

The IUCN Green List as a tool for protected area management – the example of *City meets Nature*

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Abstract

Within the framework of the LIFE project *Green List for Natura 2000*, the Lendspitz-Maiernigg site (AT2130000, Klagenfurt, Austria) was assessed against the indicators reflecting the four criteria *Equitable and Effective Governance, Design and Planning, Effective Management and Conservation Outcomes*. Since 2012, graduates of the *Management of Protected Areas* Master's programme at Alpe Adria University have been responsible for the site's management in a pilot governance structure called *City meets Nature*. During the reflection process, it emerged that the unusual management setup met the Green List criteria very well; 89 % of the indicators were fulfilled completely or partially. However, opportunities to further improve the conservation status of species at the site are limited due to the urban surroundings. The IUCN Green List's feedback complimented those involved for active management. Self-assessment provided a helpful overview of successes and areas where there is room for improvement. The feedback of the Green List mentor on the project results was particularly encouraging. The example of Lendspitz-Maiernigg shows that the comprehensive governance and management approach presented here is feasible for Natura 2000 sites as well, especially in an urban setting.

Profile

Protected area

Lendspitz-Maiernigg

Natura 2000 site

Mountain range

Alps, Austria



Figure 1 – General view of the Natura 2000 area at the lakeside. Due to high visitor pressure in an urban context, conserving the last remaining natural stretch of the lakeshore is a challenging task. © ECOPterix, Pilot Hecke.

Introduction

Quality criteria for Protected Area Management in the 21st century

The IUCN World Parks Congress 2014 came up with the *Promise of Sydney* (IUCN 2014), advocating inspiring solutions, rather than repeating alarming trends and insistent demands. Green List criteria for well-managed sites in the 21st century were developed to set *globally consistent and locally relevant* standards for the management of protected areas (IUCN/WCPA

2017). The standards are designed to *provide a global benchmark [...] to assess whether protected areas are achieving successful conservation outcomes through effective and equitable governance and management* (IUCN/WCPA 2017). Within this context, the IUCN launched a test project applying particularly to Natura 2000 sites (IUCN 2019). In the context of this project, the Lendspitz-Maiernigg Natura 2000 site (AT2130000, Klagenfurt, Austria, Figure 1 & 3) was assessed against indicators representing the criteria *Governance, Design and Planning, Effective Management and Successful Conservation Outcomes* (Figure 2). The results of this evaluation are presented and discussed in this article.

City meets Nature: A conservation area in an urban setting

The Lendspitz-Maiernigg Natura 2000 site (Figure 1) is situated in the siltation zone of Lake Wörth and comprises habitats and species of wetland ecosystems (Amt der Kärntner Landesregierung Abteilung 8). It represents the last remaining 500 m, in an urban surrounding, of the lake's natural shoreline, with reed belt and adjacent wetland habitats (Figure 3). Due to its habitats and species, the area was designated a Natura 2000 site in 2005 and enacted as such in 2010. Because of its proximity to the City of Klagenfurt and especially to the recreational area at the lakeside, the site is exposed to permanent pressures from recreational and tourist activities and from increased urban development.

However, activities carried out by the adjacent scientific and educational institutions, such as the Uni-

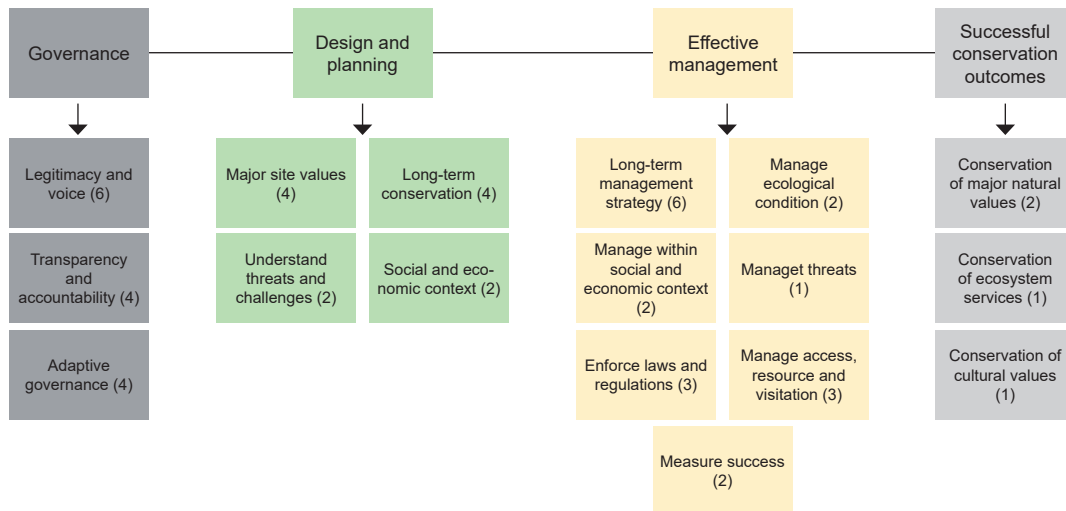


Figure 2 – IUCN Green List Sustainability Standard Indicators (IUCN / WCPA 2017). Criteria and respective number of indicators, in brackets. Source: Authors' design based on IUCN 2019.

iversity of Klagenfurt and the Lakeside Park (a science and technology park), can easily be related to the Natura 2000 site.

In the context of a memorandum in the year 2013, the Carinthian government, the City Council of Klagenfurt and the University of Klagenfurt initiated the project *City meets Nature*, intending to develop a management and governance structure for the site (Jungmeier et al. 2015). The idea was to take advantage of the challenging conditions by maximizing the involvement of the different stakeholders. A steering-group was established consisting of representatives of the various administrative bodies and university lecturers. To create maximum synergies between the neighbouring research institutions, the idea was put forward of using the site as a learning area for students on the Management of Protected Areas Master's programme; thanks to this multi-partner set-up, the site benefited from innovative international management approaches, applied by lecturers and students. This led to the following activities:

- Revision of the management plan and elaboration of targets and measures for the next decade (Glatz-Jorde et al. 2015).
- Monitoring activities dealing with visitor behaviour and nature conservation (Glatz-Jorde & Jungmeier 2018).
- Implementing visitor-management measures (Glatz-Jorde et al. 2018, Glatz-Jorde et al. 2019).
- Implementing biotope-maintenance measures (Glatz-Jorde & Jungmeier 2018).
- Public relations projects, information and citizenship events and publications (Glatz-Jorde & Jungmeier 2016; Glatz-Jorde & Jungmeier 2018; Jungmeier et al. 2015).
- Research activities dealing with conservation topics (Ukowitz & Pichler-Koban 2018).

- Development of training materials and educational formats (Jungmeier & Schneider 2018; Fuchs et al. 2018; Jungmeier et al. 2016; Preiml et al. 2017).

City meets Nature revisited – The IUCN Green List Framework

After five years of continuous management, the authors assessed the management of the Lendspitz Maiernigg Natura 2000 site against the criteria of the Green List. The aim was to identify the results, challenges and current level of fulfilment of the criteria. Additionally, a LIFE Green List mentor gave feedback on the self-assessment conducted.

Equitable and effective governance

In 2012 *City meets Nature* established and subsequently maintained a governance structure with a steering group comprising representatives from the administrative bodies and students on the Master's programme. The group developed yearly programmes which were discussed openly with relevant stakeholders. Through cooperation with academic bodies, the incorporation of up-to-date scientific knowledge was ensured. Various communication channels were used to sensitize the public to the value of the fragile site. The focus of the first years was to open up and maintain various communication channels.

Information campaigns were launched, citizenship events organized (Figure 4), information materials displayed in public places, and stakeholder meetings held to provide a platform for exchange and promote management decisions. Since 2016, site rangers have been present at highly frequented places, to inform people about regulations and receive feedback or complaints. Annual presentations provide additional opportunities for exchange.



Figure 3 – Aerial View of N2000, Lendspitz-Maiernigg, showing the boundary and the Fauna and Flora Habitat types: 3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.; 3150 Natural eutrophic lakes; 6410 *Molinia* meadows on calcareous, peaty or clayey silt-laden soils; 6510 Lowland hay meadows; 7210 Calcareous fens with *Cladium mariscus* and spp. of *Caricion davallianae*; 7230 Alkaline fens; 9110 *Luzulo-Fagetum* beech forests; 91L0 Illyrian oak-hornbeam forests. Source: Authors' design based on https://gis.ktn.gv.at/arcgis/rest/services/tilecache/Ortho_2013_2015/MapServer/WMTS/1.0.0/WMTSCapabilities.xml

Designing and planning long-term conservation goals

The site includes eight habitats and various species of the Fauna-Flora Habitat (FFH) and the Birds Directives. It meets the requirements of the both EU directives fully. The site is classed as an IUCN Category V protected area. During the revision of the management plan (Glatz-Jorde et al. 2015), the state of the habitats and species was assessed and measures for improvements were implemented. Priority species were defined and updates on their conservation status were given to decision makers. Maintaining the natural state of the site was highlighted as a major conservation objective.



Figure 4 – GEO-Day of Diversity 2015, a Citizen-Science Event at Lendspitz-Maiernigg. © H. Bauer

Socio-economic implications were also taken into account. As a result of the housing policy of recent decades, this last remaining unspoilt spot of the lakeside additionally functions as the last free access point to the lake for the public. Due to private property rights, the protection of larger sections of the lakeside is not a realistic goal.

Effective Management

Since the project was established, measures have been implemented to achieve long-term results in conservation and to further restore habitats by tackling immediate threats, such as the pressures of too many visitors or invasive species. The highly skilled permanent staff are supported by volunteers during summertime. A high level of agreement with the town's administration personnel has been achieved, and ongoing cooperation with academic bodies and training centres is pushing forward the idea of using the area as a *green classroom*.

Maintaining the habitats is ensured for the next five years. A threshold has been defined for each habitat and species, and a monitoring system has been in place since 2015. A ranger system supports law enforcement. Awareness raising efforts have had positive effects, and there is increasing political will with regards to taking on more responsibilities to support the site. Much has been done to facilitate guidance structures and regulations for visitors and to improve the acceptance of rules: closing the area for the public is not an option.

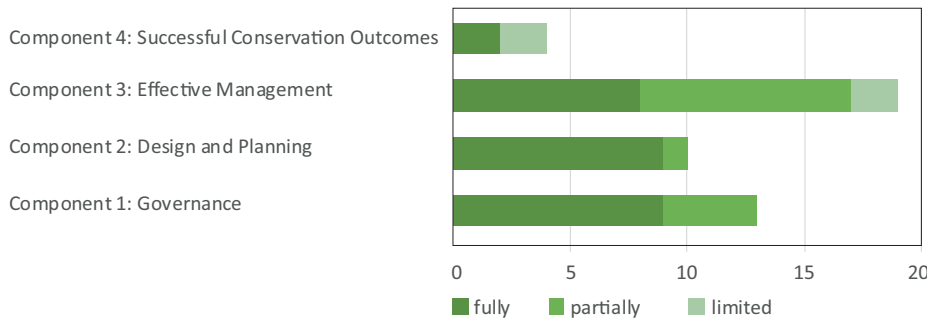


Figure 5 – Level of fulfilment of Green List indicators. Source: Author's design

There are still challenges: climate change and limited funding are affecting the implementation of measures; the problem of invasive species cannot fully be addressed within the budget, and the high visitor pressure still causes continuous disturbance.

Successful conservation outcomes

Efforts were made to assess the status of the Natura 2000 target species and habitats during the revision of the Management Plan 2014 (Glatz-Jorde et al. 2015); monitoring procedures for each conservation value were also defined. Since then, information on the species and habitats has been collected regularly and presented in annual project reports (Glatz-Jorde & Jungmeier 2018). Because of financial constraints, the monitoring programme cannot be implemented fully on a regular basis. There are limited options also in terms of improving the conservation status of habitats and species: the lakeside does not host large populations of protected species but acts, rather, as a partial habitat. A considerable amount of effort is put into maintaining the habitats, but the significance of the site in terms of ensuring the survival of threatened species is limited due to the site's small size and the urban surrounding. The educational value of the site is high: it provides an ideal learning environment and experimentation area for natural sciences and new technologies, and allows for practical understanding of nature and its concepts. For the next generation, experiencing a natural lakeshore might be more important than the conservation of a few species in this highly urbanized environment.

Conclusion

After five years of *City meets Nature*, the local population is sensitized, and the administrative bodies and political leaders have the Lendspitz-Maiernigg site on their agenda. They have also gained insight into the opportunities that an actively managed protected area can provide for the public.

Keeping up the advanced level of governance has been challenging throughout the project. Stakeholders' level of commitment has fluctuated; high commitment was followed by phases of low interest. Repeated attempts had to be made to secure the implementation of necessary but unpopular measures, and to define

respective responsibilities. Political changes and limited funding threatened the maintenance of stringent programmes. Despite these setbacks, it has been possible to keep the protected area on the agenda of decision makers. The IUCN Green List feedback has recognized the endeavour for active management. Although at first glance the measurable successes might seem small, keeping the conservation status at the same level as it was 12 years ago is a significant achievement in these high-pressure surroundings.

The results of the evaluation by the mentors, according to the Green List Sustainability Standard, indicate that Lendspitz-Maiernigg is well on its way to being a success story with the given management structure and activities implemented. The current management is aware of the steps that need to be taken to improve on the current situation: out of 47 indicators, the site already meets 28 indicators fully and 14 partially (see Figure 5).

It was positively highlighted by the IUCN that there seem to be no blind spots concerning the management of the site: all dimensions and indicators are at least partially addressed. The assessment concluded that the external factors like ongoing visitor pressure, the urban surrounding and various stakeholder rights are preventing complete fulfilment of the Green List Standard.

The IUCN mentors suggested intensifying the involvement of civil society and including transparent outreach activities. Additionally, they highlighted the need to identify ecosystem services and economic and cultural benefits yielded by Lendspitz-Maiernigg.

The Green List also proved to be helpful for this urban Natura 2000 site, where a comprehensive understanding of site management beyond nature conservation is applied. However, the setup of the assessment is complex and might not be applicable for Natura 2000 in general. For the managers of Lendspitz-Maiernigg, applying the framework provided orientation and motivation for a profound analysis of the site's current condition and directions of future focal action points. However, we believe that performance in relation to criterion 4, *Successful Conservation Outcomes*, should be decisive. The Green List assessment has shown that maintaining the present governance structure is useful and important in order to work towards Green List Status.

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