, it has to be noted, that there is some concern if this would imply their administrative status and independence.

Where we should go

It is necessary that the state allocates significant portion of the budget for nature conservation tasks. The financing needs for Natura 2000 relate to a broad range of measures, necessary for the effective management of the sites. These include "one-off investments" such as land acquisition, restoration of damaged habitats and infrastructure investments and recurring expenditure which primarily relate to habitat management, such as regular mowing of vegetation, maintenance of other land features and monitoring, critical to make the network fully operational.

Estimated costs of financing of implementation of Birds and Habitat Directives

According to Bogner (EU IPA 2017) report the estimated needs for financing of implementation of BD and HD in Republic of North Macedonia are the following:

- Overall costs of future field work related to designation of Natura 2000 sites and also related to collection of information for protection of species are estimated at 1 500 000 EUR; this calculation includes approximately 6000 working days with estimated costs of one working day are 200 EUR (then the sum is 1 200 000 EUR) and additional costs (per diems, gasoline, basic equipment, digitalization of data etc.) of 300 000 EUR;
- Designation of Natura 2000 sites and their management will require financial sources for preparation of technical and legal documents (this includes adequate equipment with computers, GPS tools and GIS software), for meetings and negotiations with stakeholders and other related activities; exact structure of tasks and exact amount of financial needs will depend on number and size of the proposed sites, on ecological needs of protected natural habitats and species, on actual conditions in individual sites and eventual conflicts with other interests;
- Additional administrative costs will include mainly granting derogations from protection of species, collection of data and maintenance of databases with information acquired by monitoring, and costs related to reporting.

According to the estimates of the National Strategy for Environment Approximation, Republic of North Macedonia will need to allocate around 3% of its GDP once it is received in the EU. It has been further estimated that the highest portion of these funds will need to be used for protected areas management.

National strategies call for funding

At the national level, significant strategic commitments have recently been made to increase state funding for nature conservation purposes. Recently launched National Biodiversity Strategy and Action Plan (NBSAP, 2018-2023) and the National Strategy for Nature Protection (NSNP, 2017-2027) call commitments for permanent increase in funding for nature conservation in the state budget.

- NBSAP sets National Target 4 that is to "Increase the level of investments in and funding of biological diversity conservation from central and local budgets and other sources". Indicative budget to implement target 4 is EUR 450 000 per year for permanent funds such as basic funds for protected areas, and in addition, some time-bound funds are needed of which most significant is allocated for the establishment of Nature Protection Agency (EUR 100 000 for the period of 2018-2020).
- NSNP sets National Target 7 that is "To provide continuous and increased financing of the nature protection by budget finances at central and local level, by investments and other sources of financing, through establishment of appropriate sustainable and efficient financing models for protection and sustainable use of nature." The budget estimate for implementing activities under target 7 is around EUR 2,8 million per year for permanent funds, and in addition, number of time-bound funds are needed totalling EUR 7,6 million for the period 2017-2027.

Potential EU funds

Additional potential sources for implementation of HD and BD in the candidate country are EU funds (EU IPA and others) and other bilateral and multilateral funds. After becoming EU member state, the country will get access to whole spectrum of EU funds which reflect needs of nature conservation.

The recent development in the EU shows that environmentally friendly rural development has been often supported. Several EU MS have been very successful in using EU funds for support of measures which are beneficial for both humans and nature. Since 2007, most EU co-funding for the Natura 2000 network has been made available by integrating biodiversity goals into various existing EU funds or instruments. This integrated co-financing model continues to form the basis for EU funding for Natura 2000 in 2014 - 2020, supporting the strategic goals to further embed the implementation of the EU's biodiversity policy into other relevant policy sectors and their financing instruments and, at the practical level, linking biodiversity goals with the broader management of land and natural resources.

The EU funds available for financing Natura 2000 during period 2014 - 2020 include:

- European Agricultural Fund for Rural Development (EAFRD);
- European Maritime and Fisheries Fund (EMFF);
- European Regional Development Fund (ERDF);
- European Social Fund (ESF);
- Cohesion Fund (CF);
- European financial instrument for the environment (LIFE); and
- Framework Programme for research and innovation (Horizon 2020).

It is important to note that under the integrated approach only LIFE provides dedicated support to biodiversity and Natura 2000; all other EU funding instruments are primarily targeted to deliver general EU goals: rural, regional, infra- structural, social and scientific development.

Payments for ecosystem services

European Commission has assessed the ecosystem services of the Natura 2000 network, and examined the overall value of the multiple benefits delivered with Total Economic Value framework methodology. This recognizes that the values associated with the Natura 2000 sites result from their direct use by people (for example in the provision of food, fibre, fresh water and genetic resources, as well as cultural uses such as for recreation) as well as their indirect uses (for example in regulating air, water and climate). In addition, people derive non-use values from the existence of sites and their protection for future generations.

The report concludes that in general ecosystem services assessments are still in a stage where their science base (ecology and economics) is still under development. There are a range of methods to ascertain value, and the values derived themselves can be of different types – from real market values that can feature in companies' 'bottom lines', national accounts and GDP, to values representing wellbeing, which are meaningful at a social level, but invisible to the cash economy. The values also accrue to a wide set of beneficiaries and will have very different implications for protected areas funding. Only a proportion of the estimated benefits of €200-300 billion from European Natura 2000 ecosystem services are reflected in cash transactions, and in reality very little actually accrues directly to protected areas.

This underscores a fundamental issue: while protected areas have value to economies and societies, this value are generally not visible directly and their related benefits rarely pay the site manager. The protected areas are important public goods, creating many private benefits, but generally provide far less return for their ongoing management, maintenance or improvement of conservation status.

Recommendations

1. New permanent separate government budget line is needed to allocate / earmark funds to cover solely nature conservation obligations in the Republic of North Macedonia. This core funding for nature conservation would cover new institutional arrangements on national level as well as on Protected Areas site manager level. In fact, long-term and sufficient quality preparations can only proceed once these new institutional structures - new Nature Conservation Agency and Natura 2000 Focal Point - have been set up and financed.
2. Protected Area management bodies self-financing schemes will obviously play important role in the future, and should remain as a source of funding for all Protected Area management bodies. However, it is important to assess these sources of funding are in full compliance with the conservation requirements defined by the EU Habitat and Species Directives. In parallel of the self-financing schemes, new additional government financing for the Protected area management bodies need to be increased and earmarked to secure core funding for nature conservation obligations rising from the implementation of the EU Bird and Habitat Directives.
3. Performance indicators should be defined and systematically monitored to assess results and effectiveness of the nature conservation institutions. Performance indicators should ideally demonstrate effectiveness of nature conservation measures, such as the conservation status of habitats and species, the number of visitors and visitor satisfaction in protected areas, and the economic impact of protected areas.
4. Evolving new finance mechanisms based on Ecosystem Services should be actively tested and developed in co-operation with other EU countries. However, at present and in the near future, it is unrealistic to build up funding for nature conservation via payments for ecosystem services, but these should rather be seen as long-term prospects as additional financial source for nature conservation.
5. Recreational use and nature tourism are the most potential sources that may provide direct income funding for nature conservation. The attraction factors of national parks and other larger protected areas should be explored together with the tourism sector. Expertise on sustainable nature tourism, marketing and communications should be increased in protected area management bodies. Core funding for nature conservation tasks guarantee sustainability of the tourism development.
6. Communication and awareness raising on multiple benefits of the Natura 2000 is important to increase understanding that investing in Natura 2000 offer real value for money in light of the wide range of ecosystem services on offer. It is important to demonstrate the multiple social as well as economic benefits of a well-managed Natura 2000 Network to encourage all relevant land use sectors and political decision makers to take better account of the value of Europe's natural capital in their decision-making processes.

3.4. Expertise for Implementing the Birds and Habitats Directives

The issue

The Republic of North Macedonia is a candidate country and currently undergoes the process of approximation, with the aim to start negotiations for achieve full member state status. Implementing the EU environmental acquis, EU Directives transposition and implementation, requires appropriate number and qualification of staff in competent authorities on a national and site level. Sufficient and skilled human resources are necessary at an early stage to enable candidate countries to be in a position to implement the EU Acquis from the very first day of membership. Nature protection sector is important because it plays horizontal and cross-cutting role, touching upon many other sectors on environment, land-use and sustainable use of natural resources. The most important need for additional expertise on national and protected area management level is in the field of conservation biology.

Current status

At present environmental authorities responsible on nature conservation tasks on national and site level are insufficiently staffed, as measured against the scope of work and obligations rising from the implementation of the EU Nature Directives. This conclusion is supported by many previous institutional assessments and international and national documents, such as the 5th National Report to the Convention on Biological Diversity (CBD) 2014 that states

- *“...biological diversity protection in Macedonia, both on national and local levels, faces serious challenges related mainly to the lack of financial, human and technical resources”*

After 2014 statements with almost similar content has been repeated for example in the EU-funded IPA-programme final reports by Samec and Bogner (2017), in the National Biodiversity Strategy and Action Plan for the period 2018-2023 (2018) and most recently in the National Strategy for Nature Protection in Republic of North Macedonia for the period of 2017-2027 (2018), emphasizing the necessity of resources so that the country can fulfill its EU obligations.

At national level, the tasks related to nature conservation are handled by the Nature Protection Department in the Ministry of the Environment and Physical Planning. The ministry's duties and expertise are focused on legislation, nature conservation policy and other administrative tasks, and it has been highlighted for a long time, that there is urgent need for establishing new National Agency for Nature Conservation to carry out the technical and expert tasks of nature conservation in the Republic of North Macedonia. The absence of the Nature Conservation Agency has significantly slowed down the technical and nature conservation expertise preparatory work to fulfill the requirements of the EU Nature Directives. However, preparations have been done in stages with project funding as pilots in National Parks and utilizing the nature conservation biology expertise found in Universities and NGOs.

Based on EU Twinning project's workshops with the project pilot protected areas management teams in Resen municipality, Pelister National Park and Galichica National Park, it can be concluded, that Protected Area management bodies will be facing major challenges to meet increasing obligations rising from the implementation of the EU's Bird and Habitat Directives.

All pilot protected area management organizations have limited number of staff and expertise to maintain today's key administrative responsibilities and occasional patrolling services in the field:

- Pelister National Park has approximately 30 permanent employees: 6 people in administrative tasks and some 20 forestry officials, of which most are full time forest workers and only few are rangers responsible on law enforcement and visitor management. In addition, there are some 20 seasonal part time employees mostly in forestry work.
- Galichica NP has 15 permanent employees: 5 people in administration, 4 forestry officials and 6 rangers. Part-time employees are mainly rangers and project workers.
- In Pelister and Galichica National Parks a few part-time biologists have been only very recently recruited by project funding.

In general, protected area management bodies have scarce or missing personnel in the field of conservation biology, visitor management, communications & marketing expertise. Furthermore, PA management bodies suffer on limited number of rangers to work on law enforcement duties and nature and visitor management. Rangers in National Parks are often fully tied to forestry activities. This means rangers usually have limited time available for patrolling e.g. controlling unsustainable or even illegal activities in the protected area or supporting nature or visitor management and environmental education.

To sum up, the lack of knowledge and capacity at national and protected area site level is most prominent in conservation biology professionals. Another important area of expertise with gaps is the knowledge of recreational use and nature tourism, especially in national parks and other protected areas which have high

potential to develop nature based tourism and recreation services. At protected area site level, there is a shortage of rangers for law enforcement and patrolling, as well as with expertise in nature management / ecological restoration and construction and maintenance of recreational and nature tourism infrastructure.

Where we should go

Successful implementation of the EU environmental acquis, EU Directives transposition and implementation requires appropriate number and qualification of staff in competent authorities on a national and site level. Sufficient and skilled human resources are necessary at an early stage to enable candidate countries to commence a number of measures to apply the rules, such as the identification of habitats and prepare proposals for the sites to be include Natura 2000 network, the identification of species and their respective status of conservation, or the establishment of appropriate monitoring systems.

The procedure of designation of sites according to Habitats and Birds Directives, leading establishment of the Natura 2000 network requires different measures and expertise from the responsible administration for implementation. The following describes briefly the main tasks regarding the implementation of the Birds and Habitats Directives and the responsible administration that has been proposed to perform these tasks. Some of the tasks are preconditions for EU membership and must therefore be implemented before the EU membership, and some are permanent tasks related to the implementation and monitoring of the Directive.

Designation of sites pursuant to the Birds Directive is in the responsibility of the MoEPP, engaging other stakeholders and receiving contribution from these, especially from the administrations of National Parks and other protected area administrations, academic, scientific and research institutions and NGOs. Adequately prepared proposal of SPAs is a prerequisite for the EU accession. The work progresses through the following steps:

- preparation and adoption of the reference list (current status: almost finished, further updates may be possible);
- desktop data inventory and field data gathering (current status: desktop stage finished, continuous updates needed);
- proposal and designation of SPAs, including consultation in advance with other ministries, relevant municipalities and other relevant bodies (current status: an early stage, to be elaborated before EU accession);

Designation of sites pursuant to the Habitats Directive is in the responsibility of the MoEPP, engaging other stakeholders and receiving contribution from these, especially from the administrations of National Parks, academic, scientific and research institutions and NGOs. Adequately prepared proposal of pSCIs is a prerequisite for the EU accession. The work progresses through the following steps:

- preparation and adoption of the reference list (current status: almost finished, further updates are necessary);
- desktop data inventory, habitat mapping and species field data gathering (current status: partially finished, continuous updates needed);
- proposal of pSCIs, including consultation in advance with other ministries, relevant municipalities and other relevant bodies (current status: partly completed, proposals of European Areas to be elaborated before EU accession);
- adoption of SCIs and designation of SACs (current status: this activity will be implemented after accession to the EU).

Management of Natura 2000 sites cover measures for conservation and protection of sites and their target features (natural habitat types, species and their habitats), and set rules for the appropriate assessment of plans and projects. Numerous guidelines are available on the EU level for the use and application for the site managers.

Conservation and management of potential SPAs and potential European Areas (pSCIs, SCIs and SACs) are in direct responsibility of the MoEPP, together with MAFWE, administration of National Parks, PE Macedonian Forests, PE Pastures and municipalities, and indirectly other administrative bodies within implementation of their policies and competencies that have any impact on nature.

As for the time line for the implementation, management of Natura 2000 is a long-term task which should be implemented on the basis of dedicated discussions between administrative bodies, conservation experts and other relevant stakeholders (Refer to Natura 2000 Interpretation Manual).

Protection of Species is second pillar of Habitats and Birds Directives, formed by rules on protection of individual specimen, populations and habitats of species. Whereas the Habitats Directive provides rules for strict protection of listed animal and plant species, the Birds Directive regulates general protection of all bird species that are naturally occurring in wild state in Europe.

Established system of protection of birds in accordance with requirements of the BD and plants and animals in accordance with requirements of the HD, including rules on derogations, is a condition which needs to be fulfilled prior to EU accession.

As a competent authority the MoEPP has been proposed to take responsibility on implementation of the protection of species. The legal regime of birds and animal species is also influenced by the Law on Hunting (LH) which sets rules for hunting and lists of game species, including birds. Therefore, the other responsible administrative body is MAFWE.

Appropriate assessment is a complex task for both transposition and implementation. Previous reports suggest that new unit with adequate staff should be established within the MoEPP to take responsibility on the administration for implementation of the AA. As for the time line for the implementation, applying the principles of Appropriate Assessment should be harmonized with designation procedure of Natura 2000 sites and applied since its initial phase to ensure adequate protection.

Monitoring, research and reporting according to the EU Habitats and Birds Directives contain various provisions used for analysis of effectiveness of protection and conservation measures, and for information of all stakeholders and wider public by the European Nature Information System (EUNIS) and the Biodiversity Information System for Europe (BISE).

According to proposal of a new LNP, monitoring of the nature protection - birds, habitats and species - can be performed by accredited legal entities (protected area site management bodies), which fulfil the conditions prescribed with the provisions of the law. Proposal of the new LNP further states that the Minister in consent with the Minister managing the body of the state administration responsible for the affairs of forestry, hunting and fishery shall adopt measures to ensure that the taking in the wild and exploitation of protected species is compatible with the maintenance of their conservation status that, in case of European species, is favorable.

Further action is needed to adopt the methodologies for monitoring and initiate the process of accreditation of legal entities which may undertake the task. Regarding the time line for monitoring and research these are long-term tasks which should be implemented on the basis of dedicated discussions between administrative bodies, scientists and other relevant experts.

Birds and Habitat Directives contain several requirements reporting to the EU. The main tasks are annual (BD) and biannual (HD) reporting on derogations from protection and reporting on overall implementation every three years on BD and every six years on HD. Reporting obligations are relevant for MS but for the purpose of transposition in candidate country, it is recommended to include these obligations into national legislation and eventually link their entry into force to the EU accession.



New tasks require new organizational structures and capacity

Establishing Natura 2000 Focal Point (unit of experts) for the implementation of the Birds and Habitats Directives has been suggested as the main measures for improving the administrative capacity. Natura 2000 focal point would be placed in the proposed new Nature Conservation Agency (or in the MoEPP Department). This would establish stable and continuous national expert body and fill the critical gap in expertise on conservation biology and its accumulation to an 'institutional memory'.

Natura 2000 focal point would support relevant national level organizations and in particular protected area management bodies with biological expertise as well as secure sufficient coordination on technical and administrative aspects related to EU nature legislation implementation. Natura 2000 focal point should provide long-term capacity-building for other administrations and protected area site managers that have responsibility at site level on law enforcement, operational management and monitoring.

To summarize the main roles, the Natura 2000 focal point role is coordinative, taking responsibility to implement the following tasks:

- Designation of sites pursuant to the Birds Directive and Habitats Directive;
- Management of Natura 2000 (national coordination and guidelines);
- Protection of Birds and Species;
- Reporting
- Nature 2000 database management (National Information System for Nature);
- Leading Appropriate Assessment process
- Communication and awareness

PA site management bodies role is operational, taking responsibility to implement the following tasks:

- Management of Natura 2000;
- Appropriate Assessment in site level;
- Monitoring and Research

Regarding protection of birds and species it has been suggested, that a civil servant should be nominated (within the MoePP) who will be responsible for the agenda of granting of derogations related to protection of Birds and Species.

Specific areas of expertise from the responsible administration is required to ensure the quality and timely implementation of the procedure of designation of sites according to Habitats and Birds Directives, and eventually establishment and effective protection of the Natura 2000 network. Key knowledge required can be summarized as follows (Samec 2017):

- legislative and technical aspects of Natura 2000 designation process, including detailed knowledge of requirements of HD and BD and awareness about relevant guidelines and CJEU case law;
- methodologies for habitat mapping and species surveys;
- techniques for delineation of Natura 2000 sites with GPS tools and GIS software;
- ecological, legal and administrative aspects of appropriate assessment of impacts of plans and projects on Natura 2000 sites;
- ecological, legal and administrative aspects of protection and conservation of natural habitats and species, including requirements on their utilization and granting of derogations;
- monitoring and research of natural habitats and species, including database maintenance and utilization;
- legislative and technical aspects of reporting according to HD and BD;
- relation of HD and BD to other EU legislative acts such as SEA Directive, EIA Directive, Water Framework Directive, Environmental Liability Directive, Environmental Crime Directive, INSPIRE Directive and rules related public participation; and
- participatory approaches (stakeholder analysis, designing of stakeholder involvement plans, messages for key target groups etc.), presentation skills (including training for public hearing and contact with media), negotiations techniques and conflict management.

Expertise in the aforementioned tasks requires a significant recruitment effort in particular for conservation biology professionals. Conservation biologists work in the field and office, in government, universities, non-profit organizations and industry, but this profession is currently under-represented in the Republic of North Macedonian Nature Conservation Administration. Conservation biology is the management of nature and of [biodiversity](#) with the aim of protecting [species](#), their [habitats](#), and [ecosystems](#) from threats to avoid the erosion of biotic interactions, and the negative effect these are having on our capabilities to sustain the well-being of human society. It is an interdisciplinary subject drawing on natural and social sciences, and the practice of [natural resource management](#).

Recommendations

1. In the Republic of North Macedonia, the most critical investment for nature conservation is to strengthen administration with sufficient and knowledgeable personnel, especially recruiting conservation biologists. There is a need to strengthen staff at both national level organizations, in particular when establishing proposed new nature conservation agency and its Natura 2000 focal point, as well as at site level in protected area management bodies.
2. Nature conservation sector in the Republic of North Macedonia needs long term human resource development plan, setting prospects of the vacancies and qualifications required in national level (MoE/Agency) and Protected Areas site management level, as well as training program for current staff to develop professional skills.
 - It is advisable to invest in permanent core personnel from the very early stages of the designation process to build long-term institutional stability and to accumulate knowledge on how manage the entire process. Eventually when entering the EU membership there should be full permanent human capacity in

place to ensure long-term tasks and core administrative functions related to the management of the Natura 2000 sites, protection of species, monitoring, research and reporting as well as communication and awareness.

- Responsible employees of administrative bodies should be trained on detailed knowledge of legislative and technical aspects of Natura 2000 designation process. Training of the current staff and recruitments of new skilled staff is necessary before and during the designation of sites pursuant to the Birds and Habitats Directive.
 - Temporary / fixed-term staff recruitments, hiring consultants or purchasing external services would be most appropriate to implement cyclical or project-based tasks, such as field inventories or investments on e.g. National park's visitor facilities.
 - As a result of temporary/ fixed-term recruitments, the "critical mass" of nature conservation professionals with pragmatic approach in the Republic of North Macedonia will increase, and allows organizations to recruit high level professionals for various new nature conservation tasks on Protected Area site level.
 - Universities shall update their curriculums and increase education on nature conservation sciences, in particular on conservation biology and practical management of protected areas, to satisfy growing demand in labor market. Nature Conservation administration shall co-operate with academies and high schools to develop curriculums based on forecasts on labor qualifications.
3. On the National level, emphasis in recruitments should be placed on the conservation biologist knowledge on nation-wide expertise on certain habitat types, such as forests, pastures or water ecosystems, and/ or key species groups, such as vascular plants, birds, mammals, invertebrates, fungi, lichen etc.
 - For very specific, narrow expertise, such as profound knowledge of the ecology of rare species, it is most appropriate to recruit conservation biologist(s) whose expertise can be used in the whole country.
 - National level expert's key function would also be to build and maintain active, continuous co-operation with other sectors. Therefore, it would be crucial that experts on national level organizations have profound knowledge of other key sectors regulations and practices related to nature conservation and the use of natural resources, especially forestry, pastures, water use, recreation and nature tourism. They should also have good coordination, interpersonal and negotiation skills.
 4. Conservation biologist expertise is needed also on the site level in Protected Area management bodies. Emphasis here should be placed on the knowledge of the habitat types and species that are characteristic to the protected area in question, ability to work independently in the field as well as familiarity with local stakeholders. Tasks on site level are typically operational and would require eg. the following skills:
 - practical, field-oriented knowledge in particular on habitat mapping, species surveys and inventories of the protected area in question; techniques for delineation of Natura 2000 sites with GPS tools and GIS software;
 - skills to prepare and implement specific operational management/action plans for active habitat conservation or ecological restoration; ability to support appropriate assessments procedures in the protected area.
 5. Protected area "umbrella" management bodies, such as Macedonian Forests and PE Pastures, as well as municipalities, may consider forming "headquarter expert team" to act as a common resource, with the function to support all site management bodies on their operational field-related work in site level. Headquarter expert team may be responsible for common tasks such as annual planning, database development and reporting obligations, as well as operations that require specific expertise, such as profound knowledge of the ecology of rare species.
 6. Conservation biologists are key profession to be recruited to ensure effective implementation of the EU Bird and Habitat Directives in Republic of North Macedonia. Conservation biologists are needed on national level organizations and on the site level in PA management bodies, and generally following qualifications are important:

- expertise/knowledge on habitat type identification, planning and carrying out inventories in the field, managing GIS-based databases, ability to develop species conservation;
 - expertise/knowledge on nature management/ ecological restoration, ability to carry out appropriate assessments and assess external pressures threatening Bird or Habitat Directive / Natura 2000 site values;
 - skills on stakeholder involvement/communication to successfully deal with other affected administrations and businesses on nature conservation, tourism and other sustainable use of natural resources;
 - ability to develop assignments/supervise / monitor quality for consultancies and outsourced services (consultants, NGOs etc) in the field of nature conservation.
7. Non-governmental organizations (NGOs) play important role in civil society and their involvement in the process to implement EU's Bird and Habitat Directives is crucial for the sake of administrative transparency. Many non-governmental organizations have information about different habitats and species, such as birds, and this "citizen science" should be utilized in an appropriate and fair manner. Organizations often act as independent and their source of income is membership fees and state subsidies. Therefore, it would be justified that government will support the NGOs activities through the aid schemes.
8. At Protected area site level, there is a shortage of field workers and rangers with expertise or technical ability to support nature management / ecological restoration, building and maintenance of recreational and nature tourism infrastructure, and law enforcement.
- Field workers / rangers shall have good skills on social interaction since they play crucial role in maintaining daily and practical contacts with local people and actors in the Protected areas and its surroundings. Rangers shall be equipped and trained to use new technology e.g. hunting cameras, drones and social media to monitor Protected Areas;
 - In order to promote and communicate of the benefits of Natura 2000 and ecosystem services for local people and wider public, it is important to strengthen the expertise on visitor management / communication / marketing, especially in national parks and other protected areas with potential for recreation and nature tourism.
9. Most important cost element in nature conservation is staff working time thus it should be systematically monitored and analyzed in all levels in nature conservation organizations by time sheets and other tracking tools. Many of the nature conservation tasks are completely new for nature conservation sector and time tracking will provide valuable information for the annual planning, monitoring and reporting (labor cost, productivity) of the core tasks related to Natura 2000 network as well as developing and managing projects.

3.5. Natura 2000 Habitat Interpretation Manual

The Issue

The aim of the Natura 2000 network is to secure conservation of the habitat types and living environments of species specified in the Habitats Directive (92/43/EC) and special protected areas defined by the Birds Directive (79/409/EC). Natura 2000 sites are to be managed and protected according to Article 6 of the Habitats Directive, in particular to meet the requirements to:

- take appropriate conservation measures to maintain and restore the habitats and species for which the sites have been designated, to a favorable conservation status;

- avoid such damaging activities that could significantly disturb these species or deteriorate the habitats of the protected species or habitat types.

It should be noted, that designation of Natura 2000 always implies avoidance of any damaging activities that could significantly disturb species or deteriorate the habitats of the protected species or habitat types - irrespective of the national category of protected area or zone where the habitat or species is located.

Conservation measures or other activities on each individual Natura 2000 site shall target at maintaining or improving the ecological requirements of the habitat types and species listed in the Natura 2000 standard data forms (SDF). Fulfilling SDFs for individual SPAs requires an indication of threats, pressures and activities with impacts on the site, and this creates basis to considerations about the future site management. The SDF form is however designed for administrative purposes mainly and is not intended to be used as a practical tool for defining on-site management measures. Therefore, additional guidelines, referred here as “Natura 2000 Interpretation Manual”, would be necessary to support implementation of practical conservation measures on the ground by the Protected Area management bodies.

Current situation

Currently there is quite low level of experience on management measures that aim at maintaining and/or restoring the habitats or species conditions towards favorable conservation status in the Republic of North Macedonia. Similarly, there is lack of information on the actual impacts of different land uses and natural resource uses on habitats and species listed in the EU Directives.

The provisions of the Bird and Habitat directives must be adhered to and taken into account in future management of the Natura 2000 sites. However, these are not yet clear for protected areas site managers and other stakeholders. There are questions for example concerning what the implications of Natura 2000 sites on different protected area zones would be. There is also lack of guidance on how to assess impacts of projects and plans inside and outside Natura 2000 sites, in order to guarantee consistent appropriate assessment procedures and definitions for possible compensations. These issues are particularly important for forestry, pastures, hunting and different uses of waters in the future Natura 2000 areas.

Some relevant scientific and expert knowledge information on conservation biology already exists that can be used to elaborate management guidelines for Natura 2000. Also, new Fact Sheets on Birds, Species and Habitats that have been elaborated by EU Twinning Project provide good knowledge base for the guidelines.

Where should we go

Until now co-operation between different sectors utilizing and protecting natural resources in the Republic of North Macedonia has been limited in all levels - on political level as well as on site management level. To ensure cost-effective and consistent implementation with high level of consensus from national political level down to practical local level of the contents of the nature conservation EU directives all over the Republic of North Macedonia, it is recommended that the Natura 2000 interpretation manual will be elaborated.

Natura 2000 Interpretation Manual aim at constituting national understanding and consensus clarifying in practice to all actors how Natura 2000 sites are to be managed and protected according to Article 6 of the Habitats Directive. The process should be led by MoEPP / new environmental institute (or Natura 2000 focal point) and it is important to involve and engage all administrative agencies and relevant stakeholders, scientific bodies and NGOs in the process. It is recommended that the process of developing the Natura 2000 Interpretation Manual includes collaboration with nature conservation experts from other EU countries in the biogeographical area to learn lessons and build on best practices and experiences.

The participatory process aims at committing all actors nationally to the Manual and eventually will reduce the conflicts on Natura 2000 implementation on the site level, as well as the need for detailed regulation through secondary legislation. It is recommended that the MoE will endorse the manual.

The manual should serve especially Protected Area Site Managers: it is intended to become a practical tool for enforcing the law and for determining the conservation-driven management of the Natura 2000 sites. It should cover all relevant habitats and species defined in EU Habitats Directive found in the Republic of North Macedonia and serve all Protected Area site managers, regardless of the type or size of protected area. Based on the systematic monitoring of the impacts of the specified conservation measures on target habitats and species, the Manual shall be updated to reflect the latest knowledge every 5-10 years.

The starting point in developing the Manual shall be research data on the characteristics, structure and dynamics of the natural habitats and species habitat requirements. Based on this, different management options will be described, including no intervention, directing site use by buffer zones or similar, active restoring and managing of habitats, or drawing up specific management/ operational plans. The manual should focus first on those habitats and species that require most urgent conservation.

Before the Manual has been formally endorsed, it would be advisable to apply precautionary principle thus to avoid any potential damaging activities or untested/ unsecure active management measures that could disturb or deteriorate habitat types or species.

Recommendations

The Natura 2000 Interpretation Manual should have the following content:

1. Description of all Natura 2000 habitat types encountered in North Macedonia, presenting each habitat type definitions adopted by the EU Commission, and more elaborate description prepared by the national experts, adapted to the biogeographical region, as well as list of typical and endangered species related to the habitats.
2. Management guidelines that give practical guidance how site managers may support maintenance of the favorable conservation status within the site, and more specifically, what kind of active measures can be done to maintain or improve the state of habitat types or species. Manual should give concrete information on measures that are needed on site-level conservation, for example grouped as follows:
 - establishing no active intervention areas - to ensure prevailing state of the habitat types and species;
 - directing site use - to ensure prevailing state of the habitat types and species;
 - restoring and managing habitats - to maintain, increase or enhance the extent and/or quality of the habitat type or species living environment/ vitality of the population
 - measures will also include drawing up appropriate management/operational plans that are specifically designed for the sites or integrated into other development plans.
3. Clarification of the provisions of the directives that they must be adhered to and taken into account in management of all the Natura 2000 sites, for example in all PA categories and all PA zones, as well as in land use activities outside the sites. This is particularly important for forestry and pastures in future Natura 2000 areas.
4. Guidance on how to assess impacts of projects and plans inside and outside Natura 2000 sites, in order to guarantee consistent appropriate assessment procedures and definitions for possible compensations.
5. Procedures for co-operation between Protected Area Management bodies and other authorities in the area for planning, implementation, monitoring / supervision, for example to receive best available support from experts on conservation biology.

3.6. Management planning

The issue

General aim for protection of habitats and species of European Community Importance, listed in the Habitats and the Birds Directives, is to reach and maintain favourable conservation status of habitats and species. One part of this is to establish a network of protected area, called Natura 2000 sites. According to Habitat Directive "Measures taken pursuant to the Directive shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest". In practise it means that Natura 2000 sites require appropriate (sometimes active, particularly when some threats exist) management and governance.

Management plan is not mandatory document for management of Natura 2000 sites, but it is broadly used in the EU countries. According to Habitat Directive, Article 6 "For special areas of conservation, Member States shall establish the necessary conservation measures involving , if need be , appropriate management plans specifically designed for the sites or integrated into other development plans, and appropriate statutory, administrative or contractual measures which correspond to the ecological requirements of the natural habitat types in Annex I and the species in Annex II present on the sites." The same approach applies also for SPA areas based on Bird Directive. The same Article also set requirements for active management when needed and to make appropriate assessment for the projects and plans which might affect the values of the Natura 2000 area.

Current status

Legal situation. At the moment protected areas (each protected area) in the Republic of North Macedonia need to be provided with Valorization Studies of nature values and Management Plans. Preparation of these documents are very strictly regulated by the Law on Nature Protection ("Official Gazette of Republic of Macedonia" no. 67/04, 14/06, 84/07, 35/10, 47/11, 148/11, 59/12, 13/13, 163/13, 41/14, 146/15, 39/16.63/16) and Rulebooks: (1) Rulebook on the content of the management plans for protected areas and annual programs for nature protection ("Official Gazette of the Republic of Macedonia", no. 26 from 21.2.2012); (2) Rulebook on the contents of the Valorization or Revalorization study for the protected area ("Official Gazette of the Republic of Macedonia, no. 26 from 21.2.2012)). The rulebooks define exactly even amount and names of chapters to be prepared.

For National Parks also a spatial plan is required based on the Law on Spatial and Urban Planning ("Official Gazette of the Republic of Macedonia" No. 199/14, 44/15, 193/15, 31/16, 163/16). The content of the Spatial Plan is determined in accordance with article 8, paragraph 2 on that law.

Resources needed. Valorization Studies of nature values and Management Plans to be prepared according the legal documents have had large volume, so preparation of them requires long time and a lot of financial and human resources. On the other hand, there is a lack of financial and human resources for preparation of the plans. Mostly preparation of Valorization Studies and Management Plans are financed (granted) by international projects, funds (such as EU funding, PONT, etc.) and made by national or foreign consultants/experts.

On the other hand, there are good expertise in the Republic of North Macedonia for preparation of previously mentioned documents. Valorization Studies for nature values and Management Plans for protected areas have mainly good scientific background, even though distribution data on habitats and species is seldom available. They are based on a logical, appropriate structure and the document forms a comprehensive document. However, it has to be mentioned that existing plans has more scientific approach than practical shape.

Analysis of the process. The process for preparation of Valorization Studies of nature values and Management Plans is quite complicated:

- **Process is long and slow.** It requires 1-2 years for preparation of one document and additional years (sometimes 2-4) for official approval;
- **Two documents for one protected area** shall be prepared: Valorization Study of nature values and Management Plan. Each document has a big size, volume (more than 100 pages each), so there is a need to involve a large amount of human resources (20-30 experts) of different topics, even though all aspects does not have real influence on the management of the area;
- **Duplication of information.** A big volume of the same information can be found in both of the documents prepared for the same protected area;
- **For National Parks Spatial plan is also required.** It is mostly duplicating the content of protected area management plan and the hierarchy of the plans is not always clear.
- **Management Plans are not realistic.** The plans are large documents with a lot of proposed actions (sometimes more than 100 action in 10 year period), but there is only a small amount of concrete management measures for real protection of natural values, and only some proposals are based on available realistic financial resources. Proposed actions are very seldom implemented as such;
- Sometimes there is **no time or resources for new inventories and research of the area**, so old data from literature are used and replicated. There is no official database on the species and habitats of the protected areas. Main part of the data can be found from publications and paper maps.
- **The approach for traditional zonation and the requirements raising from the Habitat and Bird Directives are sometimes incompatible.** Management of Natura 2000 sites should be based on the management principles of each habitat type and species, not only the general objective of management zones.
- **Management plan** is a mixture of strategic spatial planning and planning of the work of the administration, in many cases the daily function of management body. These two aspects should be separate clearly on each other in the document.
- **Management plan** contains detailed budget for the activities for 10 years time period. In many cases the implementation requires detailed planning and real estimation of the cost of actions can not be done and should not be done in management plan but in action plans. Detailed cost estimations should not be a target for approval by the Ministry of Environment and Physical Planning.
- There is **no tradition on action plans.** In practise different level of planning documents are needed for efficient management of Natura 2000 sites. Taking into use the concept of action plans fasten the time for preparing management plans and make those more strategic documents.

Management Plans are necessary for special purposes related to conservation of nature values not just for implementing of formal procedures. Usually for effective protection of values, special actions need to be planned and implemented in time, there is no time to postpone real management measures. In other case nature values can be lost. In all cases financial and human resources should be used rationally and effectively.

Conclusions:

- Existing planning process requires enormous human and financial resources as well as a lot of time;
- Databases are not supporting the planning process;
- There is no need to duplicate completely the same information in Valorization Study of nature values and in Management Plan for the same protected area, but to prepare only one document;
- There is no need to officially approve existing situation, data and results of scientific research (Description of the area), which forms the biggest part of Valorization Study of nature values and a key part of Management Plan. The approved part of plans should be only strategical chapter of the document including zonation, management principles and main management activities.
- Contradiction with zonation and habitat and species management principles need to be solved in legislation
- Concept of action plans should be introduced.

Where should we go

It is important to take into account that the goal to maintain natural habitats and species at the favourable conservation status in Natura 2000 sites requires flexible, effective, fast and prompt planning procedure and practises. There should be ability to make several plans on same time in the country; in Lithuanian case 100 nature management plans were needed to be prepared in one year time frame. When becoming a member of European Union, no risk to lose time for protection of natural habitats and species of European Community Importance in danger can exist. It means that real actions for protection of species, habitats need to be proposed and implemented in time based on approved management plans and action plans. And financial resources should be available and used effectively.

There is a need to be flexible:

- To have a possibility to take fast decision to implement actions for protection of nature values (species, habitats) of European Community importance;
- To have a possibility to choose the best way: the shortest and the most effective one, rationally using financial resources.

It is very important to change an attitude to the Management Plans. They might become real ones concentrating on biodiversity issues for helping managers of protected areas/Natura 2000 sites maintain the natural values, but not to remain just formal documents, collection of general data and statements.

Recommendations

For making process of preparation of Management plans, including Valorization Studies of nature values more simple ones there is a need to re-write the Law on Nature Protection (“Official Gazette of Republic of Macedonia” no. 67/04, 14/06, 84/07, 35/10, 47/11, 148/11, 59/12, 13/13, 163/13, 41/14, 146/15, 39/16.63/16) and particularly Rulebooks:

- Rulebook on the content of the management plans for protected areas and annual programs for nature protection (“Official Gazette of the Republic of Macedonia”, no. 26 from 21.2.2012)
- Rulebook on the contents of the Valorization or Revalorization study for the protected area (“Official Gazette of the Republic of Macedonia, no. 26 from 21.2.2012)

Correction of legal acts might foreseen:

1. The need to be more flexible in different situations. It would help to save time, financial and human resources, but the most important – it would help to protect nature values in time eliminating threats. It is possible to apply different processes for planning (valorization) of Natura 2000 sites in different situations:
 - When the Management Plan already exists for Protected Area (National Park, Nature Park or Nature Monument), actions, measures for protection of values (species, habitats) of Natura 2000 areas can be integrated into existing Management Plan of Protected Area as amendment or as just correction of some parts, e.g. management program for biodiversity;
 - To prepare separate Management Plan for Natura 2000 site focusing on the values of which they have included to the network;
 - To prepare Management plan only for a part of Natura 2000 site if it is necessary to have special management actions in the area;
 - When there is enough data on habitats or species, to prepare just Management Plan (without Valorization part): to set the vision, goals, objectives and propose real actions needed;
 - To prepare Management Plan of Protected Area as physical planning document together with proposals for Natura 2000 site management actions and measures;
 - To prepare other strategic documents such like action plans for writing actions to be implemented as soon as possible if there is an urgent need to eliminate existing threats.

2. Prepare one document – Management Plan in all cases, instead of two (Valorization Study and Management Plan) separate;
3. Management Plan should be short and clear document for daily work. It means to have clear concept/vision based on the main values and goals of Protected Area/Natura 2000 site, actions for real biodiversity protection of the area.
4. Possibility for administrations of Protected Areas to prepare Management plans of Protected Area/Natura 2000 site.
5. The level of approval of different Management Plans and/or Action plan could be different.

3.7. Appropriate assessment

An issue

An effective process of conducting appropriate assessments is one of the most important processes that the Habitats Directive obligates the Member States. It has a central role in ensuring that the general prohibition to deteriorate those natural values for which the site have been designated as part of Natura 2000 network is effective. Every project or plan that might have a significant negative impact on any Natura 2000 site must go through a process of appropriate assessment. This requires smooth cooperation between authorities dealing with permits of different types and certain level of training so that projects are effectively screened for their potential need for appropriate assessments. And that the projects also enter the process of appropriate assessment, if need be.

Current status

The Republic of North Macedonian authorities have experience in EIAs and SEAs, both of which are assessment processes with significant amount of analogy with appropriate assessments. However, the content of appropriate assessment is very different and only focused on Natura 2000 sites, or sites that have been proposed to be designated Natura 2000 sites. It also considers only the natural values for which the site has been included in Natura 2000 network. This process does not exist and the administration of the Republic of North Macedonian would need capacity building at all levels, including municipalities, to be able to deal with the process. Training would be needed also for consultants who would have a new kind of assessment to do.

One prerequisite for a functioning appropriate assessment process is a GIS-database with the delineations of the Natura 2000 sites and, at the minimum, the habitats and species for the protection of which they have been included in the Natura 2000 network.

Where we should go

Effective and smooth administrative process that ensures proper implementation of the Habitats directive Article 6. Enough resources (human and money) reserved for the continuous implementation of the legislation and sufficient resources for training and development of the process.

Recommendations

1. Adaptation of new law on Natura Protection and a rulebook for appropriate assessment
2. The Republic of North Macedonian administration would need capacity building at all levels, including municipalities, to be able to deal with the appropriate assessment process
3. Training for consultants who would have a new kind of assessment to do
4. Effective and clear transposition of EU legislation
5. GIS-database with the delineations of the Natura 2000 sites and, at the minimum, the habitats and species for the protection of which they have been included in the Natura 2000 network.

4 Study tours

4.1. STUDY TOUR TO FINLAND

Timing 22 - 29 SEPTEMBER 2018

General recommendations based on the findings during the study tour to Finland by RTA

1. Protected area management and nature conservation should be primarily financed from the state budget complementing with other sources.
2. A competent expert body for nature conservation should be established for developing methods, creating GIS systems and training people for nature conservation, with sufficient funding and personnel. It should compile national habitat interpretation manual, decide the data content (parameters) for habitat and species inventories and draw protocols for monitoring.
3. Proper management of protected areas and Natura 2000 sites requires substantial increase in human resources and educated people (natural sciences) to work in the responsible authorities.
4. The role of government institutions should be evaluated and overlapping of responsibilities minimized. Responsibility for management of protected area should be solely in the nominated protected area administration in charge.
5. It is necessary to invest in new technology, e.g. create national databases on habitats and species with GIS and introduce remote sensing and Lidar technology.
6. It is recommendable to develop a new model for the zonation in management plans for protected areas and Natura 2000 sites using experiences e.g. from Finland and taking into account IUCN criteria and requirements of Habitat and Bird Directives.
7. It is important to increase public environmental awareness with campaigns, events, media, info centres, and better education for the importance of the biodiversity and natural values, starting with the smallest children and decision makers.
8. Voluntary work is common in many countries and special programs should be introduced to encourage people to participate in management and monitoring of protected areas.
9. It is important to recognise and try to measure the benefits that protected areas bring to the society and use that information in communication and in developing schemes for ecosystem service payments.

Recommendations for next steps (in your own work / in Twinning project / in the Republic of North Macedonia) by MS participants

1. The Government of the Republic of North Macedonia and Ministry of Environment and Spatial Planning shall make a serious effort to secure financial support for National Parks in RNM, protected areas, protection of nature and biodiversity, primary from the state budget, complementing with other sources.
2. It is necessary to invest in professional and qualified human resources in all relevant institutions, by offering vocational training for communication, analysis, planning and research, in order to manage successfully the protected areas.
3. It is necessary to deliver training to employees in the protected area administration to be able to lead independently the monitoring, protocols defining, species of national and European importance determination, in order to help nature heritage conservation.
4. Investment in technology, related to Natura 2000 implementation.
5. Solving the problem of overlapping of institutions jurisdiction in certain protected areas and defining clear competences and responsibilities for all institutions.

6. There is a need to establish a new Agency for Nature Protection in the Republic of North Macedonia or scientific institute for Nature Protection, responsible and competent for managing and planning of protected areas, by using the practice from the Finnish institutes.
7. To find possibilities to continue as a follow up the twining project in the area of detailed inventory mapping of potential Natura 2000 areas, as well as the existing National parks and Nature Monuments.
8. To increase public environmental awareness with campaigns, events, media, info centres, and better education for the importance of the biodiversity and natural values, starting with children of youngest age.
9. To increase the participation of the MoEPP employees in trainings and field trips related to the twining project and Natura 2000 network.
10. Joint data collecting with the national experts in the Republic of North Macedonia.
11. It is necessary to establish monitoring with protocols for the monitoring of values and conservation status of natural habitats and species, in line with the EU Habitat Directive.
12. It is necessary to develop a new model of zonings of the Pas in the Republic of North Macedonia, in accordance with the positive practices in Finland and the IUCN criteria.
13. Construct a National Information System for Nature (flora, fauna, protected areas, Natura 2000, geomorphological values, etc.)
14. Develop ecosystem services concept and concept of maintaining the protected areas with eco-tourism and other nature values for Natura 2000 Sites, in order to improve the socio economic community development.
15. Revise the data and information, as soon as possible, in order to enable the Department of Nature to collect the data to run the protection successfully in future, to evaluate the areas and to determine the species of European importance.
16. Protected areas should propose to the MoEPP, areas and species for conservation and monitoring according Natura 2000.
17. Finalise the documents for valorising and management of future Natura 2000 Areas.
18. Cooperation among stakeholders, central, local government, and CSOs in the process of planning and decision making for issues on environment and nature

4.2. STUDY TOUR TO LITHUANIA

22-28 APRIL 2018

Study tour; issues, comments and recommendations by participants

1. **Structure of protected area administration:** Lithuania has excellent and functional structure of protected area administration: Ministry of Environment, which also deals with forestry issues, State Service for Protected Areas as a National Agency (personnel ca 80) and PA administrations in the field (33 under SSPA which has personnel totally ca 400). It is recommended in the Republic of North Macedonia a) to clarify the role and tasks of MoEPP, b) to establish a National Agency Protected Areas which will in charge of strategic and methodological development of PA; b) to nominate a responsible body for each PAs c) to secure funding for the agency and PA administrations from government budget
2. **Each of protected areas have responsible management authority;** due to fulfilling the requirements of the directives a lot of new small protected areas were established (biosphere polygons as Natura 2000 sites). Existing National and Regional Park administrations took the management responsibility for the new areas. Recommendation: when proclaiming a new protected area in the Republic of North Macedonia, the decision should include the nomination of responsible management authority with sufficient funding
3. **Open areas with human influence are important Natura sites;** the management of those areas

requires continuous maintenance, which is not possible with state direct expenses; In European Union, the Agri-environmental schemes are the most important tool to support biodiversity in open area (fields and meadows). This requires in accession process a good co-operation between MoEPP and MoAFWM (Ministry of Agriculture, Forestry and Water Management) as well as State Enterprise for Pastures. Actually, only in PAs, it is possible to continue or even refresh old traditional agriculture methods after joining EU. One of the main threats for the conservation values in MK will be overgrowing of open meadows, one because of the adverse climate change and second due to declining pressure for grazing.

4. **Forest habitat types requires special attention** in Natura site management. The management methods should be thoroughly discussed by MoEPP with MoAFWM and State Forest Enterprise during the accession period in order to clarify the rules and regulations. In Lithuania it was good to notice, that co-operation in local level was functioning. Forest enterprise was in charge of practical measures, but PA administration was supervising. Also the Forest Management Plan was subordinate to the Protected Area Management Plan. And also it is worth noticing, that PA administration is not depending on the income from forestry practices.
5. **For management planning several levels and approaches are needed**, not only Protected area management plan. In Lithuania, there are at least three levels; Nation wide planning; single PA level management planning (spatial plan) and Operational plans for the part of the PAs where practical management measures takes place (so called Nature Management Plan). All those three levels can be found also in Finland. At the moment in MK legislation only PA management plan is recognized (OBS: Additionally Study for valorization of Natural Values, which should be replaced by up-to-data database and GIS system). It is recommended to consider to introduce in legislation national planning and site level operational planning methods.
6. **The process for establishing a proposal for Natura 2000 network**; according LT experience, Habitat Interpretation Manual with management principles for each of habitats is one of the first steps which should be done. Second step is formulating clear criteria for selection of potential N2K sites. Also clear plan, how proposed N2K sites should be integrated into the PA system and national legislation is needed. Comprehensive habitat mapping should be done as soon as possible when the sites are established - it is too cost and resource demanding to be implemented during the identification process. Natura 2000 management planning is possible to make an efficient and functional way only after comprehensive habitat mapping with relevant databases and GIS system (in practice after joining the EU). And last step is to make settings for monitoring, which is precondition for reporting of the status of habitat, species and sites. In Lithuania it took almost 20 years going through for all of mentioned steps.
7. **Funding**: Natura area management needs several types of funding from different sources; First of all, government should provide basic funding for personnel and running costs of Natura site managers. However, not forgetting the establishment of National Agency for methodological development and its sufficient funding. For actual management measures, especially with open areas, Agri-environmental schemes are must. EU structural funds have been widely used in Lithuania for infrastructure investments like offices, visitor centers and nature schools, nature trails and info boards, observation towers etc. Working environment for Pa administrations has totally improved in 14 years of being part of EU. Life funding has successfully used for boosting practical management measures, especially in one-time actions like restoration. PA system need skills and enough staff for applying the money from outside. The system in LT, where SSPA can apply national large scale projects and PA administrations local, site based projects seems to be working excellently. Based on LT evaluation (2012), the need for proper Natura area management is 39 €/ha annually. Additionally, it is worth of mentioning, that the government should be able to pay compensations for land owners and have special rules for purchasing the most valuable areas to the

government if that is the only way of securing conservation values.

8. **The overall image of protected areas is important;** unified logos and emblems and visual outlook tells people about areas of high conservation value, professional organizations and personnel looking after. Repeating the logos and emblems everywhere (vehicles, info boards, uniforms, web sites etc...) gives an impression of network of well managed protected areas. LT harmonized the system ten years ago and since has put a lot of attention to maintain unified identity and it seems that local and national appreciation of nature and support for nature conservation is prevailing. It was easy to notice, that Lithuanians are proud of their nature and country.
9. **Garbage problem is solved;** protected areas are clean, garbage problem was acute ten years ago. Lithuania adopted some years ago a principle, which encourage people to “bring out” everything they “bring in”. On the same time, there were campaigns for collecting litter from protected areas and, after that, the problems has declined dramatically. Simultaneously the deposit and recycling system for plastic bottles and cans has taken into use. As a result, protected areas are extremely clean and also countryside as a whole seem to have overcome the garbage problem.
10. **Landscape management** was the key principle and approach when planning the PA system into Lithuania. Later biodiversity has strengthened its role, especially through introducing Habitat and Bird Directives. Natura 2000 management is fully integrated into the “traditional” PA management, which is possible due to balanced staff roles in administrations. Each administration has key roles as follows (clearly shown in National Visitor Centre): Director; conservation biologist, landscape manager, recreational manager, culturologist, ranger. This composition serves manifold goals of PA system. Culture and old traditions area crucial part of management and thus local society involvement for PAs. This result support and pride for areas and PA system. In countryside the PA administrations are working as a “hub of intelligence”.
11. **Good infrastructure for visitors and tourist** is essential in order to help people to enjoy nature. This brings benefits for local enterprises, improve the health, happiness and wellbeing of the people and increase the acceptance of nature conservation. In Makedonia, more attention should be put to visitor services and co-operation with tourism enterprises.

Conclusions by participants from BC

Thus, key challenges identified in the process of establishment and development of Natura 2000 in the RM are:

- weak institutional capacities at central and local level for the implementation of HD and BD;
- insufficient funding from the state budget for nature protection;
- non-existence of a special expert body for nature protection (Institute for Nature Conservation / Nature Protection Agency with responsibility for implementation of HD and BD);
- absence of management plans or action plans for protection of wild species in some PA;
- monitoring of natural habitats and wild species has not been established in accordance with HD;
- lack of public awareness about Natura 2000 and persisting stereotypes against Natura 2000 in certain sectors, such as forestry, agriculture, infrastructure, energy, tourism, etc.

The main challenge for the establishment of NATURA 2000 European ecological network in the Republic of Macedonia lies in the process of identifying future NATURA 2000 sites, since this process is quiet heavy and complex and involves updating old and collecting new scientific data for species and habitats of European significance, filling in SDF forms, defining the boundaries of the areas, planning future management of the area, including all the aspects of sustainable development.

However, what is very important to remember in all the phases of establishing NATURA 2000, is to raise public awareness, transparency and involvement of stakeholders.

When preparing management plans for future NATURA 2000 sites it is crucial to address private property issues and suggest compensation measures which need to be implemented.

Lessons learned from Lithuanian system of PAs:

- introduction of provisions for the structure of management plans for Natura 2000 sites in the national legislation on nature protection;
- arrangement and designation of protected areas (the preparation of a bylaw in the Twinning project is underway, and the experiences from Lithuania are welcomed);
- establishment and designing of Visitors Information Centre similar to that of the State Service for Protected Areas in Lithuania;
- Improving inventory data status
- Involvement of all stakeholders in Natura 2000 processes
- Identified need for establishment of special expert body for nature protection (Institute for Nature Conservation / Nature Protection Agency with responsibility for implementation of HD and BD)
- Need for reorganising the PAs in RM so that they have capacity to respond to the requirements of the EU directives

All the practices and knowledge shared during the study trip to Lithuania will help in the preparation of management plans for National Park Pelister and Monument of Nature Prespa Lake, which are the main result of Component 1 of the Twinning Project. Furthermore this visit greatly contributed to improving the knowledge of the participants on the process of proclaiming NATURA 2000 areas and the challenges and obligations which we need to undertake in the future in this respect.

4.3. INTERNSHIP TO FINLAND

Timing: 23.06.-07.07.2019

Participants:

Isuf Fetaj, Counsellor in the Unit for Natural Heritage Conservation and Natura 2000

Edita Zekjirovikj, Junior associate in the Unit for Natural Heritage Conservation and Natura 2000

Recommendations based on the findings during the internship to Finland:

1. A competent expert body for nature conservation (agency or institute) should be established under the Ministry of environment and physical planning with sufficient state funding and personnel. The staff shall include conservation biologists, ecologists, foresters and other professions in the natural sciences with capability to deal the complex issues related to nature conservation and future obligations according EU requirements.
2. Separate Administration for protected areas shall be established under the Ministry of environment and physical planning with responsibility of financing, managing and using protected areas in a sustainable way.
3. National information system for nature with GIS should be established with effective tools for systematic collection, storage, monitoring and analysis of biodiversity data.
4. Trainings for employees who will be in charge for maintaining the system should be conducted via different international projects and initiatives.
5. To develop national indicators for biodiversity and ecosystem services compatible with Biodiversity Essential Variables developed by IPBES and GEO BON.

6. To develop national strategy on invasive alien species for recognizing the alien species and proposing adequate measures. Later special legislation on invasive alien species should be developed.
7. Ecosystem services should be taken into account in the urban planning process.
8. It is important to raise public awareness for nature and biodiversity protection via different campaigns, educational programs, events, media, info centers, and better education starting with the smallest children and decision makers.
9. Development of user friendly educational applications for species recognition can be helpful for presenting the citizen science in the society.
10. The process of proclamation and re-proclamation of protected areas should be simplified by excluding complex administrative procedures and documents.
11. Different categories of protected areas should have different system of zonation depending of the type, total area, natural values and management requirements of the protected area.
12. Development of separate information systems for protected areas and Natura 2000 areas (like SAKTI, SASS in Finland..) with ready-made modules where data is automatically available will facilitate and enhance the process of preparation of management and action plans. In that case management plans can be prepared by the staff.
13. Conducting pre-condition assessment of the protected sites is a useful tool for management of protected areas. With this smart approach management actions will be focused on practical management measures for habitat and species conservation.
14. Capacities of protected areas administrations should be strengthened with employment of biologists, foresters, ecologists etc. Conservation biologists should have knowledge on the habitat types and species that are characteristic to the protected area and ability to work independently in the field as well as familiarity with local stakeholders.
15. Investments for improving the facilities for recreational and educational activities into the protected areas are urgent. The prices for accommodation in protected areas should be acceptable with special discounts for school children.
16. Special programs should be introduced to encourage people to participate in management and monitoring of protected areas.
17. Different EU financial instruments for nature protection should be used in the pre accession period.