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The Importance of Partnerships for Effective Protected Area Management

Mirjam de Koning and Oliver Avramoski

Abstract

Protected areas work in complex environments in which they have to liaise with governments, scientific and civil society organizations, volunteers, local stakeholders, visitors, and funders. This requires next to thematic expertise on conservation, among others legal, management, financial, administrative and communications skills and capacities. Especially the smaller protected areas struggle to efficiently operate in all these specialized fields and often lack enough in-house capacity and resources. This chapter highlights the lessons learned and involvement of various forms of partnerships in different countries on different continents (collaborative arrangement in Laos and different formal and informal arrangements in the Western Balkans). Core to the success is to build sufficient capacity within the protected area management authorities so they understand the priorities and the resources needed to fund, manage and implement these priorities. Specialized skills and capacities needed for effective protected area management are limited in most countries and it is inefficient and too expensive to build this capacity in-house. Having a clear vision on what needs to be done and building a strong cooperation between partners through effective communication is the key to success to come to more effective protected area management either on a national, regional or transboundary level.

Keywords: protected area management effectiveness, partnerships, collaborative arrangements, Laos, Western Balkans

1. Introduction

Historically, protected areas controlled by governments have been a primary mechanism for conserving the world's biodiversity. Since the beginning of the new millennium, the terms 'management' and 'governance' are often used concurrently to denote both technical and power-related aspects of nature conservation, respectively [1]. Over the past decades protected area governance and management have diversified, with significant growth in private and community-based management, as well as a variety of partnership-based models [2]. This diversification has been driven by both ethical and pragmatic needs to take into account local community dependence on ecosystem goods and services, respect the rights of indigenous peoples, and address failures of top-down governance to deliver expected outcomes [3–8]. Under these influences, power has been redistributed

across multiple public, private and civil society organizations, and collaborative arrangements are now widespread [9, 10].

Collaborative governance and management of protected areas should be beneficial to stakeholders involved in the partnership to be sustainable. Biodiversity benefits for governments, the scientific community and non-governmental organizations go hand in hand with socio-economic benefits for the private sector and local communities. Bringing different skills and resources to the table and reaching consensus can lead to so-called win-win situations [11]. Such arrangements often form cost-efficient solutions for effective protected area management. In addition, the increased knowledge, capacity, trust and learning by doing can result in less conflicts between the partners through an improved understanding [12, 13].

Protected area management authorities work in complex environments in which they have to liaise with national and local governments, scientific and civil society organizations, volunteers and local stakeholders, visitors and potential funders. This requires next to thematic expertise on conservation, among others legal, management, financial, administrative and communications skills and capacities. Especially the smaller protected areas struggle to efficiently operate in all these specialized fields and often lack enough in-house capacity and resources. Therefore, it is important for protected area management authorities to build effective partnerships to ensure certain resources through third parties instead of trying to do everything themselves. This can be in the form of collaborative arrangements, partnerships regulated through a Memorandum of Understanding (MoU) or more informal partnerships. This chapter will highlight some of the lessons learned and the evolvement of various partnerships in different countries on different continents. The first case study highlights a formal collaborative arrangement in Laos. The second case study describes various partnerships regulated through different MoUs or informal arrangements in the Prespa-Ohrid Ecoregion in North Macedonia, Albania and Greece.

2. Methodology

Two different case studies are described in this chapter using data from 2013 to 2016 in the Hin Nam No National Park in Laos in South-East Asia [14–17] and from 2017 to 2021 in the Prespa-Ohrid Ecoregion in North Macedonia, Albania and Greece in the Western Balkans [18, 19].

For both case studies the main lessons learned are derived from identified building blocks using the ‘solutioning approach’. The PANORAMA - Solutions for a Healthy Planet Partnership is a global partnership that supports both the long-term strategic framework for capacity development and the knowledge management component of the draft post-2020 Global Biodiversity Framework [20]. Based on theories of knowledge transfer, peer learning, and social-ecological resilience, drawn from psychology, education, ecology, and conservation biology, PANORAMA documents and promotes verified examples of inspiring, replicable solutions across a range of conservation and sustainable development topics, enabling cross-sectoral learning and inspiration [21]. It allows for communication among solution providers and users through a virtual online platform (www.panorama.solutions) and further face-to-face and virtual formats. Developed by International Union for Conservation of Nature (IUCN) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the PANORAMA ‘solutioning approach’ was launched at the IUCN World Parks Congress in Sydney in 2014. PANORAMA enables easy communication among practitioners, often being a source of inspiration and supports mutual learning in and for protected areas. The idea is that practitioners replicate workable solutions instead of re-inventing the wheel.

Each peer-reviewed and published solution is analyzed to identify the factors or building blocks that contribute to its successful implementation, and the online platform allows users or solution seekers to discover and access this knowledge, the solution providers, the relevant communities of practice, and also to compare and contrast solutions across geographies and sectors. PANORAMA has grown both in size and scope over several years. By April 2021, it included 868 solutions from 614 solution providers from 117 countries. Out of the 868 solutions, 431 are protected area solutions. From its inception, PANORAMA's relevance and contribution to the implementation of the Strategic Plan for Biodiversity 2011–2020, progress towards the Aichi Targets, the Sustainable Development Goals and the draft post-2020 Global Biodiversity Framework has been recognized specifically [20].

3. Case study I: Hin Nam No National Park, Laos

Functional and sustainable collaborative partnership arrangements in Laos and in Southeast Asia are not yet very common. Lack of communication and participatory decision making often leads to centralized efforts by the government resulting in lack of understanding and conflicts with local people living in or adjacent to protected areas. The definition of 'participation' is understood differently by the main stakeholders involved mixing up terms such as information sharing, consultation or real involvement in decision making. For effective and sustainable collaborative governance and management of protected areas to achieve biodiversity conservation and natural resource management objectives an equitable approach is needed [22].

Since the early 1990's, Lao Government policy for protected areas has focused on developing a partnership approach, which advocates peoples' involvement in conservation, especially with the locals who depend on the natural resources for their daily livelihoods [23]. To transform from a paper park approach to effective protected area management there is a need for the Lao Government to allocate sufficient resources for the management of each protected area and/or to establish functioning collaborative arrangements. The latter requires a clear division of roles between co-managers; ensuring that the transfer of responsibilities goes to the locals with customary rights; and promoting good governance and capacity development at all levels (especially if the poor are to benefit) [24].

This case study describes the lessons learned from a multi-level collaborative governance system in Hin Nam No National Park in central Laos following the 'PANORAMA solutioning approach' [25]. Five so-called 'building blocks' of the experimental collaborative governance model in Hin Nam No were identified [14].

Hin Nam No National Protected Area, in brief Hin Nam No, has been recently enlarged and declared as a national park (January 2020). Hin Nam No is located in Boualapha District, Khammouane Province. Containing 94,000 ha, the area is one of the largest karst landscapes in Southeast Asia, being contiguous with Phong Nha–Ke Bang National Park in Central Vietnam (see **Figure 1**). A total of 18 villages lie in immediate proximity to Hin Nam No, with a total population of about 8,000 people, many of whom are ethnic minorities. Like other national protected areas in Laos, Hin Nam No had for a long time insufficient resources with only a part-time director and no full time staff on site. The lack of limited human and financial resources allocated by the government resulted in a lack of capacity, skills, information, and law enforcement to effectively manage and monitor the protected area.

Technical and financial support by the German Government has facilitated high levels of external support, both at the management level and in the different

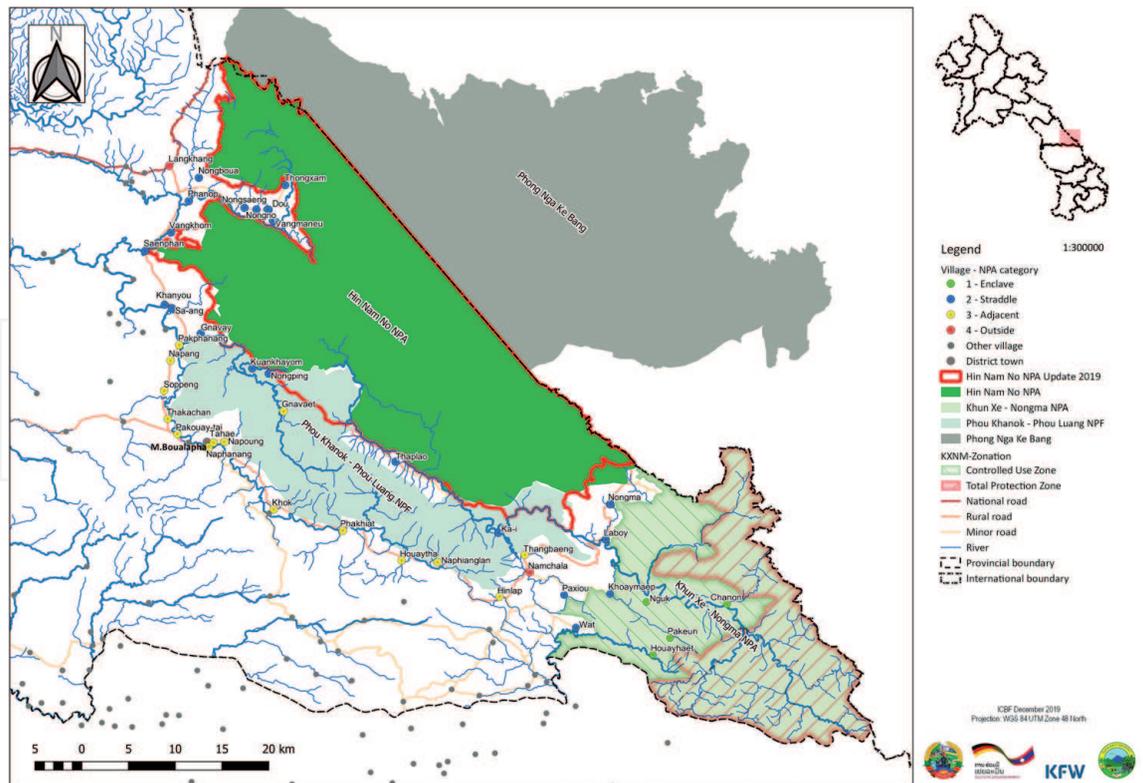


Figure 1.
 Location of Hin Nam No National Park in Khammouane Province in Laos (map prepared by Ronny Dobbelsteijn).

specialized fields. Experts have provided on-going support to the establishment and maintenance of the collaborative governance and management system.

The five identified building blocks of the PANORAMA Solution are:

1. Governance assessment through participatory consultation
2. Setting-up a multi-level collaborative management and governance structure
3. Participatory zonation based on traditional knowledge and customary rights
4. Collaborative governance agreements
5. Local people as additional protected area management manpower.

3.1 Governance assessment through participatory consultation

To better understand the governance and management status of the Hin Nam No, a governance assessment was implemented in February 2014 at various levels: village, village cluster, district and province. The collected data led to a set of proposed interventions implemented over a period of two years. The results are presented in **Table 1**.

The participatory assessment was a good starting point for improved communication and understanding between the co-managers. It led to the creation of a joint vision and a proposed division of roles. As part of the assessment a Management Effectiveness Tracking Tool (METT) session was included. The METT developed by the ASEAN Centre for Biodiversity [26] is similar to the conventional used METT but has an additional focus on governance. In addition, a more detailed

Outcome governance assessment (February 2014)	Proposed intervention, progress (February 2016)
No clear delegation of decision making or implementation authority to guardian villages (building block 2 and 3)	Hin Nam No Management Authority identified tasks to be delegated to villagers
Governance system is ad hoc and top-down, with lack of systematic benefit sharing (building block 2 and 4)	Participatory reporting/planning system was developed at village (18), village cluster (5) and protected area level. Participatory co-management agreement, including benefit sharing mechanism, was developed and approved.
Lack of skills and capacity; lack of involvement by women (building block 2)	Capacity development plan has been elaborated; recruitment of five female Lao Government volunteers (trainees)
Unclear zonation of Hin Nam No into manageable units per guardian village. A guardian village is actively involved in the protection of the protected area based on their customary rights (building block 3)	Participatory zonation and trail mapping carried out in 18 priority guardian villages
Local rules exist but are unknown or not implemented by outsiders (building block 4)	Establish general rules for the different zones in each guardian village and disseminate the information broadly
Willingness of guardian villages/village rangers to be involved in Hin Nam No management (building blocks 4 and 5)	Monthly participatory biodiversity monitoring and patrolling system established using motivated village rangers who are compensated based on performance
Law enforcement system is unclear, slow and ineffective (building blocks 4 and 5)	Some delegation of law enforcement to villagers ensures a more rapid and effective response

Table 1.
Governance assessment results and subsequent interventions.

questionnaire adapted from annex 3 of the IUCN publication ‘Governance of Protected Areas’ was developed and used to assess good governance criteria [2].

3.2 Setting-up a multi-level collaborative management and governance structure

To have a better understanding of the tasks and to achieve more effective protected management a new management structure for Hin Nam No was established in 2013 and early 2014 including six technical units. This process was supported by GIZ and the National University of Laos. An overview of the main conservation actions was developed for each technical unit and tasks to be delegated to the villagers were identified.

The new Hin Nam No management structure and its six technical units had a total of 27 staff (out of which 19 volunteers) to manage the protected area (August 2016). None of the staff had sufficient capacity to lead one of the technical units in any of the specialized fields of management. **Figure 2** shows the institutional arrangements of the management authority of Hin Nam No in 2016. The implementation of the protected area management tasks was decentralized to the district level.

Stakeholders bringing different skills to the table need to be involved to ensure effective collaborative governance and management. Primary stake- and rights-holders are the villagers and protected area management authorities. The participation of secondary stakeholders is needed for effective strategic and operational steering in topics such as coordination, patrolling and law enforcement. This will help to mitigate

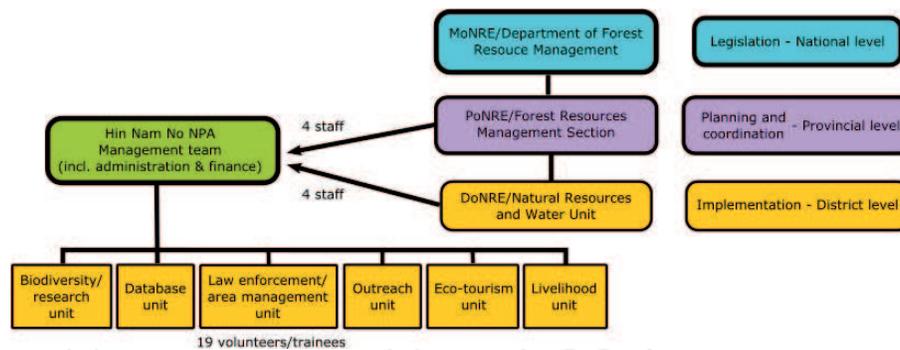


Figure 2. Institutional arrangements of the Hin Nam No management authority and its six technical units.

against threats such as illegal logging and poaching often initiated by outsiders. Strategic alliances with assisting partners for institutional support, capacity development and funding can strengthen the collaborative arrangement to make it more effective and enabling collaboration among the stakeholders towards a common goal.

A District Co-Management Committee was established bringing together 13 appointed government officials from district level as well as village representatives from village cluster level [25]. Villages report to village cluster level, which thereon report to the higher levels. The functioning of this bottom-up process is monitored via the annual management effectiveness and good governance self-assessment in which villagers participate. Higher levels take the inputs and needs of the village levels into account and strategic decisions are communicated back to the operational village levels.

This institutional set-up ensures that all stake- and rights-holders can participate in decision-making processes. Transparent sharing of information, experience, and knowledge enhances the capacity for natural resource management among all parties to achieve the common goal of biodiversity conservation and poverty alleviation in and around Hin Nam No. A balance needs to be found between the need to involve people in the management i.e. doing the work in the forest (village rangers) and the need to involve people in the governance who can validate decisions (village authorities and high level officials).

3.3 Participatory zonation based on traditional knowledge, customary rights and biodiversity values

Participatory zonation is an essential tool for local communities to engage in collaborative governance and management – especially when the process takes into account local knowledge and respects existing customary rights. The participatory zonation process started in 2014, based on the agreed interventions of the governance assessment (see **Table 1**). In order to divide the work between the villages surrounding Hin Nam No, it was necessary to clarify areas and boundaries, based on used trails and customary rights of villages. Village rangers mapped the trails and collected data on important features, biodiversity and threats. Villagers were asked to define areas they need for collecting natural resources, areas that are inaccessible due to the rugged terrain, and areas that should be left alone to protect wildlife for breeding purposes.

Based on the proposals by the villagers, the Hin Nam No was geographically divided into 18 areas to be managed by the villages. The zonation process identified the Controlled Use Zones (CUZ) prescribing the traditional village lands of the 18 villages. In a second step, management rules for the CUZs were formulated, based on the customary rights of the villagers. The Total Protected Zones (TPZ) comprise

all parts of Hin Nam No beyond the CUZ. They can be divided into inaccessible parts, and areas considered of high biodiversity value [25]. The process of participatory mapping of trails and the subsequent selection of key trails for regular monitoring led to a clear agreement on which area should be monitored by which village. This led to a 'de-facto' delineation of village areas of responsibility within Hin Nam No. In total, 86 per cent were proposed by the villagers as TPZ and 14 per cent as CUZ [15].

The basic rules and regulations governing the access and use of the proposed TPZ and CUZ are stipulated in the Forestry Law of 2007 and in the collaborative agreements that have been approved by the District Governor of Boualapha. The District Co-Management Committee agreed that further meetings with the villagers were required to discuss and agree upon more detailed resource use rules for the CUZ to prevent unsustainable use by villagers and outsiders with the final zonation system to be approved by the District Co-management Committee.

3.4 Collaborative agreements

Collaborative agreements were drafted with the help of a neutral facilitator and taking the inputs of the villagers into account. Based on the results of this process the local authorities decided to generate one uniform collaborative agreement in the form of a district by-law, including benefit-sharing arrangements based on customary rights. The district by-law went through several meetings and due diligence processes involving legal government offices before it was officially approved by the Boualapha District Governor. The final version was disseminated to all 18 villages and also in the adjacent Phong Nha-Ke Bang National park in Vietnam.

3.5 Local people as additional protected area management manpower

The Hin Nam No collaborative arrangement involves local villagers actively in the management of the protected area. First of all the villagers were willing to participate and secondly their knowledge about the area is invaluable. This formed a cost-efficient addition to the limited resources provided by the government. In total there were 87 democratically elected co-management committee members, spread over 18 villages and five village clusters, involved in participatory planning and reporting. Village rangers coming from the 18 villages were compensated for making regular trips into the protected area to record wildlife sightings and threats and to be involved in patrolling for law enforcement. Fees for the village rangers were agreed through negotiations and based upon fair compensation for the hard and dangerous work of climbing in the mountains.

A total of 110 villager rangers were trained in the use of GPS equipment and in recording sightings in coded booklets. Data and information collected by the village rangers were inserted into the Spatial Monitoring and Reporting Tool (SMART) system on a quarterly basis. The database unit analyzed the data and presented the main wildlife sightings and threats to the District Co-Management Committee and the Hin Nam No Director in quarterly reporting and planning meetings by using maps.

At the end of 2016 about 35 households in four villages were involved in the provision of eco-tourism services such as guiding, boating services as well as guesthouse and home-stays. The local service providers were trained to ensure a certain standard of services. The collaborative arrangement between the Hin Nam No management authority and the local service providers was captured in a conservation agreement to ensure the protection of the environment and benefiting the local people at the same time.

3.6 The way forward: Hin Nam No National Park

After the establishment of Hin Nam No as a national park in 2020 the resources for effective management have increased. However, in August 2016, Hin Nam No still had very low human and financial resources and therefore effective management needed to be improved. To address the challenges, the Hin Nam No management authorities and GIZ developed an innovative collaborative system in which technical and administrative agendas were mixed (socializing protected areas), in line with relevant legislation on decentralization and based on customary rights. This increased the political and local support for collaborative governance and management and was different from previously tested approaches in Laos.

The description of the building blocks and their interlinkages enabled a relatively simple and structured write-up and subsequent communication of the three-year process that was followed to set up the multi-level collaborative system. The collaborative model brought positive results (increase in management effectiveness) with opportunities to the entire protected area system in Laos, up to now often referred to as a 'paper park' system [27]. More work on 'sustainable financing' and 'adaptive management' through actual implementation is required to sustain this model.

4. Case study II: Prespa-Ohrid Ecoregion, North Macedonia, Albania and Greece

Spanning the borders of Albania, Greece and North Macedonia in the Western Balkans, the Prespa-Ohrid Ecoregion has been identified as one of Europe's biodiversity hotspots (see **Figure 3**). At the heart of the region are Lake Ohrid and the Prespa Lakes. Lake Ohrid, shared between North Macedonia and Albania, is possibly the oldest lake in continuous existence in Europe with an estimated age of 1.4 million years; it is also one of the most voluminous freshwater bodies in Europe. Due to the karstic bedrock, water from the Lake Prespa basin contributes significantly to the water inflow of Lake Ohrid. The Prespa basin includes the Greater Prespa Lake (shared between the three countries) and Lesser Prespa Lake (shared between Greece and Albania).

There are many protected areas in the Prespa-Ohrid Ecoregion established to protect its extraordinary biodiversity. International designations include the transboundary Prespa Park, Natural and Cultural Heritage of the Ohrid Region, a transboundary mixed (natural and cultural) World Heritage Site, the Ohrid-Prespa Transboundary Biosphere Reserve, and several Ramsar sites. There are two Natura 2000 sites in the Greek part of the region and several Emerald sites in the Albanian and Macedonian parts. Following the IUCN typology, the governance of protected areas in the Prespa-Ohrid Ecoregion falls in the governance by government model [28]. Nonetheless, conservation is not a priority for the three national governments, and protected area management authorities are both understaffed and underfunded or absent altogether.

So far transboundary cooperation functions informally. The most important conservation challenges in the Prespa basin are related to water quality and eutrophication, exacerbated by the recent significant water level decrease and climate change. Habitat degradation and urbanization along the lake shores top the long list of threats to the Lake Ohrid ecosystem.

On a socio-economic level there are high unemployment rates resulting in young people leaving the area. The ethnically diverse mix of people are living under poor local economic conditions with difficulties in trading local products, and a lack of basic

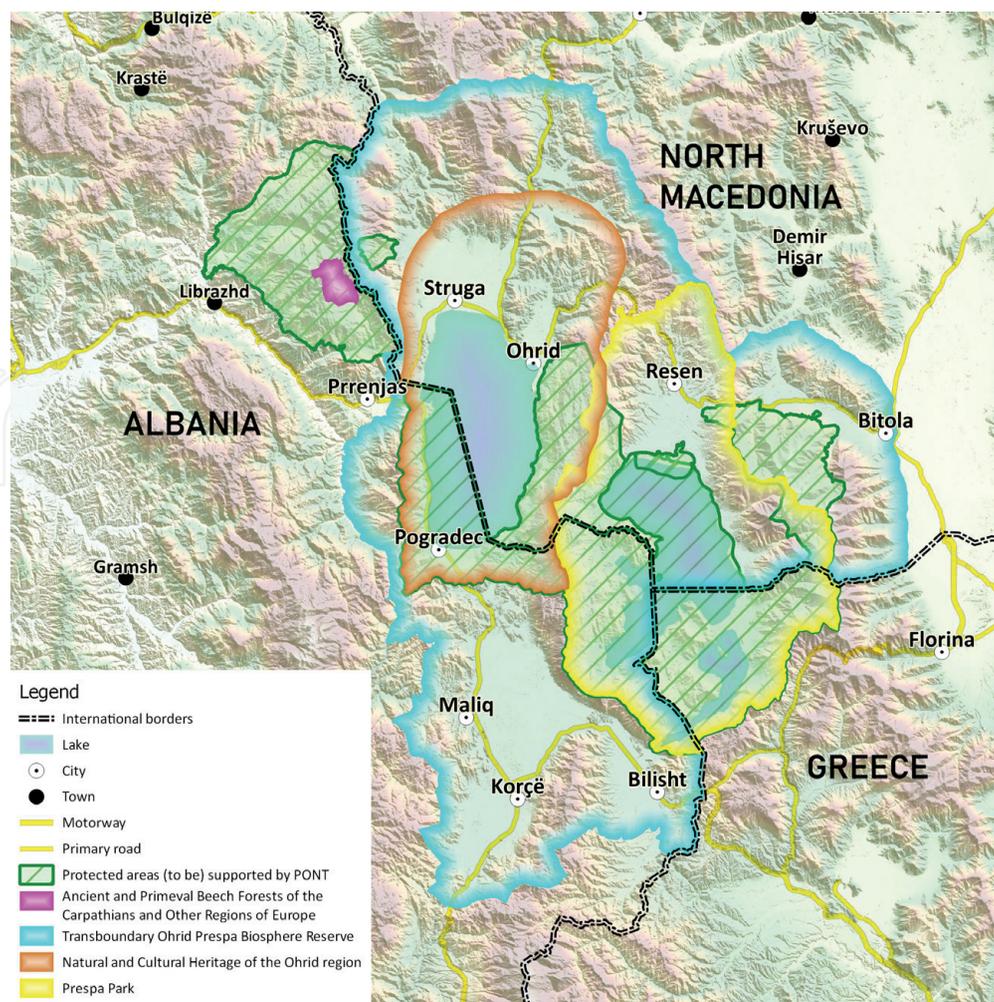


Figure 3.
Location of the Prespa Ohrid ecoregion in the Western Balkans (map prepared by Ronny Dobbelssteijn).

infrastructure. Civil society in the Prespa area is weak especially in Albania and North Macedonia. The rural area is dominated by agriculture with some income from stock-breeding, fisheries, forestry and tourism [29]. The secondary and tertiary sectors, in particular tourism, have a dominant role in the economy of the Ohrid region [30, 31].

The transboundary cooperation in the Prespa basin functions informally, despite the decades-long efforts to establish formal institutions. To address the lack of formal functioning transboundary institutions the three main conservation Non-Governmental organizations (NGOs), the Macedonian Ecological Society (MES), the Protection and Preservation of Natural Environment in Albania (PPNEA) and the Society for the Protection of Prespa in Greece (SPP), formed a network in 2013 called PrespaNet. The three partners work together to protect the transboundary Prespa lakes basin for the sustainable benefit of both people and wildlife. The joint Lake Ohrid Watershed Management Committee, established by the Albanian and Macedonian governments in 2004 meets irregularly and its Secretariat has been mostly inoperative [32].

4.1 Prespa Ohrid Nature Trust

Cooperation within and across borders is crucial to ensure sustainable conservation and effective management of protected areas. Prespa Ohrid Nature Trust (PONT) established in 2015 is a transboundary conservation trust fund providing long-term financing (~€1.5-2million/year drawdown until at least 2030), which is additionally used to leverage the co-financing of activities.

PONT enables protected areas in the Prespa-Ohrid Ecoregion to develop and implement their management plans to conserve nature through sustainable co-financing of operational costs. PONT supports the protected area staff with the development and use of standard operational planning and reporting systems, in line with the management plans, for the implementation of protected area programmes. Biodiversity monitoring systems are developed in which data collection, data analysis and habitat management are implemented, with an efficient division of what can be done by the protected area staff themselves, local people and what to outsource to third parties. Enabling the protected area staff to increasingly use scientific data in managing the area is included in the third-party contracts. The inclusion of minimum Natura 2000 requirements will gain importance in the coming years. **Figure 4** illustrates the PONT protected area grant programme.

Qualified NGOs, municipalities and research institutes with a local presence in the Prespa-Ohrid Ecoregion and with a strategy in conservation, developing society, improving communities, and promoting citizen participation in conservation are eligible for PONT grants to environmental actors. PONT funding priorities for environmental actors are mainly focused on transboundary conservation activities, some important specialized conservation activities and work related to nature-based tourism and Non Timber Forest Products. In addition, environmental actors are supported with their operations and organizational development with the aim to make the organizations more robust and capable of sourcing third party funding.

PONT financial support to NGOs and research institutes is directed towards the implementation of activities identified in the management plans for the respective protected areas and where there is a lack of capacity within the protected area management authorities. Applied research, with the involvement of protected area staff, directly focused on species or habitat management is also supported, but fundamental research is not. **Figure 5** illustrates PONT's environmental actor grant programme.

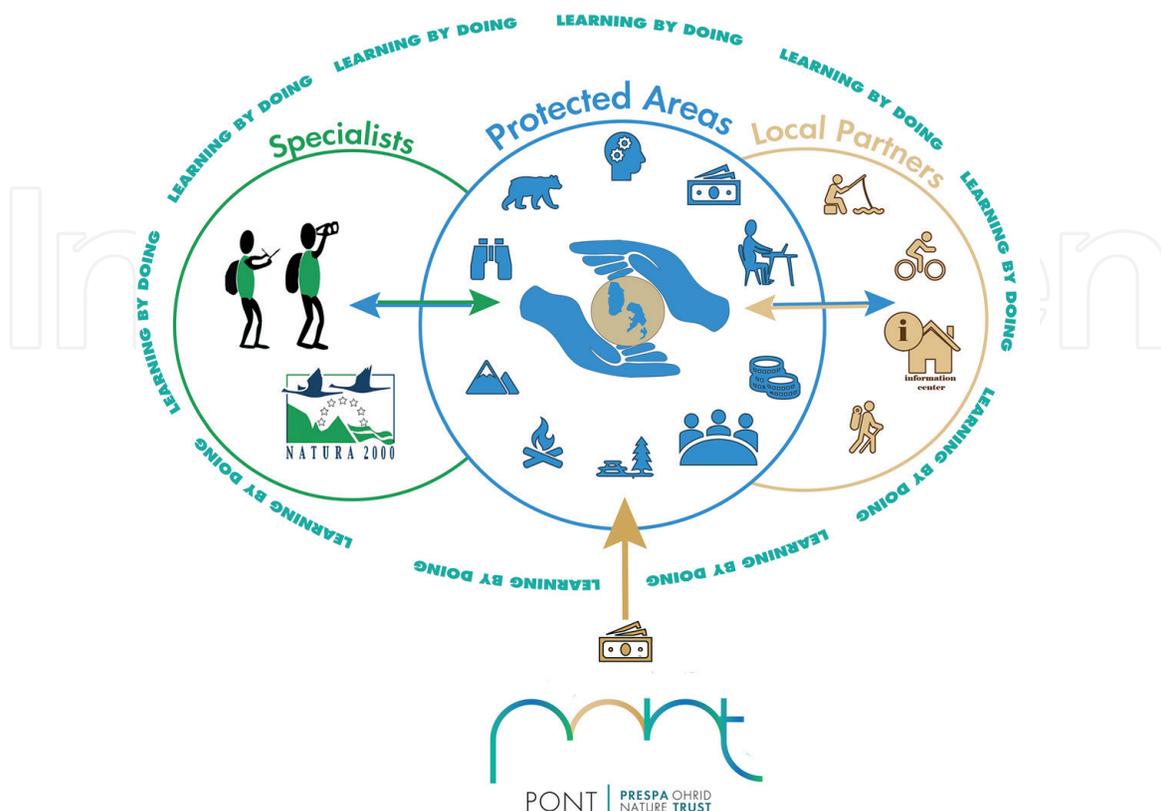


Figure 4.
PONT's protected area grant programme.

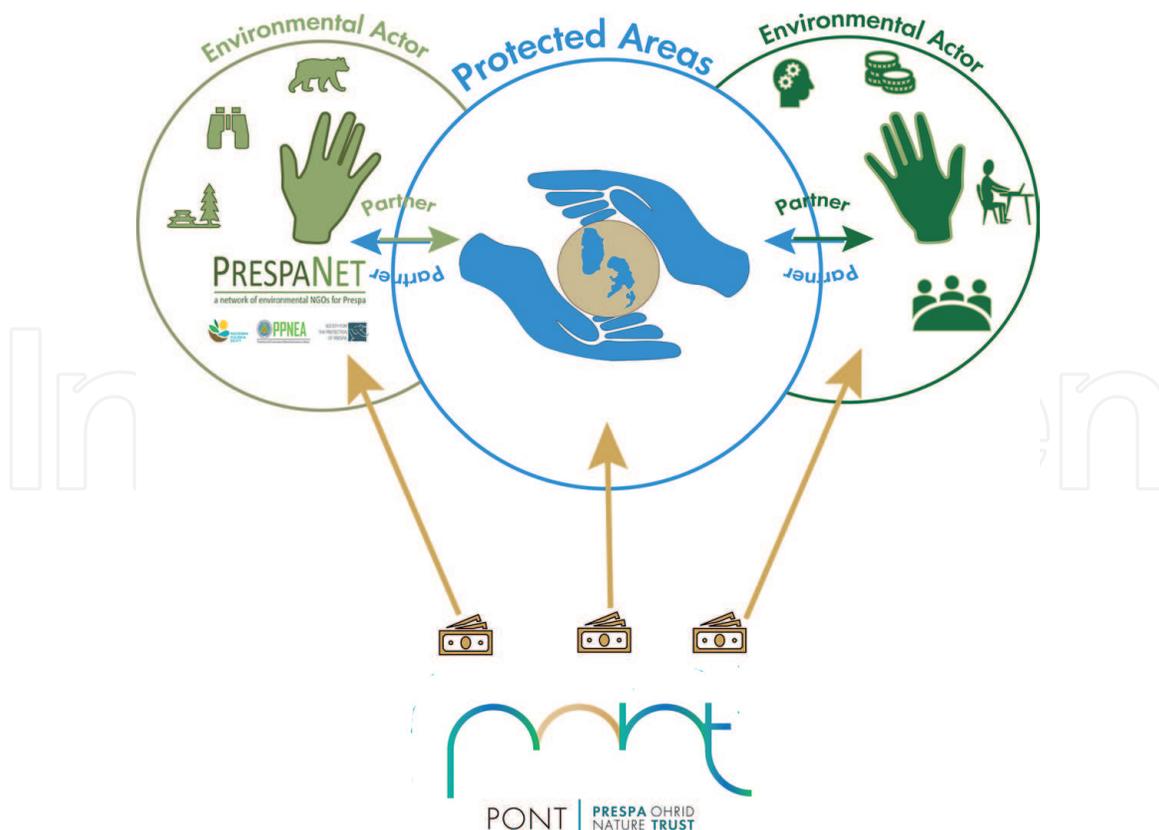


Figure 5.
 PONT's environmental actors grant programme.

Relevant building blocks were distilled from two PANORAMA solutions to showcase the importance of partnerships for effective protected area management [18, 19]. Achievements and lessons learned per building block are described in more detail in the following sections.

1. PONT strategy promotes transboundary cooperation between government and non-government partners
2. Taking operational planning seriously
3. Core funding secured

4.2 PONT strategy promotes transboundary cooperation between government and non-government partners

The PONT ten year strategy for Prespa is based on the experiences of the PrespaNet partners who have worked in the area for a long time. By working directly with the protected area management authorities and the main NGOs the conservation and capacity development objectives were determined. Instead of re-inventing the wheel the priority gaps for financing were gathered by PrespaNet. This was done under coordination of World Wildlife Fund for Nature (WWF) Greece who knows the area very well and could verify the results. The recommendations for the conservation objectives were verified by the protected area management authorities and this formed the basis for the conservation objectives for the PONT ten year strategy for Prespa. With the help of the more social science oriented expertise by PONT the objectives for the inclusion and beneficiation of local stakeholders, organizational development and capacity development were identified and added. This resulted in a participatory developed strategy and conflict

assessment study that were accepted by both government and non-government stakeholders within and across state borders.

With a focus of financing of the identified gaps the selection of grantees was made based on their mandate, vision, proven track record and expertise to work in the area [18]. This enabled the rapid granting of first grants to NGOs and protected area management authorities focusing on action-oriented implementation. Remaining identified gaps were addressed by several open calls for proposals. After four years of operation PONT has one five-year grant and ten three-year grants for their long-term partners. Through this process based on previous learning a strategy was established focusing on the financing of the gaps and building of strong partnerships with stakeholders that have a mandate, vision and the expertise to achieve the conservation results in the Prespa area. The PONT strategy also promotes transboundary cooperation between government and non-government partners based on previous lessons learned.

4.3 Taking operational planning seriously

Protected area managements plans have been gradually integrated into the long-term management cycles for the protected areas in the Prespa-Ohrid Ecoregion. However, there is still a wide gap with annual or operational planning. The gap exists due to a number of reasons, including unrealistic and non-operational management plans, lack of knowledge and skills, inadequate work procedures, missing or ineffective decision-support systems, as well as insecure funding. The heavy dependence over the past two decades on short-term international project funding and external consultants have often perpetuated these weaknesses. The resulting ad-hoc and inconsistent management hampers the effective implementation of the management plans.

Protected area management authorities in the Prespa-Ohrid Ecoregion use a template developed by PONT in Microsoft Excel to prepare annual operational plans and budgets that are part of their grant applications to PONT. These operational plans state the actions to be implemented each year to achieve the objectives set out in the management plan for the protected area concerned. While most of the actions are selected from among those identified in the management plans, additional actions arise from the (annual) METT assessments, by learning from experience, or in response to uncertainty and change. The operational plans integrate both recurrent (routine) activities and non-recurrent activities (investments, projects) to ensure resources are adequately distributed across the different functional areas. The operational plans only include activities that are currently achievable with existing staffing, technical and financial resources, including the co-financing from PONT.

Using pre-defined templates developed by the national authorities on protected areas in both Albania and North Macedonia, the protected areas in the Prespa-Ohrid Ecoregion prepare annual (operational) plans that are subject of formal approval by the national authorities. Aside from the budget that is more detailed, the template developed by PONT is similar in content to those used under national legislation. The operational plans and budget are prepared at the end of each calendar year for the subsequent one and constitute the key element of the grant applications submitted to PONT; the grant application process of PONT is aligned with the national system planning and reporting cycles to avoid duplication of work.

Although operational plans have been in use for about a decade in North Macedonia and for several years in Albania, management and on-ground work continued to be largely ad-hoc and inconsistent. The PONT template and the input from the regular METT assessments enable protected area managers develop more realistic annual

operational plans and budget. The PONT template prompts the managers to plan in more detail the deployment of human, financial and technical resources related to the basic functional areas, such as biodiversity monitoring, patrolling, habitat restoration, environmental education or visitor management that were often neglected in the past. This proved to be quite a challenging task due to the lack of adequate procedures and systems in place, in particular for functions and activities where no prior experience exists.

4.4 Core funding secured

Improved operational planning enables the protected area managers clearly define their capacity gaps and most critical resource requirements for effective implementation of the activities. PONT's long-term co-financing enables the protected area managers in the Prespa-Ohrid Ecoregion to recruit new staff and deploy resources to sustain their core management functions. Using the budget template developed by PONT, protected area managers develop a detailed budget for each action that is broken down into five cost categories: staff costs; consultants; equipment and infrastructure; travel, meeting, and training costs; and consumables, operating and other costs. PONT co-financing amounts up to 50% of the total annual budget and is used for covering both recurrent and non-recurrent cost related to the core management operations, except for procurement of equipment and construction of new infrastructure exceeding € 20,000.

The PONT budget template helps protected area managers combine effectively PONT's co-financing with funding from the government or the revenue they generate, as well as projects implemented by conservation NGOs or international donors and agencies.

Lack of detailed data on protected area management costs hamper effective conservation planning and management. Protected areas in the Prespa-Ohrid Ecoregion lack systems in place that connect financial data with the on-ground conservation actions. Financial information is commonly managed for the purposes of meeting national financial reporting requirements, that are general in nature, rather than management. The annual budget using PONT's template is organized in a way that permits costs aggregation and analysis by results that are in turn linked to management objectives. This also informs the operational planning in the subsequent management cycle and helps identify opportunities for improved productivity and effectiveness. Further progress in operational planning would depend on the capacity to improve the estimates of the required costs of different functional areas of work and also of the levels of management performance.

4.5 The way forward: Prespa-Ohrid Ecoregion

Having a secured total budget allocation for the year in the long-term enables the protected area managers in the Prespa-Ohrid Ecoregion to develop and maintain the key functional areas and programmes, based on the management plan and thereby increase the management effectiveness. Especially recurrent activities such as regular monitoring of biodiversity, visitor management and environmental education have recently improved. These themes previously relied on short-term and often discontinued support from donors providing initial investments and technical assistance, but no funding to sustain the operations in the long-run. With PONT's long-term co-financing the protected area managers are able to recruit and retain new staff and gradually retrain the existing ones to develop and implement the key programmes. Capacities to mobilize, manage and implement additional funding from external sources for non-recurrent activities that have a more flexible timeline of implementation has increased. Several rangers, biologists, communication and education experts have joined the

protected area management staff in the Prespa-Ohrid Ecoregion over the past two years filling in long-vacant positions of critical importance for their basic operations.

One of the roles of PONT is to facilitate and support the establishment of partnerships between the protected area management authorities and the environmental actors working on issues where the protected areas have insufficient capacity such as habitat/wetland mapping, wetland restoration, biodiversity monitoring, environmental education, tourism development, etc. Due to the improved planning by protected area management authorities it is more clear for the managers what can be done by themselves and where there is need for resources from third parties such as NGOs, scientific institutions or local people. Several formal and informal arrangements have been established over time such as the employment of temporary local workers helping Prespa National Park in Albania with the maintenance of hiking trails, removal of alien species and fire management. Already four formal partnership agreements/MoUs have evolved over time between protected area management authorities and environmental actors. Often the partnerships started informally by working together and after a certain period of cooperation these partnerships were acknowledged through MoUs. For example the Public Institution Galicica National Park established partnerships for nature-based tourism with the local Alpine club PATAGONIA Ohrid and Association of Sports “Sport for all – All for sport”. Resen Municipality established partnerships with the Public Scientific Institution Hydrobiological Institute Ohrid and the Macedonian Ecological Society. Three other MoUs are currently being considered based on the good experiences of cooperation i.e., one by the Public Institution Galicica National Park with the Macedonian Academy of Sciences and Arts (MASA) in North Macedonia; one by the Regional Administration of Protected Area Korçe in Albania with the NGO PPNEA, and one between PPNEA and the University of Korçe (signed on 22 May 2021).

Highlighted should also be the more complex cooperation on a transboundary level taking place in Prespa and recently formalized and implemented by the three governments (29–30 June 2021). The transboundary ‘Prespa Park’ was created in 2000 with a declaration by the Prime Ministers of Albania, Greece and North Macedonia stating the importance of the Prespa basin and recognizing the preliminary work done by environmental NGOs. To institutionalize the operations of the ‘Prespa Park’ an agreement was signed by the three Environmental Ministers and the EU in 2010. This agreement stipulates the need to make a management plan and the development of Integrated River Basin Management Plans in line with EU and international standards. The agreement was signed by all parties in 2010, followed by a ratification process which was only finalized in 2019. Recently, the Prespa Park Management Committee has been established with representatives of administrations, protected areas, NGOs, and local municipalities to coordinate the work on environmental protection and sustainable development of Prespa. The process of coming from this ‘de jure’ transboundary cooperation on paper to a ‘de facto’ implementation has evolved over a period of 21 years.

In 2018 PONT won the first Pathfinder Award [33, 34]. Encouraged and supported by PONT, several of the stakeholders involved in these processes are currently developing their first PANORAMA solutions to identify the challenges and benefits of their successful management strategies, with a focus on building and maintaining partnerships among local protected area stakeholders [35].

5. Concluding remarks

The two case studies illustrate different but converging paths in the evolvement of local partnerships aiming at more effective protected area management. The core

to the success is to build sufficient capacity within the protected area management authorities for them to understand the priorities and the resources needed to fund, manage and implement these priorities. Specialized skills and capacities in most countries in several subjects important for effective protected area management are limited and it would be impossible and too expensive to try to build this capacity in-house. Having a clear vision on what needs to be done and building a strong cooperation between partners through effective communication is the key to success to come to more effective protected area management (either on a national, regional or transboundary level).

The Protected Area Management Effectiveness (PAME) framework, developed by the IUCN World Commission for Protected Areas [36] provides a means to assess contributions of the solutioning approach for addressing challenges in protected area management [21]. The METT, which is built around the PAME framework, was applied in a participatory manner in both case studies, opening ways for building partnerships among major protected area stakeholders. A closer look at the METT scores for protected areas in the Prespa-Ohrid Ecoregion, reveals that the most significant progress since 2018 was made with respect to 'Inputs' and 'Processes'. The latter was mostly related to improved implementation of management-oriented surveys and research, as well as advancement of environmental education. The partnership agreements between protected area authorities and locally present NGOs, underpinned by the long-term PONT co-financing, directly contributed to these advancements. Similarly, the 2016 METT assessment for Hin Nam No showed that the management effectiveness score had increased by 13 per cent since 2014, accompanied by a 15 per cent increase in good governance score, as measured by the IUCN Indicators for Governance Quality [2].

The involvement of stakeholders in the METT assessments was instrumental to improving both management and governance aspects of conserving biodiversity in protected areas in both case studies. Many of the issues and challenges discussed and agreed during the METT assessments have both management and governance aspects and the solutions and approaches agreed upon are subsequently integrated into the strategic and operational planning. In both case studies a range of institutional mechanisms and processes (e.g. Management Boards, advisory councils, Strategic Environmental Assessment (SEA) procedures, MoUs, METT assessments, participatory monitoring and law enforcement, etc.) provide a diverse and complementary ways of sharing authority and responsibility among protected area stakeholders.

The case studies demonstrate that METT can be useful in evaluating the success of adapting and uptake of the building blocks of PANORAMA solutions to protected areas in different contexts and geographies. On the other hand, by offering a systematic and comprehensive approach to developing and sharing lessons learned regarding the challenges and successes in protected area management, the PANORAMA methodology encourages learning and experimentation among protected area stakeholders.

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