



WELCOME

ALPINE PARKS FOR ALL

LIVING SPACE AND TOURIST DESTINATION



Supported by:



Federal Ministry
for the Environment, Climate Action,
Nature Conservation and Nuclear Safety



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FINAL REPORT



WELCOME
ALPINE PARKS FOR ALL



INTRODUCTION

Alpine tourism has developed significantly during the last decades into a more and more mass phenomenon, particularly in some parts of the Alps, including in many protected areas. New ways and approaches are needed in the Alpine region and especially in Alpine protected areas for a tourism more respectful of nature.

For this reason and in order to fulfil their mandate of nature conservation and sustainable development, Alpine protected areas must clearly define their position on tourism, promote specific forms of sustainable tourism and act accordingly. The phenomenon of “overtourism” and the boom in outdoor activities mean that the Alps are increasingly and exclusively regarded as a backdrop for sports activities. Users are often unaware that these practices can cause long-term damage to a unique natural environment.

Cooperation with local and regional partners is crucial to develop sustainable and forward-looking concepts that have an added value for nature conservation and tourism in protected areas. International exchange between protected areas is also of central importance to share knowledge, to exploit synergies and to define, implement and communicate joint measures. Alpine protected areas have a leading position in promoting sustainable tourism thanks to their many years of experience. Due to their established position as tourist destinations and their dual responsibility for effective nature conservation and sustainable regional development, they play a decisive pioneering role.

The following report is based on two working hypotheses:

- Alpine parks and protected areas are model regions for sustainable development in the Alpine region
- Alpine parks and protected areas are first and foremost a habitat of biodiversity – (habitat before destination area) – so the tourist offers must be geared accordingly.

This work on the development of more integrative tourist offers in Alpine protected areas is based on the suggestion of the member parks of ALPARC and other partners. Besides the topic itself, it is intended

to strengthen the cooperation of the Alpine protected areas in this field. This project is to be seen as an initiative for further actions and developments and as an overview of existing initiatives at the Alpine-wide level for the management of protected areas and adjacent regions.

The aim is to maintain a broad, protected area-compliant, nature-conservation-friendly and attractive offer and to propose new offer segments that are attractive both seasonally and for different visitor groups and which involve the local population. An integrative approach for all target groups, which considers the special nature of protected areas, in particular their task of raising awareness and educating, as well as promoting sustainable regional development, is to be communicated as an added value.

First, the project collected and analysed tourist offers available in Alpine protected areas and the needs of protected area managers in this field. The activities included an exchange with protected area managers about current trends in tourism, the success of the existing offer and their possible reorientation or diversification.

After defining the features of a conservation-compatible offer, innovative examples existing in Alpine protected areas were identified, also in terms of participatory approaches. This review showed the need to design a new concept of sustainable tourism for the Alpine region. The present report puts forward the main elements that it should incorporate and proposes some first ideas for offers to be further developed by the ALPARC network.

The illustration of new innovative offers in Alpine protected areas by a pilot site approach mentioned in this report considered the concept of carrying capacities for ecosystems, participative approaches of the local population and adapted management tools to best limit impacts on habitats, fauna and flora.

From the analysis it clearly emerged to which degree practical guiding of visitors is important, due to the impacts of outdoor activities on nature and the effects of climate change. Innovative proposals for tourism in Alpine protected areas are crucial for a more sustainable development of tourism and outdoor activities in protected area regions. For this reason, the question of the limits of tourism growth in Alpine protected and sensitive nature areas was a central point of the work that was carried out.



— THE CRISIS OF CLASSIC TOURISM ACTIVITIES IN ALPINE PROTECTED AREAS —

*Current offers and needs
of Alpine protected areas*

1.1 INTRODUCTION

A new generation of tourists is tackling Alpine protected areas. Since the years of the COVID-19 pandemic, a larger public of “non-traditional guests” and short-time visitors has been frequenting the Alps, and many protected areas are among their destinations. This public often has other expectations than the one which, until today, could be qualified as more traditional (families with children, outdoor enthusiasts, “best agers”, school groups, informed individuals seeking the beauty of the areas or specific mountain activities).

Alpine parks need to respond to a double challenge: to enlarge and adapt their current offer to new publics and to consider the specific situation of a protected area being frequented by a high number of visitors.

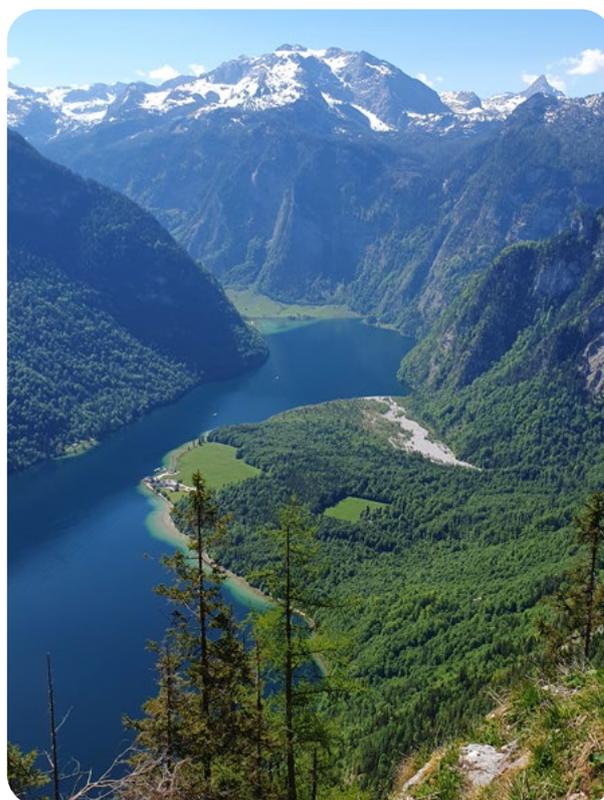
According to Dominik Siegrist and colleagues (2015), the challenges for tourism and the tourist offer in protected areas are the following:

- Protection of nature and landscape as the basis for all tourist and visitor activities and offers. The protection mission must always be the priority.
- The acceptance of the protected area among the local population and tourism stakeholders, especially in classic tourist destinations. A positive image of the protected area among these groups benefits the quality of the tourist offer.
- Clear concepts and objectives for further development of tourist activities. Long term planning and the consideration of nature and landscape protection goals are the basis for all tourism strategies in Alpine protected areas.
- Availability of resources for professional protected area management having the competence and capacity to achieve inclusive concepts for protected areas tourism and its implementation.
- Cooperation between the protected area management and the tourism sector. This is not always easy because of diverging objectives, but it is a must for successful sustainable tourism towards nature protection.

- Thematic positioning – according to the natural features, the history or cultural aspects of the protected area. A meaningful tourism strategy needs clear positioning around typical elements of the area. It allows “unique selling value” and contributes to the image of a particular tourism respecting local characteristics and integration in the protection goal of the area.
- Awareness raising and environmental education are typical tasks of nearly all protected areas and are called on to accompany all tourist offers. At the same time, a professional development of offers is a precondition for a successful cooperation with local tourism stakeholders that includes natural features, their need for protection and the limitation of access to the most sensitive areas. A more exclusive nature experience can also be an argument for specific tourist offers of protected areas.

(Adapted from Siegrist et al. 2015)

These are the basic elements for the offers of Alpine parks. The present chapter showcases the most common categories of tourist offers available in Alpine protected areas and the needs expressed by park managers concerning the current trends of tourism in their regions.



1.2 CURRENT SITUATION OF TOURIST AND VISITOR OFFERS OF ALPINE PROTECTED AREAS

The core mission of protected areas, the very reason they are established in the first place, is the conservation of the invaluable Alpine natural heritage. At the same time, precisely because of the beautiful landscapes and the rich biodiversity they are meant to preserve, these territories tend to be a strongly attractive destination (Fig. 1). Addressing the issue of tourism and integrating it into their overall strategy has thus become essential for parks, even when its promotion is not among their explicit (or primary) objectives. On the one hand, tourism represents an opportunity to enhance the appreciation of a wider public for the actions put in place by protected areas to preserve nature, raise environmental awareness and build strong partnerships with local businesses. On the other hand, an excessive influx of visitors to such sensitive territories risks undermining the conservation efforts of protected areas and eroding their relation with local communities.

With the WELCOME project, we have analysed the current state of tourist offers in Alpine protected areas, the needs of park managers in responding to

emerging trends, the initiatives that can support the development of a new tourism model aligned with conservation goals, and the limits to tourism growth in these ecologically sensitive regions.

To achieve this, we collected qualitative data using various methods:

- A survey addressed to Alpine protected areas on tourism-related issues
- In-depth follow-up interviews with park managers
- A review of the websites of all protected areas within the ALPARC network
- Workshops held during the project closing event (27-28 March 2025, Berchtesgaden – DE)
- Several informal exchanges with park managers

The full list of the protected areas involved in the research can be found in [Appendix 1](#).

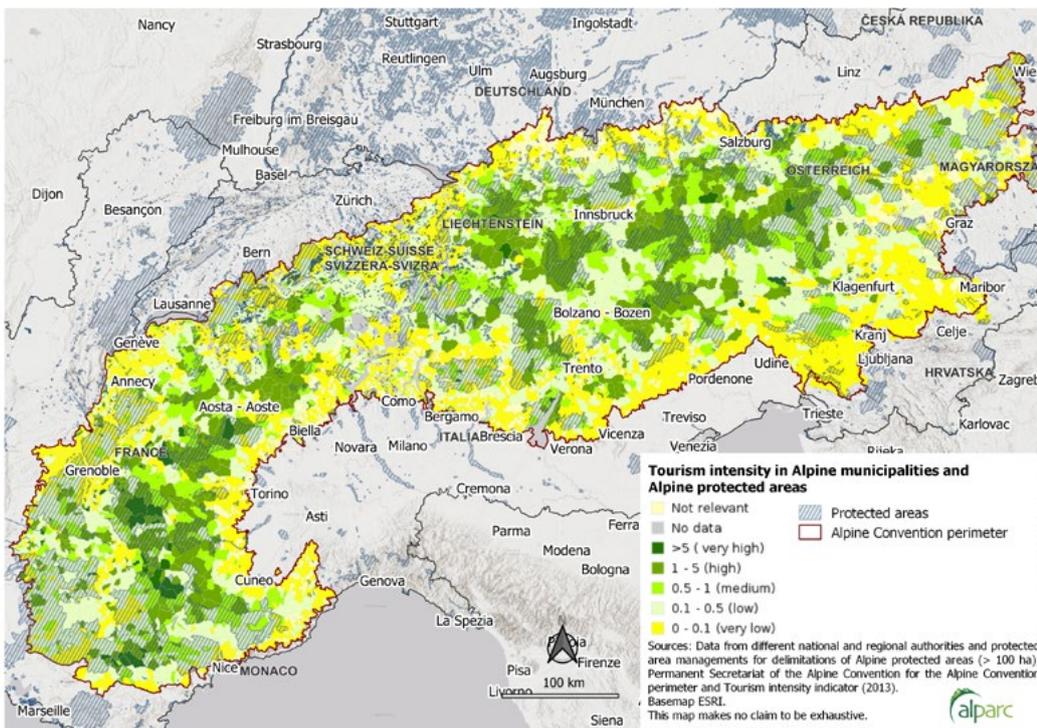


Fig. 1 Tourism Intensity in Alpine municipalities and Alpine protected areas

Our research showed that Alpine protected areas have developed a wide range of tourist offers. These initiatives share strong similarities and are easily recognizable as “park offers” across the entire Alpine arc. At the same time, protected areas can take advantage of the great environmental diversity of the Alps to give their offers a distinctive character, shaped by the unique features of their specific region. These features range from natural attractions, such as plant and animal species, geological and geomorphological elements (rock formations, caves, waterfalls) and scenic landscapes, to cultural assets, including historic buildings, rock carvings, archaeological sites, local traditions and history. By combining a solid foundation of well-established experiences with countless opportunities for diversification, protected areas aim to meet both visitors’ expectations and their own goal of fostering greater environmental awareness among the general public.

The proposals available in, or connected to, protected areas can mainly be categorized based on the type of activity. The following sections will explore the main offers present in Alpine protected areas and their common characteristics. Concrete examples of best practices will be detailed in Chapter 2.

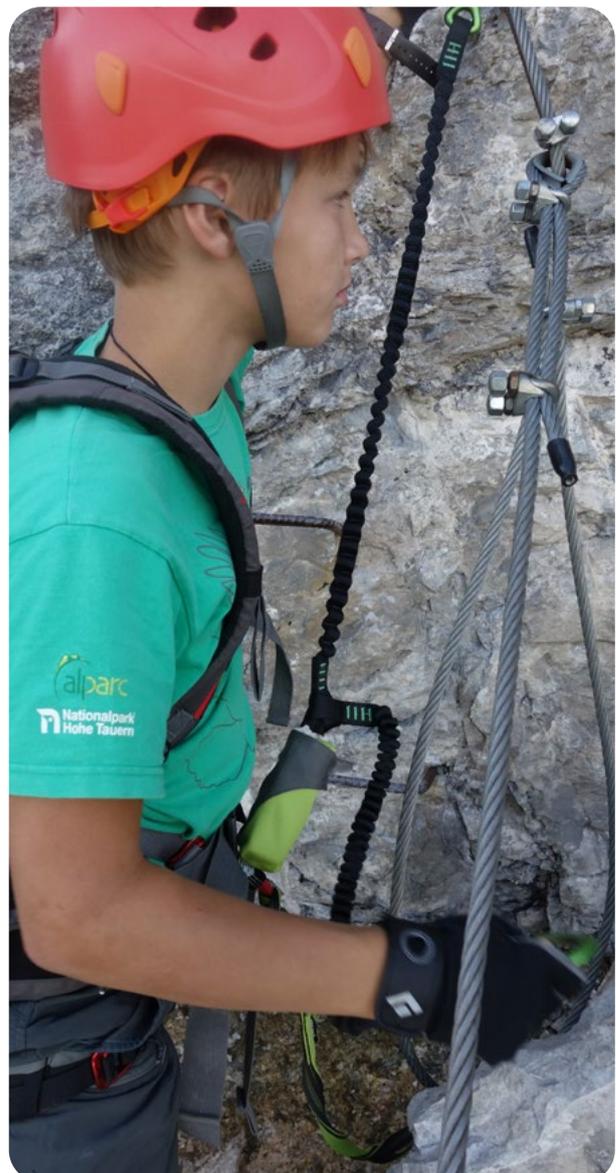
Recreational outdoor activities

It is fair to say that the main reason most people visit mountain areas is to spend quality time outdoors. Therefore, it goes without saying that outdoor activities represent the fundamental offer in virtually all Alpine protected areas. Here, we refer to “recreational” activities as those whose primary goal is not acquiring new knowledge about the park and its features but rather engaging in sport or simply enjoying the natural environment.

In this context, the role of the protected area is usually limited to providing the basic infrastructure needed for the activity. The most typical example is the network of trails, mainly used by hikers. Protected areas define routes of varying lengths and levels of difficulty that meet the needs of different visitor groups, from families with children to experienced mountaineers. These itineraries are usually linked to specific landmarks and, in some cases, multi-day treks are also designed. From a practical point of view, park staff are responsible for maintaining and marking the trails, as well as communicating them through

websites, signage, and printed guides. The same applies to trails suitable for biking in the summer or snowshoeing in the winter. Other recurring activities include rock climbing (and more rarely ice climbing), ski touring, and, where facilities are available, alpine skiing. Water-based activities like rafting and air-based activities like paragliding are also present in some locations.

Generally, these purely recreational activities are carried out independently or with the support of external guides and instructors. For this reason, protected areas are committed to clearly regulating these practices. By defining where and how such activities can take place within their borders, they help ensure that visitors’ desire to immerse themselves in Alpine nature does not result in its damage, due to unaware, inappropriate behaviours.



Themed trails

An intermediary approach between pure recreational activities and educational proposals, which are the cornerstone of all protected area offers, is represented by themed trails. These are hiking paths enhanced with educational content through information panels, digital resources, and installations. Visitors are thus given the opportunity to explore a distinctive feature of the area, transforming a simple hike into a learning experience. The topics covered are diverse, ranging from the ecology of plant and animal species to geology, history, local traditions and products, energy, natural hazards, and climate change. Along these itineraries, there are also observation points for landscapes and wildlife, complete with dedicated information.

Sometimes, to enhance engagement and help visitors to understand the content more effectively, themed trails include interactive elements (both physical and digital), quizzes and tasks, or are designed as treasure hunts. In other cases, trails focus on personal well-being and a deeper connection to the natural environment, giving suggestions for relaxation exercises and meditation.

As for recreational activities, themed trails are usually designed to be followed independently. Even in the absence of guides or rangers, they often represent the easiest way for parks to get in touch with visitors. They are therefore important tools for making evident the protected areas' mission of conservation and education, showing that their role goes well beyond prohibition signs and activity regulations. Through themed trails, it is possible to stimulate an interpretative approach to the landscape, foster greater acceptance of protected areas, and encourage people to directly interact with them, by participating in more structured activities or going to visitor centres.



Guided tours and experiences

While hiking and themed trails are the most immediate way to get to know their territory, the hallmark offer of protected areas consists of guided tours and experiences. Much like the previous category, the range of options here is extensive: some tours are guided walks exploring the natural heritage as a whole, others focus on specific geological features, wildlife observation, regional history or the research conducted by park staff. In addition to purely educational hikes, there are those that incorporate a more sporting dimension (such as cycling tours), also with a focus on learning specific practices or techniques (such as climbing or avalanche self-rescue). Finally, this category also includes experiences dedicated to physical and mental well-being led by qualified experts.

Overall, two types of offers can be recognized. On the one hand, there are tours organised directly by the protected areas, with detailed programs for the summer and winter seasons. On the other hand, there are tours requested individually by visitors, based on a predefined catalogue or tailored to the specific expertise of the guide. In both cases, the tours may be led by park staff or by external environmental/mountaineering guides, who collaborate regularly with the managing authority and are sometimes officially recognized by it. Of course, the great heterogeneity of the topics covered and the possibility to customize these experiences make them accessible to all types of audiences: children, athletes, people with disabilities, work groups, experts, and enthusiasts of various types of subjects.

The fundamental importance of these offers lies in the direct interaction established between participants, guides and, consequently, the protected area. In addition to conveying information, they allow visitors to question those personally involved in the study and protection of nature, to observe and interpret mountain environments in real-time, and to receive advice on biodiversity-compatible behaviours. Ultimately, guided experiences represent perhaps the most effective way to foster environmental awareness among tourists, making them proactive allies in the mission of protected areas.

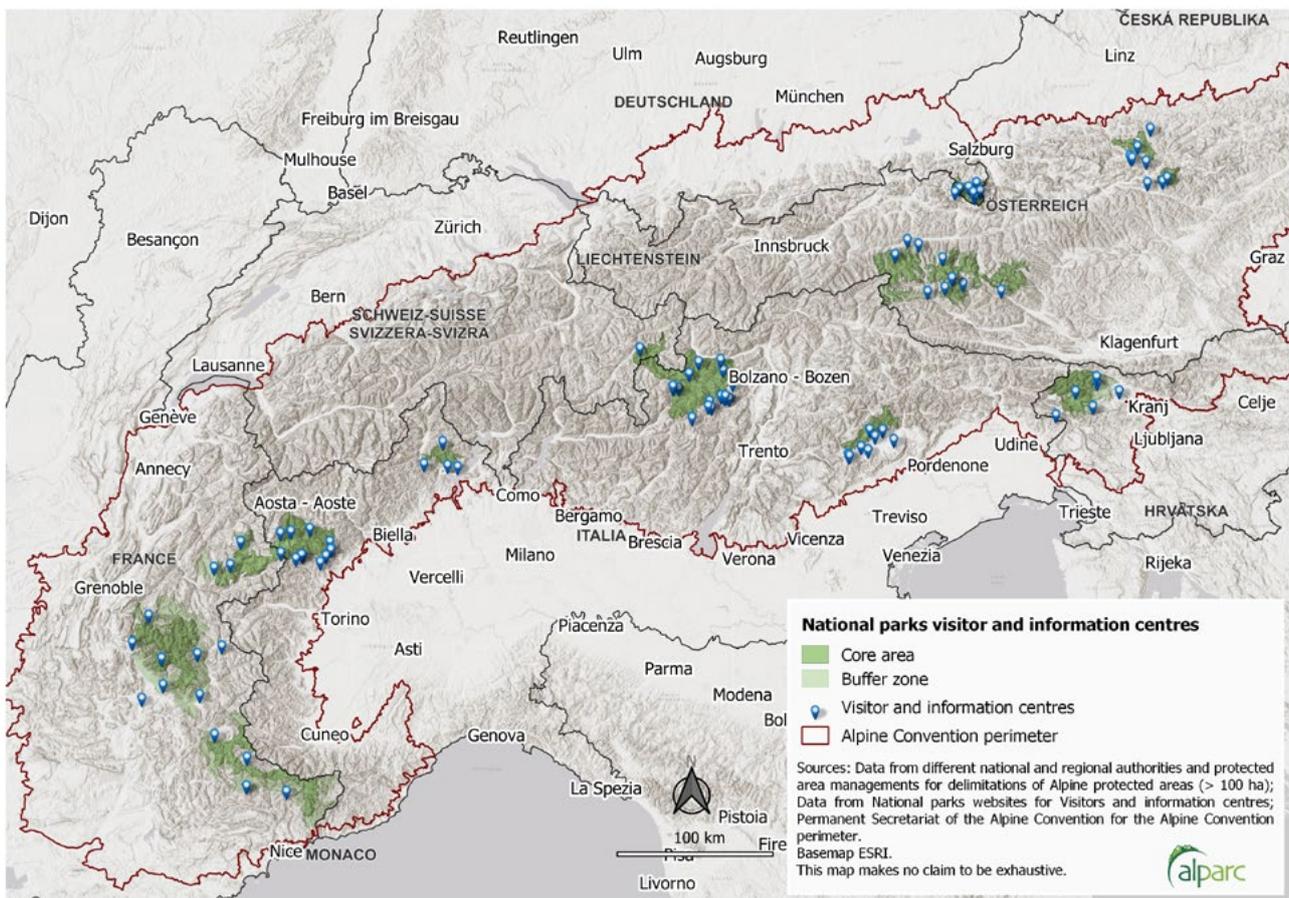


Fig. 2 National parks visitor and information centres

Visitor centres

The core physical locations for all tourist offers in protected areas are visitor centres, which exist in various forms and sizes everywhere across the Alpine arc (Fig. 2). Here, visitors can find official and up-to-date information about the park, its regulations, trails, and educational initiatives. It is also a place where visitors can interact directly with its staff, receive guidance on exploring the area, and get recommendations tailored to their specific needs.

Protected areas may have multiple visitor centres, which focus on the territory as a whole or on specific aspects of its natural and cultural heritage. In the latter case, these centres are typically located near the relevant features, allowing visitors to explore outdoors what they have learned indoors. They host permanent and/or temporary exhibitions, educational materials, and interactive installations. In some cases, this offer is complemented by actual museums, where the educational component prevails over the informational one. Visitor centres also serve as hubs for many educational and social initiatives, hosting workshops



for schools, presentations, or discussion forums with the local community (see figure 2, not exhaustive).

Ideally, these structures should also represent the primary access point to the park. This is particularly relevant for people visiting protected areas (or a specific protected area) for the first time, as it helps them understand the uniqueness of the place, as well as the reasons for the regulations that apply within those boundaries.

Cultural initiatives and events

In addition to the regular educational activities mentioned above, protected areas organise (or contribute to organising) many cultural events and initiatives. There are simpler proposals, such as conferences and presentations about the work of the park. But there are also photography courses, workshops on the use of herbs or traditional crafts, film and documentary screenings (even outdoors), fairs and markets, art exhibitions, festivals, citizen science days, and initiatives specifically dedicated to the cultural heritage of the region (legends, traditions, important historical moments). These events are often carried out in collaboration with local stakeholders, such as cultural associations, schools, local and regional authorities, or universities.

Cultural initiatives present a significant opportunity for protected areas. First, they allow them to establish contact with a broader audience that goes beyond mountain and nature enthusiasts, an important aspect for raising awareness about the existence of the protected area and its mission. Secondly, these events enable parks to present themselves not only as destinations or distant entities imposing restrictions, but as teams of people actively contributing to local life in many forms and on many topics. This fosters acceptance of the protected area as an integral part of local communities, creates collaborative networks on various scales and thus facilitates the fulfilment of conservation goals.

We can say that these categories vary in the degree to which they integrate two key components: infrastructure and interaction. Infrastructure refers to the physical elements required to support activities (e.g. trails, installations, buildings), while interaction refers to the direct involvement of park staff (e.g. development of educational content, guided tours, organisation of events). While the intensity of these two components

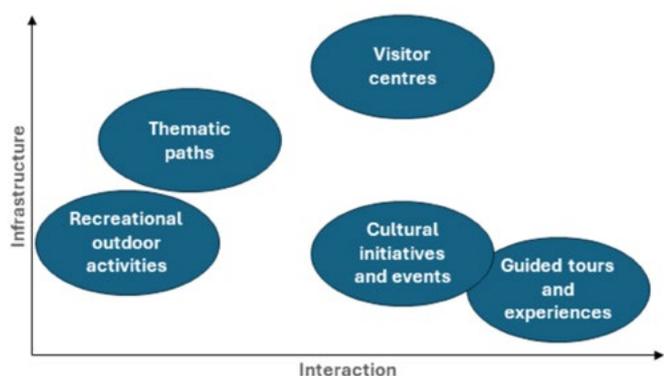


Fig. 3 Classification of the most common categories of offers

has clearly an impact on the costs that the management bodies need to sustain, it also determines the possibility of influencing visitors' behaviour in the short and long term. If the goal is to promote sustainable tourism within protected areas, infrastructure plays a crucial role in managing visitor flows, for example by directing them to less sensitive zones and designated information points, or in making the presence of the protected area more visible. However, it is through direct interactions that the most meaningful opportunities arise to enhance public awareness and appreciation for nature conservation, fostering a deeper understanding of the parks' mission and the value of the heritage they protect. Fig. 3 illustrates how the most common types of offers are distributed along the axes of infrastructure and interaction intensity.

It is worth noting that while the categories presented so far are relatively cross-cutting in terms of audience, protected areas pay particular attention to certain target groups. The first group is children and young people. They are engaged through activities designed specifically to spark their curiosity, encouraging them to actively discover the territory and its heritage, often through play. Examples include treasure hunts and interactive trails, which have already been mentioned. There are themed playgrounds, sensory installations, and nature exploration kits, and park staff also organise educational workshops, outdoor days, and summer camps. Almost all protected areas have programs specifically tailored for schools, with themes adapted to various age groups. Although these latter initiatives cannot be strictly classified as "tourism", they perfectly align with an overall goal: to foster environmental awareness from an early age in those who will one day become independent visitors (and, of course, in their parents, teachers, and educators, too).

The second group includes people with disabilities and those with accessibility needs, such as older visitors. The aim is to offer inclusive experiences that enhance access to nature for those who would otherwise be excluded. Even though they are not yet widespread, many protected area websites feature dedicated sections with information about barrier-free facilities and trails, rental services for outdoor wheelchairs, sensory trails and exhibitions, as well as discounts or special offers. These initiatives are often developed in collaboration with associations and volunteers, who have the right expertise to guide visitors according to their specific needs. Particularly in challenging environments like the mountains, attention to accessibility and inclusion helps improve the overall quality of the offer for everyone, making nature really a common heritage without distinctions.

1.3 TRENDS AND CHANGES DESCRIBED BY THE ALPINE PROTECTED AREAS MANAGER

To define a new concept for tourism in Alpine protected areas, it is first necessary to understand how it has been changing over the last years, what challenges derive from these trends and what the emerging needs are for balancing tourism and nature conservation. To this end, we performed a survey addressed to park managers and followed by in-depth interviews. The following discussion is based on the results of these activities.

As mentioned in the previous paragraph, tourism in Alpine protected areas presents both positive and negative sides. Regarding the former (Fig. 4), the increased revenues it determines for the whole region were pointed out as a beneficial effect of this sector by almost all participants (90%). While this can seem obvious, it is nonetheless a central aspect to be considered for this work. Indeed, any measure trying to manage or even reduce visitor flows for nature

conservation should expect to be confronted with the opposing stances of tourism stakeholders or even the residents, fearing economic losses. Considering that the Alps were historically a poor region and that even today the economy of some areas entirely depends on tourism, it is clear that to be accepted, a new sustainable concept for this sector needs to be developed through participatory approaches that involve local communities. Two other relevant benefits according to the majority of participants are the opportunity to raise awareness among tourists (and the local population, as mentioned by a respondent) and those related to health and wellbeing. Both these aspects should be carefully considered when designing new offers. The former responds to one of the main missions of protected areas (environmental education), while the latter reflects what park managers report as a growing interest among visitors, in particular starting from the COVID-19 pandemic.

Fig. 4 What benefits and opportunities do current offers bring?*

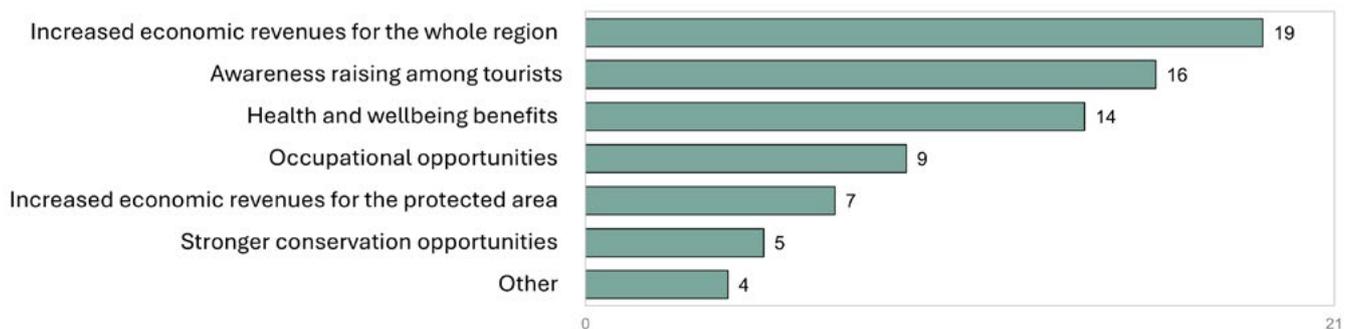
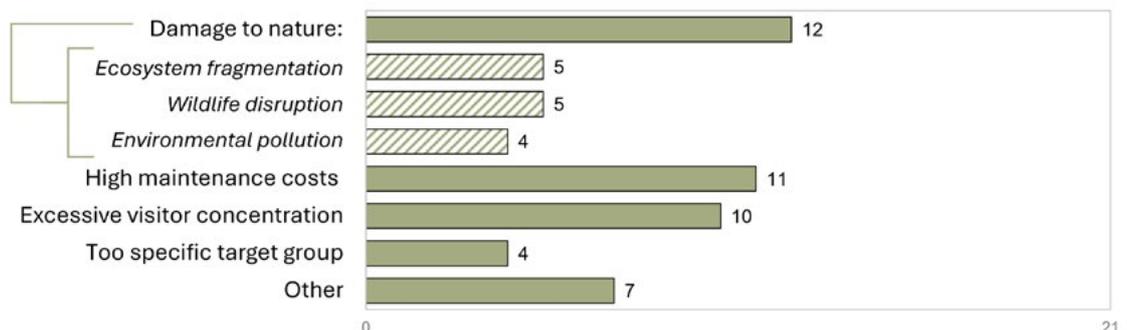


Fig. 5 What are the difficulties and negative impacts related to current offers?*



* Questions marked with an asterisk allowed multiple answers. Totals may exceed the number of respondents; sub-totals refer to the number of respondents who selected at least one option in the category.

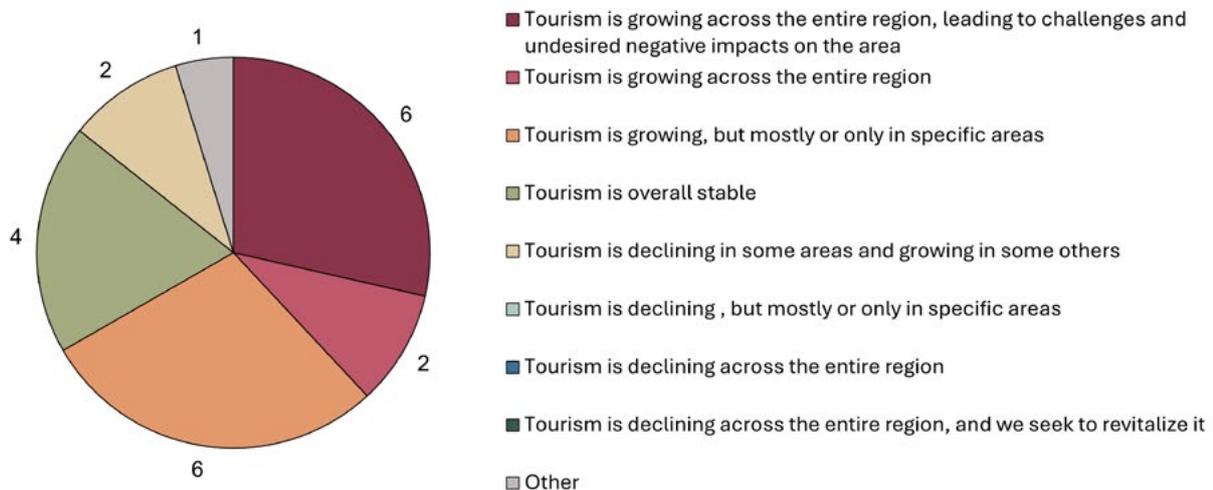


As regards problems and negative effects of tourism (Fig. 5), all of the aspects proposed in the survey appear to be widely present in Alpine protected areas. Most participants (57%) reported some sort of damage to nature that, depending on the specific situation, takes the form of ecosystem fragmentation, wildlife disruption, pollution, or a combination of the three. The other side of the coin of the increased revenues mentioned above can be identified in the rise of maintenance costs (52%). They derive for example from the major efforts needed for the restoration of impacted natural areas or trails. Notably, traffic of motorised vehicles was not among the options available but was specified as a problem by respondents (“Other”), meaning that the topic of transport has to be included in the new tourism concept, too, especially as concerns public mobility. As expected, excessive visitor concentration was also pointed out as an issue by many parks (48%) and this can be easily connected to the tourism growth experienced by most of them (Fig. 6).

Two third of participants (67%), indeed, reported that tourism is currently on an increasing trend in their protected area and the surrounding region. In 8 cases (38%) this is happening across the entire region, and in 6 cases (29%) it is causing undesired negative impacts. It should be noted that options specifically dedicated to a decreasing trend were never selected¹, and that in the only 2 cases where a reduction of tourism is experienced in some areas, this is associated with an increase in some others.

Of course, these results could be due to a selection bias, since protected areas that are facing (or foresee) problems related to tourism and overtourism may be more interested in contributing to projects related to the topic. Still, this also allows us to focus on those cases where threats to nature conservation and conflicts between different uses are perceived as most urgent. The in-depth interviews showed that this trend represents a rather long-standing phenomenon that experienced a peak during the COVID-19 pandemic. For example, in 2020 the Parc Naziunal Svizzer had a 50% increase in the number of visitors. In the same year, in the Triglavski Narodni Park, although the number of overnight stays decreased by 40%, the daily number of people on specific trails was higher than in 2019, meaning that domestic visitors outbalanced the absence of foreign tourists. In most cases, it seems that the situation is now returning to the pre-pandemic trends, with growth continuing steadily but at a lower rate.

Fig. 6 What are the trends of tourism in your protected area and in its surrounding region?



¹ The only “Other” case was specified as related to a strong growth of individual water sport and ski touring.

As said, it is easy to connect the increase of tourism to problems of overcrowding. However, especially in the most famous hotspots of the Alps, this also depends on another aspect that the pandemic changed in a more stable way (and that will be better discussed in the next paragraph): many “first-time” visitors go to protected areas, drawn to the mountains in search of a fresher climate or by attractive contents seen on social media. When they arrive at a park, this category of visitors is generally less aware of its conservation mission, or even of the existence of the park itself. Because of this new popularity of mountain destinations, local infrastructure can be overwhelmed by peaks of demand that far exceed what it was originally designed to handle, both in terms of resources (such as water and food in mountain huts) and of waste management. Overcrowding concerns not only people, but also vehicles. Many protected areas reported difficulties coping with the high volume of cars. Given the general underdevelopment of public transport alternatives, private vehicles fill parking lots and the sides of the roads near trailheads, and sometimes lead to traffic jams in the most frequented valleys and passes.

Climate change has an impact on tourism, too. Reduced snowfall requires tourism to move towards offers that are less winter-related and more year-round, while hotter and longer summers also affect frequentation. On the one hand, as already mentioned, more people tend to look for fresher temperatures at higher altitudes and particularly at water spots such as rivers, waterfalls or lakes, also hoping to have a swim; on the other hand, longer summers mean that human presence lasts longer, reducing the “resting period” for nature. Besides, the frequency of extreme weather events poses a hazard to visitors’ safety and damages to infrastructure, determining increased maintenance costs.

Other trends that were identified refer to changes in the activities performed by visitors. First, the diffusion of e-bikes and especially e-mountain bikes are making those places traditionally frequented only by hikers or by some well-trained cyclists more and more accessible. This has an impact on the overall usage of high-altitude trails, leading not only to greater disturbance for wildlife and erosion, but also to conflicts with landowners and hikers themselves. Secondly, parks report an increase

Fig. 7 What strategies are you implementing (or planning to implement) regarding tourism?*

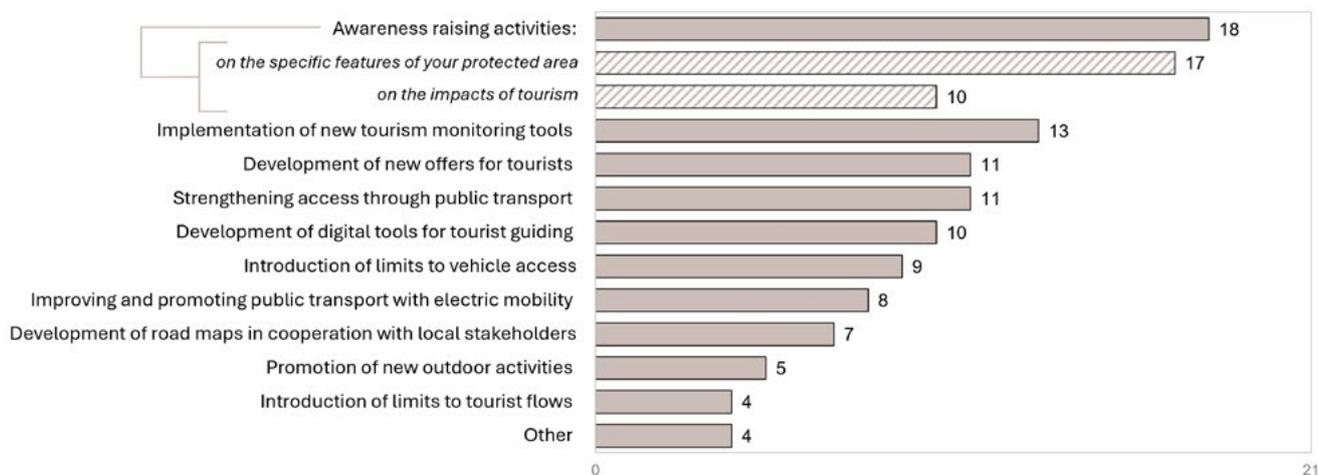
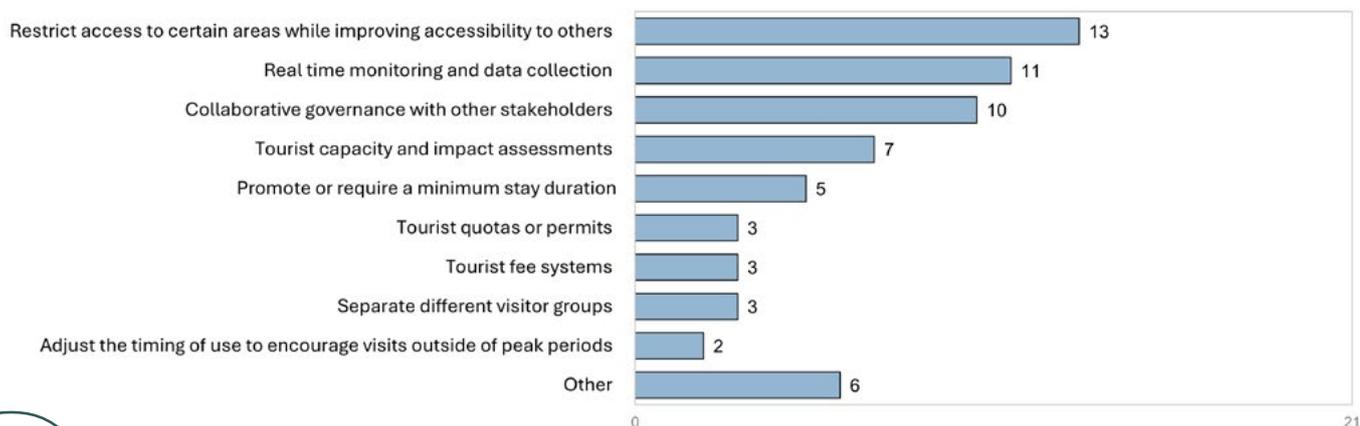


Fig. 8 What tools are available for tourism management in your protected area and its surrounding region? (Both in terms of tourist flow management and of tourist activity governance)*



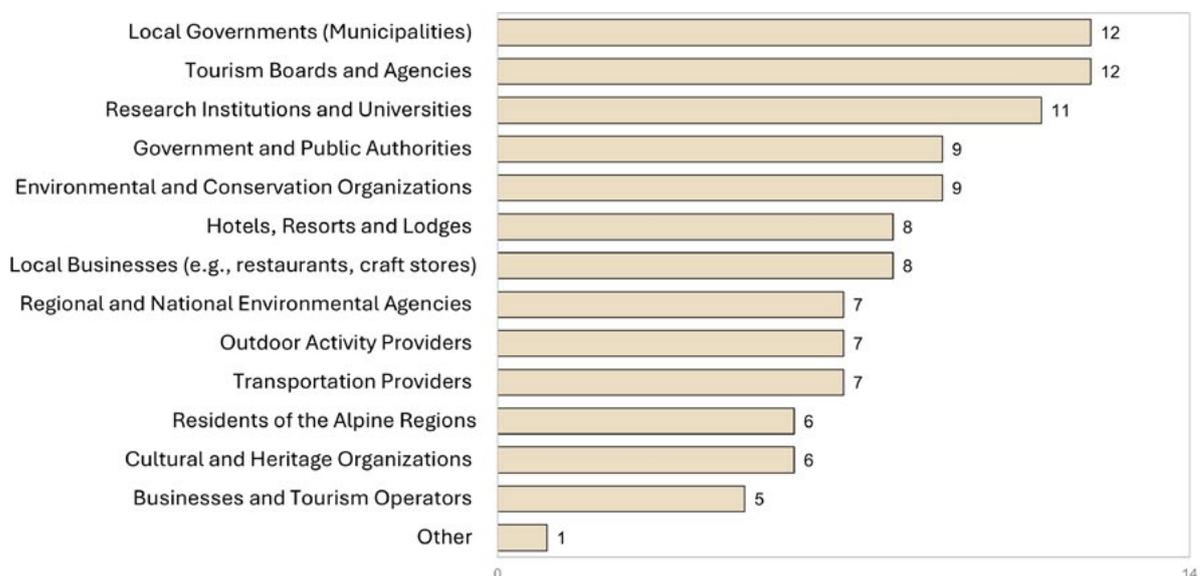
in mass sports events across the Alps (e.g. trail running competitions), that cause peaks of human concentration in rather limited areas. Finally, and especially connected to the higher presence of unaware visitors in Alpine protected areas, major environmental impacts derive from unauthorized activities, like wild camping, drone flying, or tours outside the dedicated trails. In particular, the latter often depends on the fact that users can share on digital outdoor platforms itineraries which do not comply with the rules and limitations, something that park managers struggle to counteract.

All these negative consequences deriving from increasing tourism and changing visitor behaviours have a direct effect on nature conservation. Habitat fragmentation and loss, wildlife disturbance, displacement and even reduction in population, water and air pollution are major problems to which protected areas try to find solutions through different strategies (Fig. 7). From a general perspective, awareness raising initiatives stand out as the most commonly adopted one (86%), and focusing on the specific features of the region is overall preferred (81%) to focusing on the impacts of tourism themselves (48%). Another main priority of park managers consists in the implementation of tools for the monitoring of visitors (62%). Much as it is necessary to guide decision-making, determining how many tourists enter a protected area, where they move, and what activities they do remains indeed a complex task. Important aspects are also those related to mobility, and in particular the improvement of access by public transport (52%), and to the development of new offers (52%). Concerning the latter, interviews revealed a growing demand for wellbeing and

health-related offers, such as forest bathing, that have an interesting potential for combining attractiveness and awareness rising. Finally, the implementation of digital solutions for tourist guidance (48%) could respond to the issues deriving from incorrect or unverified information available on third party platforms.

As regards the management tools that parks are putting in place (Fig. 8), the most widespread among survey participants consists in restricting access to sensitive areas, while diverting visitors towards the less problematic ones (62%). It is the case for instance of winter quiet zones for black grouse and rock ptarmigan but can also translate into the closure of specific paths, either temporary or permanent. While this means “sacrificing” the areas that will be interested by an increasing human pressure, this approach seems to be largely preferred compared to distributing frequentation over a wider area. Other tools concern the real time monitoring of tourists (52%), for example through counters or mobile cell phones data, and can also be connected to actions aimed at assessing the impacts of frequentation itself. While quotas or fees do not seem to be particularly employed, nearly half of participants reported promoting collaborative governance with other stakeholders (48%) (Fig. 9). In most cases, these stakeholders are local governments and tourism boards and agencies (86%)² that are geographically closer and have the most direct impacts on the protected area regions. Other actors involved are research institutions and universities (79%), that support management bodies in visitor monitoring or in the development of new sustainable concepts and offers.

Fig. 9 Who are the key stakeholders you are working with?*



² The survey was sent out in two different phases. The question on stakeholders was only present in the second one, hence the different total reference number.

1.4 NEW CATEGORIES OF VISITORS IN ALPINE PROTECTED AREAS

Alpine protected areas have been experiencing a significant evolution in the demographics of their visitors for at least the past decade. While the classic public remains relevant (e.g. families, outdoor enthusiasts, “best agers”), park managers report that a new category of guests is more and more present, particularly at the tourist hotspots or so called “insider places”. More than out of interest in exploring the protected area, these visitors are often motivated by a certain fashion of self-staging or self-presentation through social media, where the desire of taking “selfies” at spectacular nature sites turn them into a kind of virtual, ephemeral element of the landscape. The proliferation of such images online contributes to a continuously larger influx of people interested in short visits to specific spots rather than in embracing the values of sustainable tourism. These trends are not compatible with the objectives of protected areas and especially of strongly protected areas. Thus, restrictions on access or limiting visitor numbers are a logical consequence. As already mentioned, besides their tendency to concentrate in sensitive spots, another major issue with this emerging visitor group is that they are “first-time nature visitors”, generally unaware of the regulations or even of the fact that they are in a protected area. While in the past people tended to choose these places specifically out of curiosity or appreciation for their protected status, it seems that today the aim is more often to just get to nice mountain locations. The fact that these are inside a protected area is incidental.

Another trend that is shaping Alpine park frequentation is the ageing European population, which is reflected in the increasing number of elderly visitors. This shift

highlights the need to develop more accessible, low-risk options and facilities in Alpine protected areas. Although this is particularly challenging in mountain environments, innovations in areas such as health tourism and transportation could prove helpful not only for senior visitors but for overall tourism management. In particular, these solutions hold a strong potential to meet the needs of people with disabilities, responding to the growing attention placed on inclusion and participation of all.

To fulfil their mission of nature protection, Alpine protected areas are required to adopt a dual approach. On the one hand, they must offer sustainable tourism opportunities for an interested and responsible public. On the other hand, they must apply clear restrictions on those whose behaviour conflicts with conservation goals. Of course, such an approach is easy to formulate, but much harder to implement in practice.

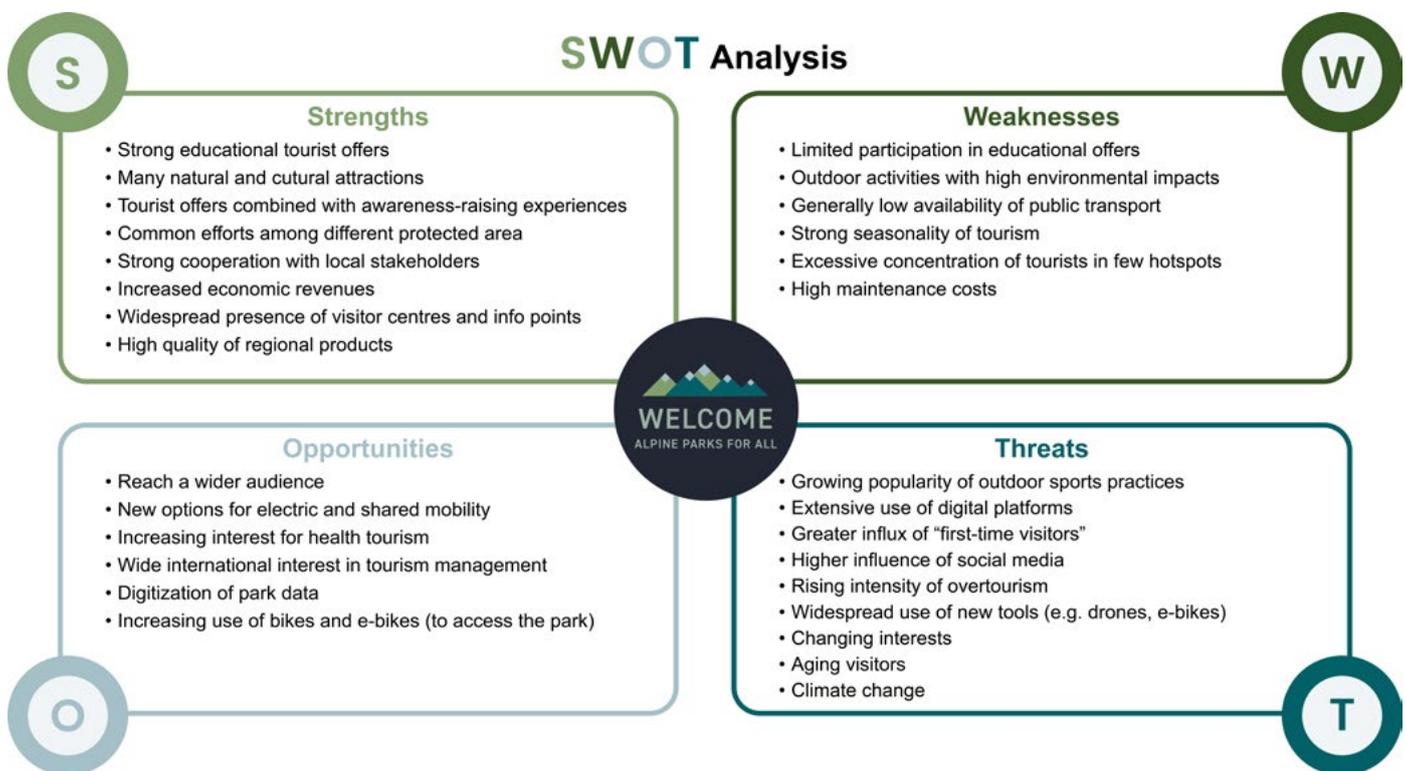
Innovative tourist strategies should incorporate the need to be attractive both to classical target groups and to “first-time visitors”. Understanding the motivations of this new category for going to protected areas is thus crucial, as it allows parks to guide these people towards educational opportunities and turn them into more informed, aware visitors. Regardless of the target groups, however, protected areas should design offers that direct people to those locations where their presence can better be managed and causes less damage. In the end, the impacts of tourism do not depend exclusively on the activities themselves, but also on where and how they take place. Both these aspects (innovative offers and tourism management) will be addressed in the following chapters.



1.5 SUMMARY: SWOT ANALYSIS OF THE CURRENT OFFER

The findings on the current tourist offer in Alpine protected areas are summarised here using a SWOT matrix (Fig. 10). This allows for the analysis of internal factors (Strengths and Weaknesses) and external trends (Opportunities and Threats) that may support or hinder the achievement of a sustainable development model for tourism in the Alpine region.

Fig. 10 SWOT Analysis: current offers in Alpine protected areas



The **strengths** identified express the quality of the tourist offer in Alpine protected areas and its compatibility with the protection of the natural environment:

- **Education and heritage:** the current offer promoted by Alpine protected areas is already sensitive to the protection of the natural environment and biodiversity. Educational activities are widespread and cover a wide variety of topics. They appear as the main tool to combine tourist offers with nature conservation and awareness raising. Alpine protected areas can base their offers on the invaluable natural and cultural heritage they preserve.

- **Cooperation:** Alpine protected areas generally have well-established cooperation with local authorities and other stakeholders, with which they interact for management reasons or for organising shared initiatives. Moreover, the existing cooperation between protected areas (both at the national and international levels) allows them to exchange good practices and knowledge.

- **Economic benefits:** the presence of protected areas represents a major element of attractiveness for tourists and translates into higher revenues for local economic stakeholders. The abundance of high-quality regional products, often promoted by Alpine protected areas, is also an important asset. This reinforces the links between the parks and their surrounding region, fostering their recognition as key actors and their acceptance among local communities.
- **Visitor centres:** visitor centres are crucial spots for making the presence of the protected area visible and for informing tourists about the park's mission, initiatives and regulations. They are widely present in different forms and sizes (from small info points to big multifunctional facilities) and can be dedicated to specific features of the natural or cultural heritage of the region.

Regarding the **weaknesses**, considered as the internal elements of the tourist offer that make it difficult to achieve the goal of sustainability, the following factors emerge:

- **Educational offers vs. recreational activities:** educational offers struggle to be attractive compared to outdoor practices with a stronger recreational component, which generally also implies higher impacts on nature. This limits the capacity of protected areas to divert visitors toward low-impact activities and to raise environmental awareness, while also making them potentially unsustainable from the economic point of view.
- **Generally low availability of public transport:** being located in more or less remote mountainous areas, Alpine protected areas are generally scarcely connected by public transport, especially regarding trailheads. Thus, most visitors prefer getting there by private vehicles, causing congestion on main roads, overcrowding in parking lots and, as a consequence, pollution and environmental degradation.
- **Seasonality and concentration:** tourism in Alpine protected areas is characterised by a strong seasonality, with peaks during summer periods (and winter periods when ski facilities are available). Besides temporal concentration, visitors tend to congregate at the most famous hotspots, leading to overcrowding in sensitive natural areas.

- **High maintenance costs:** the effects of the abovementioned issues cause higher maintenance costs for Alpine protected areas, both for keeping infrastructure functioning and restoring the damaged environment. This is a major problem since, regardless of the economic situation of the parks, it limits the resources available for nature conservation and for the development of biodiversity-compatible offers.

In this context, the **opportunities** are considered as the most relevant trends that can prove beneficial for the development of sustainable tourism, namely:

- **Increasing interest for health tourism:** over the last year, Alpine protected areas reported an increasing interest in offers dedicated to health and wellbeing. Such a trend represents an opportunity to promote nature conservation-compliant activities, which have an inherent awareness-raising potential.
- **New mobility options:** the growing availability and popularity of electric vehicles and shared mobility options can support the decarbonisation of travels towards protected areas, while also reducing the number of vehicles through carpooling initiatives and public transportation. The diffusion of bikes and, in particular, e-bikes can contribute to this process if cycle paths are extended outside park borders as an alternative way to reach it.



- **Reach a wider audience:** the increasing number and the emergence of new types of visitors allow protected areas to spread their messages among a wider audience, promoting pro-biodiversity behaviours in people with low environmental awareness.
- **Wide international interest in tourism management:** overcrowding and overtourism have emerged as major issues across the Alps (and beyond). This can bring even stronger cooperation between Alpine protected areas, aiming to develop international initiatives and find common solutions for tourism management in fragile sites.
- **Digitization of park data:** the cooperation with digital outdoor platforms allows protected areas to share verified information (regulations, official tracks, quiet zones) even with those that do not visit park info points or official websites, while also promoting educational content.
- **Rising intensity of overtourism:** overtourism will remain a major issue, probably involving new protected areas and increasing in those already affected. This not only worsens the impacts in terms of nature degradation and car traffic but also leads to more frequent conflicts between different users (e.g. hikers and bikers) and with the locals.
- **Climate change:** climate change will have manifold effects on tourism in protected areas. Longer and hotter summers will lead more people to reach the mountains, getting to higher altitudes and reducing the resting time for ecosystems. At the same time, inconsistent and reduced snowfall makes winter tourism more resource-intensive due to artificial snowing.
- **Ageing visitors:** the ageing European population is reflected in ageing visitors in Alpine protected areas. This category has specific needs, which generally require the realisation of further infrastructure.

Finally, among the **threats**, considered as the negative trends that can hinder the achievement of conservation-compatible tourism, the following issues stand out:

- **Growing popularity of outdoor sports practices:** the growing popularity of outdoor activities (especially from the pandemic period onward) can bring even more people to protected areas and determine higher impacts on nature.
- **Extensive use of digital platforms and social media:** outdoor digital platforms are expected to be increasingly relevant as a source of information for visitors, but they can contribute to spreading unverified content (e.g. tracks) that violate protected area regulations. Besides, Alpine protected areas report that social media have an increasing influence, leading to unchecked promotion of famous hotspots and impactful practices, including by private tourist providers.
- **“First-time visitors” and changing interests:** new types of visitors, with lower environmental awareness and knowledge of the mountain context, will represent a growing share of the total frequentation. The different interests of these tourists (compared to the “traditional” ones) can create a mismatch between their expectations and the educational offers of protected areas, reducing the attractiveness of the latter.

Overall, this SWOT analysis shows that Alpine protected areas benefit from a good starting situation for developing sustainable tourism. The idea of not promoting frequentation at the expense of nature conservation is already well established. Notably, several trends appear both as opportunities and threats: digital tools, e-bikes, new types of visitors. Whether these dynamics translate into positive or negative will depend on the capacity of protected areas to design attractive biodiversity-compatible and awareness-raising initiatives, as well as to develop effective flow management measures. Therefore, park managers need to adopt a long-term strategic approach, encompassing responses to current issues within broader action plans that also anticipate the potentially disruptive effects of emerging trends.



1.6 CONCLUSIONS

The tourist offer within Alpine protected areas is structured and clearly identifiable. While visitors can freely engage in various recreational outdoor activities (such as hiking, cycling, climbing, or skiing) the most distinctive and defining proposals are undoubtedly the educational ones. These range from themed trails and exhibitions at visitor centres to guided excursions with park rangers and cultural events organised in collaboration with local institutions.

Over the last years, however, Alpine protected areas have been facing growing challenges related to tourism and visitor pressure. First, a generalized increase in visitor numbers, reported by many park managers, is leading to situations of overcrowding. Since the pandemic, there has also been a significant rise in the number of “new visitors” with little or no experience of the mountain environment, limited awareness of the role of protected areas (or even their existence) and a tendency to congregate at the most famous hotspots. Second, the broader use of new technologies such as e-bikes and drones is expanding the impact of recreational activities to zones previously reserved for hikers and areas that were once inaccessible. Additionally, the widespread reliance on outdoor apps as the primary source of guidance makes official park information and regulations much less visible. Beyond all of this, climate change is transforming frequentation and increasing the risks for visitors, due to frequent extreme meteorological phenomena.

These trends are jeopardizing the effectiveness of nature protection efforts undertaken by park authorities. Wildlife disturbance, habitat degradation, and pollution have emerged as recurrent issues throughout this research. For park administrations, these impacts also translate into rising maintenance costs, diverting resources away from conservation and educational missions.

In light of these dynamics, it becomes essential to rethink tourism in innovative ways, offering activities tailored to different target groups and capable of attracting both traditional and new visitors toward educational initiatives.

This approach fosters a deeper understanding of the reasons behind park rules and encourages biodiversity-friendly behaviours. To move in this direction, we must first ask: what characterizes a tourist offer that is truly protected area-compatible? What good practices are already in place across the Alps? What elements should compose a new concept for sustainable tourism in Alpine protected areas?



THE DEFINITION OF “INNOVATIVE” OFFERS FOR ALPINE PROTECTED AREAS

*A concept and strategy for the development of new and
innovative offers for an Alpine protected area tourism
for all groups of society.*



2.1 INTRODUCTION

Protected areas in the Alps possess numerous assets concerning the development of innovative offers for visitors and tourists. The most important of these assets are their landscapes, which are likely their primary attraction, along with other natural features such as geological particularisms, unique fauna and flora, and a rich cultural heritage. Typical landscapes that particularly favour the development of protected area-specific offers are characterized by terms like wilderness, iconic Alpine summits and panoramas (including glaciers), traditional cultural or semi-natural landscapes (including Alpine pastures), mixed forest ecosystems evolving with topography (Fig. 11) and areas characterized by river systems and lakes (Fig. 12).

This diverse Alpine environment constantly attracts more visitors, an aspect that often contradicts the very goal of protecting such fragile landscapes and habitats. Alpine protected areas are called upon to propose offers compatible with their conservation mission. To be successful, they need to clearly set apart their offers, which must be protected area-specific, innovative, and focused on minimizing their impacts on nature (an aspect that could actually limit their own success). This challenging task can only be realised in the frame of a coherent tourist strategy, designed in collaboration with local stakeholders and communities. By analysing positive examples of offers available in Alpine protected areas, the present chapter creates the fundamentals for a new concept of sustainable tourism.



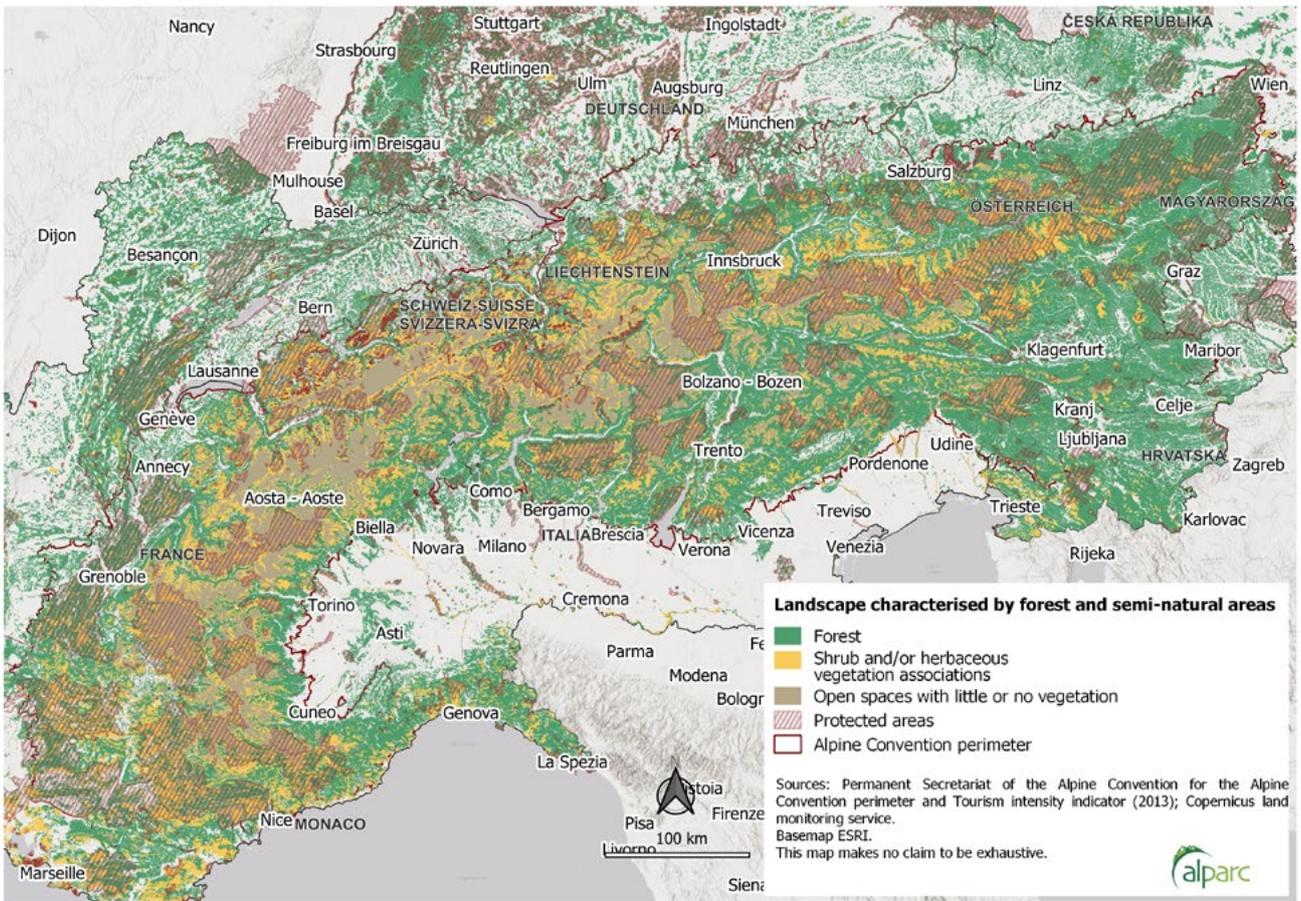


Fig. 11 Landscapes characterised by forest

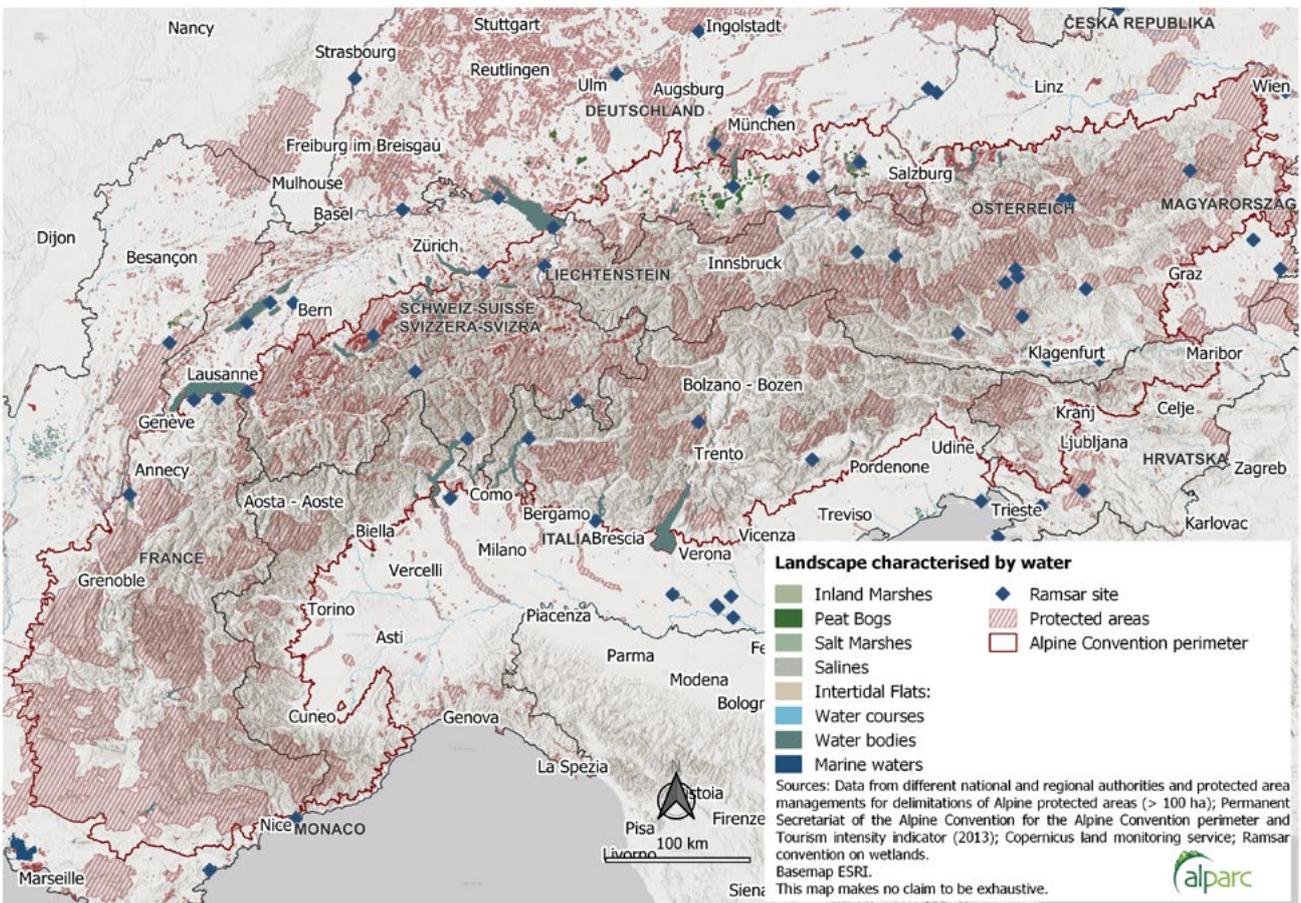


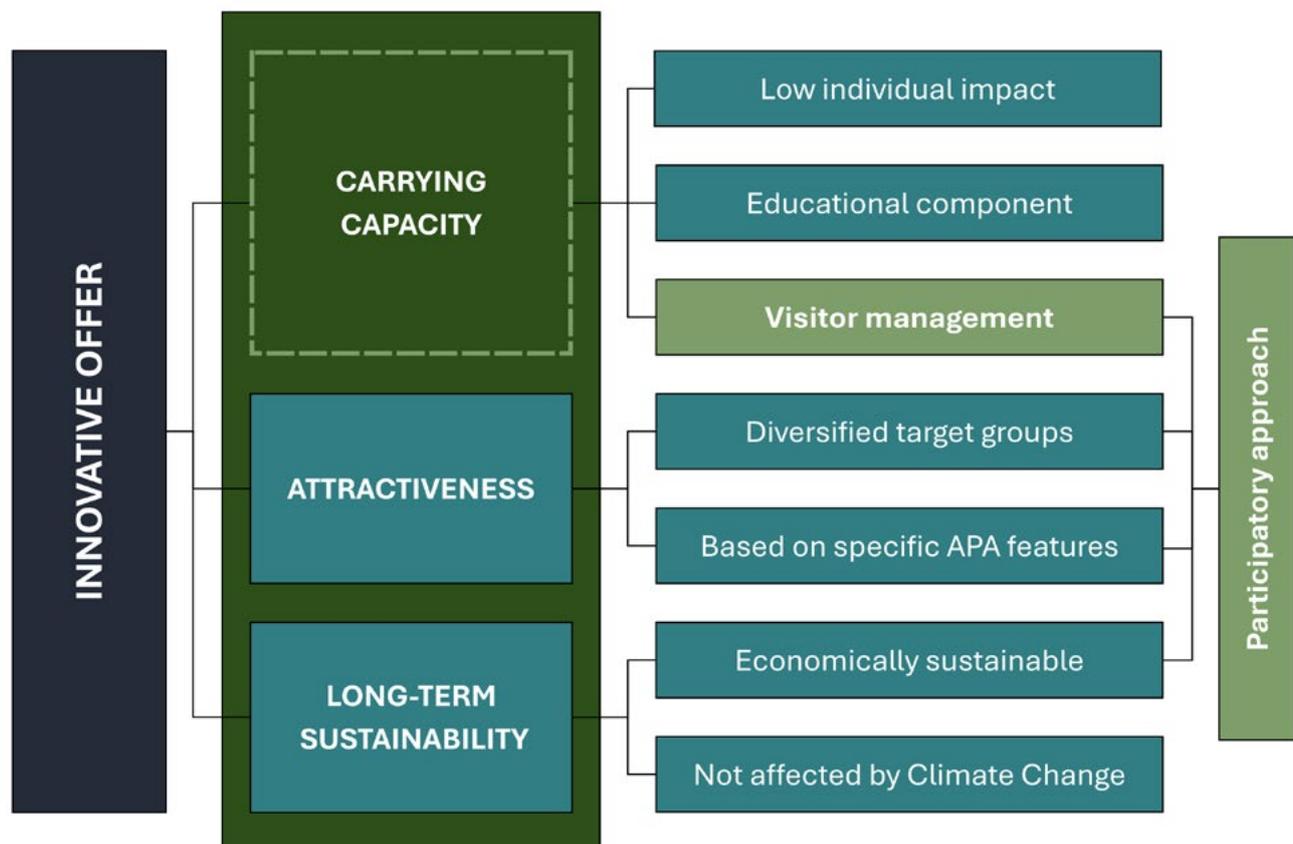
Fig. 12 Landscapes characterised by water

2.2 PROTECTED AREA-COMPATIBLE TOURISM: MAIN FEATURES OF INNOVATIVE OFFERS

The United Nations World Tourism Organization defines as sustainable tourism “that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities” (UNWTO n.d.). While this remains valid from a general point of view, it cannot be directly applied to the present case. Indeed, any discussion about tourism in protected areas should always start by considering their primary mission, as indicated by the IUCN: achieving “the long-term conservation of nature with associated ecosystem services and cultural values” (Dudley 2008, p.8). In this perspective, the environmental concern therefore becomes paramount to any other aspect. This is the approach proposed by the European

Charter for Sustainable Tourism in Protected Areas (ECST), the first principle of which is simply “Giving priority to protection” (EUROPARC 2021). The idea that tourism should be employed as a tool for promoting nature conservation and not *vice versa* is clearly stated in the mission of the ECTS, that “seeks to safeguard cultural and natural values by stimulating sustainable tourism, engendering partnerships to support local livelihoods, increase awareness of the need for sustainability, and promote international cooperation” (ibid.). Moving from this assumption, we aim to determine what the main characteristics are that an offer must have in order to be considered “innovative” from a protected area standpoint (Fig. 13).

Fig. 13 Main characteristics for innovative offers in Alpine protected areas



Carrying Capacity

All offers available inside a protected area must be designed according to a central pillar: they have to respect the carrying capacity of the natural environment. Originally applied in ecology, this term has been adapted to tourism referring to the maximum number of tourists or, better, the maximum intensity of tourism activities that an environment can tolerate without compromising its ecological and socio-economic structures and without reducing the visitors' satisfaction (UNWTO 1983; Long et al. 2022; Zekan et al. 2022). By referring to the intensity of tourist activities, it is possible to complement the question of "how many tourists?" with the questions "what do tourists do?", "where do they do that?" and "how do they do that?".

Hiking or forest bathing are among the traditional and emerging outdoor activities that can be considered as having low impacts on nature from an individual point of view. However, even these practices can pose significant issues when considering their cumulative impact, that is, the impact of all the people carrying out that specific activity in the same place. In addition, although there is no universally accepted methodology for measuring carrying capacity, we can assume that the latter varies on a small scale, as it depends on the sensitivity of single species or habitats to human presence. Even within the same protected area, different zones require higher protection than others. Thus, to minimize the ecological impact of visitors, it is necessary that the activities they engage in be inherently low-impact and that effective visitor management strategies be implemented to control both the number of practitioners and the specific areas concerned. Moreover, the initiatives proposed within protected areas should always incorporate an educational component, aimed at raising visitors' awareness about the park's mission and the unique environment they are experiencing. This applies not only to purely pedagogical activities, but also to those that might be labelled as "recreational". Sports practitioners who adopt biodiversity-compatible behaviours do their part for nature conservation, too.

Attractiveness

To reduce the pressure on carrying capacity, biodiversity-compatible offers must then be attractive

to visitors. However, the idea here is not to increase the number of visitors through new offers; on the contrary, starting from the fact that the number of visitors is already rising, the aim is to direct as many people as possible toward activities that comply with the nature conservation mission, reducing both individual and cumulative impacts. These new offers need to target all groups, and not only the "traditional mountain lovers". As shown in the previous chapter, a key current trend is that the type of visitors is changing, or rather, their categories are expanding and now include people of different ages, needs and experience. Protected areas can take advantage of this situation to raise awareness about the importance of their work among a broader public, influencing the way visitors behave and experience mountains.

The very presence of a protected area creates a special context, different from what people can find in other locations. By focusing on its distinctive features, each protected area can spark greater interest among visitors but also communicate the urgency of preserving such exceptional places. A sense of novelty is undoubtedly a fundamental element in attracting a broader audience to educational experiences in Alpine protected areas. Creative solutions that transform the limitations imposed by nature conservation into strengths are to be designed, turning rules and regulations into opportunities to foster greater environmental engagement.

Long-term sustainability

Achieving lasting effects requires protected area-compatible offers to be sustainable in the long term. First, they must be sustainable from the financial point of view and compatible with the budget of the management bodies. And this is not limited to initiatives directly organised by the protected area, as any activity involves indirect maintenance and staff costs for the care of the park. While economic sustainability can be supported by participation fees and benefit from the involvement of new target groups, it is crucial to avoid an expanding spiral where more visitors are required in order to cover growing costs. Indeed, such a vicious cycle would be in contrast with the goal of reducing carrying capacity. Secondly, the effects of climate change must be considered when designing new offers. Some outdoor activities will be strongly impacted by

rising temperature and their associated effects. This is clearly the case for winter sports, threatened by the lack of snow; but the increasing frequency of extreme meteorological events (e.g. windstorms, landslides, heatwaves, wildfires) poses significant safety risks for anyone. These phenomena also contribute to driving up maintenance costs for the parks. Finally, the sustainability of an offer crucially depends on its acceptance by the residents and other local stakeholders, leading to the last element of this list.

Participatory approaches

As discussed in the previous chapter, protected areas tend to be highly attractive, determining higher influx of tourists in regions that are generally sparsely populated. While this has beneficial effects for local businesses, it can also impact negatively on public infrastructure and, consequently, on the quality of life of residents. On the other hand, the presence of protected areas often results in some level of restrictions for human activities. These limitations can, and often do, become a source of conflicts with various stakeholders, including economic actors, the local population, or outdoor practitioners. Therefore, it is essential that the definition of tourism strategies for the protected areas and their surrounding regions be carried out through a participatory approach, as concerns both offers and visitor management. Such an approach provides a comprehensive view of the different and potentially conflicting interests. By doing so, it is possible to turn conflicts into shared solutions and opportunities for biodiversity-compliant local development, by raising stakeholders' ecological awareness and leveraging their specific strengths (e.g. the attractiveness of protected areas' landscapes, the offers of businesses and tourist operators, the legal power of political authorities, the context knowledge of local populations).

Moreover, initiatives that achieve structured, long-term collaboration help strengthen mutual trust and gradually reduce the time and effort required to reach these shared solutions.

To summarize:

Among the features described in Fig. 13, carrying capacity (dark green) clearly stands out as the most important, given that the fundamental purpose of protected areas consists in preserving its natural heritage. All the other aspects should be subordinated to this basic assumption (Fig. 14). However, also from a more anthropocentric and tourism-centred perspective, it is evident that the disruption of the natural environment would undermine the very factor that makes these regions so attractive. Most of the other elements of an innovative offer ultimately depend on the characteristics of the activity itself (light blue), meaning it is up to the protected area to decide what to promote and what to discourage. Finally, the impacts of tourism activities depend on how they are designed and managed (light green). Adopting a participatory approach in the development and implementation of tourism can, therefore, influence various other aspects of the offers and, therefore, their overall sustainability.

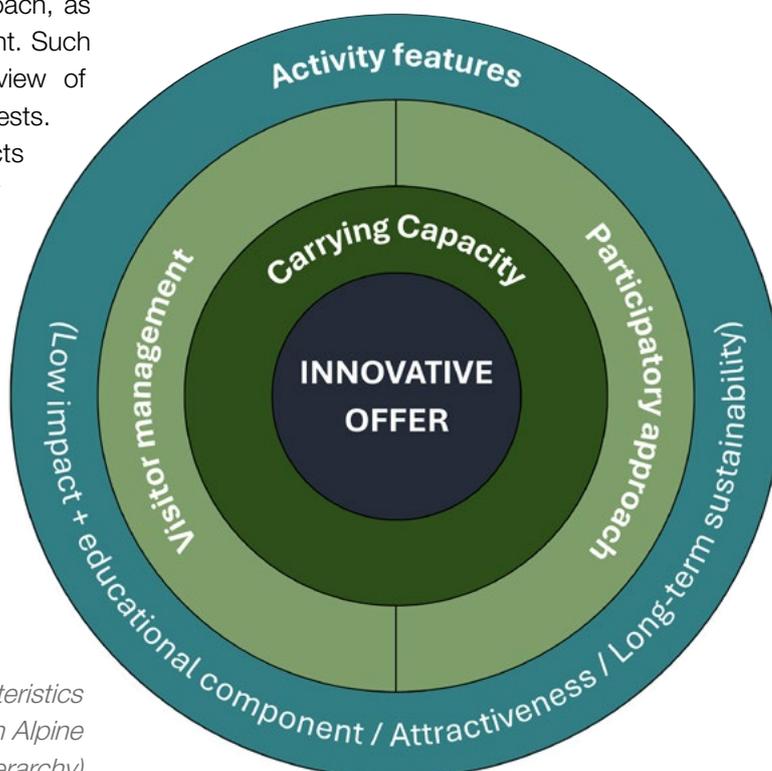


Fig. 14 Main characteristics for innovative offers in Alpine protected areas (hierarchy)

2.3 CONSERVATION-COMPATIBLE OFFERS IN ALPINE PROTECTED AREAS: A REVIEW OF BEST PRACTICES

Ideally, to be considered innovative from a protected area perspective, an offer should present all of the characteristics outlined above. Through interviews and exchanges with park managers and the review of over 50 Alpine protected area websites, we identified the proposals currently available (or under development) that meet these criteria, or at least most of them. What emerged from this work is that introducing innovation in tourist offer within protected areas is a complex task. This complexity is primarily due to the constraints imposed by the core mission of nature conservation that, as emphasized in the previous paragraph, is a non-negotiable priority. At the same time, constant innovations coming from the private sector (e.g. digital platforms, drones, e-bikes) generate in park managers the feeling that they always have to react, without being able to develop

their own strategies. The absence of radical “game-changers” in tourist offers for Alpine protected areas is likely a consequence of these two factors.

Nevertheless, many interesting initiatives have been designed across the Alpine arc with the potential to be further developed into innovative solutions. As we realised during this project, innovation does not necessarily mean “creating something brand new”; it also means learning from others, adapting ideas to a new context and upgrading solutions to make them even more attractive, accessible and conservation compatible. Thus, we have collected here various proposals, divided by type of activity, target group, or cross-cutting themes that can help park managers get inspired and, most importantly, get in contact with each other to imagine new sustainable offers. The full list of initiatives is available in [Appendix 2](#).



Sports and recreational activities

Overall, we can say that spending time outdoors is the main reason people go to these locations, and since most outdoor activities imply some level of physical effort, they can be generally considered as “sport”. At the same time, sports practices are often the ones that protected areas need to limit the most because of their potential negative impacts on nature. In this section, we consider initiatives that can contribute to mitigating these effects by also integrating awareness raising elements.

The most straightforward of these initiatives is represented by courses offered directly by protected areas or by their partners. In its wide program of activities, which include mountain-bike and canyoning experiences, the Parco naturale Dolomiti Friulane offers training sessions on ski mountaineering and avalanche rescue, climbing and ice-climbing techniques. In particular, the park has developed so-called **Eco-climbing**³. The idea is to go beyond the bare sports aspect, by coupling an easy approach to climbing with values like introspective exploration and the search for harmony with nature, while also observing and getting to know the park itself. Parco Nazionale Gran Paradiso, on the other hand, relies on the concept of sustainable climbing to raise mountaineers’ awareness of the disturbance this practice can cause to Alpine flora and fauna, for instance by compromising bird nesting or removing mosses and lichens from rocks. To this end, a special **code of ethics** and an infographic showing the sensitivity of species throughout the year has been developed⁴.

The combination of these two examples shows how courses organised by and in protected areas can become an opportunity to convey not only technical knowledge but also good behaviour practices. That is, a new audience of sportspeople can be created who are already aware of and eager to follow an ethic that distinguishes the practice carried out within a protected area from that which takes place outside. For this to happen, it is necessary that the instructors and guides themselves be trained to convey this kind of sensitivity. For parks, this means entering into a

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3 www.parcodolomitifriulane.it/wp-content/uploads/2018/09/ECOCLIMBING_ICE-LAND_CLIMBING_GAME.pdf

4 www.pngp.it/en/park-activities/climbing-park

5 eisenwurzen.com/en/mein-natur-und-geopark/georrafting

direct relationship with training actors, such as Alpine clubs and guide associations.

Sports initiatives can thus become moments of education, and environmental education. Going beyond traditional hiking, the Natur- und Geopark Steirische Eisenwurzen offers **georrafting** expeditions⁵. Participants have the opportunity of an adventurous experience on the Salza River, diving into the gorges carved by it while observing the geological peculiarities that characterize the area, in line with the park’s overall offer.

One of the goals indicated by protected area managers in relation to visitor frequentation is to increase the length of stays. In this sense, offers for multi-day itineraries assume great importance, as they reduce travel by car, avoid the “hit-and-run” approach to the area (with positive economic spin-offs as well) and can allow a deeper immersion and understanding of the conservation mission. For the present work, it is interesting to report some cases where such itineraries link together different protected areas.



The **Luchs Trail** (Lynx Trail)⁶ is a multi-day trekking route, in 11 stages. The itinerary connects the Nationalpark Kalkalpen, the Nationalpark Gesäuse, the Natur- und Geopark Steirische Eisenwurzen, and the Wildnisgebiet Dürrenstein-Lassingtal Area, as well as two mountaineering villages. By crossing the vast forests of Austria, habitat of the lynx, it represents an opportunity to increase awareness about this threatened species and the measures needed to protect it, while also collecting funds for its conservation. The two aforementioned Austrian national parks are also connected by the **Trans Nationalpark**⁷, a mountain bike route in 6 stages and 230 km. For both routes, a booking service for accommodation and transport is available, which helps reduce the organisational burden, especially for less experienced travellers.

This approach can be more readily applicable between contiguous protected areas, as in the case of the **Giroparchi** project⁸, which has defined a series of 8 routes (for a total of almost 400 km) that can be travelled in loops within 5 protected valleys between the Gran Paradiso and Mont Avic parks. And this also applies across borders. The **Tour dei Minerali** (Mineral Tour)⁹, for example, is a 9-day trek connecting the Parco naturale Alpe Veglia e Alpe Devero on the Italian side with the Landschaftspark Binntal on the Swiss side, which share the uniqueness of their geological structure. In this sense, promising approaches are also being made in the Western Alps through the **Destination Maritime Mercantour** website¹⁰, which presents itineraries and treks on both sides of the Italian-French watershed, with various options reaching the border between the two countries, or in the Eastern Alps, where the Triglavski Narodni Park promotes **itineraries that cross the borders** with Austria and Italy, or that are located in the nearby Parco naturale Prealpi Giulie¹¹.

6 www.luchstrail.at

7 www.transnationalpark.at

8 www.grand-paradis.it/en/services/giroparchi-hiking-map

9 www.areeprotetteossola.it/it/tour/tour-dei-minerali

10 destination.marittimemercantour.eu/en

11 www.tnp.si/en/visiting-park/activities-and-sights/hiking/

12 nationalpark-gesaeuse.at/nationalpark-erleben/aktivitaeten/naturbelassene-wege/

13 www.parcovalgrande.it/page.php?id=133

14 www.pngp.it/nivolet-bike-day-2024

15 www.parcnazionale-stelvio.it/it/esperienze/ciclismo-e-mountain-bike/giornata-della-bici.html

Also in the field of hiking, the appeal and educational potential of wilderness should be considered. In Austrian national parks, there is a specific category of trails, the so-called **Naturbelassene Wege** (Natural Trails)¹², where human intervention is kept to a minimum, allowing for full immersion in unspoiled nature. This clearly involves some risks, especially in terms of forest management, due to the potential danger of falling branches or trees. The Nationalpark Gesäuse marks these routes with dedicated signs that also indicate rules of conduct and then leaves hikers the pleasure of observing the forest and its microhabitats develop freely—from birth to death and decomposition. A similar experience can be found in the Parco Nazionale Val Grande, which hosts the largest **wilderness area** in the Alps¹³. The central zone is particularly rugged, with unguarded bivouacs, and crossing it is recommended only for experienced hikers (ideally accompanied by guides) who are keen to observe how a once-inhabited valley is gradually being reclaimed by nature.

As for cycling, which is often considered as problematic due to its potentially greater impacts and the conflicts generated with other types of users, two events should be mentioned. The first is the **Nivolet Bike Day**¹⁴, organised as part of the Parco Nazionale Gran Paradiso's "A piedi tra le nuvole" (On Foot in the Clouds) initiative. It consists of two days when the Nivolet Pass remains closed to cars and other motorized vehicles and is dedicated entirely to bicycles (similar days are dedicated to hiking and Nordic walking). The second is the **Giornata della bici** (Bike Day)¹⁵, in the Parco Nazionale dello Stelvio. In this case, it is the Stelvio Pass Road, one of the highest and most famous in the Alps,





that is closed to traffic and reserved for bicycles. Although events of this kind risk concentrating large numbers of people in the same place, such a concept can be exploited for its potential to show the benefits of reducing motorized traffic and to offer educational and awareness activities in an environment that is not particularly sensitive, as paved roads are.

Finally, an overview of innovative sports practices in Alpine protected areas must of course take into

account the **Mountaineering Villages** initiative¹⁶, originally developed by the Austrian Alpine Association and now spread across most Alpine countries. The platform aims at promoting a model for sustainable tourism in the Alps, guaranteeing at the same time attractive activities for sports enthusiasts and the conservation of the natural and cultural heritage of the region. Mountaineering villages are deeply connected to the principles of the Alpine Convention and committed to the implementation of its protocols.

SPORTS AND RECREATIONAL ACTIVITIES

Initiative	Protected Area (or Organisation)	Country	Source
Eco-climbing	Parco naturale Dolomiti Friulane	Italy	Link
Climbing code of ethics	Parco Nazionale Gran Paradiso	Italy	Link
Georaffing	Natur- und Geopark Steirische Eisenwurzen	Austria	Link
Luchs Trail	ARGE Luchs Trail	Austria	Link
Trans Nationalpark	ARGE Trans Nationalpark	Austria	Link
Giroparchi	Fondation Grand Paradis	Italy	Link
Tour dei Minerali	Aree Protette dell'Ossola	Italy	Link
Destination Maritime Mercantour	Parc National du Mercantour Aree Protette Alpi Marittime	France Italy	Link
Cross-borders itineraries	Triglavski Narodni Park	Slovenia	Link
Naturbelassene Wege	Nationalpark Gesäuse	Austria	Link
Wilderness area	Parco Nazionale Val Grande	Italy	Link
Nivolet Bike Day	Parco Nazionale Gran Paradiso	Italy	Link
Giornata della bici	Parco Nazionale dello Stelvio	Italy	Link
Mountaineering Villages	Bergsteigerdörfer	Various countries	Link

Tab. 1 Summary of initiatives: Sports and recreational activities

.....
16 eng.bergsteigerdoerfer.org

Guided tours and themed experiences

The main and probably the most popular initiatives in terms of educational offerings are those related to tours and guided experiences. Accompanied by park staff or following themed trails by themselves, visitors are invited to go beyond “enjoying” the park, slowing their pace and learning in depth about the region’s natural and cultural heritage.

Before looking at some examples of initiatives dedicated to specific themes, it is useful to draw attention to two approaches that may prove useful in attracting more people to the educational content developed by protected areas. The first approach is the possibility for visitors to customize educational activities beyond the calendar of events and excursions suggested by the protected areas. The **Book a Ranger** service¹⁷, offered in various forms by Austria’s national parks, falls within this type. The proposal consists of the possibility for visitors to arrange tours upon request, choosing the date of the visit and the topic of interest. This has the potential to attract an audience that may be unaware or uninterested in the initiatives available during their stay, but more inclined to take advantage of a tailor-made educational offer. The second is the digitization and gamification of the educational experience. This is the case, for example, with the **Actionbounds**¹⁸ in Nationalpark Berchtesgaden or the Geocaching Trail **Der Schatz am Tiroler Lech** (The treasure on the Tyrolean Lech)¹⁹ in the Naturpark Tiroler Lech. Visitors have the opportunity to explore the park on their own by participating in treasure hunts or following interactive trails with the help of dedicated apps that offer quizzes, challenges, and facts related to the area, its nature, and its history. These experiences

can be adapted to all types of public, be updated more frequently and supplemented with information about the rules of behavior and the mission of the protected area.

Moving on to specific issues, one aspect that has been gaining attention in recent times is of course climate change. The Naturpark Mürzer Oberland, for example, has developed the **Erlebnisweg klimawandeln**²⁰, an interactive itinerary designed not only to inform about the consequences that rising global temperatures have on the biodiversity of the protected area, but also about strategies to be adopted for its conservation. In the Nationalpark Hohe Tauern, it is possible to enter the **Ökologischer Fußabdruck** (Ecological Footprint) labyrinth²¹. Shaped as a huge, green footprint, the labyrinth offers visitors to learn about various topics related to climate, such as mobility, nutrition, housing and consumption. At each station, the right answer will lead participants further, while the wrong answer will lead them to a dead end. In other cases, parks are developing offers to showcase their work on the topic, such as the Nationalpark Kalkalpen, that organises a field day dedicated to presenting the **climate research** carried out inside the park, with a focus on air pollutants²².

The most interesting initiatives are those allowing visitors to see concrete effects of climate change on the environment of the protected areas. For the **Gipfelkunst im Fluss der Zeit** (Summit Art in the Flow of Time)²³, implemented by UNESCO-Welterbe Schweizer Alpen Jungfrau-Aletsch, two wooden sculptures are installed respectively on the glacier and on a portion of the rock freed from the retreat of the glacier itself. One year later, it was possible to observe how the two sculptures had moved apart from each other, walk the distance between them and, also with

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- 17 **Gesäuse:** nationalpark-gesaeuse.at/wp-content/uploads/Buch-dir-deinen-Guide-2025.pdf
Hohe Tauern: hohetauern.at/de/besuchen/unsere-ranger?format=html
Kalkalpen: en.kalkalpen.at/book-a-ranger
 - 18 www.nationalpark-berchtesgaden.de/infostellen/einrichtungen/actionbound/index.htm
 - 19 naturpark-tiroler-lech.at/wandern/der-schatz-am-tiroler-lech/
 - 20 muerzeroberland.at/naturpark/naturpark-projekte/erlebnisweg-klimawandeln
 - 21 hohetauern.at/de/besuchen/themenwege/natur-und-kulturschaetze-im-nationalpark-hohe-tauern/2316-oekologischer-fussabdruck-hollersbach.html
 - 22 en.kalkalpen.at/veranstaltung/klimaforschung-im-nationalpark?jahr=2025&auftrag=2013
 - 23 jungfraualetsch.ch/aktivitaeten/gipfelkunst-2020-2021





the help of glaciological measurements, have a clear visualisation of landscape transformation and the effects of climate change. The Nationalpark Gesäuse, on the other hand, decided to turn the damages caused by an extreme meteorological event into an educational opportunity. After a heavy storm that severely impacted its forest, the park didn't intervene to restore the previous situation. It simply built pathways that go through the transformed environment and promote awareness in visitors through an interpretative approach, focusing on climate change and forest processes. Notably, the storm destroyed the "Speaking Beech", a well appreciated installation where people could sit and listen to the stories "narrated" by the tree, getting information about the surrounding habitat. The Speaking Beech is now a **Silent Beech**, and lies on the ground along the new path, but the message that it shares is maybe even louder.

Other parks, then, rely on their geomorphological uniqueness to design specific offers in the field of geology and speleology. In particular, within the Natur- und Geopark Steirische Eisenwurzten, which was recognized as a UNESCO Global Geopark in 2015, is the **GeoDorf** (GeoVillage) Gams²⁴. In addition to a geological museum (GeoRama) tracing the 250 million years of the region's geological history, a thematic trail (Geo-Pfad) leads visitors through 15 stations following the Gams stream to the Nothklamm (Noth Gorge). Also located in the village is a GeoWerkstatt (GeoWorkshop), where it is possible to learn not only how to identify rocks, look for fossils and observe

them under the microscope, but also how to create a personal pendant as a souvenir. Guided cave tours and activities with a geologist interpreter are also offered in the park region, including "Geology on the Plate", a culinary experience to explain the relationship between geology and local foods.

Thanks to the phenomenon of karstification, there are also interesting initiatives related to the topic in the South-Eastern Alps. Park Škocjanske Jame offers **three different formats for discovering the geology of the area**²⁵. These range from an Educative Trail to discover the park's sinkholes, which can be done independently, to guided tours through the Škocjan Caves, to observe stalactites, stalagmites, and the underground flow of the Reka River; and to actual caving tours, where participants are provided with the equipment and information needed to follow the path of the first explorers, more than 130 years ago. Similarly, the Parco naturale Prealpi Giulie organises initiatives aimed at raising awareness of the geodiversity of the area through geological excursions, to discover the changes that have affected the area in remote eras and the faults that characterize it, and the **Speleogiulie** programme²⁶, a series of guided tours of the park's underground formations, including the Fontanone di Goriuda.

In some cases, the offers refer to the historical landscape of the region. For example, the Parco naturale Dolomiti Friulane organises guided tours to the **Vajont dam** and the nearby villages of Erto and Casso²⁷. These places are sadly famous for having been the epicentre,

24 www.geodorf.com - www.eisenwurzten.com/der-naturpark/erlebnisse

25 www.park-skocjanske-jame.si/en/read/tourist-information/skocjan-caves-guided-tours

26 www.parcoprealpigiulie.it/it/principale/attivita/gli-eventi/speleogiulie-2025

27 www.parcodolomitifriulane.it/visite-guidate/la-diga-del-vajont

in 1963, of an avoidable catastrophe that caused the death of almost 2,000 people. The visits, as well as the dedicated visitor centre, have therefore become an opportunity to reflect on a tragic moment in Italy's recent history and to keep alive the memory of the victims. The Alcotra project **COGNITIO-FORT**²⁸, in which the Parc National du Mercantour and the Aree Protette Alpi Marittime are involved, aims to promote the recovery of military fortifications on the French-Italian border. The aim is to increase knowledge of this heritage, especially among the younger public, and to develop an innovative cultural education offer linked to the forts, as well as a cross-border Grand Tour connecting them.

As a number of parks report, the increase in visitors is also linked to an increase in visitors accompanied

by their dogs, and it is often this category that leads to major problematic issues. Within a protected area, in fact, the presence of dogs can cause stress and disturbance in other animal species, and droppings can be an additional source of risk. For this reason, one of the proposals of the Parco naturale Dolomiti Friulane has an excellent potential utility. It is a **dog hiking tour**²⁹, during which, together with a trainer, topics such as safety in the mountains with a dog, socialization with other dogs, improved listening and trust between man and dog are addressed. Activities of this kind could be used to raise more awareness among dog owners about the reasons behind the ban on letting dogs off the leash (or their complete ban) in protected areas, but also about good practices to minimize disturbance toward wildlife or even toward flocks and sheepdogs.

GUIDED TOURS AND THEMED EXPERIENCES

Initiative	Protected Area (or Organisation)	Country	Source
Book a Ranger	Nationalpark Gesäuse Nationalpark Hohe Tauern Nationalpark Kalkalpen	Austria	Link Link Link
Actionbounds	Nationalpark Berchtesgaden	Germany	Link
Der Schatz am Tiroler Lech	Naturpark Tiroler Lech	Austria	Link
Erlebnisweg klimawandeln	Naturpark Mürzer Oberland	Austria	Link
Ökologischer Fußabdruck	Nationalpark Hohe Tauern	Austria	Link
Climate research	Nationalpark Kalkalpen	Austria	Link
Gipfelkunst im Fluss der Zeit	UNESCO-Welterbe Schweizer Alpen Jungfrau-Aletsch	Switzerland	Link
Forest process paths and Silent Beech	Nationalpark Gesäuse	Austria	Closing Event
GeoDorf	Natur- und Geopark Steirische Eisenwurzen	Austria	Link
Other geology-themed experiences	Natur- und Geopark Steirische Eisenwurzen	Austria	Link
Geological tours	Park Škocjanske Jame	Slovenia	Link
Speleogiulie	Parco naturale Prealpi Giulie	Italy	Link
Vajont dam tours	Parco naturale Dolomiti Friulane	Italy	Link
COGNITIO-FORT	Parc National du Mercantour Aree Protette Alpi Marittime	France Italy	Link
Dog hiking tour	Parco naturale Dolomiti Friulane	Italy	Link

Tab. 2 Summary of initiatives: Guided tours and themed experiences

28 www.interreg-alcotra.eu/fr/cognitio-fort

29 www.parcodolomitifriulane.it/evento/indizi-di-primavera-a-barcis-escursione-cinofila

Wildlife observation

One of the main features that make protected areas unique is the possibility to observe wildlife in their natural environment. Thanks to the higher levels of protection that animals can benefit from and the lower disturbance to their habitats it is not unusual for hikers to come across a group of chamois, admire the flight of a vulture or hear the cry of marmots. Protected areas and their rangers are developing important educational initiatives specifically focused on wildlife observation and other connected activities.

The Naturpark Pfyn-Finges has structured its offer mostly around the great abundance of birds that can be found in its territory. Many ornithology-themed excursions are organised around the year, focussed on the observation of specific birds (e.g. nightingale, European Bee-eater) or to the variety of species in a specific habitat (e.g. rocky steppe, floodplain forest). In some cases, tours are accompanied by poetry reading that complements early-morning bird songs.

But the highlight of the park's offer is the one devoted to the **bearded vulture**³⁰: every Wednesday, after taking the cable-car up to the Gemmi, participants can enjoy the view of the Swiss Alps and try to spot this rare animal in its natural environment. However, not only direct observation of wildlife is offered by protected areas. Interesting options are available also for discreet, indirect observations, that valorise sounds and traces of animal presence. An initiative that has proved to be much appreciated in the Parco naturale Prealpi Giulie are the excursions allowing visitors to listen to the **deer roaring**³¹. They are organised at dusk in autumn, during the mating season, and make it possible to convey information about this ungulate as participants create an auditory memory of it.

Parc Ela has developed a particular type of wildlife observation, focused on an omnipresent but often hidden aspect of our mountains: insects. The park has launched the **Insektenoase** (Insect Oasis) campaign³² that aims to raise awareness about these important players in biodiversity through projects and



30 www.pfyn-finges.ch/en/discover-the-nature-park/plan-a-visit/map?offer=45458

31 www.parcoprealpigiulie.org/it/principale/attivita/gli-eventi/BRAMITI-SOTTO-IL-CANIN

32 www.parc-ela.ch/de/ueber-den-verein/projekte-natur/insektenkampagne

activities. For example, visitors are invited to report their sightings of rare or endangered species of butterflies (Alcon blue) and bees (*Megachile parietina* and *Megachile genalis*). In particular, the park is committed to the creation of insect hotspots, such as the Insect Oasis Bergün and the Insect show garden Don Bosco, designed to show which plants and environments encourage insect proliferation, or even the first “insect-friendly pump track”. The park also aims to involve the local population in this mission by supporting citizens in creating insect-friendly gardens, distributing seeds of plants suitable for bees, and organising a “Käferfest” (Beetle Festival).

Then, some solutions are based on observation infrastructure and wildlife facilities. For example, the Nationalpark Berchtesgaden provides an easily accessible **observation point**³³ for golden eagles, with information about its life habits, and another one dedicated to the bearded vulture, that can be reached with a one-hour walk and where the park staff are available to answer visitors’ questions. The Naturpark Tyroler Lech is equipped with special infrastructures for this.

An **18-metre-high observation tower**³⁴ allows visitors to discover the variety of breeding bird species that live in the Important Bird Area of the Lech River, considered

the last wild river in the northern Alpine region. The tower is connected to an easy, circular hiking trail, and guided tours are also organised to explore the “alluvial forest jungle” created by the river. Moreover, a **wildlife observation stand**³⁵ is available at Alpe Fallerschein. Through telescopes, the stand is used to spot red deer (the number of which can reach 100 individuals), undisturbed in their natural habitat.

Another way to favour the observation of Alpine fauna is through **wildlife centres**. Generally conceived as places for the study, conservation and/or reintroduction of endangered species into the wild, these facilities provide an important opportunity to observe animals in a state as close to their natural state as possible, especially for those who would otherwise be unable to reach more inaccessible environments. At the same time, they allow educational activities designed to raise awareness about the human-nature relationship, the complexity of Alpine biodiversity, and good behaviours to preserve species and environments. Structures of this kind can be found at the Parco naturale Dolomiti Friulane (Pianpinedo Wildlife Park, Parulana Wildlife Area and Andreis Recovery Center for Birds of Prey)³⁶ and at the Parco regionale dell’Adamello (Paspardo Wildlife Center)³⁷.

WILDLIFE OBSERVATION			
Initiative	Protected Area (or Organisation)	Country	Source
Bearded vulture and Alpine habitat	Naturpark Pfyng-Finges	Switzerland	Link
Deer roaring excursions	Parco naturale Prealpi Giulie	Italy	Link
Insektenoase	Parc Ela	Switzerland	Link
Golden eagle/bearded vulture observation points	Nationalpark Berchtesgaden	Germany	Link
Observation tower	Naturpark Tyroler Lech	Austria	Link
Red deer observation point	Naturpark Tyroler Lech	Austria	Link
Wildlife centres	Parco naturale Dolomiti Friulane	Italy	Link
Wildlife centre	Parco regionale dell’Adamello	Italy	Link

Tab. 3 Summary of initiatives: Wildlife observation

33 www.nationalpark-berchtesgaden.de/english/infopoints/facilities/observation_point

34 www.naturpark-tiroler-lech.at/wandern/vogelerlebnispfad-pfacher-au-2

35 www.naturpark-tiroler-lech.at/wandern/wildtierbeobachtungsstand-in-fallerschein

36 www.parcodolomitifriulane.it/vivere-il-parco/parchi-faunistici

37 www.parcoadamello.it/cosa-facciamo/sei-una-scuola?view=article&id=149&catid=2

Wellbeing and health-related offers

A trend found in many parks is toward the development of activities focused on mental and physical well-being. There are various examples, at various stages of implementation. The Parco naturale Prealpi Giulie offers **Forest Bathing (Shinrin Yoku)**³⁸ experiences as part of its program. This practice is aimed at relaxation through a reconnection with nature, reactivation of the senses, mindfulness, and breathing exercises (Huber et al. 2023). The Biosphärenpark Großes Walsertal also offers forest bathing in summer, along with other more translational wellbeing experiences such as **outdoor and high-altitude yoga sessions** and more special ones such as **guided meditation with horses**³⁹. In addition, a local association offers projects aimed at rediscovering the **local bathing culture**⁴⁰ through, for example, community baths in rudimentary low-impact structures, with a focus on the conscious use of water and nature, in line with the biosphere of the region. In its program called “NaturErlebnis” (NaturExperience), Naturpark Mürzer Oberland also devotes ample space to the wellness and relaxation activities found in the park: forest bathing, yoga sessions and yoga retreats combined with excursions and knowledge about medicinal herbs, and animal-assisted relaxation. In particular, the park offers a tour (guided or on your own) in the **Wald der Sinne** (Forest of the Senses)⁴¹, a circular trail also suitable for people with reduced mobility along which 23 stations invite you to experience the natural environment through an amplification of all your five senses as well as feelings of movement, balance and coordination.

As part of its educational program, the Parco regionale dell’Adamello participates along with other parks in the Lombardy Region in the **Ben-Essere in Natura** project⁴², which aims to put the natural ecosystems of protected areas at the center of social inclusion initiatives focused on well-being. The project has important goals such as spreading the culture of psycho-physical well-being in the natural environment

and stimulating lifestyles in harmony with nature, developing the awareness that the well-being of the person depends on the well-being of the territory and encouraging inclusive accessibility and fruition for different motor, sensory and intellectual abilities. During the related Festival, the Parco regionale dell’Adamello offered an activity related to plants and flowers useful for reducing anxiety and stress and one dedicated to listening to and collecting the sounds of nature at dusk, and plans the activation of other proposals such as yoga, Qi-Gong and barefoot sensory experiences in nature for children, families and people with motor disabilities.

A very interesting initiative in this field is the project **Green Care – Nature & Mental Health**⁴³, developed by the administrative office of the Biosphärenregion Berchtesgadener Land between 2018 and 2023. The project aimed at investigating how special mindfulness and relaxation activities “in nature can be used in already established psychotherapeutic procedures and for prevention in the general population” (Biosphärenregion Berchtesgadener Land n.d.) The results confirmed the benefits of these measures for both people with depression and those just seeking stress reduction. The positive effects can be maintained thanks to the easy integration into everyday life of these practices that can be carried out in very different natural and cultural landscapes, of which the most accessible are urban green spaces. Moreover, the study showed that “that the emotional connectedness to nature, which is a crucial prerequisite for the willingness to engage in nature conservation, increased as a result of the offers” (Kals et al. 2023, p.3) A brochure with several exercises tested throughout the project was also published and is freely available for everyone to use. The importance of this work for the overall objective of this report is evident. First, it provides further scientific basis for the effectiveness of these practices, and this can of course push more actors to offer these activities and more people to take part. Secondly, it proposes easily implementable exercises that can be well designed for tourists as well as for the local population. Finally, the nature awareness derived from these measures can

38 www.parcoprealpigiulie.it/it/principale/attivita/gli-eventi/forest-bathing-2024

39 [https://www.grosseswalsertal.at/system/web/getDocument.ashx?fileid=1260028&cts=1744373082&name=Es ist für Jede/n etwas dabei](https://www.grosseswalsertal.at/system/web/getDocument.ashx?fileid=1260028&cts=1744373082&name=Es+ist+für+Jede/n+etwas+dabei)

40 www.wassertal.at

41 www.muerzeroberland.at/ausflugsziele-naturpark/themenwege/wald-der-sinne

42 www.parcoadamello.it/?view=article&id=267&catid=10

43 www.brzgl.de/en/fields-tasks/research-and-monitoring/health-and-recreation-green-care

be beneficial not only for improving visitor behaviour within protected areas, but also for the acceptance of their work and mission, with the connected limitations.

Further contributions on this topic will derive from ongoing and future projects. The **LiveAlpsNature** project⁴⁴, co-funded by the Interreg Alpine Space program and in which ALPARC is the lead partner, aims at promoting biodiversity protection through innovative and health-oriented outdoor activities. One of the main outcomes will be the development of new One-Health offers, following an approach that recognizes the interconnection between human, animal and environmental health and promotes a balance of all three components. The initiative will be tailored to the needs of involved protected areas and tested in practice to monitor their effectiveness.

The One-Health approach is also at the core of the **Glückssphäre** (Sphere of Happiness) project, developed by the UNESCO Biosphäre Entlebuch and proposed as part of the Innotour programme. The basic idea is that the strength of health tourism in the region lies in its nature and its landscape. With the support of neurologists, psychologists and other local stakeholders, the project explores the potential of existing offers and experiences to stimulate the release of happiness hormones (dopamine, serotonin, endorphin, and oxytocin). These offers will be optimised and complemented with new pilot actions, with the aim to go beyond the tourism sector, restore nature and valorise happiness more broadly, as a quality management tool.

WELLBEING AND HEALTH-RELATED OFFERS			
Initiative	Protected Area (or Organisation)	Country	Source
Forest Bathing	Parco naturale Prealpi Giulie	Italy	Link
Outdoor and high-altitude yoga sessions	Biosphärenpark Großes Walsertal	Austria	Link
Local bathing culture	Wassertal	Austria	Link
Wald der Sinne	Naturpark Mürzer Oberland	Austria	Link
Ben-Essere in Natura	Parco regionale dell'Adamello	Italy	Link
Green Care – Nature & Mental Health	Biosphärenregion Berchtesgadener Land	Germany	Link
LiveAlpsNature	Various APAs	Various countries	Link
Glückssphäre	UNESCO Biosphäre Entlebuch	Switzerland	Interview

Tab. 4 Summary of initiatives: Wellbeing and health-related offers



44 www.alpine-space.eu/project/livealpsnature

Cultural initiatives and events

In addition to activities directly related to natural heritage, many protected areas also offer cultural experiences, often using as a starting point the natural environment itself. The Landschaftspark Binntal has decided to use the historic road through the Twingi Gorge, considered an architectural monument of national importance, as an open-air art museum thanks to the contemporary art exhibition **TWINGI**⁴⁵. During the exhibition, which takes place every summer (approximately between June and October), Swiss and international artists present works designed to enter into dialogue with the natural and cultural environment of the Binn Valley. By an easy walk TWINGI is accessible to the public, who are invited to explore and interact with it, and guided tours called “Dialog zwischen Kunst und Natur” (Dialogue between art and nature) are also organised.

The Parco naturale Adamello Brenta proposes the series of events **SuperPark - Visioni d'autore** (Signature visions)⁴⁶. In this case, the forest becomes a cinema and hosts zero-impact screenings. They are powered with solar energy or the electricity produced by participants' cycling and, thanks to the use of headphones, they maintain the silence required by the natural environment in which they take place. The programme also includes excursions with special guests mainly from the world of art and entertainment (such as musicians, writers, directors, photographers, TV presenters, chefs...) who suggest new approaches to the observation of nature.

Relying instead on the rich Alpine intangible cultural heritage, the Naturpark Mürzer Oberland organises the **Steirischen Zauberswalds** (Styrian enchanted forest)⁴⁷. During this event, regional stories, fairy tales and legends are presented to the public, with a focus on the perception of nature and the relationship of humans with it. The stories are performed by amateur actors, who use the forest as a stage and help pass on fragments of folk knowledge. Another

aspect of this intangible heritage is represented by traditional crafts. An opportunity to discover one of these first-hand is offered by the Biosphärenpark Großes Walsertal through the **Erlebnissennen** (Dairyman Experience)⁴⁸ initiative, through which participants can learn the art of cheese-making under the supervision of an experienced dairyman.

More generally, thanks to the great abundance of food specialities in the Alpine region, various offers are related to local culinary products. The Swiss Parks Network has developed the project **Savurando**⁴⁹. Savurando is a culinary treasure hunt, especially suitable for small groups of friends, families, but also associations and companies. By solving quizzes and puzzles, participants can find their path through the parks, hiking or cycling in nature and receiving as a reward the chance to taste local products like wine, cheese, and charcuterie. This allows visitors to learn more about the protected area, its cultural highlights and its typical products, while also meeting the producers themselves. Savurando represents a great example of how a network of parks can develop common and recognizable offers where a general framework is then adapted to the individual characteristics of the area. For instance, the experience in Parc naturel Pfynges⁵⁰ is linked to the architectural and wine heritage of the Rhone valley, while in the Parc regional Chasseral⁵¹ it revolves around the production of the Tête de Moine cheese. A culinary tour is offered by Biosphärenpark Großes Walsertal, too. The **Kulinarische Genussrunde** (Culinary Delights Tour)⁵² is proposed both in summer and winter, when a skiing variant is also available. Along the way, participants can enjoy a regional breakfast, a cheese-based lunch and a final dessert, in three different spots of the Biosphere.

Some protected areas have developed a quality label for local stakeholders that comply with sustainability standards, and this can apply to food producers and their products. The Parco naturale Prealpi Giulie

45 www.landschaftspark-binntal.ch/de/landschaftspark-binntal/kultur-kulturlandschaft/kulturangebot/twingi

46 www.pnab.it/superpark-visioni-dautore

47 www.muerzeroberland.at/naturpark/naturpark-projekte/geschichte-zauberwald/

48 www.grosseswalsertal.at/de/biosphaerenpark_haus/Angebote_und_Fuehrungen/Erlebnissennen

49 www.savurando.ch/de

50 savurando.ch/de/park/naturpark-pfyn-finges

51 savurando.ch/de/park/parc-regional-chasseral

52 www.vorarlberg-alpenregion.at/de/walsertal/kulinarische-genussrunde-biosphaerenpark-grosses-walsertal.html

designed a **Paniere del Parco** (park basket)⁵³, consisting in typical products of excellence from the municipalities of the protected area. The project, which involves among others the local farmers and their connected professional organisations, aims to promote traditional productions, preserve sustainable practices and support the local agricultural sector. A similar initiative was developed by the Aree Protette Alpi Marittime through the campaign called **A Natale porta in tavola un territorio che ami** (At Christmas bring to the table a territory you love)⁵⁴. The gift box contains products from stakeholders that have been certified with the “Qualità Parco APAM” (APAM Park Quality) label, which is awarded not only to food but also to manufactured glass and ceramic products. The two packages available are inspired by two important species in the Western Alps, the bearded vulture and the lady’s-slipper orchid, helping to raise awareness about the relevance of their protection. In addition, the Protected Areas of the Maritime Alps are promoting the **Cucina Radicata** (Rooted cuisine)⁵⁵ course in collaboration with professional cooks from an educational institution in the territory, which offers to teach the preparation of dishes using these certified products.

Although these proposals cannot be directly included among the tourist offers, they nevertheless demonstrate some important opportunities for protected areas. Firstly, the possibility of promoting,

along with nature protection, the traditional products and practices that have shaped the territory over the past centuries, often through a balanced approach between humans and the environment; after all, the quality of these products is inextricably linked to the quality of the natural heritage from which they derive. Secondly, they show how a positive dynamic can be created between parks and local producers. The former can open a dialogue with the stakeholders, showing the importance of their conservation mission while encouraging the adoption of practices that are compatible with it; the latter can exploit the benefits in terms of visibility and reputation deriving from the protected area, while at the same time creating networks with other producers and local actors, stimulating the economy of the region.



CULTURAL INITIATIVES AND EVENTS

Initiative	Protected Area (or Organisation)	Country	Source
TWINGI	Landschaftspark Binntal	Switzerland	Link
SuperPark - Visioni d'autore	Parco naturale Adamello Brenta	Italy	Link
Steirischen Zauberwalds	Naturpark Mürzer Oberland	Austria	Link
Erlebnissennen	Biosphärenpark Großes Walsertal	Austria	Link
Savurando	Netzwerk Schweizer Pärke	Switzerland	Link
Kulinarische Genussrunde	Biosphärenpark Großes Walsertal	Austria	Link
Paniere del Parco	Parco naturale Prealpi Giulie	Italy	Link
A Natale porta in tavola un territorio che ami	Aree Protette Alpi Marittime	Italy	Link
Cucina Radicata	Aree Protette Alpi Marittime	Italy	Link

Tab. 5 Summary of initiatives: Cultural initiatives and events

53 www.parcoprealpigiulie.it/it/principale/iniziative-e-progetti/il-paniere-del-parco

54 www.qualitaparcoapam.it/news/3697/a-natale-u201cporta-in-tavola-un-territorio-che-ami-u201d

55 www.qualitaparcoapam.it/news/3827/ultimi-giorni-per-iscrivere-al-corso-cucina-radicata



Children and youth

As discussed in Chapter 1, children and young people represent a key target group for Alpine protected areas, and several offers are dedicated to them, their families and schools. Landschaftspark Binnental and Park Ela have developed backpacks/bags, containing activity booklets and “working materials” (notebooks, magnifying glasses, hammers...) that allow the youngsters to explore the natural environment first-hand: the former, called **Steinforscher-Rucksack** (Stone explorer backpack)⁵⁶, focuses on rocks, mineral, and the geodiversity of the park, while the latter, called **Bergwald-Wundertüte** (Mountain Forest Wonder Bag)⁵⁷, focuses on forests and the life of mountain animals and plants. Similarly, the UNESCO Biosphäre Entlebuch proposes a **Forscherbox** (Explorer box)⁵⁸, as part of a number of initiatives available for families around the **Mooraculum**⁵⁹, a free adventure playground dedicated to moor and moorland landscapes. Along two routes, children

can carry out activities and solve quizzes, exploring these habitats and also receiving a reward for their efforts.

ASTERS (Conservatoire d’Espaces Naturels de Haute-Savoie) developed the **Ani’malles**⁶⁰, a series of transportable pedagogical tools especially designed for children. Each Ani’malle is transportable and includes materials, activities, and games that lead users to the discovery of specific animals and habitats (bats, beavers, rock ptarmigans, dry grasslands...). In particular, “Hector l’arbre mort” (Hector the dead tree) is made from a beech, with drawers containing educational resources for 12 different workshops on the flora and the fauna of dead woods, raising awareness about the value of dead trees in the forest. In the region of the Logarska Dolina Krajinski park, it is possible to have a walk through the **Pravljični Gozd** (Fairytale Forest)⁶¹. Through natural science workshops and 35 themed stations, each dedicated to a different fairytale, children are invited to explore the forest, get to know

56 www.landschaftspark-binntal.ch/de/allgemein/shop/steinforscher-rucksack-66

57 www.parc-ela.ch/de/bergwald-wundertue

58 shop.soerenberg.ch/en/products/explorer-box

59 www.soerenberg.ch/de/familienwelt/moorwelten/spielplatz-mooraculum

60 www.cen-haute-savoie.org/outils-pedagogiques

61 www.logarska-dolina.si/en/experiences/relaxation/fairytale-forest

about its animals, engage in tasks and challenges aimed at experiencing this habitat with all the senses. The educational contents, developed in collaboration with the Slovenian Forestry Institute, also forms the basis for themed guided tours.

Many parks also participate in the **Junior Ranger**⁶² programme launched by EUROPARC, that invites young people to connect to the natural and cultural heritage of their region through hands-on, non-formal environmental education and encourages them to spend time outside in protected areas. An example of a similar local initiative are the **Capricorn Kitz**⁶³ and **Capricorn Club**⁶⁴ proposed by the Naturpark Beverin to involve local kids and teenagers in annual programmes of experiences and to engage them in the sustainable development of the park region. Or the summer camp **Una settimana da lupi** (A Wolf week)⁶⁵ organised by the Parco delle Orobie Valtellinesi, during which “young rangers” can take part in various eco-compatible, environment-aware activities, focused particularly on the wolf and its return to the mountains of the region.



CHILDREN AND YOUTH

Initiative	Protected Area (or Organisation)	Country	Source
Steinforscher-Rucksack	Landschaftspark Binnental	Switzerland	Link
Bergwald-Wundertüte	Park Ela	Switzerland	Link
Forscherbox	UNESCO Biosphäre Entlebuch	Switzerland	Link
Mooraculum	UNESCO Biosphäre Entlebuch	Switzerland	Link
Ani'malles	ASTERS - Conservatoire d'Espaces Naturels de Haute-Savoie	France	Link
Pravljični Gozd	Logarska Dolina Krajinski park	Slovenia	Link
Junior Ranger programme	EUROPARC	Various countries	Link
Capricorn Kitz	Naturpark Beverin	Switzerland	Link
Capricorn Club	Naturpark Beverin	Switzerland	Link
Una settimana da lupi	Parco delle Orobie Valtellinesi	Italy	Link

Tab. 6 Summary of initiatives: Children and youth

62 www.europarc.org/young-people/junior-ranger-programme

63 www.naturpark-beverin.ch/de/angebote-aktuelles/capricorn-kitz

64 www.naturpark-beverin.ch/de/capricorn-club

65 online.fliphtml5.com/jpmgk/tgln/#p=17

Accessibility and inclusion

Addressing accessibility, and thus participation and inclusion for people with disabilities is never an easy challenge. This complexity increases when considering access to natural environments, and even more to mountain environments as in the case of Alpine protected areas.

The present analysis has identified three main approaches in the offers of the parks. The first one is to design trails that are suitable for being experienced also by people with reduced mobility, or more generally by people with disabilities. The **Wald der Sinne** in the Naturpark Mürzer Oberland, mentioned in the “Wellbeing” section, is an example of that.

Similarly, the Biosphärenpark Nockberge has developed **Silva Magica**⁶⁶, a barrier-free circular trail also adapted for people with visual impairments, aimed at visitor relaxation through natural elements. This proposal is part of the “Naturerlebnis für ALLE” project (Nature Experience for ALL), launched by the ARGE Naturerlebnis Kärnten to create attractive barrier-free nature experiences throughout the Carinthia region. The Nationalpark Berchtesgaden proposes barrier-free paths and guided tours, too, and has created a **model accessibility management plan**⁶⁷ with the goal of expanding these offers, analysing existing facilities and making suggestions for future design.

The second approach is more oriented to expand the possibilities of people with disabilities to enjoy more challenging paths thanks to specific technical means. For example, some parks provide **joëlettes**, a one-wheel all-terrain wheelchair, that allow for a wider experience of the natural environment: it is the case for example of the Parco delle Orobie Valtellinesi⁶⁸, and of the Aree Protette Alpi Marittime together with the Parc National du Mercantour⁶⁹. In addition, the latter has also launched the project **Aventure Mercantour pour Tous** (Mercantour Adventure for All)⁷⁰, where various institutions are supported in the organisation of mountain excursions or multi-day trekking dedicated to people with various kinds of physical or mental disabilities (e.g. people

with schizophrenia, blindness, trisomy). Another option is that proposed by the Naturpark Diemtigtal: the possibility to rent from a campsite in the region an **all-terrain electric wheelchair** and to test that on three different paths⁷¹. This tool allows for greater autonomy and is suitable to be used even on steeper (up to 30%) and more uneven terrain.

Finally, a third approach is to try bringing mountain environments to more accessible places. A possibility that is being tested and that will probably become more and more available in the near future is related to virtual reality. The Parco naturale Adamello Brenta and the Parco Nazionale Gran Paradiso have developed this solution thanks to specific projects. The former,



66 www.biosphaerenparknockberge.at/en/visit-and-experience/theme-trails

67 www.nationalpark-berchtesgaden.de/english/adventure/tips/barrierfree

68 www.parcorobievalt.com/node/2066

69 www.mercantour-parcnational.fr/fr/des-actions/sensibiliser-eduquer-et-accueillir/accessibilite-et-handicap

70 www.mercantour-parcnational.fr/fr/des-actions/sensibiliser-eduquer-et-accueillir/accessibilite-et-handicap/randonnees-accessibles-tous

71 www.diemtigtal.ch/mountaindrive

thanks to the project **Parco senza frontiere** (Park without borders)⁷², specifically targeted people with motor and cognitive disabilities, by making it possible to experience 32 remarkable locations (landscapes, waterfalls, glaciers...) through VR visors, with a focus on otherwise inaccessible places. The latter presented **Gran Paradiso VR - Nature and Culture Immersive Experience**⁷³ that allows a 360-degree visualisation of the Via Ferrata Casimiro and the ascent to the Gran Paradiso summit. The park also offers a more “traditional” alternative, the **Paradisialpine botanical garden**⁷⁴. Here more than 1,000 plant species are collected, natural habitats are recreated (e.g. pseudo-steppe, peat bog) and there are also geological and lichen expositions and a butterfly garden. The **Campanula morettiana botanical garden**⁷⁵ in the Parco Nazionale Dolomiti Bellunesi was created with scientific and educational purposes and specifically designed to allow people with visual or mobility impairments to access high-altitude environments and flora.



ACCESSIBILITY AND INCLUSION

Initiative	Protected Area (or Organisation)	Country	Source
Wald der Sinne	Naturpark Mürzer Oberland	Austria	Link
Silva Magica	Biosphärenpark Nockberge	Austria	Link
Model accessibility management plan	Nationalpark Berchtesgaden	Germany	Link
Joëlettes	Parco delle Orobie Valtellinesi	Italy	Link
Joëlettes	Parc National du Mercantour Aree Protette Alpi Marittime	France Italy	Link
Aventure Mercantour pour Tous	Parc National du Mercantour	France	Link
All-terrain electric wheelchair	Naturpark Diemtigtal	Switzerland	Link
Parco senza frontiere	Parco naturale Adamello Brenta	Italy	Link
Gran Paradiso VR - Nature and Culture Immersive Experience	Parco Nazionale Gran Paradiso	Italy	Link
Paradisialpine botanical garden	Parco Nazionale Gran Paradiso	Italy	Link
Campanula morettiana botanical garden	Parco Nazionale Dolomiti Bellunesi	Italy	Link

Tab. 7 Summary of initiatives: Accessibility and inclusion

72 www.pnab.it/parco-senza-frontiere-al-via-il-progetto-di-realta-virtuale-sviluppato-con-anfass-e-medialab

73 www.grand-paradisio.it/en/news/2023/gran-paradiso-vr-nature-and-culture-immersive-experience-unique-and-immersive-experiences

74 www.pngp.it/en/visit-park/paradisialpine-garden

75 www.dolomitipark.it/visitare-il-parco/centri-visita-musei-punti-info/cadini-del-brenton-e-giardino-botanico-campanula-morettiana

Mountain huts

While parks often develop cooperation with local actors in the catering and accommodation sectors, in some cases they develop initiatives with the quintessential actors in high altitude hospitality: mountain huts. These initiatives are primarily aimed at reducing the impact and use of resources, while increasing guest awareness about these topics. The **Chamanna Cluozza**⁷⁶ is the only catered hut within the Parc Naziunal Svizzer and devotes central attention to the issue of sustainability, as demonstrated also by the awards obtained in this regard (TourCert and Swisstainable - Level II “Engaged”). This was sought in the recent renovation, also in collaboration with the park, but is also evident in the daily operation of the hut: focus on regional food products for a short and local value chain, use of naturally available drinking water for teas and syrups, lower meat content to reduce the ecological footprint. The most interesting initiative, however, is the **refrigerator placed in Zernez**⁷⁷, at the beginning of the path leading to Chamanna Cluozza. Hikers are invited to pack the food that they find there and to bring it to the hut. This reduces the number of helicopter flights required to replenish supplies and allows guests to make a direct contribution to the sustainability of their trip.

The Parco naturale Adamello Brenta launched the project **Let's Green - No Time To Waste**⁷⁸ together with a local tourism company and an association committed to fighting plastic pollution. It features 100% plastic-free mountain huts or those that have started a path towards abandoning single-use plastic, and includes various actions on waste and pollution of



soil, water and air, climate and loss of biodiversity, with the aim of raising awareness among the population as well as in municipalities and accommodation facilities in the area. Guided excursions with games and practical activities are also part of the initiative, showing the path of plastic from the mountains to the sea and the behaviours to be adopted to reduce our impact.

Continuing on the topic of waste in the mountains, some of the mountain refuges in the Parc National de la Vanoise have joined the **pique-nique zéro déchet** (zero-waste picnic)⁷⁹ initiative, inviting hikers (particularly those on multi-day treks) to use multi-use bib containers. This simple gesture, along with other small behaviours promoted in conjunction with the park, allows mountain refuges to reduce the volume of waste produced during packing and transport, and hikers to avoid carrying single-use waste with them all the way downstream. Since they cannot be left at refuges, which have to rely on helicopter trips for disposal, this also reduces the risk of dispersing them into the environment while walking.

MOUNTAIN HUTS			
Initiative	Protected Area (or Organisation)	Country	Source
Chamanna Cluozza	Parc Naziunal Svizzer	Switzerland	Link
Refrigerator at the trailhead	Parc Naziunal Svizzer	Switzerland	Link
Let's Green - No Time To Waste	Parco naturale Adamello Brenta	Italy	Link
Pique-nique zéro déchet	Parc National de la Vanoise	France	Link

Tab. 8 Summary of initiatives: Mountain huts

76 www.nationalpark.ch/besuchen/unterkunft/cluozza

77 www.nationalpark.ch/besuchen/unterkunft/cluozza/#kuehlschrank

78 www.pnab.it/lets-green-no-time-to-waste

79 www.vanoise-parcnational.fr/fr/actualites/zero-dechet

Transport

As mentioned in Chapter 1, a growing problem for Alpine protected areas is the high number of cars reaching their borders or entering them, which causes traffic jams on main roads and overcrowding both in car parks and on roadsides. About half of the survey participants indicated that they are working on transport strategies, in terms of strengthening access by public transport and/or limiting the access of private vehicles. It is therefore interesting to see what solutions are already available in the region.

One strategy is to encourage visitors wishing to travel to the protected area to choose public transport. This is the case with the **sustainable mobility initiatives**⁸⁰ launched by the Netzwerk Schweizer Pärke. The first, **Fahrtziel Natur** (Destination Nature) is based on an idea already developed in Germany, which, through cooperation with environmental associations and transport companies, offers packages and discounts for the Grisons canton. Specifically, tourists who stay at one of the participating locations for three or more nights receive free use of public transport in the park they are visiting, while those who decide to travel to specific park events using public transport receive a free return ticket. The second, **Gratis mit dem öV in die Schweizer Pärke** (Free public transport to the Swiss parks), on the other hand, offers round-trip travel for tourists who reach the parks by bus or train, staying for at least 3 nights, thus providing a service complementary to the previous one. In addition to encouraging a shift from private cars to public transport, the initiative has proven effective in extending tourists' stays, which is often cited by protected area managers as desirable for reducing daily traffic. There are also related initiatives by the individual protected areas. The Biosfera Val Müstair, which is part of the Fahrtziel Natur project, for example, offers to visitors who use public transport to **send their luggage** to their accommodation in advance at reduced fares, in order to make travelling more comfortable⁸¹.

80 www.parks.swiss/en/visit-the-parks/mobility

81 www.val-muestair.ch/en/aktuelles-service/anreise-mobilitat-vor-ort/luggage-transport-accommodation

82 www.nockmobil.at

83 www.lovevda.it/it/banca-dati/8/in-evidenza/valle-d-aosta/trek-bus-gran-paradiso/1922

84 www.naturpark-beverin.ch/de/angebote-aktuelles/veranstaltungen-angebote/wanderbus-angebote

85 www.grosseswalsertal.at/de/Klima_und_Energie/Energieprojekte_Aktuell/Mitfahrbaenkle

86 www.mobilites-m.fr/rubriques/covoiturage

Other strategies, on the other hand, aim to strengthen the transport options themselves, especially during the summer period when affluence is highest. The Biosphärenpark Nockberge has launched **Nockmobil**⁸², an on-demand shuttle service, currently supported by other local administrations and entities, that serves as a supplement to public transportation in the area. Similarly, in the region of the Parco nazionale Gran Paradiso, the on-demand **Trekbus Gran Paradiso**⁸³ is available during the summer season. It connects the valley-floor municipalities with the inner valleys of the park and allows for circular hiking routes, making it possible for hikers crossing mountain passes between valleys to return to their starting point. The Parco naturale Mont Avic Natural Park also aims to strengthen inter-valley public transport, with the goal of improving access to hiking trails and promoting multi-day treks, offering the possibility of returning by bus.

Furthermore, several Swiss parks are connected by services offered by the Bus Alpin association, and also provide additional options for reaching hiking trailheads. For example, the Naturpark Beverin operates seven **Wanderbus** (Hiking buses)⁸⁴ routes, which also allow for the transport of bicycles. Alternatively, a more cost-effective solution is the installation of **carpooling benches**⁸⁵, like those found in the Biosphärenpark Großes Walsertal, where a small flag signals that someone is waiting for a ride, or such as the various **covoiturage** (carpooling)⁸⁶



services offered in the Grenoble metropolitan region that also connect surrounding protected areas, such as the Parc régional du Vercors or Parc régional de la Chartreuse, including digital displays to indicate the desired destination. In the **booking section** of the Parco naturale Adamello Brenta, alongside naturalistic and cultural experiences, visitors can find information on available transport services and reserve their way to different areas of the park (or a parking spot)⁸⁷.

Providing clear and specific information on activities and hikes that are accessible by public transport can generally encourage more people to choose these sustainable options. For this reason, the Naturpark Karwendel has developed **WÖFFI – Wandern mit öffentlicher Anreise** (Hiking with public transport)⁸⁸, a guide featuring numerous proposals for such excursions. Further guides have since been created for other protected areas in the Tyrol region. Recently, these brochures have been made available online, together with an interactive map offering constantly updated information. A similar service is provided by the association Schweizer Wanderwege through the **Plan'n'hike** platform⁸⁹, which allows users to plan hikes starting from locations reachable by public transport, and includes a section specifically dedicated to Swiss parks.

Information and management

At the beginning of this chapter, we stated that the disturbance caused to the natural environment by human presence depends on the number of people, on individual impacts of their activities, and on the specific location where they do these activities. Protected areas can influence all these aspects, in particular through visitor information and management.

Concerning the former, visitor centres represent the main spot for informing people heading to the parks, for providing tourists with insights about key natural features and for making them aware of the rules and regulations that apply inside protected areas. As already mentioned, they are present in various forms in all parks and often host displays and events. However, it can sometimes be difficult to intercept those outdoor enthusiasts who avoid indoor spaces, and informational signs are not always effective enough in conveying basic rules of behaviour⁹⁰. Reaching these users in person directly inside the park therefore becomes necessary.

TRANSPORT			
Initiative	Protected Area (or Organisation)	Country	Source
Sustainable mobility initiatives	Netzwerk Schweizer Pärke	Switzerland	Link
Luggage Special	Biosfera Val Müstair	Switzerland	Link
Nockmobil	Biosphärenpark Nockberge	Austria	Link
Trekbus Gran Paradiso	Parco Nazionale Gran Paradiso	Italy	Link
Wanderbus	Naturpark Beverin	Switzerland	Link
Carpooling benches	Biosphärenpark Großes Walsertal	Austria	Link
Covoiturage services	Syndicat Mixte des Mobilités de l'Aire Grenobloise	France	Link
Bus and parking booking	Parco naturale Adamello Brenta	Italy	Link
WÖFFI – Wandern mit öffentlicher Anreise	Naturpark Karwendel	Austria	Link
Plan'n'hike	Schweizer Wanderwege	Switzerland	Link

Tab. 9 Summary of initiatives: Transport

87 www.book.pnab.it/it

88 www.naturparke.tirol/wandern-mit-oeffentlicher-anreise

89 www.plan-and-hike.ch/de/wab

90 See on this the work done by Parc National des Ecrins together with students from Université Savoie Mont Blanc on attendance management: www.ecrins-parcnational.fr/actualite/etudiants-ont-planche-mobilite-frequentation



The **Mobile Bildungsangebote** (Mobile educational services)⁹¹ of the Nationalpark Berchtesgaden consist of temporary stations placed at the main visitor hotspots, thanks to which park staff can conduct outreach activities directly in the places most affected by the presence of visitors. Parc Ela also has an **Infomobil**⁹², a small station on wheels that can be set up at events with materials and useful products to raise awareness of the park's nature, culture, and offers. In addition, the park has activated a **ranger service**⁹³ at the Lai da Palpuegna. During the summer period, the presence of a park ranger in charge of showing those present the beauty but also the fragility of that environment is an attempt to mitigate the effects of the increasing influx in this area.

Similarly, the Parc naturel régional du Queyras had established the post of **ecorangers**⁹⁴ for the

winter period. The latter, meeting practitioners along the park's trails, have the function of raising their awareness of "mountain culture", of the potential risks from avalanches but also of the need for respect for wildlife and good behaviour. This information is also made available online, through digital mapping that brings together data on both avalanche risk and areas of potential conflict between outdoor activities and species particularly sensitive to human presence. These initiatives are part of a larger mission that the park has undertaken in collaboration with other local stakeholders such as municipalities, the Queyras Mountains Club and the tourist office, to respond to the spread of ski mountaineering and snowshoeing. Other interesting activities include free avalanche rescue initiation courses and an escape game during which, in a limited time, participants must work together to rescue an avalanche victim.

91 www.nationalpark-berchtesgaden.de/infostellen/einrichtungen/mobile_staende

92 www.parc-ela.ch/de/infomobil

93 www.parc-ela.ch/de/rangerdienst

94 www.pnr-queyras.fr/faire-sa-trace-partager-lespace



Sticking to the field of visitor information, a recognizable trend across the Alpine arc is, as seen just above, the digitization of such information. Two major examples in this regard are the **Geotrek** platform⁹⁵, conceived in 2011 by the Parc National des Ecrins in collaboration with the Parc National du Mercantour and the Aree Protette Alpi Marittime, that covers mainly French territories, and **Digitize the Planet**⁹⁶, funded in 2020 as a non-profit association and spread more in the northern and eastern Alpine region. Both allow park managers and relevant authorities to produce geodata on aspects such as regulations, closures, conservation purposes, but also to indicate official tracks for various outdoor activities. These data are open source and are therefore made available to digital outdoor platforms for integration into their services. Indeed, one aspect that is often emphasized by protected area staff is the fact that outdoor activity practitioners use as their means of information not the official sites of the places they frequent, but third-party services, where users can freely share unofficial and potentially conflicting itineraries with park regulations.

95 www.geotrek.fr

96 www.digitizetheplanet.org

97 Two example of “certified” itineraries in the park:

www.tnp.si/en/visiting-park/activities-and-sights/hiking/pokljuka-gorge by the Triglavski Narodni Park and www.tnp.si/en/visiting-park/activities-and-sights/hiking/goreljek-educational-trail/ by Turizem Bohinj

Harmonizing data on protection measures and regulations in order to encourage greater use by outdoor platforms is one of the goals of the LiveAlpsNature project. Among the project partners is the Triglavski Narodni Park, which has embarked on a radical and extensive **digitization process**. In particular, thanks to cooperation with Outdooractive and the Alpine Association of Slovenia, the park has been able to make official trails available on their respective online maps, with “certified” information, for example regarding quiet zones and the limitations they entail. A positive aspect of this initiative is that it allows the various stakeholders involved in tourism promotion and management to contribute to the same product, as in the case of the local tourism association Tourizem Bohinj⁹⁷.

In addition to aspects related to digitization, the LiveAlpsNature project aims more generally to promote innovative methodologies and tools for visitor flow management, particularly with regard to outdoor activities. The protected areas involved in the

project already have their own initiatives in this area.

The Aree Protette dell'Ossola are carrying out activities that **directly link human visiting and the monitoring of sensitive species** (black grouse, ptarmigan)⁹⁸. This makes it possible to identify areas where the conservation risks from the latter are greatest and to design targeted communication tools, for example, indicating defined trails for ski mountaineering, so as to avoid disturbance of the winter behaviors of these species. Such best practices are part of ALPARC's communication campaign, **Be Part of the Mountain**⁹⁹. ASTERS has recently put in place a **bivouac reservation system** at nature reserves¹⁰⁰. This has become necessary because of increased frequentation inside the protected areas, with numerous impacts, including soil degradation and modification, wildlife disturbance, pollution of lakes and streams, and the presence of trash and excrement. The reservation site presents an explanation of these impacts and good practices to keep while bivouacking (multi-day

camping remains prohibited). Finally, the Parco naturale Mont Avic uses in an original way a tool we have already discussed regarding culinary offerings: the **park quality label**¹⁰¹. In addition, of course, to being an acknowledgement of compatibility with the park's mission and a commitment to improving its environmental standards, the label in this case also constitutes a fundamental element of information for visitors. It indicates a whole range of services that are not available within the borders of the protected area but are often sought (or demanded) by certain types of visitors less accustomed to the constraints arising from the natural mountain environment. Similarly, the park logo is granted for sporting events that take place outside its boundaries. The basic idea can be summed up with the phrase "Tell me what you are looking for and I will tell you where to go", that is, not necessarily within the park, given the naturalistic value that also characterizes its surrounding valleys.

INFORMATION AND MANAGEMENT			
Initiative	Protected Area (or Organisation)	Country	Source
Mobile Bildungsangebote	Nationalpark Berchtesgaden	Germany	Link
Infomobil	Parc Ela	Switzerland	Link
On-site ranger service	Parc Ela	Switzerland	Link
Ecorangers	Parc naturel régional du Queyras	France	Link
Geotrek	Geotrek (Parc National des Ecrins)	France	Link
Digitize the Planet	Digitize the Planet	Various countries	Link
Digitization process	Triglavski Narodni Park	Slovenia	Closing Event
Winter sport management	Aree Protette dell'Ossola	Italy	Link
Be Part of the Mountain	ALPARC	Various countries	Link
Bivouac reservation system	ASTERS - Conservatoire d'Espaces Naturels de Haute-Savoie	France	Link
Marchio di Qualità	Parco naturale Mont Avic	Italy	Link

Tab. 10 Summary of initiatives: Information and management

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98 www.areeprotetteossola.it/de/conservazione-e-ricerca/progetti-in-corso/resicets/in-inverno

99 www.bepartofthemountain.org/en

100 www.bivouac.nature-haute-savoie.fr/reservation-bivouac/informations

101 www.montavic.it/marchio-di-qualita

Participatory approaches

In the above presentation of offers and initiatives it is clear that in many cases cooperation with other stakeholders is crucial. As already mentioned at the opening of the chapter, this makes it possible to mobilise greater resources and expertise, which go beyond the possibilities of the protected areas alone, as in the case of partnerships with transport operators to improve access by public transport. At the same time, exchanges with public and private actors of the region and with the local population have the purpose of fostering dialogue and reducing potential conflicts, thanks to a better understanding of the mission of the protected areas and of the potential (economic) benefits deriving from their presence.

This is the result that can be achieved, for instance, by quality labels, which increase the visibility of virtuous actors that choose to adopt practices compliant with nature protection. Such a concept is well represented by the **Azienda sostenibile** (Sustainable Business) award¹⁰², assigned as part of the initiative “Tourism and Agricultural Development in the Stelvio National Park”. Through the completion of a questionnaire covering ecological, economic and social aspects, accommodation facilities in the South Tyrolean part of the park are given a sustainability index. Those that exceed the 80% threshold are promoted on the park website. The same applies to the **Produttore sostenibile** (Sustainable Producer) award¹⁰³. The fundamental idea behind the initiative is that nature itself represents the most important resource of the Parco Nazionale dello Stelvio, and that those who place great value on sustainability in their economic activities help to preserve this heritage.

Other initiatives aim to involve tourism stakeholders more directly in the creation of common strategies. Twice a year, the UNESCO Biosphäre Entlebuch organises a **Tourismusforum**¹⁰⁴. This regional exchange platform serves to present tourism data and information, coordinate activities and projects, and, more generally, obtain feedback on the sector's status. At the heart of the plan is the development of ‘Erlebniswelten’ (Worlds of Experience), whereby a



clear, attractive and identity-creating positioning for each sub-area of the region is defined.

Similarly, the Parc National de la Vanoise, along with about forty other stakeholders, has signed the **Déclaration Tourisme Durable** (Sustainable Tourism Declaration)¹⁰⁵. The main pillars of this document are the promotion of best practices, the sustainable management of natural spaces, and the active engagement of local actors in the process. The declaration, which aligns with the goals of France's Stratégie nationale biodiversité 2030 (National Biodiversity Strategy 2030), lays the foundation for greater collaboration on this topic. Concrete actions envisioned by the declaration include the creation of wildlife quiet zones, raising visitor awareness about the impact of recreational activities, and the development of interactive maps to inform the public about the presence of sensitive areas.

Participatory approaches are indeed useful for developing practical solutions in managing the visitation of protected areas. For example, the Biosphärenpark Nockberge has initiated the development of a management concept in collaboration with landowners, municipalities, tourist operators, and Alpine clubs. Prompted by the growing popularity of ski touring, the project adopts a demand-oriented approach that takes into account the needs of various stakeholder groups as well as the requirements of nature conservation. This collaborative effort has led to the designation of specific winter routes that avoid ecologically sensitive zones. Additionally, the initiative has resulted in the publication of the brochure **Miteinander im Biosphärenpark Nockberge**

102 www.parconazionale-stelvio.it/en/planning-your-visit/sustainable-accommodations-amidst-the-stelvio-national-park.html

103 www.parconazionale-stelvio.it/en/enjoying/ecological-farming-in-the-stelvio-national-parc.html

104 www.biosphaere.ch/de/informieren/organisation/foren/tourismusforum

105 www.votreparc.vanoise.com/23848-declaration-tourisme-durable.htm

(Together in the Nockberge Biosphere Reserve)¹⁰⁶ and the production of videos promoting responsible behaviour within the reserve. The Hochgebirgs-Naturpark Zillertaler Alpen, on the other hand, has created a **platform with climbing and ski touring stakeholders** aimed at the shared definition of signs, parking areas, camping zones, and quiet zones for wildlife. The information generated through this process is intended to be disseminated via specialized websites and guidebooks, reaching both enthusiasts and the general public and encouraging a change in behaviour.

Other initiatives are more directly targeted at local populations. The Biosfera Val Müstair has launched a multi-phase participatory process involving local residents. Following an initial survey, two events, **Fuschina d'ideas** and **Nossa via**¹⁰⁷, were organised, during which project ideas to be implemented from 2025-2028 were developed with and presented to the population. These projects aim to promote social cohesion and a sustainable regional economy, with actions such as promoting health tourism or preserving the cultural landscape, and have been assigned financial support by the municipality. The Naturpark Karwendel has established a **Natur-Erlebnis-Spielplatz** (Nature Experience Playground)¹⁰⁸ near one of its visitor

centres. Built entirely with natural materials and home to a wide variety of plants and insects, its unique feature lies in the fact that it was designed directly by children (from the Scharnitz Nature Park School). The concept was inspired by the way, in the past, children used to play with tree trunks washed into the area by the river. The construction itself was a collaborative process involving children, their parents, and other local volunteers. The playground is now available to all park visitors.

Finally, the Parco naturale Adamello Brenta has launched the project **Custode del Parco** (Parkeeper)¹⁰⁹. Tourists who stay at least four nights in an accommodation certified by the European Charter for Sustainable Tourism can join the official registry of Parkeepers by agreeing to a "Charter of rights and duties". This charter outlines behavioural guidelines to minimize impact on the park and grants access to discounts on park-related activities. More importantly, it fosters engagement with local initiatives and the park authority itself. The program is designed to strengthen the relationship between the protected area, local communities, and visitors, promoting moments of participation and engagement and, in general, a more conscious approach to the reality of the park.

PARTICIPATORY APPROACHES			
Initiative	Protected Area (or Organisation)	Country	Source
Azienda sostenibile award	Parco Nazionale dello Stelvio	Italy	Link
Produttore sostenibile award	Parco Nazionale dello Stelvio	Italy	Link
Tourismusforum	UNESCO Biosphäre Entlebuch	Switzerland	Link
Déclaration Tourisme Durable	Parc National de la Vanoise	France	Link
Miteinander im Biosphärenpark Nockberge	Biosphärenpark Nockberge	Austria	Link
Climbing and ski touring platform	Hochgebirgs-Naturpark Zillertaler Alpen	Austria	Interview
Fuschina d'ideas / Nossa via	Biosfera Val Müstair	Switzerland	Link
Natur-Erlebnis-Spielplatz	Naturpark Karwendel	Austria	Link
Custode del Parco	Parco naturale Adamello Brenta	Italy	Link

Tab. 11 Summary of initiatives: Participatory approaches

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106 www.biosphaerenparknockberge.at/initiativen/besucherlenkung
 107 www.val-muestair.ch/de/aktuelles-service/service/medienbereich/522024-breite-zustimmung-programm-2025-28-biosfera-val
 108 www.karwendel.org/natur-erlebnis-spielplatz-scharnitz
 109 www.pnab.it/il-parco/vivere-il-parco/custode-del-parco

2.4 ELEMENTS FOR A NEW CONCEPT OF BIODIVERSITY-COMPATIBLE TOURISM IN PROTECTED AREAS

The inventory presented in this chapter has shown that many initiatives across various sectors have been designed by parks in an effort to move beyond traditional approaches and promote a new concept of tourism. At the same time, this review also highlights the limits of this transition and the absence of radical “game-changers” in the context of Alpine sustainable tourism. However, this should not be seen as a conclusion, but rather as a starting point for developing a new concept, one that integrates these insights into a broader vision of tourist offer, at the level of both individual protected areas and the whole Alpine arc.

Exceptionality

What makes the Alps so attractive is the beauty of their natural heritage, and in protected areas this aspect is even greater, the reason being that these are the places where that heritage is preserved. Visitors must be aware of this, to avoid falling into the paradox of overtourism and destroying the very environment they are seeking. Protected areas should clearly communicate how the experiences inside their borders are different from what can be done anywhere else and show the inherent value of this exceptionality. Offers should be positioned as alternatives to commercial/fun/mass tourism, underlining a deeper meaning: protection of biodiversity, knowledge of the local context, sustainability.

Uniqueness

When designing offers or, better, a comprehensive strategy, a protected area should start from an in-depth analysis of what features truly distinguish it not only from non-protected territories, but also from other protected areas. This could be a species, a landscape, a cultural tradition, or even a sound. Recognising and building on this uniqueness helps to structure a clear identity and to share it with the public through consistent



Coherence

All activities proposed within the protected area must be coherent with its central mission: to preserve nature. This applies to both initiatives managed directly by the park authority and those offered by external actors. Only with a coherent and unified core message can visitors deeply understand and appreciate the value of protected areas. Of course, this requires constant cooperation with tourism stakeholders to ensure their offer and communication align with nature conservation goals.

Positive emotions

Climate change, habitat destruction and biodiversity loss are some of the many threats to nature that can leave people feeling powerless. While protected areas must always warn visitors about these issues and their causes, they should also use their offers to foster positive emotions. Overall, they should aim at conveying a simple but powerful message: that nature is great, and that it is worth protecting. By using engaging approaches, like interpretation and storytelling, protected areas can communicate more effectively their mission, helping visitors understand the importance of conservation and the reasons behind rules and restrictions. Moreover, they can make people feel empowered, showing that everyone can contribute to nature conservation through the right behaviours.



Motivation and differentiation

To attract people towards conservation-compatible activities, protected areas must understand the main reasons why they decide to go there. Each type of visitor has different expectations and needs: sport and adventure, relaxation, learning. Park offers should be tailored accordingly, with different levels of difficulty and accessibility, ensuring that all groups find something attractive. When visitors engage with the activity offered by the protected area it is easier to transfer educational contents and promote positive behaviours.

Accessibility and inclusion

In recent years, protected areas have been facing a change in visitor composition. One notable trend is the increasing presence of elderly people and people with disabilities, a trend that is likely to continue due to an ageing population and growing awareness about accessibility and inclusion. For many parks these issues have become a priority and are addressed through the development of dedicated offers and infrastructure, such as barrier-free trails. It is crucial that such initiatives be designed through participatory processes, involving the people directly concerned. This approach makes it possible to find creative solutions that combine technical accessibility with meaningful, high-quality experiences, opening up the mountain environment to all.

New visitors

Another common trend regarding visitor composition is the increase of the “newcomers” that is, people approaching the mountain environment for the first time and with little awareness about what it represents. For them, in most cases, the main reason for being there is simply feeling good in nature, enjoying the cooler climate or experiencing something they saw online. To intercept these visitors and attract them towards conservation-compatible (educational) offers, first of all it is essential to make them aware of the very existence of the protected area. Conspicuous signalling on the roads and the paths, clear information on digital outdoor platforms, interactive self-guided experiences and the physical presence of the park staff in the main spots are some ingredients that can prove useful to this end.



Integrated experience

Individual biodiversity-compatible offers are essential building blocks of sustainable tourism, but on their own they are not enough to drive a broader transformation of the existing model. Protected areas should cooperate with other local actors to propose packages that combine several offers and services: educational activities, transport, accommodation, cultural events, etc. Indeed, integrated solutions make it easier for interested people to organise their visit to the region, encourage longer stays and the choice of public transport and help distribute economic benefits across different local actors. Besides, they increase the visibility of the protected area and give it stronger influence over the global coherence of the tourist offer with the nature conservation mission.

Effective digital communication

It is evident that communication plays a crucial role in shaping and supporting this tourism concept for Alpine protected areas. Alongside clear on-site guidance and the presence of trained rangers, the official park website should serve as the primary information hub, for both visitors and tourism stakeholders. To do so, it must be visually appealing, user friendly and coherent with the identity of the park. It must raise awareness about sustainable tourism, explain the conservation benefits of specific initiatives, highlight the unique values of offers and products in the protected area, and provide easy access to booking tools. On the other hand, it is essential for external actors such as tour operators or digital outdoor platforms to integrate the park's key messages in their own communication. This includes sharing verified data (e.g. on regulations, quiet zones, tracks), to ensure that third-party information supports the conservation goals of the protected area, rather than contradicting it.



Innovation

Innovation does not always mean “inventing something brand new”; it can also mean learning from others, borrowing, adapting, improving solutions to suit a different context. Protected areas should remain open to cooperation and the exchange of good practices, both among themselves and with different actors facing similar challenges (e.g. cities dealing with overtourism). At the same time, they should remain attentive to change, whether in nature itself, visitor behaviour and interests, emerging technologies or local attitudes. This allows them to design activities on the most attractive topics, anticipate new trends and develop innovative solutions on their own, rather than reacting to external changes once their effects are already becoming problematic.

Monitoring and assessment

Quantifying frequentation in protected areas (in terms of number of people, cars, types of activities performed, etc.) is as essential as extremely challenging, due to the open borders and large surfaces of these territories. Measuring the actual impacts of this frequentation is even more complex. Parks should establish a set of clearly defined indicators, both quantitative and qualitative, ideally available before implementing new solutions. These indicators should serve as the basis for evaluating the effectiveness of different offers and measures.

Although demanding, decisions need to be based on facts, also as a means to reinforce the message that restriction or alternative activities are beneficial for nature. A coordinated approach to shared, basic indicators at the transnational level would prove highly valuable, allowing for the creation of common knowledge data without the need for each protected area to test and monitor every solution independently.

Participation and cooperation

Most of the success factors described above share a common element: cooperation. This includes cooperation with tourism stakeholders to develop integrated visit packages, with people with disabilities to design inclusive offers, with guide associations to embed behavioural recommendations in training, or with local communities to ensure that the benefits of the park's presence are widely shared. Participatory approaches, applied across all stages of tourism strategy development (from planning to implementation and to evaluation) enhance acceptance, creativity and shared ownership of both processes and results. Cooperation between protected areas is also fundamental, as it allows the exchange of good practices and the reinforcement of consistent messages towards visitors and other stakeholders. In this regard, the ALPARC network plays a key important role in facilitating transnational cooperation and advancing joint proposals to be applied on an Alpine scale.



2.5 NEW APPROACHES IN SUPRA-REGIONAL AND INTERNATIONAL PARK TOURISM

Thanks to numerous discussions with park managers and other experts over the last years, we have the impression that new concepts could significantly contribute to shaping a different type of tourism, based on ecological and inclusive values at all levels. Below, we briefly present a small number of new visitor offers specifically conceived for Alpine protected areas. As discussed in the previous paragraph, all these offers, which could serve as “flagship” projects or destinations, share some common success factors, needed both for their realisation and acceptance and for the communication essential to make them well known at international level:

Success factors for flagship projects:

- High environmental quality, low impact
- Target groups with environmental awareness but not exclusively
- Participation of local stakeholders
- Strong relation to:
 - * regional culture and history
 - * nature, clear separation from fun tourism/activities
- Combination of different services in a package
- Creativity in the product, uniqueness
- Enables human encounter
- Socially responsible
 - * Awareness of tour operators about sustainable tourism

Success factors for communication needs:

- Coherent promotion strategy with mainly online material and corporate identity
- Physical presence of trained staff such as park rangers
- Development of a website that:
 - * is visually appealing
 - * favours easy access to information
 - * raises awareness on sustainable tourism
 - * highlights the unique selling point of the product or destination
 - * provides links to booking possibilities or direct booking (easy access)



The following offers can be considered as an attempt to introduce new concepts for Alpine tourism based on the ecological, social and cultural values of protected areas and their region. They are neither radically innovative nor changing the basic features of Alpine tourism and its assets, but they try to provide a more adapted framework to offers for visitors in protected area regions. Together with the uniqueness that only parks can provide, the added value of these offers also derives from a shared experience of beneficiaries such as young people, families or groups.

A. Visitor roaming offer “From park to park”

In some Alpine regions, several protected areas are in a geographical situation that allows the development of common offers for hiking. Sometimes parks are on both sides of a national border.

Alpine protected areas in near distance offering hiking tours from one park to another, completed by viewpoints, huts, hosting facilities and points of interest.

ALPARC can cooperate with interested parks to offer a roaming package between different parks including transboundary trails leading participants to the most interesting places of each protected area participating. The package includes proposals for overnight stays and further visits or activities.

B. “Parks inside” - Special visitor programme with ranger

Exclusive pass for several parks in different countries. A park programme for interested visitors to know more about Alpine nature, conservation work by the protected areas and the field work of the ranger. A one day trip to the special areas of the park where access is not common for most of the visitors.

Alpine protected areas offer a one-or-more-day visit(s) to showcase the conservation work of protected areas in the protection of biodiversity, and the changes in the natural environment caused by climate change and other impacts.

ALPARC plans to initiate a proposal to interested parks within the “regional development and the working group education and communication of the network” working group. The proposal could be considered within an INTERREG A or B project.



C. Access for elderly and disabled persons – between viewpoints and encounters

Specific offers for elderly and disabled persons on the base of a contemplative tourism accompanied by encounters with local stakeholders (visits) and persons in the same situation (booking through an online (meeting) platform for excursions at the destination). Visits for a public with walking disabilities. Adapted hikes and viewpoints, offers for overnight stays and cultural programmes of the region.

Alpine protected areas collect all information about parts of their territory having the potential to propose excursions and activities or events to a group of persons suffering from reduced mobility or other disabilities. An Alps-wide comparison of the potential available in protected areas for those groups of persons and an exchange between the participating partner parks should allow to draft a first programme for the public concerned on common standards in several parks or other protected areas.

ALPARC is considering an initiative on this topic to evaluate the number of protected areas interested in such an approach. The activity can be linked to activity number 2 and could be part as well of an INTERREG Alpine Space project.



D. Youth trainees programme - “3 days in an Alpine Park”

Designed within the frame of holidays with the family, nature adventure based on bivouacking and camping, discovery trails and encounters with rangers to explain the conservation work, participation of the young people on some concrete actions.

Alpine protected areas offer in the frame of their summer programme (in exceptional cases within a winter programme as well), short term adventure sessions for young people linked to the conservation work of Alpine protected areas.

ALPARC, in cooperation with interested parks, plans to draw up a framework for such a programme and collect existing information and experiences of comparable existing initiatives.

E. Alpine Nature Adventure Trail

Specific trails for persons of all ages with nature highlights in Alpine protected areas, transboundary park regions or targeting specific topics (glaciers, forest, gorges, karst...).

Alpine protected areas are proposing trails within their territory with specialised information on the different habitats and ecological aspects of the area. Possibility of guided tours or individual organisation.

ALPARC could develop, together with interested protected areas managers and other experts a concept based on a common standard in order to be able to make a joint communication on the offer, once established. The offer must be clearly nature based and sustainable, compatible with the protected area objectives and innovative and attractive to a large group of people.

F. Citizen-science orienteering

The practice of orienteering is combined with citizen-science initiatives. Orienteering courses are offered for different levels, with different topics and for different target groups. Control points are set in locations where important features are to be observed and monitored: the retreat of glaciers, the changing of the forests, etc. Participants willing to participate can take a picture, with the aid of structures that ensure consistent perspectives, that is stored in a citizen-science platform.

Alpine protected areas set control/observation points according to the aspects they want to monitor and design different courses for different target groups and levels. They provide online and on-site instructions on the rules and available tracks, and monitor the photos taken by participants. From time to time, they publish contents with the collected materials, showing landscape changes.

ALPARC could organise online information sessions on how to design and manage orienteering courses, provide common guidelines and collect all initiatives that are available in Alpine protected areas.



G. Alpine Protected Area Ethics for sports practices

New, consistent ethics are being developed for each sport activity, starting with those that have the greatest impact on biodiversity. These ethics provide clear and accessible explanations of applicable regulations and restrictions, together with suggestions for pro-environmental behaviours. They are circulated online, at key activity sites, along trails and during sports events. The aim is to highlight the exceptionality of protected areas and the corresponding behavioural exceptionality that practicing sports within their borders requires.

Alpine protected areas define ethical guidelines according to their specific situation (main sports activities, greatest impacts on biodiversity). They work in close cooperation with local sports associations and event organisers, during both the design and dissemination phases. The ethics are integrated into the park's general communication strategy, also through the installation of information panels at strategic locations.

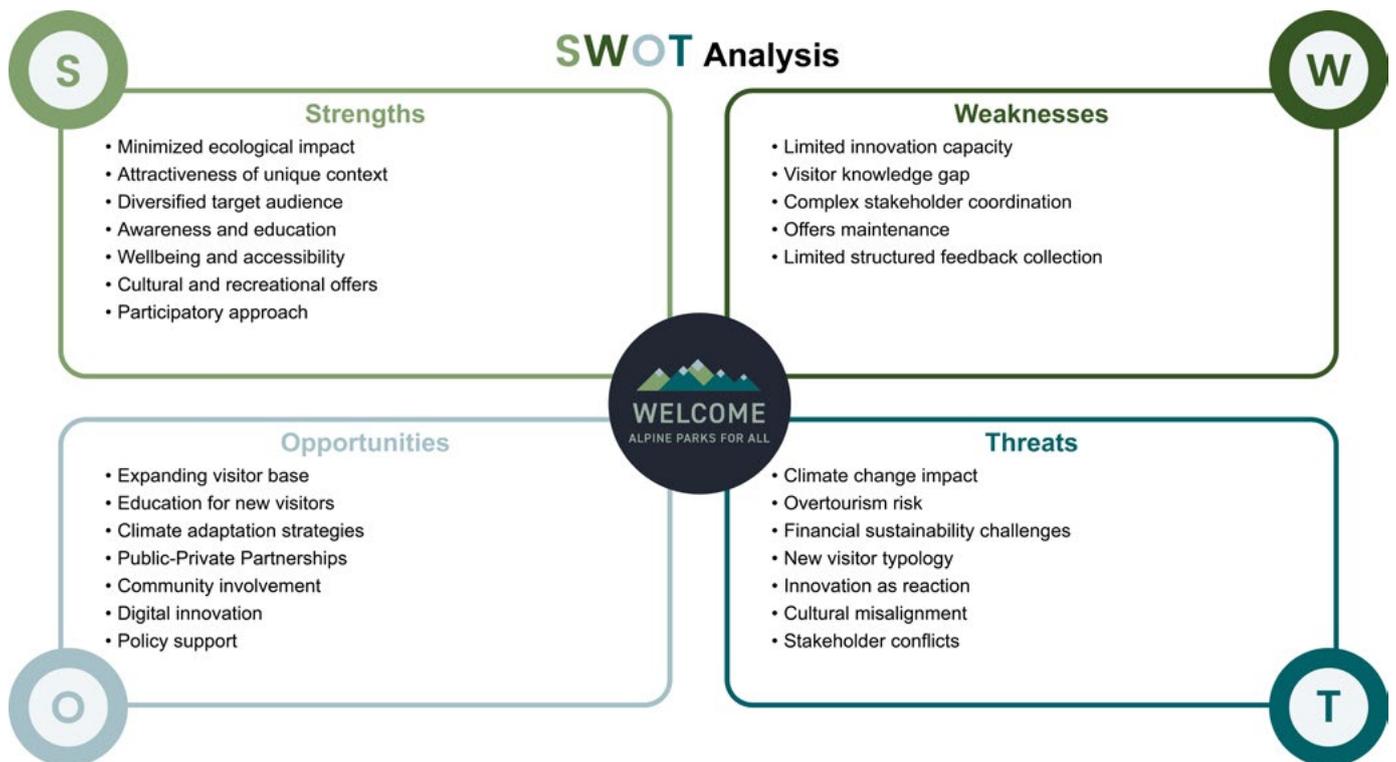
ALPARC supports the process by providing a common framework for identifying some basic, shared principles, building on the Be Part of the Mountain initiative. These principles are effectively shared during coordinated events across Alpine protected areas. Moreover, ALPARC relies on partnerships with NGOs and international actors to promote the institutionalisation of these ethics.

These are some first proposals to be discussed and to be further developed within the ALPARC network. A change in Alpine tourist activities is crucial to move towards more sustainable activities. The parks and protected areas of the Alps can contribute to this goal. Extensive common communication is possible within the ALPARC network and partner organisations. The activity takes place within the objectives of the Alpine Convention.

2.6 SUMMARY: SWOT ANALYSIS OF INNOVATIVE OFFERS

The following SWOT analysis summarises the potential for fostering sustainable tourism in Alpine protected areas, by focusing on innovative offers (Fig. 15). It considers the key features that an offer must have to be considered innovative as well as the main trends identified by the present research for tourism in Alpine protected areas.

Fig. 15 SWOT Analysis: innovative offers and good practices in Alpine protected areas



Here the **strengths** express the protected areas' ability to manage increasing tourism through low-impact activities while fostering environmental awareness and responsible visitor behaviour:

- **Minimized Ecological Impact:** Innovative offers prioritize low-impact activities and effective visitor management strategies to control visitor numbers and their environmental footprint
- **Attractiveness of Unique Context:** Visitors are more interested in protected regions due to their intrinsic uniqueness, and the focus on their unique features may create a sense of urgency for conservation.
- **Diversified Target Audience:** New offers are intended to speak to a wider audience, addressing evolving demographics and attracting people with various needs and experiences.
- **Awareness and Education:** Tourism activities that emphasize education and awareness (such as animal observation and themed trails) help tourists better appreciate biodiversity and the value of conservation. Given that many new tourists might not be familiar with mountain ethics and environmental responsibilities, this is especially important.
- **Wellbeing and Accessibility:** Protected areas become more inclusive and attractive to a variety of visitor groups when they provide offers that prioritize accessibility and promote wellbeing (such as taking in nature).
- **Cultural and Recreational Offers:** Including sports activities and cultural experiences (such as local heritage and culinary customs) increases diversity, improves visitor engagement, and helps local economies.
- **Participatory Approach:** Including local stakeholders in decision making encourages cooperation, reduces conflict, and advances local development that respects biodiversity. This strategy maintains ecological integrity while meeting the changing demands of tourists and the needs of local stakeholders.

The **weaknesses** emphasize the challenges of addressing the awareness gap among new visitors, coordinating diverse stakeholders and maintaining financial sustainability:

- **Limited Innovation Capacity:** Some protected areas might not have the tools, know-how, or organisational adaptability necessary to consistently create and implement innovative offers. Their very conservation mission also limit the possibility of proposing new initiatives.
- **Visitor Knowledge Gap:** Managing visitors and protecting the environment are made more difficult by the growing number of beginner tourists who are not aware of mountain safety and environmental regulations.
- **Complex Stakeholder Coordination:** It can be difficult and time-consuming to reach an agreement between several stakeholders who have conflicting interests.
- **Offers Maintenance:** Some offers, especially related to sport or culture, may call for extra funding for promotion and infrastructure maintenance, which would increase operational complexity.
- **Limited structured feedback collection:** Although the goal is not to boost tourism, innovative offers should be a more attractive choice than activities that have a negative impact on biodiversity. It's difficult to determine whether new offers are sufficiently interesting without feedback.



The **opportunities** section highlights the potential to adapt to climate change and evolving tourist trends:

- **Expanding Visitor Base:** By offering diverse experiences (e.g., wellbeing activities, wildlife observation, educational programs, cultural experiences), protected areas can attract new visitors and foster a deeper connection to nature.
- **Education for New Visitors:** Putting in place focused educational initiatives, both online and on-site, can assist groups of new visitors in learning how to safely engage with protected areas.
- **Climate Adaptation Strategies:** Creating tourist products that are climate resilient reduces the effects of climate change on park management and visitor experiences. This involves making investments in safety infrastructure and encouraging activities that are less reliant on regular weather (e.g., snowfall).
- **Public-Private Partnerships:** Working together with local governments and economic players can increase funding and resources while making tourist offers more attractive.
- **Community Involvement:** By utilizing local expertise and strengthening stakeholder support, participatory initiatives can help local development and conservation.
- **Digital Innovation:** Through using technology (such as interactive applications and virtual tours), it is possible to improve visitor experiences while minimizing the physical impact on sensitive locations and teaching new visitors about appropriate behaviour.
- **Policy Support:** Aligning with national and international conservation and tourism policies can unlock funding opportunities and reinforce the legitimacy of sustainable tourism strategies.



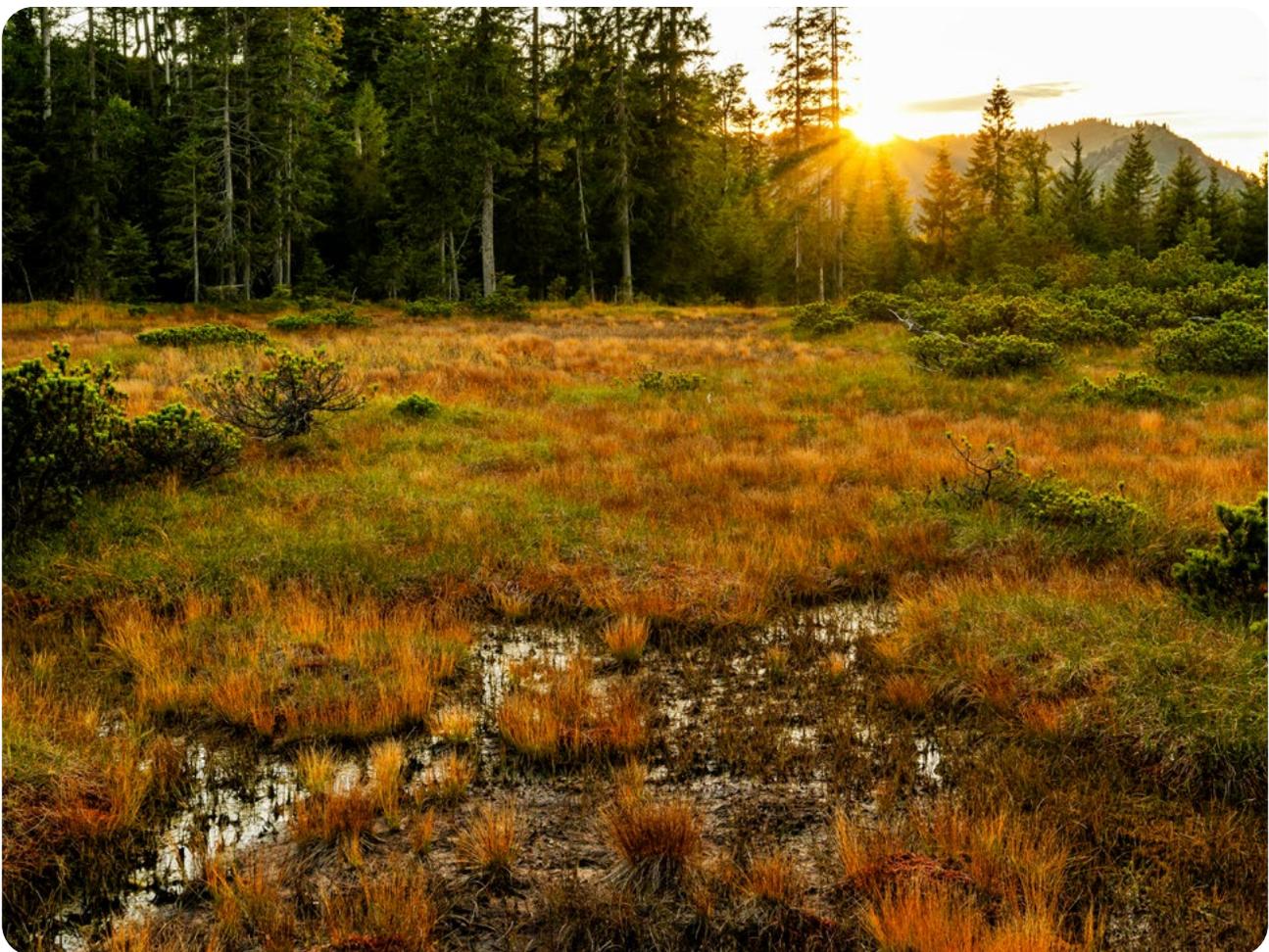
Finally, the **threats** highlight the risks posed by climate change (e.g., extreme weather, increased maintenance costs), over-tourism leading to environmental degradation, stakeholder conflicts, and the growing presence of unaware visitors:

- **Climate Change impact:** Rising temperatures, extreme weather events, and changing ecosystems are complex dynamics that make it difficult to predict how new offers could be impacted. These conditions also affect visitor safety, infrastructure resilience and maintenance costs.
- **Overtourism risk:** Despite management measures, growing tourist numbers might exceed carrying capacity, and new initiative may not change the nature of tourist offers but only increase them, resulting in biodiversity loss and environmental deterioration.
- **Financial Sustainability Challenges:** Maintaining a sustainable tourism requires finding a balance between participation fees and operating expenses without going into an unsustainable cycle of boosting visitor numbers to pay for expenditures. Proposing new offers is challenging due to the economic risks involved, as they may not meet visitor expectations or may require constant maintenance because of overuse or climate change-related damage.
- **New visitor typology:** Visitors with little environmental knowledge and low mountain environmental awareness increases might be attracted only by offerings with a high recreational component or linked to major natural hotspots of protected areas, or they might require additional infrastructure and services with associated high maintenance costs.

- **Innovation as reaction:** Private sector innovation is advancing rapidly (e.g. in digital platforms, drones, e-bikes). At the same time, the composition and behaviour of visitors are also evolving rapidly. Alpine protected areas often find themselves forced to innovate reactively, in response to external trends, rather than proactively, developing their own initiatives aligned with long-term strategies.
- **Cultural Misalignment:** The popularity of generic trends in fields such as sports and culture (amplified by social media) overlooks local values and specific features of protected areas. This may result in a homogenized offer, reduced authenticity and lower visitor engagement with nature conservation.
- **Stakeholder Conflicts:** The adoption of innovative approaches may be limited by conflicts among protected areas, residents, and business stakeholders. Trends like overcrowding or the return of large carnivores may worsen the relationship between local actors and parks.

The SWOT analysis shows that, besides having low impacts on biodiversity, initiatives in Alpine protected areas bring several strengths, such as the capacity to combine recreational and educational activities, target different visitor groups, promote wellbeing and inclusion, and involve local stakeholders in the design of tourist strategies and offers. Digital technologies, public-private partnerships and the integration of climate resilience into new proposals further strengthen the potential to raise visitor awareness and ensure the long-term sustainability of these strategies.

However, there is a very fine line between designing innovative offers that really shift visitor behaviour towards more sustainable activities and merely creating the appearance of promoting tourism in the protected area, attracting even more people and increasing overall pressure on nature. Moreover, innovations risk being adopted as a reaction to external trends, potentially undermining the consistency of nature-compatible strategies. Therefore, well-planned and coherent offers must be forward-looking, aiming to anticipate the impacts of current trends, and must involve from the design phase those actors who could otherwise contribute to worsening them.



2.7 CONCLUSIONS

Innovating the tourist offer in Alpine protected areas to build a biodiversity-compatible model is no easy task. Every initiative in this field needs to strike a balance between the expectations of tourists, the interests of economic stakeholders and the needs of the local population, all the while keeping at its core the protection of the unique and fragile Alpine environment.

Throughout this analysis work and during numerous exchanges with park managers, it has emerged that protected areas are often in the situation of adapting to constant and quicker innovation driven by the private sector (such as the rising influence of digital outdoor platforms activities or the widespread use of drones). Their ability to innovate is further constrained not only by the limits inherent in conservation, but also by external requirements imposed by authorities at the various levels (e.g. administrative procedures).

The review presented in this chapter showed that many interesting initiatives are being put in place by Alpine parks aiming at making both their offers and the broader tourism sector in their regions more sustainable. However, there seems to be no “clear game-changer” solution, no individual activities or approaches capable of solving such problems as overcrowding and the impacts of frequentation. In other words, the complexity of the mission requires responses able to embed this complexity in a systemic way. In this context, the approach proposed by the Destination Parks project holds true. Based on the principles of the European Charter for Sustainable Tourism (ECST), it provides an analytical framework centred around the development of local Sustainable Tourism Forums and Action plans, the strengthening of partnership and communication, and the establishment of monitoring and evaluation processes (ALPARC, 2019).

With the WELCOME project, we suggest that a new, broader concept of tourism is required, one that begins by turning the exceptional reality of protected areas from a perceived constraint into an added value. Building on that, each park can develop its own distinct identity and a shared coherent message across all the tourism actors in the region, always highlighting the importance of nature protection. On the visitor side, understanding the motivations and



needs of different user groups (including people with disabilities and first-time mountain visitors) makes it possible to design targeted offers, attract them towards experiences with higher educational content, and promote environmentally aware behaviours. On the stakeholder side, collaboration with the tourism sector and service providers (e.g. accommodation, transport, guides) is essential to ensure overall coherence, while also proposing integrated packages to make sustainable visits easier and more attractive.

Cooperation between protected areas on tourism-related topics must also be reinforced. Discussing common trends and challenges, sharing ideas and good practices, developing joint solutions and strategies: these are some of the benefits that come from this cooperation. As the network of Alpine protected areas, ALPARC provides a technical platform for facilitating these exchanges and conducting projects that have the potential to really address this issue. One of these initiatives is LiveAlpsNature (Interreg Alpine Space) which brings together protected areas, international organisations, research institutions and tourism stakeholders. The project represents a laboratory to explore how shared challenges and individual needs can lead to the creation of new offers and management measures for a biodiversity-friendly frequentation, and how digital platforms can play a major role in the dissemination of responsible behaviours to a wider public.

Nevertheless, a potential side effect of developing innovative offers must be acknowledged: new proposals may attract even more visitors and create the perception that protected areas are actively promoting tourism. This highlights a crucial question: what are the limits of tourism growth in Alpine protected areas? Can they be defined? How can visitor flows be effectively managed to respect those limits?

— THE LIMITS OF GROWTH IN ALPINE PROTECTED AREAS TOURISM —

*Perspectives for modern nature-respecting tourism
in Alpine protected areas and recommendations
for the limits of growth based on visitor management
measures and participatory approaches.*



3.1 INTRODUCTION: HOW MUCH TOURISM IS BEARABLE IN ALPINE PROTECTED AREAS?

The Club of Rome published its first report in 1972 under the pressure of the first oil crisis. It was one of the starting points for greater reflection on the question whether growth will and can be unlimited. To date, a response has not come to an agreement concerning the global economy. Nevertheless, concerning nature and natural resources, one can say that unlimited growth is impacting nature, ecosystems, habitats, fauna, and flora in an increasingly irreversible way. To apply the issue to the growth and the future of tourism in Alpine protected areas, the concept of carrying capacity of the above-mentioned ecosystems and habitats is helpful.

Tourism is an essential component that can be strengthened through protected area management. The parks are often attractive tourist destinations, which deliver an important economic impact in a region, especially in rural areas with little other income opportunities. Tourism can also bring direct benefits to local farms, through the development of on-farm tourist opportunities. However, like the agricultural sector, tourism needs to be developed with care and good integration into wider planning and management approaches to guarantee the aforementioned sustainability standards.

During the COVID-19 crisis, the trend of outdoor sports activities and visits to the Alpine mountain areas increased significantly, especially in Alpine regions near the important peri-Alpine agglomerations (Vienna, Munich, Milan, Turin, Venice, Zurich, Lyon, Ljubljana). This trend toward increased visitor presence in fragile Alpine sites is on-going. Social media and digital outdoor platforms promote the most spectacular and attractive natural sites – and, unfortunately, the most fragile ones – often giving the illusion of discovering secluded sites or experiencing outdoor activities in perfect harmony with nature. The reality is generally the opposite.

The difficult balance between an adapted tourist development of Alpine areas and the need for biodiversity and habitat protection have become a

central task of protected areas as they are integrated into larger regions with economic activities and needs. During the last decades, protected areas contributed substantially to balanced development and even created special offers for visitors. Now, the situation is far more dramatic and time-consuming, and more active management of visitors (including those pursuing outdoor sports activities) is required in most protected areas.

There is an urgent need to accommodate visitor flows by offering outdoor activities and areas to practise them within the Alpine parks and sensitive natural sites. Protected areas in the 21st century increasingly not only manage their territory but also facilitate a certain kind of economic development in and beyond the protected area regions.

Nevertheless, a large part of the Alps is currently facing an increasing influx of visitors. In particular, due to weekend traffic, big city areas bordering the Alps are mainly concerned, such as the Bavarian Alps, the Tyrol and the state of Salzburg, Vorarlberg, the pre-Alpine headlands of the Western Alps, a large part of the Piedmont Alps, all of South Tyrol and Trentino, a large part of the Lombard Alps and the Julian Alps in Slovenia.

Everywhere, the managers of protected areas are asking themselves the same question: how to achieve coexistence between nature protection and visitor reception. How can the protected areas of the Alps be a recreational area, an economic space for the resident population and a habitat for intact fauna and flora at the same time? Protected areas and their managers must react and fulfil their role to reconcile the different functions attributed to Alpine space, without fearing harmful effects on nature and ecological processes.

There are a high number of visitors both in summer and during the winter season. In addition to traditional activities such as hiking and downhill skiing, trendy sports such as mountain biking and ski touring are on

the rise. These trendy sports bring additional pressure on habitats and biodiversity, ultimately through increasing technical equipment, especially sports equipment (E-Bike) or activities that are considered particularly “trendy” such as ski tours, because they still promise “real nature experiences” in a highly technologized world.

The Alpine area is often considered as a setting and a space for practising these same activities, without it being realised that the increase in recreational activities in fragile nature is detrimental to this unique natural area in the long term.

ALPARC has been working with protected areas on this topic for many years in the fields of visitor monitoring, visitor management and the positioning of protected areas in tourism. One of the main findings of the many years of work is, that despite all measures and management efforts, there comes a time when too much is too much – the limits of growth in Alpine tourism.

For these reasons, the last part of the report will try to design perspectives for a modern and nature protection-oriented tourism; it will try to deliver approaches to the evaluation of the limits of tourist frequentation in sensitive natural sites with recommendations for visitor management and the involvement of the local population by participatory processes.

Managing the limits of Alpine tourism in protected areas is based on carrying capacity concepts and the means to respect them in terms of visitor flows by limiting their frequentation and impacts on the natural area. The main tools to achieve this are specific measures for guiding tourist flows and raising awareness of the fragility of fauna and flora. Information campaigns are part of a modern strategy as much as special programs for targeted publics such as children, local populations, and users of the protected area for leisure and outdoor activities. The most valuable means to achieve the goal of sustainable and park-compatible tourism are innovative and protected area-specific offers, with added value linked to the characteristics of the area itself.

Nevertheless, there is still the need to differentiate between the categories of protected areas concerned by specific and park-compatible visitor offers (Fig. 16). The Alpine protected area system in the year 2025 is composed of many inhabited and, therefore, economic regions. People live there, work there, and move around and through. The question is whether all these areas are much like one another or are there differences in the way their inhabitants live and work that promote goods and services and by consequence develop individual but sustainable tourist offers.

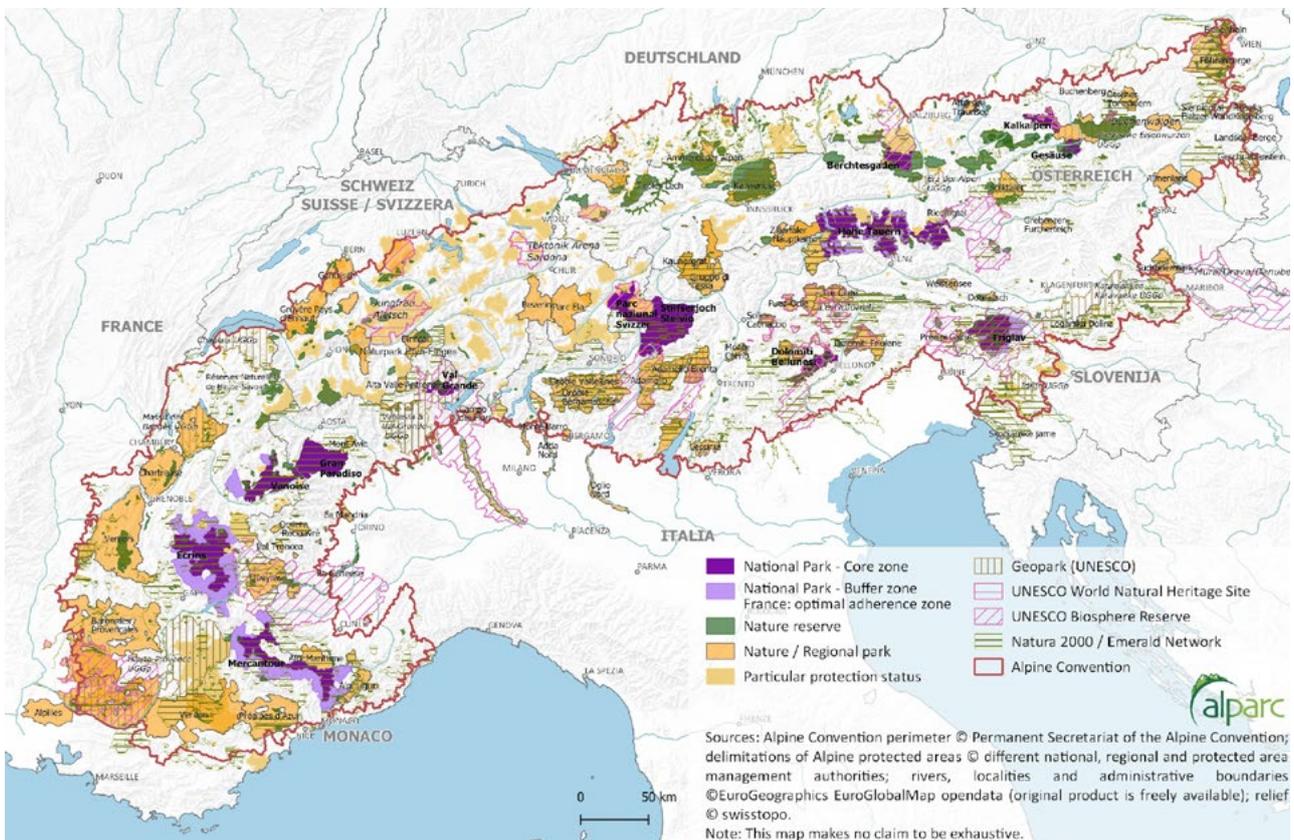


Fig. 16 Protected areas in the Alps by category

This is the issue concerning many regional parks and development zones of biosphere reserves. Here, the protected area has the mission to develop an alternative form of economic functions. The goal of working for a living is still the same, of course, but the “how to get there” may be different.

In this context, it is not possible to isolate the protected area from its surrounding and economic network: tourist offers can't be completely separated from the “world around the park territory” as there are interconnected relations between the core area and the periphery. This is true for ecological processes but also for economic ones. Tourists and visitors need to use adapted infrastructure to get to and to stay in or around the protected areas (transports, hosting facilities, information networks...). All this has impacts on the protected areas territory but the protected area by itself or at least its landscape and natural hotspots has a strong impact on the peripheral region – it makes it interesting to visitors!

This means that the relation between the protected area by itself and the inhabited region around remains in a certain interdependency. Here we are touching on the issue of the management of the wider countryside around the parks, the dimension of ecosystem services and of a sustainable land use outside of the protected territory itself as well, if the goal is an attractive destination. Without a reasonable nature management of the wider countryside and the absence of a transition area (e.g. through forms of sustainable use of agriculture and cultural landscapes) one would reproduce the style of city parks surrounded by heavy infrastructure – such a contrast would not fit into the harmonious landscape expected by visitors and tourists.

*“The missing piece in the jigsaw puzzle is the wider countryside around the protected areas. As well as delivering ecosystem services in its own right, this land needs to be managed to provide an ecological framework within which protected areas remain viable for maintaining populations of species, habitats, and ecosystem goods and services. To get there we will need a **new way of thinking about the management of our rural and peri-urban landscapes** that integrates sectors such as agriculture, energy, transport, and water management to provide sustainable decision-making”* (Jones-Walters 2015).

There are various examples illustrating the role of protected areas within a green economy approach and in the framework of different protected area categories:

- One key element could be seen in protected areas from IUCN categories V and VI (regional nature parks, development zones of Biosphere reserves, etc.). They can function as essential transmitters and multipliers for land-use patterns that combine biodiversity conservation and regional development.
- As it is unlikely that a significant number of more strictly protected areas will be established in the Alps within the next decade, it seems important to “deal with what we have” and to possibly extend the network of less strictly protected areas. Sustainable forms of land use can be promoted, and the staff of category V/VI protected areas can be more involved as active actors. Assigning them a more important role for both – nature protection and regional sustainable development - could be a pivotal change.
- The approach of regional nature parks appears highly promising when it comes to reconciling conservation and sustainable development. In Austria, the federal umbrella organisation explicitly has this as their objective *“Today, the strategy of NaPs [Nature Parks] is to simultaneously protect natural and cultural landscapes and to become model regions for sustainable development”* (Braun 2020, p.64).



“This implies, for example, valuing the benefits of protected areas, which are often the basis of new territorial dynamics. Preservation of natural resources and ecosystem services, scientific research or training programs, mobilisation of funds, creation of “green” jobs, support for social integration, attractiveness of territories, recreational activities, enhancement of local products, maintenance of spiritual and cultural functions attached to these spaces, environmental education and local partnerships are all levers for development and enhancement of local products, territories and their actors” (Translated from CBD 2012, p.2).

Those less protected categories of parks can and should contribute more to a sustainable development of our Alpine regions where the issue of economic growth does not take precedence, but where quality and a long-term vision of local economy, social inclusion, and the quality of life in attractive landscapes and healthy nature should be the priorities. Protected areas can contribute to more balanced local development; parks can support the local economy and people through their management approach, with a chance to create some kind of buffers and transition areas in the Alpine protected area system. Here again, an approach based on a zoning with different protection levels seems to be relevant.

This would signify that the answer to the question in the title of this introduction depends on the category

of the protected area concerned. Different goals of protection allow different levels of frequentation and activities. Nevertheless, there is one common issue – an overall reduction of frequentation combined with an increase in the quality of the offer and a higher participation of the local population and economic stakeholders. The higher the protection status of a park, the more visitor management and limitation are important and the lower the limit of tourism growth rate will be.

Degrowth can be a concept for more nature protection as well and a response to overtourism on specific and fragile hot spots. This degrowth can even lead to a better quality of life for the local population but only if the economic level of the local population making a living from tourist offers is not negatively impacted. This indicates that the role of stakeholders (tourism professionals, elected representatives) in degrowth tourism initiatives and projects in and around Alpine protected areas must be associated with new approaches and policies of tourist offers with a higher added value.

The following chapters deal with principles and methods on how to limit growth by balancing as much as possible economic and ecological interests, mainly in protected areas categories compatible with this approach and with possible measures dedicated to reducing the impacts of tourism and leisure activities in strongly protected areas to safeguard biodiversity in the long run.



3.2 STRUCTURING AND LIMITING THE IMPACTS OF TOURIST OFFERS THROUGH MODERN GOVERNANCE

Innovation and quality approaches in nature-based tourism need the participation of local stakeholders and in the long run adequate governance.

Description of the situation and problem

Alpine protected areas play a critical role in preserving the unique natural landscapes and biodiversity of the Alpine region, while also accommodating the growing demand for recreational activities and sustainable tourism. This calls for more management based on the **principle of carrying capacity** and **local stakeholder participation**.

Modern visitor management consists essentially of two measures: regulations and awareness raising. It is a matter of formulating objectives, defining strategies and implementing measures in the field - this can be done directly by the protected areas due to their responsibility for a specific area and their personnel in the field (rangers). Nevertheless, to be accepted and conducted in the long run, the involvement of economic stakeholders and the representatives of the population is crucial.

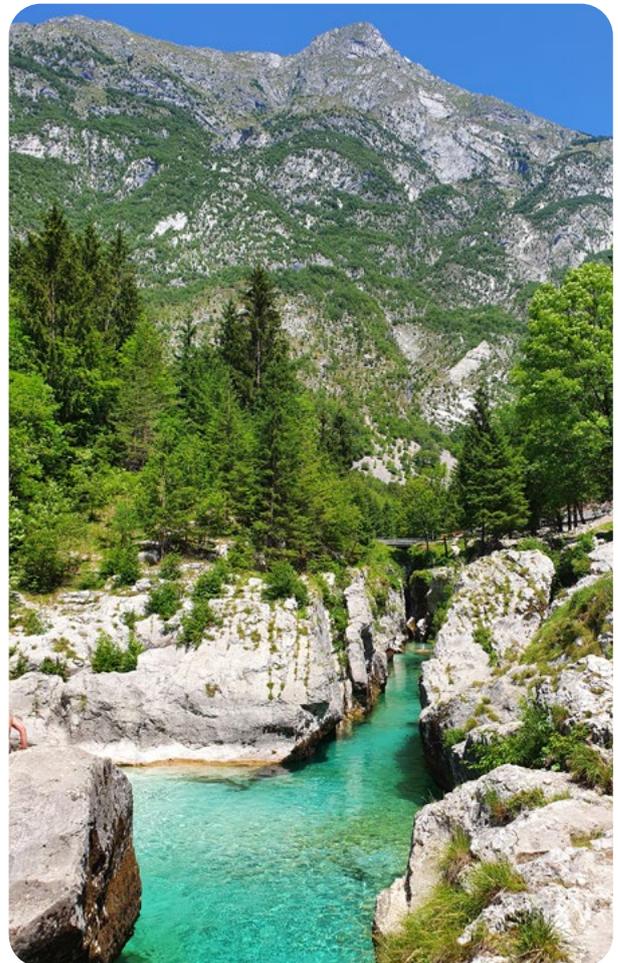
In recent years, Alpine protected areas have come under increasing tourist pressure. Protected areas near large conurbations are finding it increasingly difficult to direct and distribute visitors so that there is no ad-hoc pressure on particularly ecologically sensitive areas or species.

With over 400 million overnight stays, tourism is one of the most important economic sectors in the Alpine region. For rural areas, it is a key sector that promotes regional economic cycles. However, the very popularity of these areas has also given rise to the issue of “overtourism”, where tourism flows exceed the capacity of the natural environment to sustain them, especially in sensitive protected areas. This situation is compounded by seasonality, intense tourism during

peak periods, and the growing demand for outdoor recreation, including new sports and activities such as mountain biking and ski touring.

The increasing number of visitors is straining fragile ecosystems, leading to the degradation of landscapes and disruption of biodiversity. Additionally, tensions between landowners and land managers on the one hand and sportsmen and recreationists on the other hand are on the increase there, not to mention the general impact on the quality of life of locals caused by intensive flows of visitors.

The trend towards spending leisure time out in the wild is widespread and increasing. Refuges for wildlife in protected areas or outside are under high pressure from the increasing number of hikers, bikers, and



ski touring visitors. This particularly refers to those who disregard or are not aware of restricted areas as they seek an exceptional experience in nature or aim to take the ultimate picture for their social media account. Beyond the direct impact on nature by tourists, the need for space and territories to build infrastructure and access roads is another issue. This infrastructure also has a considerable impact on the surface and quality of natural areas. These elements make reference to the concept of **carrying capacity** for sensitive natural areas.

The definition we have given for our inquiry within the Alpine network of protected areas was the following: “Carrying capacity is the maximum level of tourism growth that allows the **natural**, economic, socio-cultural environment and the quality of the tourist experience to be maintained”.

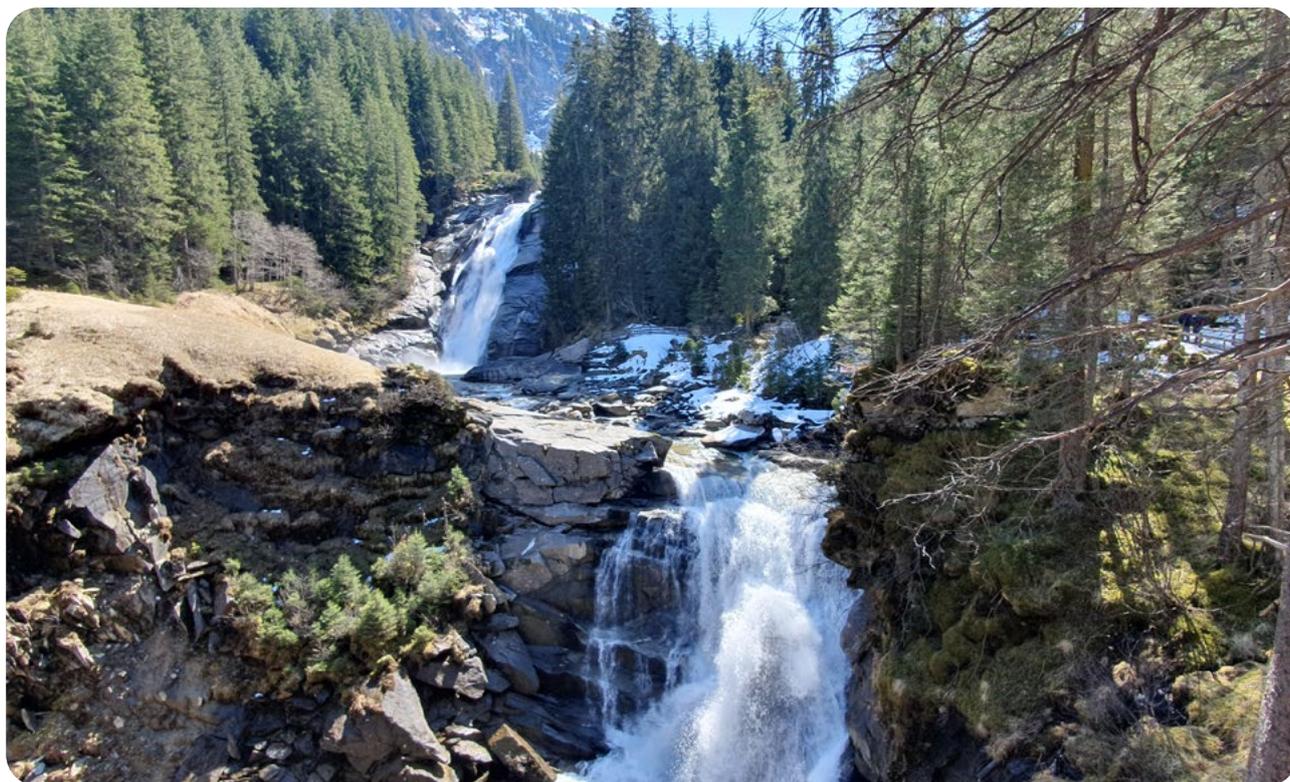
Alpine protected areas gave some indications on how to measure these limits of growth in tourism for their region. As indicators for the carrying capacity approach, they are using in a mostly not formalised manner the characteristics of the tourist infrastructure (number of hotel or other beds, the relevance of motorised traffic or visitor numbers in fragile natural sites). Key indicators to monitor include visitor numbers and distribution to prevent overcrowding, trail and habitat conditions to assess physical impacts, wildlife disturbance levels to track stress on animal populations, and local community

impact to gauge infrastructure strain. Together, these indicators may help balance tourism with conservation, ensuring the ecological and cultural values of the parks are preserved.

Several protected area managers have indicated that the carrying capacity is often defined by the limits of tourist infrastructure – this may of course set a threshold to tourist frequentation, nevertheless it is not responding to the limits of the ecosystem and fragile habitats. Carrying capacities of biodiversity cannot be defined by the extension, sufficiency or lack of tourist infrastructure as the latter is extensible, nature carrying capacity is not.

Further indicators may be the capacity of mountain huts – nevertheless this is a typical indicator for specific activities (hiking, ski touring, possibly mountain biking). Measuring the increase of bivouac activities can also serve as an indicator if allowed in the stongly protected areas.

The capacity of parking slots for vehicles are often mentioned as well. Most generally there is permanent confusion between the consequences of heavy tourist frequentation on anthropocentric factors such as hotel and parking capacities or locals disturbed by too many visitors, rather than a clear concept of how to measure the carrying capacity for biodiversity concerning visitor frequentation of natural sites.



INDICATORS

Indicators which are often used to define the importance of visitor frequentation are:

- Number of visitors, their spatial and temporal distribution.
- Vehicle flow on the roads of the valleys, especially towards protected areas.
- Occupation of parking slots.
- Number and trends of sporting and competitive events in the mountains, and in proximity to protected areas, comparison in relation to cultural initiatives.
- Increase in drinking water requirements.
- Soil erosion in the vicinity of the paths.
- Noise disturbance in protected areas.
- Number of visitors in the park houses and visitor centres categorized by time, region, and weather.
- Number of dogs.

The counts are carried out by human means (e.g. rangers or in cooperation with researchers,) by people counters (functioning by pressure) or webcams in high-frequency sites.

FOCUS

AREE PROTETTE ALPI MARITTIME (I)

Interview with the nature park responsible in charge of visitor management:

What are you doing... if there are too many visitors?

The increase in visitor flows is growing. This leads to an increase of impacts on Alpine ecosystems, which are already impacted by climate change. It is necessary to measure visitor flows with *ad-hoc* monitoring systems (e.g. pedestrian and road counters, counts of overnight stays in huts, etc.), then relate these data to habitat maps and the conservation status of the different sites and finally adopt a regulation of activities. Based on these analyses, protected area managers could, in future, decide to ban access to certain areas, limit the number of accesses or set seasonal limits (e.g. ban access to certain areas during nesting periods). To avoid conflict situations, it is necessary to involve local stakeholders in this process, such as Alpine guides, managers of tourist structures and municipalities.



The Parc National de la Vanoise (F) and the Nationalpark Hohe Tauern(A) both confirm that evaluating the limits of tourist frequentation not harming fragile natural sites is difficult. As it is quite a new phenomenon, the increase in frequentation by people with no mountain experience needs to be the object of ongoing observation. Negative impacts can be observed such as path erosion and impacts on habitats, but they are still hard to measure scientifically.

For example, in the Nationalpark Hohe Tauern, the Grossglockner High Alpine Road is an area of mass tourism in the heart of the park. The problem is not the high number of tourists on the roads *per se*, but that many ibexes live around it and people have an effect on the animals' territories, (e.g. with drones). In this sense visitors ignore the barriers and enter wildlife sanctuaries. Another example is feeding and taking photos with marmots (a photographer even offered groundhog shootings!).

The Nationalpark Berchtesgaden also indicates a growing number of visitors with ad-hoc visible effects, such as at the famous hotspot of the Königsbachfall waterfall heavily promoted by influencers and Instagram. Serious vegetation destruction has been observed and the site has been partially closed to the public. Nevertheless, besides such hotspots, it is still difficult to define the carrying capacity of the habitats scientifically. More precise definitions of the limits of frequentation are expected by species monitoring such as the black grouse and the impacts Alpine skiers have on them.

The issue of defining the concept of carrying capacity according to ecosystems, habitats and species is very complicated and not yet determined. It also differs from area to area and is linked to local circumstances and conditions.

Alpine protected areas must ensure and find the balance between nature conservation, quality of life for the local population and benefits to the tourist industry. The management of visitors is therefore an important issue for the future. Accordingly, the great challenge is to find the balance between nature conservation and utilization mainly as regards tourism. High numbers of visitors affect the ecological fragility of protected areas but also offer opportunities for a new approach to raise public awareness for a better protection of these areas and ultimately for the sustainable development of structurally weak regions.

More generally it can be considered that the limit of carrying capacity for specific places is achieved if a long-term or even irreversible impact on biodiversity or infringing the park regulations can be observed by any means. The difficulty lies in defining the limit where visitor frequentation becomes harmful to nature – “how many are too many?”

FOCUS

ASTERS – CONSERVATOIRE D'ESPACES NATURELS DE HAUTE- SAVOIE (F)

**Interview with the nature park responsible
in charge of visitor management:**

How to measure the carrying capacity?

By setting up indicators to analyse the impacts: e.g. protocols for the erosion of paths or the counting of species populations (individuals). It is nevertheless difficult to understand what part is due to climate change and what is linked to direct visitor impact.

Carrying capacity is a difficult concept due to the lack of knowledge about the limits of frequentation related to damage to nature.

Indicators used are water quality (related to human waste and pastoralism), species disturbance, and people (locals) disturbance.

Practical example: registration system for bivouacking in specific places (limiting number of tents).

Finally, the impacts depend on the accumulation of people, not just on single activity impacts, but one single person can cause the flight of a brood (with an important impact on reproduction).



FOCUS

TRIGLAVSKI NARODNI PARK (SI)

Interview with the nature park responsible in charge of visitor management:

How to define “too many visitors”?

This is a difficult question: the estimation can be very subjective, and nature doesn't give a straight or clear answer to the question as it depends on local conditions.

One element can be the traffic jams in specific parts of the National Park, in Alpine valleys, or on mountain passes; also mountain huts with 100% occupancy of beds are an indicator. There are indeed many articles in the media about considerable overtourism in the National Park.

Observations have been made that some species are moving from their usual living places (where they have been for many years) and in the worst cases their population is diminishing.

It is necessary to consider natural, social and economic parameters, and deeper research is

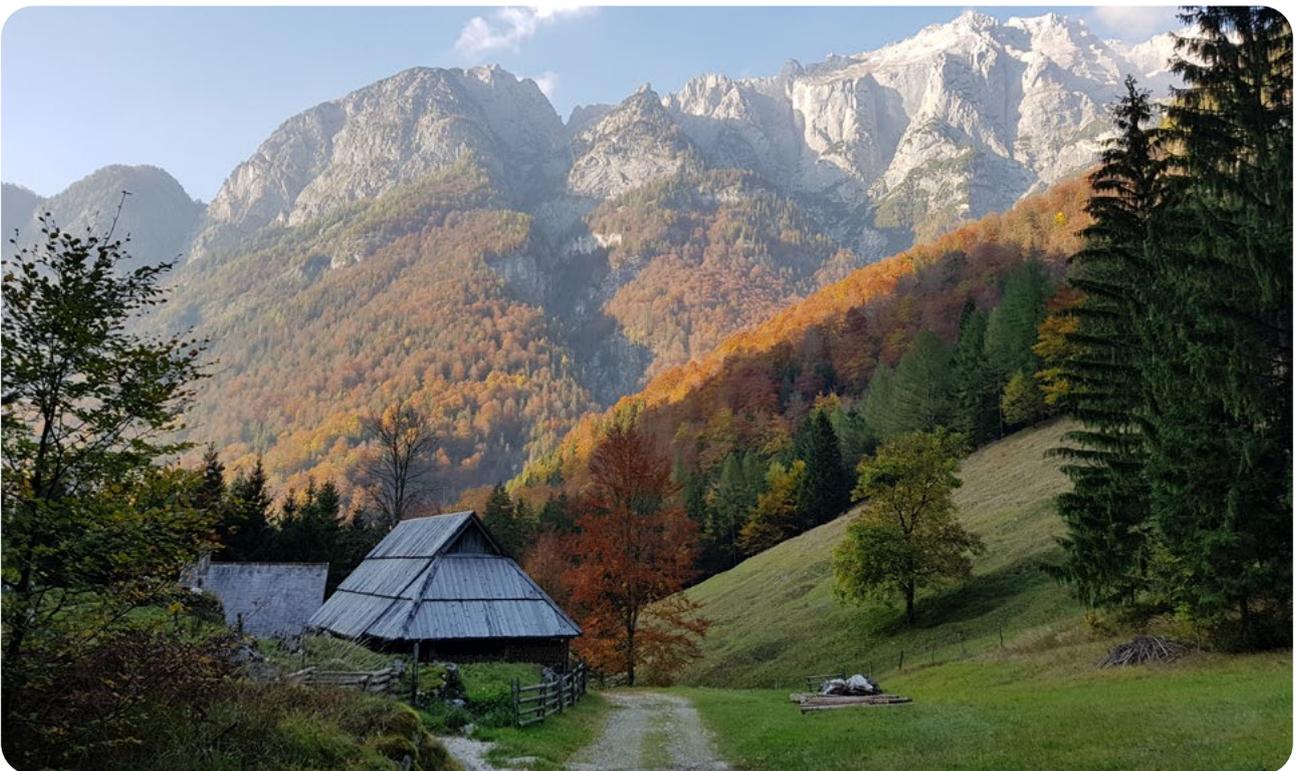
needed to have proof (objectively, not only opinions) of the limits of growth in tourism and frequentation.

One indicator can be the problem of water pollution. It is still drinkable but is exposed to more and more pollutants.

Carrying capacity is an interesting instrument when talking about a limited area (a trail or a road) but it is impossible to do that for nature values, or habitats, or larger areas such as e.g. a mountain plateau.

Visit management – measures concerning parking spaces, limiting access or anything related to how you regulate tourist flows – is far more important than simply saying “There are too many tourists.” After all, the Alps were a region of enormous poverty for centuries, where people had nothing to eat. But with tourism, there are now visitors coming here, and locals can enjoy a good quality of life.

In the end, we should all try to ensure that the conditions are such that they are favourable for nature and, ultimately, for everyone, since no one wants these crowds, with all the cars and traffic jams. It is important to find a way to communicate how to establish and implement management regimes.



A well-managed, responsible tourism approach in these areas can help protect biodiversity, enhance the visitor experience, and contribute to the social and economic vitality of surrounding communities.

For this reason, cooperation between tourism stakeholders such as destination management organisations, tourism associations or independent entrepreneurs and protected area managers is an important basis for making tourism strategies sustainable and future-proof, also in terms of nature conservation. Many protected area managers have expressed the need for a more **participatory approach** between park management and local stakeholders.

Modern governance of tourism in Alpine protected areas needs transparency and the long-term involvement of stakeholders and especially representatives of the local population. This point needs to be stressed even further given the distrust that could be observed among stakeholders while promoting only short-term actions of involvement of the local population and stakeholders from further away for long-term projects. Park policies for tourist offers with the involvement of the population are a long-term investment.

For a stronger local governance participation by protected areas, including UNESCO biosphere reserves, procedures have been developed since the 1980's. While Alpine national parks allow participation

of locals in formal institutional bodies of the park, such as diverse "councils" (scientific, planning, landowner etc.), others, especially regional nature parks and sometimes biosphere reserves, have attempted to increase involvement of local populations by including them in the establishment procedure of the protected area (France, Austria, Switzerland). In some cases, they have even deferred the decision to the population as to whether the park should be created or not (Switzerland).

A stronger governance of the common territory and its resources is increasingly considered as fundamental in modern protected area management in the Alpine arc depending directly on different political systems (federal or central) in the Alpine states and the understanding of local democracy.

Parks can play a role in reconnecting people with nature, and participation is a crucial element for the success and efficiency of biodiversity conservation and the basis of the future of protected areas in the Alps. Support from the local population is not just one, but rather *the* factor for the success of sustainable management of those areas including innovative tourism development respecting nature.

However, in the last decades, communication from protected areas regarding their objectives and rationale has not always been successful. This is true as well for the development of tourism or offer in and around Alpine protected areas. Despite growing awareness



about environmental problems and the need for more nature conservation, and despite significant efforts, many protected areas still face significant opposition from the local population and key stakeholders – and especially if they affect elementary economic factors of a region such as tourism.

One key aspect is the need for more people on the ground. People talking to people. People who listen and take the time to engage in relevant discussions that allow for a common development of solutions. Open dialogue accomplishes several objectives: to disseminate information about the park and its activities etc. and to build a relationship and trust, thus enabling the collection of information regarding the questions, needs, and expectations of stakeholders in and around the parks. The staff dedicated to such outreach measures need not be conservation experts but might be recruited from several other sectors, such as technical experts with knowledge of water, agriculture, tourism, etc. One advantage might be that they are not perceived and pre-judged in the way that conservation experts often are.

Open discussion about the future of home regions, home valleys and mountains with the local inhabitants concerning their economic activity, here as regards tourism, might generate solutions that support a liveable future for not only those inhabitants but also for the conservation of nature. The gap and the polarity between socio-economic well-being and environmental preservation could thus be bridged on a local scale.

“Current management structures for protected areas were designed under different conditions and are not necessarily able to adapt to these new pressures. Conservation will only succeed if we can build learning institutions, organisations, and networks and enable conservation practitioners to identify and solve their own problems and take advantage of opportunities. In particular, we need to empower all stakeholders to fulfil their role in protected area management” (IUCN 2005, p.140).

Specific conflicts, mainly related land use and socio-economic activities such as those linked to tourist offers and activities, arise and can only be solved by participatory processes and involvement, at least within the protected area categories such as regional parks not based on strict rules (ALPARC 2023).

Local participation

It is already best practice in many parts of the world to include what is often referred to as “indigenous or traditional knowledge” as essential for the success of biodiversity and habitat conservation. Even if this concept might often be perceived as something for more traditional societies in the global south, its core messages apply equally across the globe. It is often stressed that the traditional use of natural resources throughout the Alpine arc is an essential part of the Alpine tradition. This knowledge should be better incorporated into protected area management and the land-use in adjacent areas for the development of new tourist offers based on quality and nature experience rather than on quantity and mono activities.

Traditional knowledge and land-use practices can be integrated into government-run protected areas and used for the development of a common local tourism strategy creating an image for the area. The possibility to establish community-run protected areas including economic activities in line with the protected areas missions should also be considered to engage those actors concretely in biodiversity conservation through new activities in tourism such as nature discovery offers or nature adventure trips. This would not only be beneficial for the conservation efforts but would equally strengthen the democratic legitimization of nature conservation through the empowerment and ownership by citizens and communities.

There is a strong need that the population identify with the region and the proposed tourist offers. Several factors are necessary to develop and succeed in a local tourism development relating to the limits of growth acceptable for the region, the landscape, the infrastructure and the natural framework. They consist in a collective understanding of a qualitative approach rather than a quantitative one, the inclusion of local knowledge, products and services and a high common local motivation to create a strong image of a sustainable tourism area based on the assets of Alpine landscapes, ecologically sustainable offers and the valorisation and respect of the protected area in the heart of the region. Last but not least, the offers must be economically effective and profitable for the local population in the long run.

3.3 MEASURES OF VISITOR MANAGEMENT AND AWARENESS RAISING

Considering the current evolution, the concept of carrying capacity and local participation alone will not solve the problems of overtourism and more sustainable tourist offers. As the situation can be very different from one area to another, not only adapted management measures but also communication efforts are crucial.

Limiting the access – rules

According to the protection status of the national, nature or regional parks, nature or biosphere reserves, etc., the application of rules concerning the activities within the protected area territory is essential.

In strongly protected areas such as national parks, non-inhabited nature parks, nature reserves and the core zone of biosphere reserves, the access to some outdoor activities and parts of the protected areas territory is limited. This can apply as well to other natural sensitive areas if a specific protection need (fauna, flora, habitats) is relevant or can be restricted seasonally (e.g. breeding season...).



FOCUS

AREE PROTETTE ALPI MARITTIME (I)

Interview with the nature park responsible in charge of visitor management:

How to adopt tourism limitation measures within the park territory especially regarding hiking and mountain huts – a classical tourist activity?

To answer, it would be necessary to have the ecological footprint of tourism in the region (we do not have that information and data) to apply targeted measures. So far, we have only noted practical things: in summer the dumpsters overflow, because they are for 600 inhabitants, but in the summer more than 35,000 tourists are present at the same time and the local administration is not ready for such substantial tourist peaks.

The absence of public transport makes individual transport necessary, and the number of cars is rising year by year. In summertime, the most

problematic issue is the lack of water in the mountain huts and not only regarding drinking water but many of the huts also have a turbine to generate hydroelectric power. By August there's not enough water.

Speaking about the concept of carrying capacity, this finally depends on the number of people in a limited area and according to the season. Speaking again about the mountain huts, more tourists are present, more secondary effects or impacts are occurring (e.g. more helicopter flights for the refurbishment of and supplies to refuges, more water pollution...).

There are further problems concerning the owners of the huts as they are not trained by the (Italian) Alpine Club. Often, they care only about income and not about nature conservation issues (also because the license for the exploitation of mountain huts is expensive).

Our focus is now to better inform and train those stakeholders in the mountains and reduce the number of well-maintained hiking paths to concentrate visitor and hiker flows on some central pathways to better protect other zones of the area and to reduce disturbance of wildlife.



With increasing visitor flows in sensitive areas of the Alpine parks, the application of the park's rules will be, at least within the strongly protected areas, more strictly applied and controlled in the future. It is furthermore probable that special management measures and access limitations either by prohibition or simply by reducing the maintenance of visitor infrastructure such as hiking paths will be used to concentrate visitor flows and activities within ecologically less fragile parts of the natural areas.

The oldest and most strongly protected Alpine national park has a clear policy and rules on how to limit visitor impacts on the park's territory and wildlife.



FOCUS

PARC NAZIUNAL SVIZZER (CH)

Interview with the nature park administrator:

What is the state of the “carrying capacity” in your region?

Are you already reaching this level or limits, especially regarding nature conservation?

Despite the advertising of tourist offers by different promoters, there is no real difficulty in keeping to the strict regulations of the park and limiting impacts as we have strict protection conditions and are enforcing them by law through our rangers, rangers on site who can sanction misconduct with fines, but also always explain why inadequate behaviour harms nature.

The fact that the Park is closed in winter makes a lot of things easier, major impacts such as those generated by ski mountaineering do not occur.

Nevertheless, in a time where there are new visitors, not familiar with the mountain environment and the fragility of nature, raising awareness is becoming increasingly important. We are investing considerable means in educational work not only in the field but also through our media and our visitor centre.

We try to spread out the visitors in the best way through certain offers within the park territory to avoid concentrations, such as an audio-supported theme trail for children in a place where there are otherwise few visitors (especially good because no on-site installations are necessary).

Awareness raising, education, information – does it solve the problem?

Besides the application of park rules, the environmental educational efforts of the Alpine protected areas have a long tradition, often combined with a monitoring of visitors to better analyse and understand visitor behaviour and new trends in outdoor activities. For such visitor observation and management nowadays, not only inquiries or online questionnaires are used but also real-time monitoring using technologies such as environmental sensors, drones and tourist flow management systems. To analyse the impacts of increasing visitor frequentation, an integrated approach is applied, integrating ecological, social and economic data for a comprehensive assessment of tourist impact.

Education and information activities should involve as much as possible stakeholders from local communities and conservation organisations to achieve synergies for an integrated local communication, an awareness raising strategy for protection goals and the needs of the population for a healthy ecological and economical local environment.

FOCUS

NATURPARK PFYN-FINGES (CH)

Interview with the nature park director:

Are there any clues you can use to determine the limits of tourism growth in your protected area?

The locals are a good clue: it is too much when the local population starts complaining.

About nature conservation: we make assessments by experts and rangers who collect information on site and enforce the rules. We have annual meetings with rangers, representatives of the fire brigade, police and game wardens in which a kind of inventory list is examined with past problems and current challenges to be solved.

Visitor counting stations were abolished because they were too complex to handle.

It is obvious that park management in the Alps has identified the local population as a kind of gauge of local “social and cultural carrying capacity” as well because scientific data and knowledge concerning ecological carrying capacity definitions seem to be missing. Considering the limits of growth by measuring the satisfaction or the increasing annoyance of the local population can be at least an indicator to take into account but it is a very subjective one, not differentiating between different impacts on ecological features, neither on the time scale, nor in their spatial distribution, nor in their intensity and the importance of their impacts on habitats, fauna and flora.

The environmental education programmes of the Alpine protected areas are important and necessary, especially the programmes for kids and young people. Cooperation with local or regional schools and educational offers for families visiting the park areas are important and are showing concrete results. To explain the importance of nature protection and the impacts of non-sustainable visitor behaviour to young people is probably the best investment which can be done for nature. Nevertheless, in a time of increasing frequentation, communication and education programmes are not enough, they alone cannot be a game changer in tourism. Only competent and attractive offers and clear limitations (rules) will allow parks to better consider the needs of nature.



Alternative and attractive offers to deviate from fragile nature sites

These attractive offers also play the role of deviating visitor flows from tourist or outdoor sports hot spots. To be effective, this strategy only works with attractive activity offers and if the offer can also convince by an integrated approach such as the availability of a transport infrastructure, interesting hosting facilities and original activities for all age classes.

FOCUS

BIOSPHERE ENTLEBUCH (CH)

Problem - Motorized traffic peaks

Strategy of “Combined mobility” for locals and tourists and focus on means of transport from bus or train stations to the places of interest for tourists:

- Solutions like car sharing, bike rental, building mobility information screens and public charging stations for e-bikes (also so called “energy benches” to wait on while bikes charge).
- Special offers with hotels, so that baggage is transported to the hotel when travelling by public transport.
- Motivating travellers and tourists passing through the region to stop and consume regional products or visit photo spots with a combined offer of local products.

Problem - Wild car camping because of too few legal car camping spots

We do not want to create bans, but to steer a high number of guests to adequate places.

Creation of camping spots away from the forests in cooperation with landowners to protect these areas and at the same time incite people to consume products at nearby farms.

Alternative offers are probably the best approach to limiting tourist growth in areas characterised by seasonal overtourism. New concepts have appeared during the last years such as the increasing place of health tourism. Protected areas can respond to this need of mainly an urban population searching for something which some would call “back to the roots” or at least coming a bit closer to nature for a while in a more and more artificialized world where contact with nature is often limited to a virtual approach by mass media and other simulations.

Alpine protected areas do have a decisive asset – they can offer more than activities: people can exercise more or less everywhere in the Alps. As an added value, they can pass on a profound nature experience from the ecological point of view. This seems not to be being “promoted” sufficiently at the moment. Often visitors are not aware that they are in a protected area offering information, activities and even “wellbeing” via a profound nature experience as they would be if this were more developed in local tourism strategies.

Differentiated and complementary offers which only can be made by protected areas need to be developed more; they have the capacity to distract tourism flows from hotspots if the offers are interesting enough and they have the potential to create an added value because of their uniqueness as other areas can't offer, for example, fauna observation, wildlife experiences, possibly lonesome landscapes in some cases...).



3.4 CHALLENGES OF REGIONAL TOURISM DEVELOPMENT OF ALPINE PROTECTED AREAS

Alpine protected areas have multiple missions depending on their type and category of protection. In the following chapter we will deal with protected areas having a mission of regional development as well as their protection goals. This is mainly the case of inhabited protected areas such as regional parks, but more and more strongly protected areas are following the principles of sustainable development for their region as well. Indeed, the protection mission only can be fulfilled if the surrounding region contributes to economic activities which are not contrary to the conservation goals of the protected areas as a park or nature reserve can't be considered completely isolated from its periphery.

The inclusion of socio-cultural activities in protected area management can have significant economic impacts for a region. Tourism and agriculture are the main economic pillars in many rural areas.

There is a direct link between both sectors. For example, protected areas can support farmers through the promotion of their products under their own park label¹¹⁰. This adds visibility and value to the labelled products and creates new ways of direct marketing to the end consumer, thus cutting out middlemen. In this way, the position of sustainable farming can be strengthened against intensive agricultural practices.

Tourism is the component that can be strengthened through specific protected area strategies in this field. The parks are often attractive tourist destinations, which deliver an important economic impact in a region, especially in rural areas with little other income opportunities. Tourism can also bring direct benefits to local farms, through the development of on-farm tourism opportunities. However, like the agricultural sector, tourism needs to be developed



110 These kinds of labels exist in all Alpine countries, often at national and regional level and / or at park level.

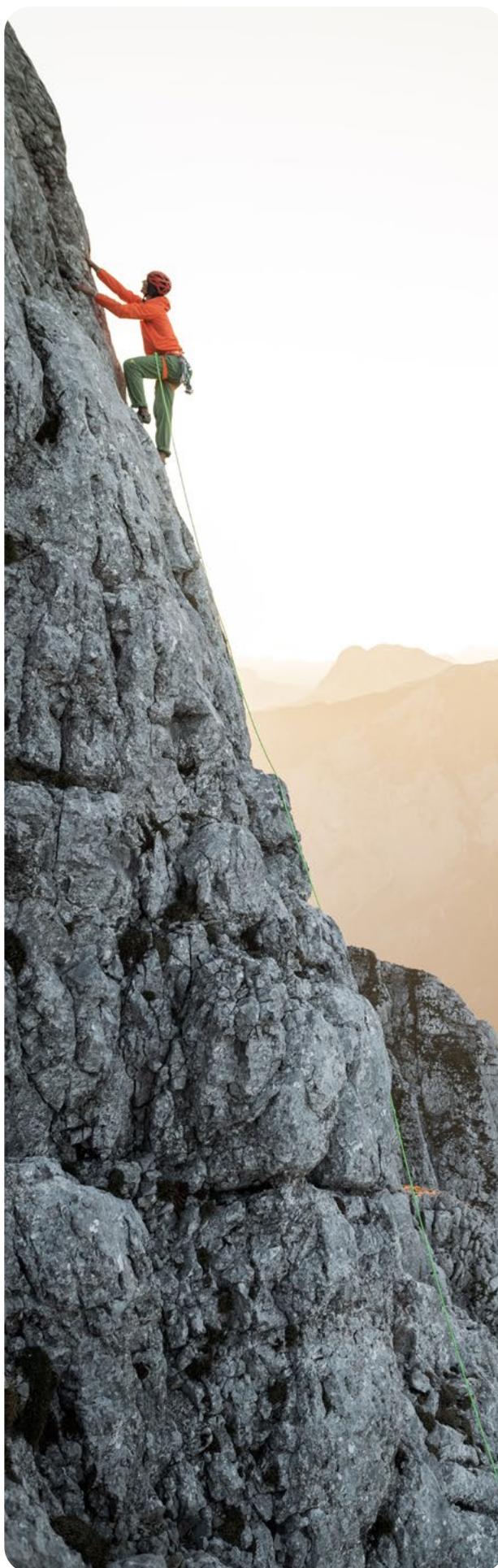
with care and good integration into a wider planning and management approach to guarantee the aforementioned sustainability standards.

Regional development in protected area regions is mostly heavily linked to tourism and nature-based activities. The development of an adapted protected area-compatible tourism needs to integrate some principles:

Main principles or cornerstones of an innovative and sustainable regional development in protected area regions considered by the protected area management:

- Specific “nature park” tourism that differs from other Alpine tourist sites
- Role of the park for adapted and sustainable but also innovative development
- Role of the park for the protection of nature and biodiversity
- Strengthening the quality of the reception and hosting facilities including sustainable standards
- Creating an adapted offer for all seasons
- Management of increasing flows and integration of new leisure and outdoor practices
- Involving the population and economic stakeholders in the process
- Ensuring the role of education and information for the (general) public... and the visitors!

The main challenge for the protected areas is to find the balance between their protection mission and the contributions they can make to the local economy. The involvement of stakeholders of the region is nowadays a must in modern protected area management in order to be successful in biodiversity conservation in the long run. Nevertheless, it is not easy to consolidate both missions and especially for the strongly protected areas still having in some cases a lower acceptance level by the local population. A clear zoning between the protected area and its periphery may help to promote different activities in different areas of and around the park or nature reserve.



3.5 COORDINATING TOURISM AND VISITOR OFFERS IN ALPINE PROTECTED AREAS THROUGH MORE INTERNATIONAL COOPERATION

Cooperation between Alpine protected areas has been strengthened since 1995 with the creation of the Alpine network of Protected Areas (ALPARC) in the framework of the Alpine Convention. For more than 30 years, this network has fostered exchange of knowledge, development of common management procedures and projects as well as concrete activities on the ground.

The remaining challenges nowadays include a greater harmonization of management goals as well between Alpine protected areas to be more effective in biodiversity and habitat protection as well as in regional development concepts such as innovative offers for tourism. Protected areas can learn from each other, develop common ideas and proposals for more balanced visitor concepts, especially in times of overtourism and climate change.

Harmonisation of management goals

The harmonisation of management goals remains a major challenge for the coming years. For ALPARC, this is one of the main fields of work for the coming years.

For this harmonisation as much for nature conservation as for development concepts in tourism, one general problem is the multitude of different categories of protected areas. Often these areas overlap, and it should be investigated if zoning within one category could provide a better solution. This might also help to reduce the number of different levels of responsibility and institutions involved and to come to a better structuration of land-use and related activities within the protected area perimeter and its surroundings.



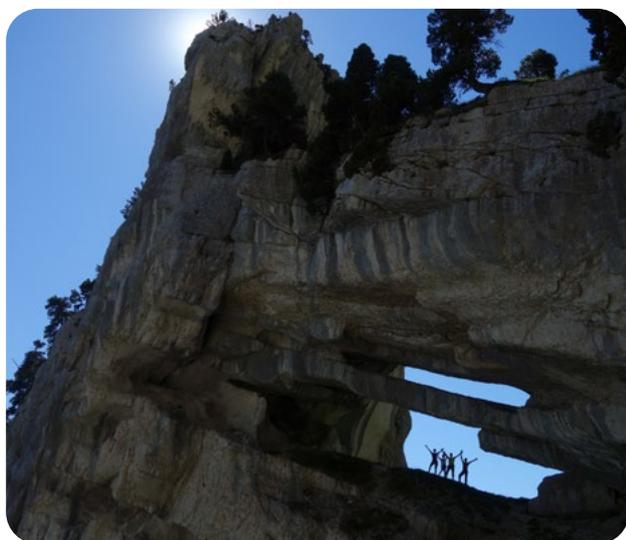
A clear definition of zones and the attribution of IUCN categories and, as a complementary step, the attribution of Alp-wide categories agreed upon by all Alpine states, would be a significant step toward allowing a more targeted policy and more concrete measures to preserve biodiversity and to develop activities in line with the protection goals of an area.

A minimum harmonisation of protection and management goals and procedures could be achieved between protected areas within the Alpine Network of Protected Areas by creating a specific work group with thematic sub-groups.

Common Borders/Transboundary Protected Areas

Stronger cooperation between transboundary protected areas has been proposed and pushed for many years. In some situations, it exists officially, as in the case of the French Parc National du Mercantour and the Italian Aree Protette Alpi Marittime. A common management structure has even been created (EGTC). This example shows how transboundary cooperation can work and it provides a solid foundation for cooperation in the field of regional development and tourism by common offers and their implementation.

To strengthen such cooperation and plan common approaches, a compulsory common management board is helpful in at least some aspects of both (or more) protected areas and allows better coordination of activities and appropriate measures to reach the parks' objectives.



Common management plans approved by the official bodies of the protected areas concerned on either side of a national border should be a goal of all protected Alpine areas in such a geographical situation. It would also represent a strong sign of European cooperation in the field of sustainable development and a concrete step in implementation for the Alpine Convention.

Common management

Common management would be the ultimate step towards complete international cooperation. This doesn't require common management of all the territories of the protected areas but rather the management of common projects, activities, and measures to achieve a higher degree of implementation of visitor concepts compatible with the protected areas' objectives.

We believe this would be the logical "last" step to complete the harmonization of management goals and objectives and strengthen common coordination of transboundary protected areas. The precondition is nevertheless the involvement of the regional communities as such a cooperation does not mean competition in tourism but the elaboration of a common offer profitable for economic stakeholders on both sides of the borders. A concept which in most cases is still difficult in the field of tourism.

Protected areas play an outstanding role in nature and culturally based tourism – on the one hand regarding protection and management strategies (nature, know-how, natural and cultural heritage, cultures) and on the other hand regarding economic development strategies that deal with tourism, mountain agriculture and forestry.

For the protection and management strategies of tourism, closer cooperation between the Alpine protected areas in general would help to develop strategies for a permanent exchange of experience and for the success of specific offers and measures to limit overtourism by proposing a more protected area-based offer.

Many Alpine protected areas not only have **a common territorial identity, but they also share joint values.** That is why a great number of them have already been working together for more than three decades in the ALPARC Alpine Network of Protected Areas to coordinate their efforts and share their experiences and know-how.

In order to further strengthen the international cooperation leading to a common management of central questions and measures for more “park-compatible” offers for tourists, visitors and outdoor enthusiasts, the national parks, nature parks, protected nature areas, biosphere reserves, UNESCO World Natural Heritage sites, Geoparks and administrative bodies in charge of protected areas represented in the ALPARC Alpine Network of Protected Areas must be considered as an integral part of future-oriented policies in Alps-wide strategies for sustainable development. Their significance for the conservation of the Alpine natural and cultural heritage and their role as a regional stakeholder for a more sustainable Alpine economy must be acknowledged at all political levels.

Finally, nature protection by more sustainable strategies in tourism cannot be delegated only to protected areas, and nature conservation must not stop at the protected area borders. Nature protection goals can only be achieved if adequate protection and sustainable economic concepts are guaranteed all over the Alps, including beyond protected areas.

The importance of networking between protected areas and with concerned local and regional actors must thus be recognized by all concerned stakeholders, and the protected areas administrations must extend their cooperation beyond the protected area borders in an intermediary and networking manner; political support and legitimation will be necessary to do so.

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111 www.alpine-space.eu/project/youralps/

112 www.alpine-school.org/en

113 www.bepartofthemountain.org/en/organisation

114 www.alparc.org/destinationparks

This also includes means for the operability of common management in the field of tourism.

A few international activities in the field of more sustainable tourism concepts and awareness raising for nature related activities have been carried out within the last years such as the projects YourAlps¹¹¹ and the Alpine School Model¹¹², Be Part of The Mountain¹¹³ and Destination Parks¹¹⁴. The current project WELCOME integrates some of the knowledge from these projects and is in line with the results of the afore-mentioned cooperation projects of the last few years.



3.6 CONCLUSIONS

We all know that economic growth in fragile ecosystems must have a limit if the foundation of the tourism activity is not to be altered or destroyed – nature and landscapes are the elements for Alpine tourism and all activities associated with it. Innovative concepts and new offers for visitors can be developed but they will never work without what makes them so attractive – the fact that they occur in the Alpine natural environment. This is the added value for tourism in this region and the Alpine protected areas are key players for sustainable offers in tourism and nature experience.

It seems clear as well to all stakeholders who participated in this project, that beside attractive and sustainable offers in tourism and outdoor, nature-based activities, there must be, at least for the strongly protected areas and fragile ecosystems and habitats, a limit of frequentation and the limitation of activities harming those areas – either in a spatial dimension or a temporal or seasonal one. The difficulty consists of defining the threshold above which activities harm nature or more precisely fauna, flora and habitats.

The exchanges with the protected areas manager in this project have shown that the definition of the limits of growth and the concept of “carrying capacity” are difficult concepts to be included in park strategies.

It seems easier for the manager to speak about indicators of carrying capacity in an anthropogenic framework such as the limits of infrastructure in the context of substantial visitor frequentation or the reaction of the inhabitants being confronted to situations which are subjectively considered as a milestone of overtourism. It seems more difficult to define the carrying capacity of ecosystems or habitats or single species concerning visitor flows or outdoor activities.

Nevertheless, sustainable visitor offers and proposals for activities in the natural environment of the protected areas, need to be based on those carrying capacities. How can they be defined? Scientific data about the issue do not seem to be satisfying. To consider long-term monitoring on visitor impacts on fragile natural environments cannot be an option. Overtourism in many sites is occurring now and management measures must be applied in this context and cannot wait for research results and recommendations to be developed only in the next few years.

A more pragmatic approach is needed, based on the observations of the staff on the ground and the scientific and management services of the Alpine protected areas in cooperation with further stakeholders in competent institutions and together with their authorities. Innovative offers and concepts for a more sustainable Alpine tourism and outdoor



activities in the protected areas must be based on the observation, knowledge and experiences of park managers. Exchange between the Alpine protected areas can further strengthen this strategy.

The exchange with the protected areas managers also showed that different offers need to be developed according to different categories and missions of the concerned parks. It is evident that the approaches for visitor strategies and tourist offers must be different between inhabited parks and strongly protected national parks, for instance. But the common denominator of all protected areas must be that – wherever an area is called “protected” or “park” – nature protection must play a key role!

To summarize the most important findings of the project within a nutshell could be as follows:

- The picture of innovative approaches in Alpine protected areas is not as clear as one could expect.
- Too often classic approaches are applied.
- Innovative approaches are limited and mostly based on classic concepts.
- Difficult to promote new concepts and to take the financial risk.
- No radical “game-changer” of Alpine tourism in perspective so far.
- Rather change by soft transition and sustainable nature-based activities and offers by Alpine protected areas.
- New concepts and proposals need to be further developed.
- Need for integration of the climate change aspect in the elaboration of future offers.
- Opportunity for protected areas to strengthen the link between attractive offers and environmental education, especially for the young public.
- Difficult to define the limits of tourist growth and to identify concrete carrying capacity concepts for specific areas, habitats or park territories.
- More international approaches and cooperation to be considered in the elaboration, promotion and management of tourist offers in Alpine protected area regions.





POSITIONING & RECOMMENDATIONS

Based on the exchanges within this project and the long-term experience of Alpine protected area tourism some recommendations have been formulated in the framework of this project.



Introduction

We call for a paradigm shift in Alpine tourism, one that harmonizes the needs of local communities, the tourism sector, and nature conservation. To achieve this, sustainable development must become the cornerstone of tourism management in the Alps, ensuring that nature conservation, public education, and the well-being of the local population are fully integrated. This requires a re-evaluation of tourism strategies, emphasizing quality over quantity, and prioritizing eco-friendly practices.

The tourism sector must not only mitigate its impacts on the environment but also adapt to the challenges posed by climate change. Alpine tourism must be designed to be resilient, ensuring that the natural beauty and biodiversity of the Alps are preserved for future generations while supporting sustainable local economies. Protected areas, as vital ecological hotspots, must play a central role in this transition, offering leadership in both conservation and sustainable tourism development.

In this context, Alpine protected areas are key to addressing both the challenges of overtourism and the opportunities for sustainable tourism development. A well-managed, responsible tourism approach in these areas can help protect biodiversity, enhance the visitor experience, and contribute to the social and economic vitality of surrounding communities.

For this reason, cooperation between tourism stakeholders such as destination management organisations, tourism associations or independent entrepreneurs and protected area managers is an important basis for making tourism strategies sustainable and future-proof, also in terms of nature conservation.

Different approaches for different categories of protected areas are proposed.



Strongly protected areas

Direct and concentrate tourist impact in ways that limit access to fragile sites and preserve the last “wild” areas.

KEY-INTENTION

“Tourists tend to destroy the locations they are seeking” – this well-known and provocative statement may become true for the last wild and untouched areas in the Alps if limits are not imposed. Education, awareness raising and restrictions, if needed, are the instruments to achieve this goal.

On the one hand, tourists are essential for the Alpine economy particularly in remote or rural areas where other sources of income are difficult to establish. On the other hand, they are dangerous for fragile natural areas. The trend towards spending leisure time out in the wild is widespread and increasing. Refuges for wildlife in protected areas or outside are under increasing pressure from the increasing number of hikers, bikers and ski touring visitors. This particularly refers to those who disregard restricted areas as they seek an exceptional experience in nature or aim to take the ultimate picture for their social media account. Beyond the direct impact on nature by tourists, the need for space and territories to build infrastructure and access roads is another aspect. This infrastructure has a considerable impact on the surface and quality of natural areas, too.

Therefore, guiding tourist flows, sustainable tourist offers, and education of tourists are urgently needed to preserve wild areas in and around the Alps. There must be zones of “non-construction” of infrastructure, as otherwise the technical feasibility of more and more spectacular installations will override every good reason to stop in areas where valuable nature still exists. There is always an investor who looks for economic benefit to be squeezed out of the mountain areas, no matter what the real ecological price for it may be. This issue is very much adapted for an international resolution or at least declaration as many mountain ranges consider the Alps as best practice for their own economic development.

Protected areas with a clear sustainable development objective

Elaborate and promote innovative offers based on a quality approach, on the concept of carrying capacities and on local governance including all relevant stakeholders.

KEY-INTENTION:

Contribute to local development in tourism by adapted offers and promotion of the region, create synergies with local actors such as farmers and other economic stakeholders of the area.

Tourist offers and their marketing is based on a regional land use concept that identifies protected areas, residential and other areas to develop long-term strategies for sustainable regional development. The implementation of specific activities in tourism within the regional development plan is supported by promotional and management measures for visitors in the protected area territory such as:

- Promoting high environmental standards in the region. Nature protection and the responsible use of nature and natural resources are anchored in the tourism concept as well as in its flagship products and other offers.
- Show that the “nature” of the offers is strong and spreads across the range of offers by its unique selling value linked to the protected area and its values. Experience of nature is the focus of the offers.
- Professional customer information, education and awareness raising is always present.
- Soft mobility is anchored in the tourist concept and is encouraged.
- The region promotes nature-friendly infrastructure and activities.
- A direct and concrete financial contribution of tourism to nature protection and landscape maintenance (tourist tax, entrance fees, etc.) is developed.

Further general recommendations

To address the growing pressures on Alpine protected areas, and to promote sustainable tourism, the following actions are recommended:

1. DEVELOPING AND IMPLEMENTING VISITOR MANAGEMENT SYSTEMS

Establish Visitor Flow Management: Create strategies to manage and guide visitor flows, including designated routes and restricted access to sensitive areas during peak seasons. This may include implementing a “high season” quota system or limiting access to high-risk areas during certain months.

Promote Digital Solutions for Visitor Monitoring: Use modern technology, such as mobile apps and digital platforms, to monitor visitor numbers in real-time and provide information about protected areas and the surrounding natural environment.

Education and Awareness Campaigns: Launch campaigns aimed at educating tourists about the value of the protected areas, the importance of respecting nature, and the potential consequences of overtourism.



2. PROMOTING SUSTAINABLE TOURISM MODELS

Focus on Nature-based Experiences: Shift the focus of Alpine tourism from mass-market experiences to nature-based, slow tourism, such as hiking, wildlife watching, and nature immersion experiences that foster a deeper connection to the environment.

Support Low-Impact Mobility: Encourage the use of public transport, cycling, and walking as primary modes of transport within protected areas. This aligns with the “soft mobility” approach and reduces the environmental footprint of tourism.

Create Nature-focused Educational Programs: Develop programs that educate visitors on the ecosystem services provided by the protected areas, such as soil regeneration, water quality, and biodiversity conservation.

3. COLLABORATING WITH STAKEHOLDERS AND FOSTERING PARTNERSHIPS

Create Synergies with Regional Tourism Stakeholders: Foster cooperation between protected area managers, local tourism organisations, and regional governments to design tourist offers that balance nature conservation with local economic needs.

Developing Cross-Border Initiatives: Work across borders with other Alpine nations to implement common strategies for sustainable tourism, ensuring that best practices are shared and adopted across the region.



4. ENSURING FINANCIAL CONTRIBUTIONS TO CONSERVATION

Implement Visitor Fees: Introduce or increase visitor fees, such as entry tickets or taxes, that contribute directly to conservation efforts and support the maintenance of protected areas.

Encouraging Responsible Investment: Promote nature-compatible infrastructure projects that respect the natural environment and prioritize the preservation of the Alpine landscape.

5. INVESTING IN INFRASTRUCTURE AND TECHNOLOGY

Allocate resources to develop sustainable infrastructure: This includes well-designed trail networks, visitor centres, signage, waste management systems, and sustainable transportation options.

Embracing digitization: Adopt advanced technologies for visitor management, such as online reservation systems, real-time monitoring, and mobile applications for information dissemination.

6. MONITORING AND EVALUATING PERFORMANCE

Establish robust monitoring and evaluation mechanisms: This enables us to assess the effectiveness of visitor management strategies and their impact on biodiversity conservation and tourism development. Regularly collect data on visitor numbers, behaviour, and ecological indicators to inform adaptive management practices.

Adjust your strategies: Based on these findings, make necessary adjustments to improve the overall performance of Alpine protected areas.

By implementing those concrete actions, Alpine protected areas can strengthen their positioning as sustainable tourism destinations while safeguarding biodiversity and preserving the unique Alpine landscapes for future generations.



SCENARIO 2040
— **OF TOURISM IN** —
ALPINE PROTECTED AREAS



WELCOME
ALPINE PARKS FOR ALL



INTRODUCTION

The present work stems from the growing challenges that Alpine protected area managers are facing in relation to tourism. Overcrowding, the rising popularity of outdoor sports, changes in the types of visitors and lack of environmental awareness pose serious threats to fragile Alpine ecosystems. Moreover, these issues are compounded by global-scale climate change and its consequences, such as biodiversity loss, glacier retreat, and the increasing frequency of extreme weather events.

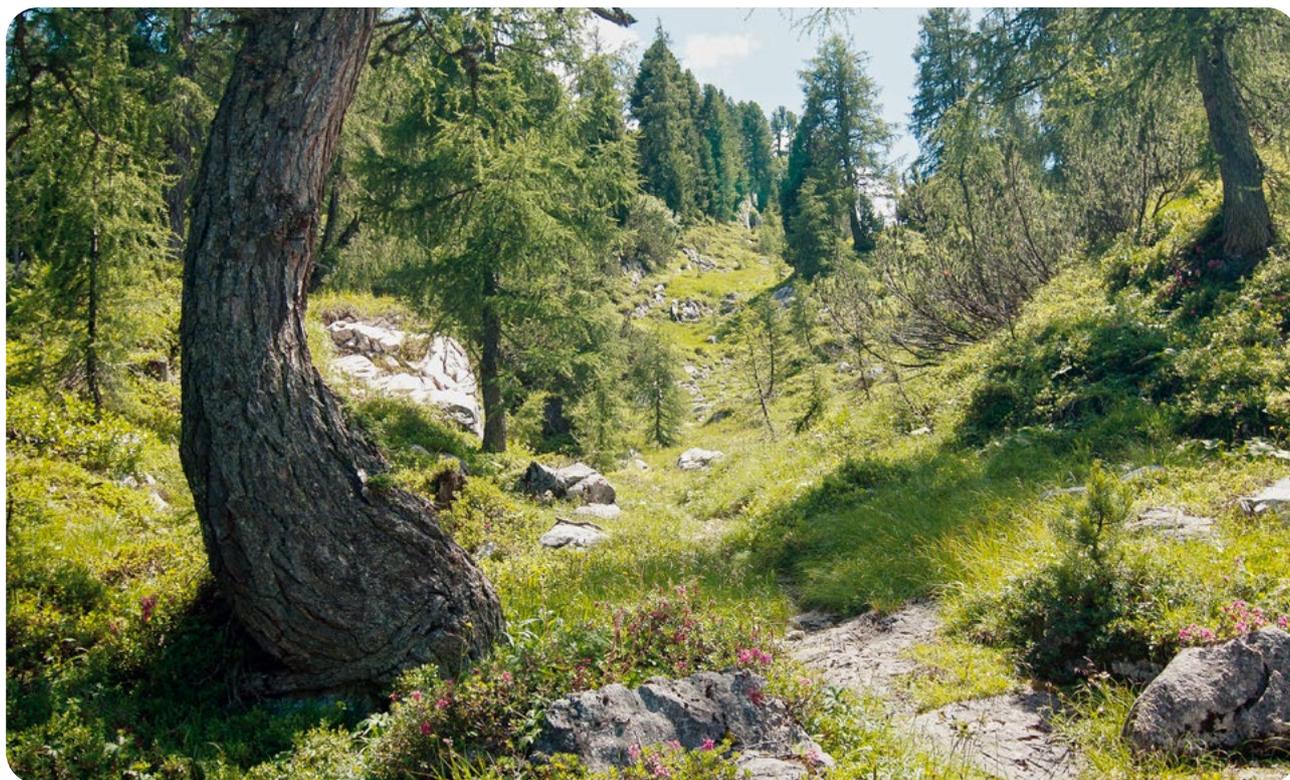
In this context, it is necessary to look ahead and envision both the future we want to avoid and the one we wish to achieve, finding the tools required to build the latter. The overall goal is to develop a model that harmonizes the needs of biodiversity conservation, tourism stakeholders and local communities. The natural Alpine environment is placed at the heart of this model. It is the reason why people visit protected areas, the source of economic revenue for many activities of their regions, and an invaluable heritage, regardless of the anthropocentric benefits that can derive from that. As such, it must be preserved.

The following scenario tries to imagine the situation of tourism in Alpine protected areas in the medium term, using 2040 as a reference point. It is structured in three stages:

- a schematization of the current situation
- a worst-case scenario, in which major negative trends continue unchecked
- a best-case scenario, in which the harmonization between nature, tourism and communities is achieved, and key tools for getting this result are identified (highlighted)

In developing these scenarios, we relied on data collected through questionnaires and interviews involving park managers, as well as information gathered through web research on protected area websites. Crucial insights were also derived from the “Workshop on a Scenario 2040”, as part of the WELCOME closing event (27-28 March 2025, Berchtesgaden – DE). During this activity, participants went through all three stages, constructing together an ideal future for Alpine tourism.

The WELCOME Scenario 2040 makes no claim to be exhaustive, nor scientifically rigorous. Still, it is intended to provide guidelines, identify fields of action, and propose best practices that can be implemented to develop a tourism model centred on nature and its conservation.



1 CURRENT SITUATION

Protected Areas

CURRENT SITUATION

- The Alpine region hosts more than 1,000 protected areas that cover nearly 30% of the surface inside the borders of the Alpine Convention (Tab. 12). However, 9,7% of this surface can be considered as relatively strongly protected, only 4% as strongly protected, and this figure drops to 0.4% when only considering areas corresponding to the IUCN Category Ia/b (ALPARC, 2023) (Fig. 17).
- Two thirds of protected areas are located above 1,000 metres in altitude, and nearly one third above 2,000 metres. When considering strongly protected areas, these protection categories rise respectively to 89% and to 44% (Fig. 18).
- Each Alpine country has its own categorizations, and there is great variability in terms of what is allowed, restricted, or prohibited in each protected area.
- The objectives of protected areas also vary in some cases, they are limited to nature conservation and environmental education, while in others they extend to promoting tourism and supporting local economic development.

- Tourism management in many cases is complicated by the coexisting competencies of different actors on the same territory (management body, region, municipalities, landowners) and the sometimes-conflicting interests of the various stakeholders.
- There is good cooperation between Alpine protected areas both within each country and on the transnational scale. They share experiences and good practices and participate in several joint projects on the topic of tourism management and the impacts of outdoor frequentation on the environment.



Type	COUNTRY							Total
	AT	CH	DE	FR	IT	LI	SI	
Nature reserve	128	53	37	36	83	1	15	353
National Park	3	1	1	3	4		1	13
Regional Park	33	9	2	10	45		2	101
Particular protection	57	453	76	54	12		20	672
Biosphere Reserve (UNESCO)	4	2	1	3	4		1	15
World Heritage Site (UNESCO)	5	3			1			9
Geopark UNESCO	3			4	2		1	10
Total	233	521	117	110	151	1	40	1,173

Tab. 12 Number of Alpine protected areas by category and country

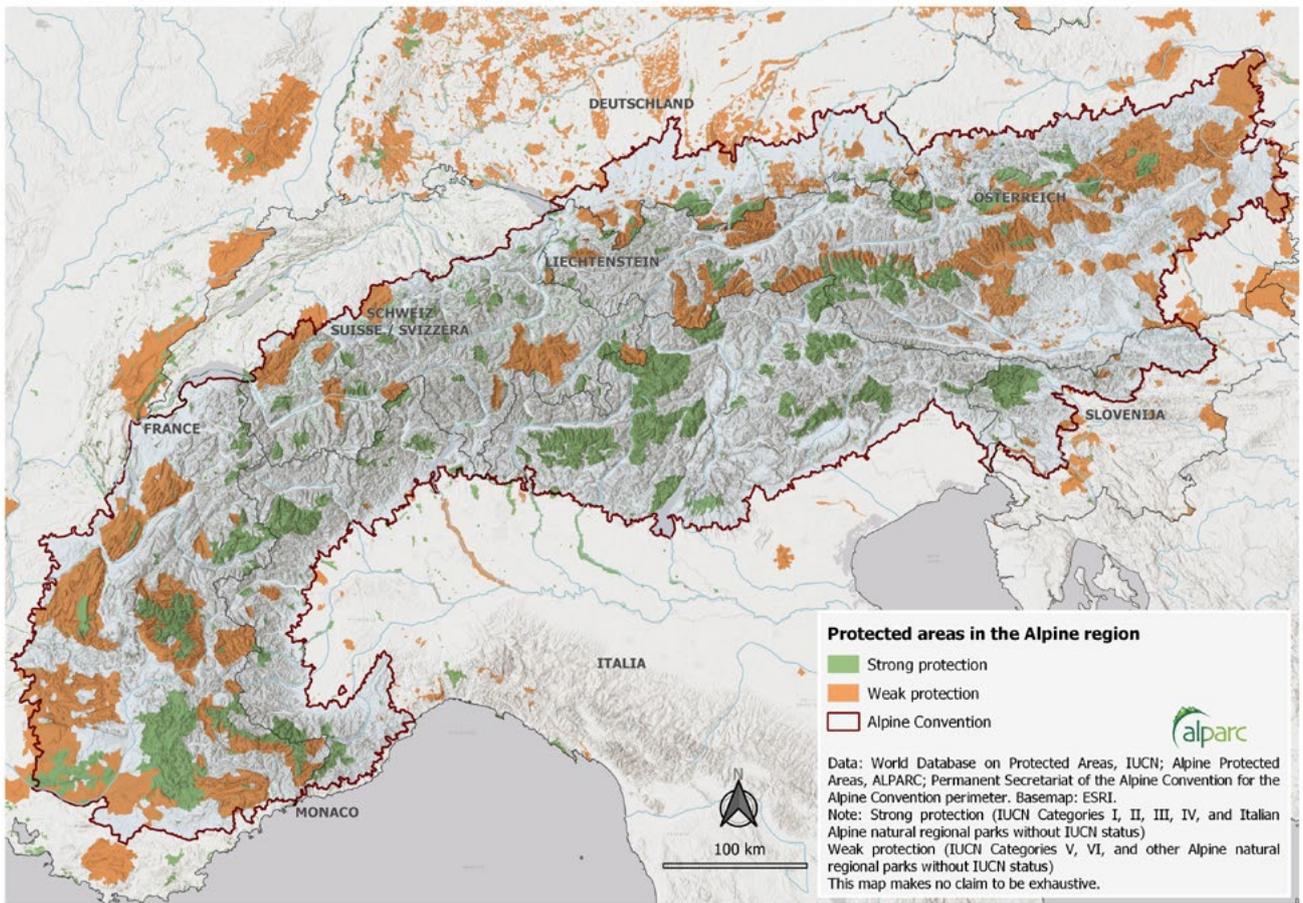


Fig. 17 Strongly and weakly protected areas in the Alpine Region

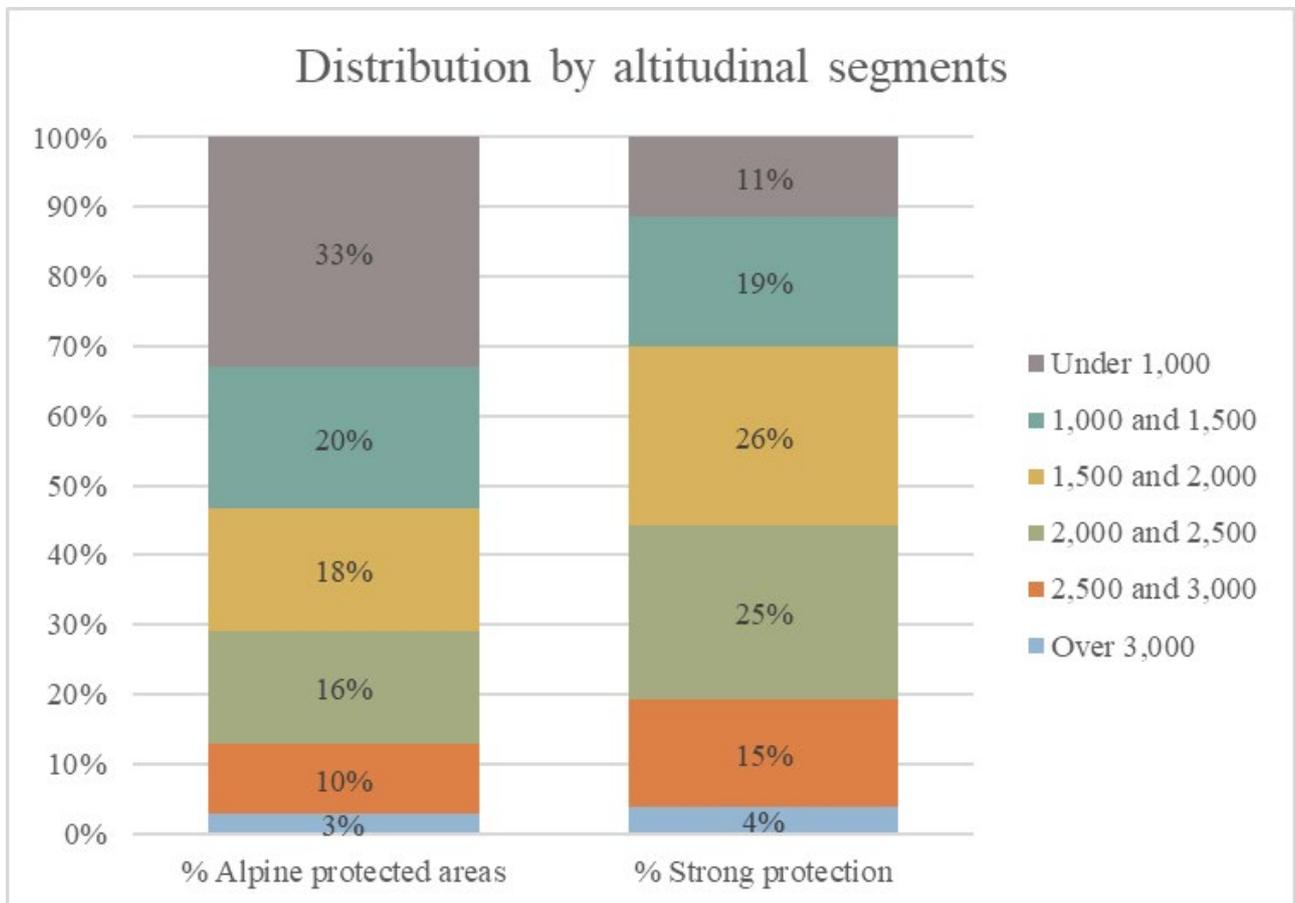


Fig. 18 Distribution of Alpine protected areas by level of protection and altitude segments

Visitors

CURRENT SITUATION

- Tourism in Alpine protected areas is generally increasing. After the boom during the pandemic and post-pandemic period, growth has stabilized again but continues on a positive trend.
- A new type of “first-time mountaineers” has emerged, with the following characteristics:
 - * limited knowledge of the mountain environment and low environmental awareness.
 - * not always aware that they are in a protected area or unfamiliar with its rules.
 - * often attracted by content seen online, especially on social media, and thus tending to concentrate in the most famous hotspots.
 - * seeking cooler temperatures at higher altitudes and near water spots (lakes, rivers, streams, waterfalls).
- Other growing visitor categories are represented by elderly people and people with disabilities, who have specific needs and expectations, not always easy to cater for in mountain environments.
- The number of visitors with dogs, often left off the leash, has also grown.

Activities and offers

CURRENT SITUATION

- The main activities are hiking and cycling during summer, skiing and snowshoeing in winter. Overall, the number of people going to protected areas for sport is increasing, as well as the frequency of sports competitions, resulting in high human concentration.
- Sport enthusiasts increasingly rely on digital outdoor apps, especially to get information on tracks. The latter are often not official park trails and may violate park regulations.
- The spread of e-bikes has made more easily accessible parts of the protected area that were previously reserved for hikers, resulting in greater environmental damage and conflicts with other users.
- Outdoor activities such as climbing and ski touring, once considered niche sports, are gaining popularity.
- There is a growing interest in health-oriented and wellness activities such as relaxation, yoga and forest bathing.
- The use of drones is becoming more widespread.



- Many educational activities are offered by protected area staff, but they often struggle to be known to and attractive to a wider public, particularly first-time visitors.
- New offers and activities are being developed to enhance accessibility and inclusion for people with disabilities.

- New options for shared, on-demand and electric mobility are under development.
- New cable cars and chairlifts continue to be built, particularly for winter sports, while facilities at altitudes too low to remain economically viable are being abandoned.
- Waste management infrastructure is insufficient during peak frequentation periods.

Mobility and infrastructure

CURRENT SITUATION

- Private cars remain the primary mode of transportation to reach protected areas and hiking trailheads.
- During peak periods, parking lots are overcrowded, with widespread wild parking along roadsides, as well as traffic congestion in main valleys and passes.
- Public transportation is often insufficient and does not adequately connect the valley towns and to park access points.

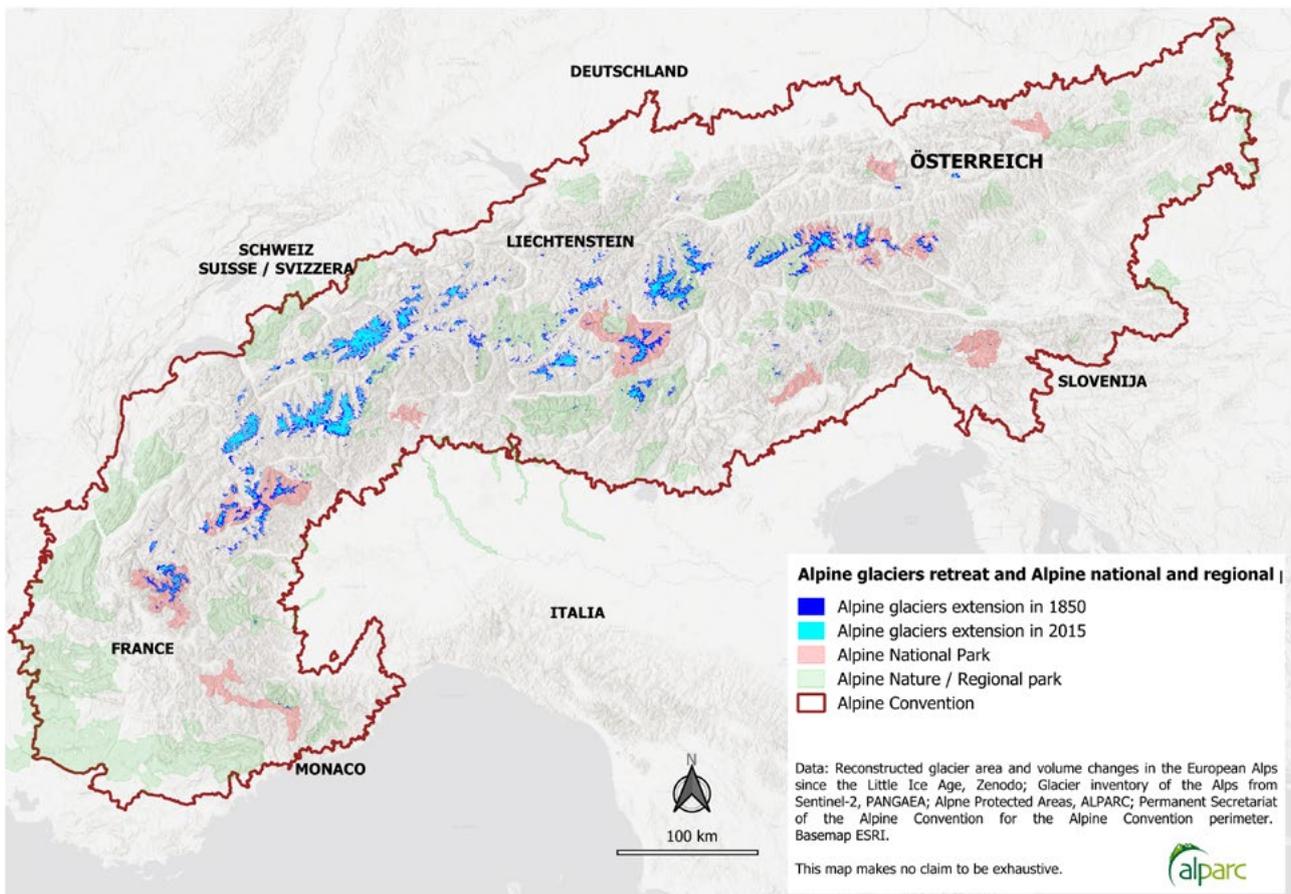


Fig. 19 Glacier retreat and Alpine National and nature/regional parks

Climate and resources

CURRENT SITUATION

- Summers are getting hotter and longer. More people are heading to the mountains in search of cooler temperatures. Frequentation starts earlier in the year and continues later, reducing the rest period for the natural environment.
- Winter snowfall is decreasing and water resources are becoming scarcer and more erratic. Artificial snowmaking is increasingly necessary and requires large amounts of water and energy, while less water is available for mountain huts (especially at higher altitudes).
- Many glaciers are located within protected areas (Fig. 19). Their retreat exposes new territories and leads to the formation of emerging “pristine” ecosystems.
- Extreme weather events are becoming more frequent, posing risks to visitors and causing damage to infrastructure. This also results in problems for mobility and higher maintenance costs for protected areas.
- Due to rising temperatures, both sports practitioners and wildlife are moving to higher altitudes: the former in search of cooler climates and snow, the latter following the ascending movement of their natural habitats.

Nature and biodiversity

CURRENT SITUATION

- Alpine protected areas are characterised by amazing nature and landscapes, representing an invaluable environmental heritage.
- Outdoor activities, especially when linked to overcrowding, cause increased disturbance to Alpine wildlife and habitat fragmentation, contributing to biodiversity loss.
- Efforts to measure visitor influx and quantify the impacts of tourism activities on biodiversity are being made by several protected areas. However, this remains a complex task, as does comparing results across different protected areas.
- Defining the carrying capacity of a given environment appears currently not feasible, and it is therefore difficult to establish objective limits.
- There is a return of large carnivores such as wolves and bears, but their presence is often viewed negatively by the public, leading to conflicts with both visitors and local communities.



Tourism sector and local economy

CURRENT SITUATION

- The tourist offer is generally seasonal and in areas where there are no ski lifts it is usually concentrated in the summer period. Where ski facilities are present, the winter offer tends to be more geographically concentrated.
- While the presence of the protected areas and their beautiful nature attract many people, park regulations are sometimes viewed as limiting business opportunities.
- There are several examples of cooperation between protected areas and local business operators, aimed at promoting regional activities.
- Tourism operators develop their own offers independently, without sufficient coordination between the various actors.
- Initiatives such as protected area quality labels help promote local businesses and productions, with positive economic impacts.

Local population

CURRENT SITUATION

- Local populations often have an ambivalent attitude toward tourism: while it represents a source of income, it also causes disturbance and overcrowding, negatively affecting the quality of life in small towns.
- The presence of the protected area is sometimes perceived negatively for causing excessive restrictions and regulations.
- Although involving local people in protected area activities and planning is not always easy, there are examples of forums and workshops with residents, as well as numerous volunteer initiatives and collaboration with cultural associations and schools.

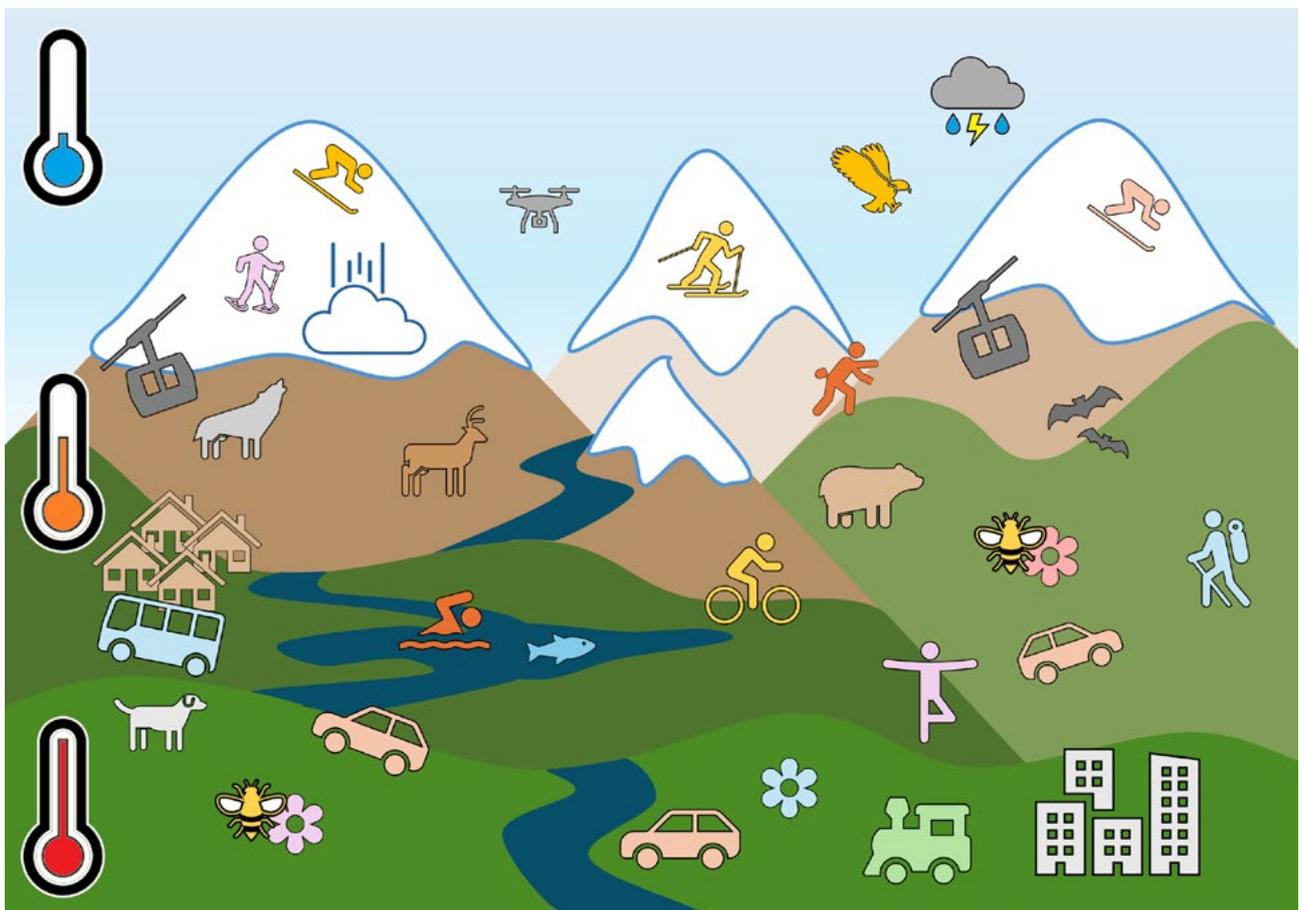


Fig. 20 Scenario 2040: Current situation of tourism in Alpine protected areas (results of the "Workshop on a Scenario 2040", WELCOME closing event, 27-28 March 2025, Berchtesgaden – DE)

2 WORST CASE SCENARIO 2040

Protected Areas

WORST CASE SCENARIO 2040

- The surface covered by protected areas remains relatively the same, but the share of strong protection drops considerably. Although some “flagship initiatives” for expanding protected areas and creating new ones are proposed, the level of protection remains insufficient to preserve the Alpine environment. The nominal coverage masks a growing ecological degradation.
- Strong protection is exclusively confined to high-altitude territories and especially to those above 2,000 metres, where conflicts with economic stakeholders and the local population are lower, and so is the political cost of their maintenance.
- No harmonization has been found at the international level on terminology or regulations for different types of protected areas. In some cases, the situation is further complicated by increasing bureaucracy at various levels (from national to local), determining an almost unique situation for each protected area.
- Most frequently, the objective of protected areas has shifted towards economic utility. Nature conservation needs to be increasingly funded through revenues derived from tourism activities and protected areas are managed with an enterprise-like approach, focussing on financial performance.
- No shared processes for the development of coherent tourism strategies are established. The initiatives of protected areas are halted by conflicts with other stakeholders, and their diminishing authority leaves them incapable of effectively reacting to external threats.
- Shared design, transnational strategies and projects become increasingly difficult due to the extreme heterogeneity of contexts. International cooperation is no longer a political priority and funding for joint initiatives are severely cut. Some positive cases persist, especially in transboundary regions with a long-standing tradition of cooperation.



Visitors

WORST CASE SCENARIO 2040

- Tourism growth in protected areas remains stable and, in many cases, results in overcrowding. When visitor flow management is in place, it is inadequate and ineffective. Tourists concentrate in the most famous locations, while less known regions are completely neglected, leading to depopulation and defunding.
- More and more people visit the mountains just to escape city heat or to experience novelty and adventure. Social media content promoting impacted behaviours cannot be moderated by park managers, accelerating the degradation of the most iconic spots. The paradox of overtourism becomes reality: people end up destroying the very places they seek to experience.
- The ageing population means that elderly visitors make up a significant share of tourists, and the same is true for people with disabilities, thanks to a stronger awareness around accessibility and inclusion. However, no structural adaptation plans have been put in place, either in terms of infrastructure or staff training. These visitors have very limited opportunity to access the natural values of protected areas, and when they have, it is also because of spot initiatives supported by volunteering associations.
- While some regulations on dogs stand, the declining authority of management bodies makes it impossible to enforce them. Protected areas are often perceived as home gardens, where both off-leash dogs and their owners are free to explore, causing serious disturbance to wildlife, faecal pollution and conflicts with other visitors.

Activities and offers

WORST CASE SCENARIO 2040

- The number of sports practitioners in protected areas continues to grow, following a higher awareness of the benefits of physical activities and the promotion of stunning locations wherein to practise them. Sports competitions are organised regularly both in the summer and winter period, with no distinction between events that take place inside or outside the boundaries of protected areas.
- Digital outdoor apps remain the main tool for planning routes but lack regulation. Official park tracks and rules are not integrated into these platforms. Practitioners generally follow the itineraries shared by other users that can conflict with quiet zones or restricted areas.
- E-bikes have become cheaper and more widespread. In the common perception, cycling tours to the highest peaks are considered equivalent to hiking ones, leading to soil erosion and growing tensions with other users. Regulation enforcement is insufficient, especially in remote areas.
- Outdoor activities like climbing and ski touring have become mainstream, attracting an increasing number of unaware and untrained practitioners. The underestimation of the impacts and risks of these sports results in habitat fragmentation, human-wildlife conflicts and more frequent accidents, creating further issues for park managers.
- Health-oriented and wellness activities are labelled as sustainable, but poor management results in heavy impacts on nature: people concentration,





new infrastructure and a lack of environment-related contents make these offers feel like a missed opportunity.

- Drones are widely employed to take stunning pictures and videos. Visitors share them on social media and tourism stakeholders use them for creating attractive promotional content. This reinforces the idea that the practice is allowed and encourages emulation. As a result, real quiet zones are rare even in the less accessible areas.
- Park staff have limited time to devote to educational activities. The latter are marginal, embedded in traditional approaches and rarely adapted to the new interests of visitors. They mostly attract people that already have an environmental sensitivity but fail to compete with outdoor narratives focusing on adventure and challenges.
- Despite initial engagement, offers dedicated to people with disabilities are limited and underutilized, as they do not meet the needs and expectations of their target. Accessibility is always well promoted, but the lack of integrated strategies leads to a partial and unsatisfactory experience for visitors, reinforcing a sense of exclusion.

Mobility and infrastructure

WORST CASE SCENARIO 2040

- Private cars remain the dominant means to access protected areas. A higher share of them is now composed of electric vehicles, leading to a better air quality in the protected area regions, but this does not reduce traffic volumes and the need for car-dedicated infrastructure.
- The increasing demand for parking lots has led to the construction of new facilities. However, they do not solve the problem and instead reinforce the use of private cars, causing greater environmental damage. Traffic jams are the norm during high season and weekends, leading to air and noise pollution as well as to conflicts with the local population.
- Public transportation remains fragmented, underfunded, and insufficient to reach most protected areas. Even when options are in place, they are often expensive and suffer from the same traffic congestion caused by private mobility.

- The installation of new cable cars and chairlifts has continued, even when climate scenarios made it evident that they would soon become economically unsustainable. In some cases, they were extended to new sensitive areas, still interested by sufficient snowfalls. When abandoned, these facilities are not dismantled, and no restoration plans are developed for the Alpine landscape.
- Waste management infrastructure is overloaded during peak periods and the lack of environmental awareness leads to increasing illegal dumping. The costs of new infrastructure fall on the local population and, when too large for low season periods, they become economically unsustainable.
- Snowfall has become increasingly rare and unreliable, even at medium altitudes. Winter tourism relies on artificial snowmaking everywhere, driving up the costs in terms of energy and intensifying conflicts with the local population for the exploitation of the scarce water resources. Mountain huts are forced to shorten their activity, reduce their services or increase helicopter supply runs.
- Most small glaciers have vanished and the bigger ones have shrunk considerably. New exposed territories are immediately exploited for tourism activities, forcing protected areas to react instead of developing effective conservation measures. This is particularly true in parks with lower levels of protection.

Climate and resources

WORST CASE SCENARIO 2040

- The trend of longer and hotter summers continues. Mountains in general, and protected areas in particular, have become a climate refugium for humans as well, leading to extensive and intensive visitor pressure from early spring to late autumn and further increasing stress on Alpine flora and fauna.
- Extreme weather events are more frequent, posing danger to visitors and damaging infrastructure. Investments in new infrastructure, including for sustainable mobility, are discouraged as they are considered too risky. Constant damage to trails, roads and facilities cause higher maintenance costs, threatening the existence of smaller protected areas.
- The vertical ascent of sports practitioners continues unmanaged and causes increasing conflicts with wildlife, already under significant climate stress.



Nature and biodiversity

WORST CASE SCENARIO 2040

- Alpine protected areas are still characterised by stunning landscapes, but conservation efforts have had to be concentrated on a few iconic species, while overall biodiversity has strongly declined. Human infrastructure is now visible also in previously untouched areas, responding to the pressure of tourism demand. Due to their diminished influence, park management bodies have not enough power to counteract these trends.
- Increasing numbers of visitors, mainstreaming of outdoor activities, vertical shift of human presence, new tourism infrastructure: all of this contributes to worsen disturbance to Alpine wildlife and habitat fragmentation.
- No effective tools have been established to quantify visitor flows and to determine tourist impacts on biodiversity. Management measures are scarce and not supported by sound data. No coordination is possible between protected areas.
- The concept of carrying capacity has been definitively abandoned, due to its complexity, insufficient interest in its development and potential conflicts that it could generate with other activities (notably, the tourism sector).

- Coexistence between human and large carnivores has failed. Due to growing conflict with outdoor practitioners and the fear of locals, political authorities are under pressure to take hard measures, while individual illegal killing of wolves and bears is on the rise. Conservation efforts of protected areas are undermined by a generalised hostility toward these species.

Tourism sector and local economy

WORST CASE SCENARIO 2040

- Tourism remains largely seasonal, with peaks of frequentation in summer and winter. Winter tourism is concentrated in areas with ski resorts, but the sector proves to be increasingly unsustainable from an environmental and financial point of view. Due to the longer summers, tourism stakeholders increase their offer all-year round, but without a shift towards more ecologically aware practices.
- Protected areas remain major attractions for visitors, but economic stakeholders use their influence to limit conservation initiatives, opening up possibilities for new tourism exploitation.



- The economic costs associated with pro-environmental behaviour discourage tour operators, especially when compared to the advantages enjoyed by those maintaining a “business as usual” approach. As a result, cooperation with protected areas is weakened, and these are increasingly perceived as an obstacle to development.
- Each operator pursues its strategy, with the aim of expanding its public and increasing its revenues. The logic of competition prevails. Protected areas are included in tourist offers simply as a destination with high-natural value, with no or little reference to their conservation mission.
- Initiatives such as protected area quality labels promote local realities and productions, but are exploited as a marketing tool, with scarce concrete commitment to promoting sustainability in the region.

Local population

WORST CASE SCENARIO 2040

- The attitude of the local population toward tourism has become increasingly hostile and polarized. While tourism remains a key economic resource, it leads to overcrowding, higher living costs and cultural homogenization. Moreover, it is perceived as only benefitting specific groups, while desegregating local networks.
- The presence of the protected area is widely perceived as compromising the quality of life in the region, due to restrictions to land use, mobility and economic activities. It is also blamed as a cause for overtourism and its associated negative effects.
- Efforts to involve the local population have failed. People feel excluded from decision-making processes and refuse to engage with the activities of protected areas, either as participants or as volunteers. Some collaboration with schools persists, but is underfunded and discontinued, preventing the formation of a new generation of environmentally aware citizens.



Fig. 21 Worst case Scenario 2040 for tourism in Alpine protected areas (results of the “Workshop on a Scenario 2040”, WELCOME closing event, 27-28 March 2025, Berchtesgaden – DE)

3 BEST CASE SCENARIO 2040

Protected Areas

BEST CASE SCENARIO 2040

- The share of territory covered by protected areas has increased to over 30%. Most importantly, all national and natural parks have implemented core zones with a strong level of protection, comparable to the IUCN Category Ia/b. The target set by the COP 15 – Biodiversity Convention (Montreal, December 2022) is achieved.
- Strongly protected areas have been expanded at mid- and low-altitudes, and main ecological corridors are covered by protected areas across the entire Alpine arc.
- A **harmonised classification system of protected areas** has been established at the European level, with clear criteria aligned to IUCN categories. Where national or regional contexts are too diverging, information about applicable rules and regulations are easily accessible and organised by key activities (e.g. land use, hunting, recreational activities). This allows for more efficient coordination and cooperation across different countries and different types of protected areas.
- Nature conservation is clearly defined as the main objective of all protected areas, together with connected educational initiatives. As stated in the European Charter for Sustainable Tourism in Protected Areas, priority is always given to protection. Tourism becomes a tool to further promote environmental awareness and biodiversity-friendly behaviours, while economic development is perceived as the natural consequence of the presence of healthy, well managed protected areas.
- Governance structures are clear. The roles, responsibilities and powers of protected areas are well defined, notably as regards management of tourism within its boundaries. Constant exchanges with political authorities, tourism stakeholders and local communities allow for better coordination and prevent conflicts.
- Cooperation between Alpine protected areas is strong and well-structured. They participate together in many international projects that make it possible to share best practices, define standards and launch pilot actions for a conservation-compliant tourism. Positive results are mainstreamed into transnational guidelines and procedures (e.g. Alpine Convention, EUSALP).



Visitors

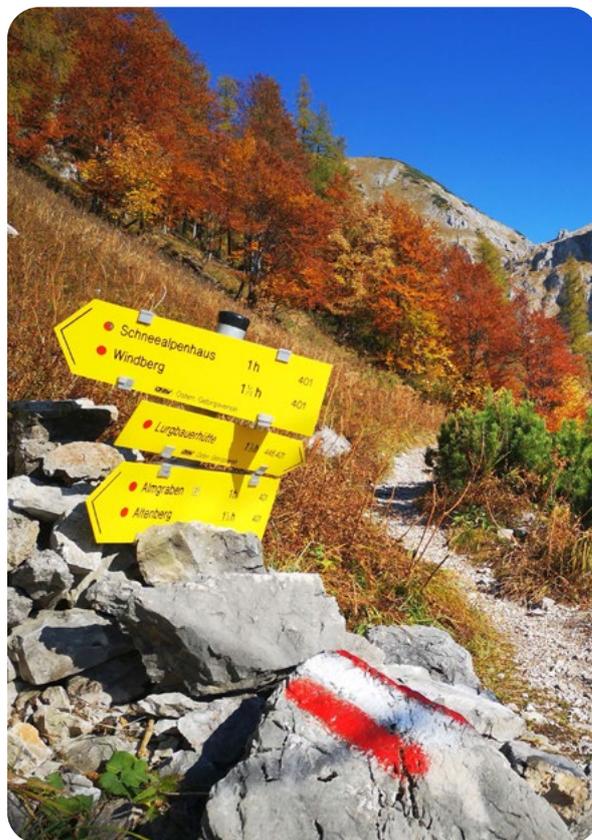
BEST CASE SCENARIO 2040

- The overall growth of tourism in protected areas has continued steadily, but visitor flows are well distributed across all the Alpine arc, even in those regions that previously struggled to be attractive. Frequentation is well managed, with people concentrated in less sensitive areas. For purely recreational activities, visitors are redirected as much as possible towards alternative activities outside park boundaries.
- First-time visitors are well-aware of the existence of the protected area and understand its rules. They are informed as they enter the park boundaries through **evident physical signs** and can easily find further details online. **Park staff are available in the main hotspots** to share behavioural recommendation, promote educational initiatives and invite people to visit other sites in the protected area. Social media contents always include awareness-raising messages or refer to the official park websites and information, and **digital rangers** can easily remove contents that promote prohibited behaviours. Visitors only looking for a fresher climate find **dedicated green areas and facilities outside the park borders**.
- The ageing population makes elderly visitors a significant share of tourists, and the same is true for people with disabilities, thanks to a stronger awareness of accessibility and inclusion. Protected areas have developed tourism strategies that integrate these aspects as a cross-cutting priority and not just as a side-component.
- In core zones, dogs are not allowed. People with dogs mostly remain in **dedicated green areas**, outside park borders or in the less sensitive areas. Besides consistent regulations and information, initiatives are offered to visitors on **how to lead a dog across protected areas** minimizing the impacts on wildlife and habitats.

Activities and offers

BEST CASE SCENARIO 2040

- The number of sports practitioners in protected areas continues to grow, following a higher awareness of the benefits of physical activities. **Zones suitable for outdoor activities and zones dedicated to wilderness are clearly defined**, and the former are limited according to the impacts of the activity itself. The exceptionality of protected areas is well communicated, and most users adhere (sometimes formally) to **specific sport ethics**. **Competitions are held outside the park borders** and have become an opportunity to share these ethics with the right target groups.
- Digital outdoor apps remain the main tool for planning routes. They clearly distinguish official park tracks from user-created tracks, promoting the former. They **contain verified information about the rules and restrictions of protected areas**. Users are notified if they are entering a restricted area or if their activity goes against the park regulations. In this case, they are prevented from sharing such itineraries. **Protected areas receive data about visitors' behaviour** and digital rangers regularly check online contents.



- E-bikes are cheaper and widespread, but their use is strictly regulated and only allowed on designated routes. Hikers are well informed of what paths are shared with bikes. The end of cycling routes is clearly defined, also by physical barriers, and **bike racks are available for visitors wishing to proceed on foot.**
- Outdoor activities like climbing and ski mountaineering have become mainstream. Protected areas cooperate with sport associations to host **safety courses that integrate environmental education content** and promote park ethics. On peak days, **park staff and volunteers are present at the starting points** of ski routes and at climbing sites, to further share this information. Thanks to **collaboration with digital platforms** and other information providers (e.g. guide publisher), all users are aware of the regulations of the protected area, but also of designated ski routes and climbing sites.
- Health-oriented and wellness activities are promoted as sustainable activities, and they are **combined with environmental education contents.** Specific ethics have been defined for these activities, too. Protected areas have designed itineraries dedicated to relaxation and meditation, as well as **green areas suitable for yoga classes and similar offers.** People are aware of the health benefits of an intact nature and more willing to protect it.
- Drone usage is strictly regulated and only limited to educational and research reasons. Thanks

to **extensive collaboration with drone providers**, drone users are notified when they are entering the protected area boundaries and are not allowed to download photos and videos taken inside them. Digital rangers regularly check online contents.

- Educational offers are well known and widely attended. The global offer is structured around a **clearly recognizable park identity**, covering many target groups and types of activities. Thanks to **collaboration with local service providers** (e.g. accommodation, transport) the initiatives of protected areas are communicated across the region. Through **incentives for participation** (e.g. gadget, discounts) included in tourist packages, people are encouraged to go to visitor centres and take part in educational offers.
- The development of accessible and inclusive offers has continued, in close cooperation with interested people and related stakeholders. **All visitor centres and infrastructure are barrier-free. Park staff are trained and able to guide people with different disabilities** or to direct them towards the most suitable offers. **Accessible offers are designed to be attractive for any public**, reducing the sense of segregation and exclusion. Tools such as **“joëlettes” or all-terrain wheelchairs**, are widespread and easily available, and there are several options of **accessible multi-sensory trails.** Volunteers from local associations regularly cooperate in the support and guidance of visitors.



Mobility and infrastructure

BEST CASE SCENARIO 2040

- The use of private cars is significantly reduced, thanks to reliable alternative mobility. It is also **explicitly discouraged both by protected areas and their local partners**. Most visitors arrive at protected areas using public transport, carpooling or by bike.
- Traffic jams are rare, thanks to the lower number of cars. **Car traffic is regulated** in roads that cross sensitive areas and mostly reserved to locals. Parking lots are concentrated around villages and public transport hubs, while those closer to the sensitive areas have a **limited capacity and require advance reservation**.
- Public transportation to main park access points is functioning well, with **buses connecting parking lots, train stations and villages to visitor centres**. Frequent **shuttles to and from the starting/ending point** of itineraries allows for car-free hikes. **Incentives** are offered to tourists that visit the region by public transport. **All mobility information is well-integrated and easily accessible**, also through the park website.
- The construction of new cable cars has stopped. Existing infrastructure is maintained when useful for alternative, year-round tourism in less sensitive areas or for accessibility reasons. **Abandoned infrastructure has gradually been dismantled**.
- Waste management is structured in a flexible way in **coordination with major regional centres**, allowing it to sustain peak periods. However, the system is rarely under pressure as tourists are well-informed about the right behaviours (e.g. taking home their waste) and **local businesses have abolished or greatly reduced the use of single-use packaging**.

Climate and resources

BEST CASE SCENARIO 2040

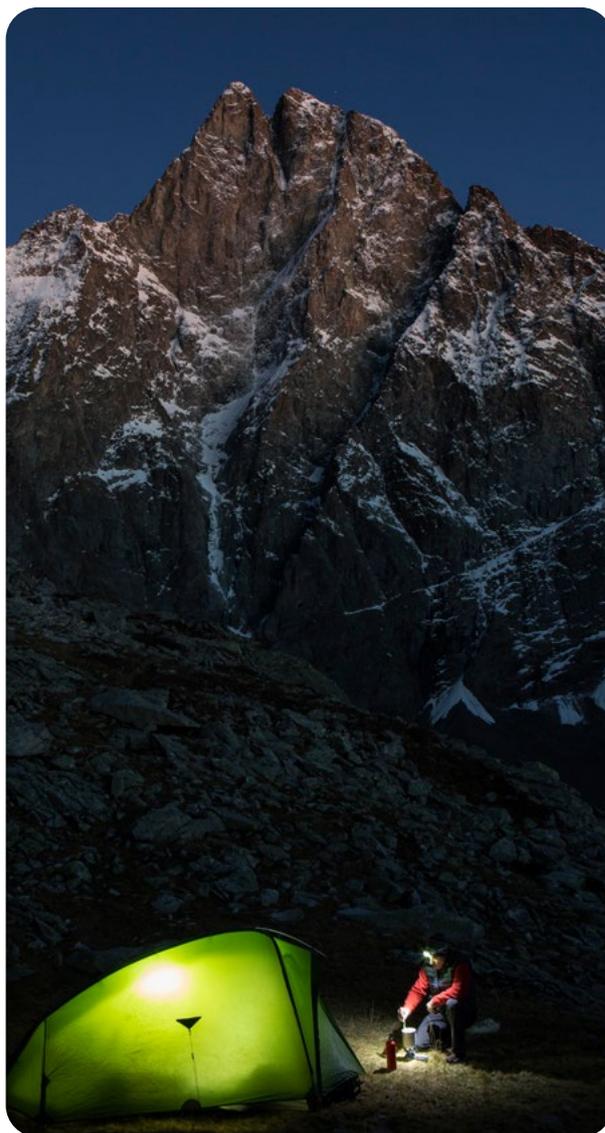
- The trend of longer and hotter summers continues. Mountains in general, and protected areas in particular, have become climate refugia for humans as well. Visitors only looking for a fresher climate find **dedicated green areas and facilities outside the park borders**. **Temporary zoning and trail closing** allows nature periods of rest and regeneration.
- Snowfalls are increasingly rare and unreliable, even at the medium altitudes. **The use of artificial snow is banned within protected areas**. Water resources are constantly monitored in collaboration with local authorities and directed to the sector most in need. Tourists are well-aware that water availability in mountain huts may be limited, and they are equipped for this eventuality.
- Most small glaciers have vanished and the bigger ones have shrunk considerably. **Newly exposed territories are studied, monitored and strongly protected**. They become an opportunity for educational offers showing how a pristine ecosystem develops.
- Extreme weather events are more frequent. Through websites, panels, digital platforms and rangers, visitors are informed that any outdoor activity implies risks and trained on how to avoid them. Fundamental infrastructure and that in the outer part of the protected area is restored, while **core zones are left mostly untouched and become an awareness-raising opportunity about the effects of climate change**.
- **Climate refugia for wildlife are strongly protected and access is restricted**. **Constant monitoring** allows visitors to be directed towards less sensitive zones. Educational initiatives offered by protected areas explain the correct behaviours to avoid habitat degradation and wildlife disturbance.



Nature and biodiversity

BEST CASE SCENARIO 2040

- Alpine protected areas are characterised by even more stunning landscapes. Strong conservation measures have been successful in maintaining and restoring the Alpine habitats and their biodiversity. **Human infrastructure in core zones is reduced, and nature is coming back to a “wilderness” situation.** Natural heritage is widely perceived as the true value of these areas.
- Visitor pressure is minimised through **efficient monitoring of biodiversity and adapted spatial planning** (e.g. zoning, definition of itineraries). Outdoor activities are well regulated, and practitioners are aware of their potential impacts thanks to an extensive, targeted diffusion of the park ethics.
- Protected areas have established functioning **visitor monitoring systems, also in cooperation with digital platforms and other data providers** (e.g. mobile phone networks). Data are shared with local authorities and with other protected areas. A **set of common indicators** has been established to define visitor pressure and nature responses.
- Even though it is not possible to quantitatively define carrying capacity, it remains a useful qualitative compass for decision making. A **set of thresholds** has been defined for the common indicators, allowing for early detection of dangerous trends and timely implementation of corrective measures.
- Populations of wolves, bears and lynx are definitively established across the Alps. Their **monitoring supports supply information to visitors and residents**, raising awareness about their lifestyle and the inherent value of their presence. **Long-term coexistence strategies** have been designed and implemented through a constant and active involvement of local stakeholders and sports associations.



Tourism sector and local economy

BEST CASE SCENARIO 2040

- Tourism is still concentrated in summer and winter, but it is better balanced throughout the year, reducing peaks of frequentation. **Attractive offers are proposed year-round** by the local tourism sector, with a **clear distinction between activities inside and outside protected areas**. Winter tourism has shifted from a ski resort-model to snowshoeing and ski mountaineering, with better adaptability to natural snow conditions.
- Protected areas are widely recognised as positive factors for local economic development. They foster a **strong and distinctive identity**, promote high-quality **sustainable tourism** and attract visitors to the region.
- Cooperation between protected areas and local business operators is well-structured and officially established. Protected areas offer **training about sustainable offers and co-design initiatives with tourism stakeholders**, both inside and outside the park borders. Initiatives of tourism providers inside protected areas are discussed with the management bodies and can be **certified as “biodiversity-compatible”** if they meet specific criteria.
- Protected areas and tourism operators have developed **coherent communication strategies** that keep at the core the mission of nature conservation. **Sustainable Tourism Forums** take place regularly, bringing together parks, tourist operators, political authorities, local businesses and residents to design a shared vision for regional tourism. This allows for a better coordination of offers and helps reduce conflicts between different interests.
- **Protected area quality labels** are widespread. They are perceived as a concrete sign of the economic benefits coming from the protected area. They help in reinforcing the cooperation with local businesses and the coherence of the offer. Moreover, certification processes are a means to raise environmental awareness among stakeholders other than visitors.



Local population

BEST CASE SCENARIO 2040

- Well-managed frequentation and evenly distributed economic benefits have created a positive attitude of the local population towards tourism. Increasing prices are compensated by new economic opportunities and better services. Tourism is perceived as an opportunity for exchange and sharing the local culture. The quality of life in small towns is preserved thanks to tourist awareness.
- The presence of the protected area is widely perceived as an opportunity. The **clear identity developed by the protected area** is extended to the surrounding region and fosters initiatives to further raise the quality of life. **Park managers participate in local events** to explain not only rules and regulations, but also the benefits deriving from protected areas.

- Local population is directly involved in forums to discuss tourism management, and this allows residents to express their needs to relevant stakeholders. **Associations and volunteers are involved** in several activities of the protected areas (e.g. monitoring, guidance, events), reinforcing a sense of ownership. **Local school programmes** are discussed with park staff to find synergies and develop educational paths intended to bring classes into nature.

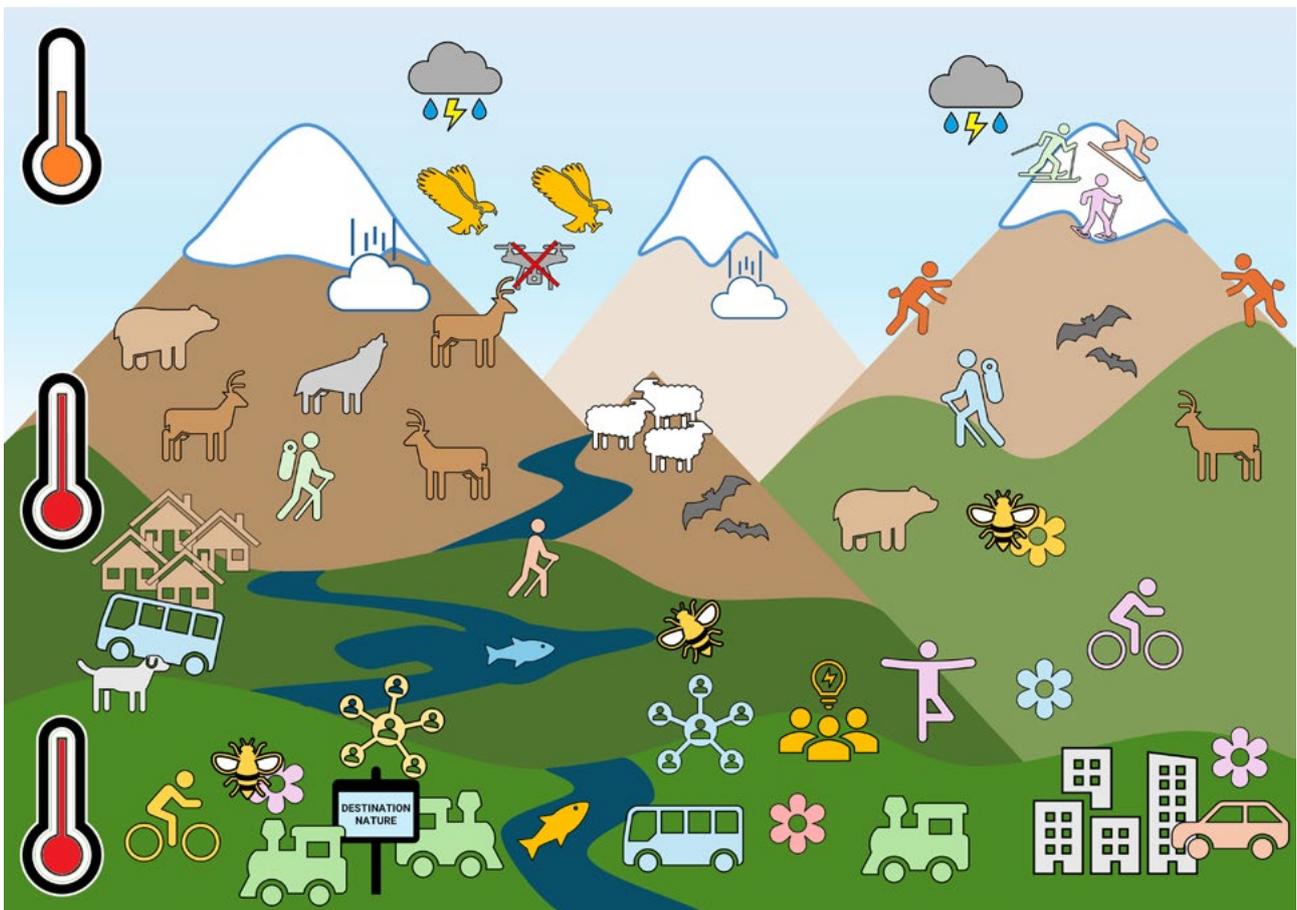


Fig. 22 Best case Scenario 2040 for tourism in Alpine protected areas (results of the “Workshop on a Scenario 2040”, WELCOME closing event, 27-28 March 2025, Berchtesgaden – DE)

CONCLUSIONS

The project has shown that there is an urgent need for new and more innovative tourist offers allowing a better and more respectful approach to nature and biodiversity protection. It has been indicated by numerous protected areas that the pressure of tourism and nature-based activities is as high as never before. The park management systems are at the limits of their capacity concerning on the one hand an appropriate welcome of tourists with the offers protected areas can propose and on the other hand the regulation tools and measures available including the legal possibilities to regulate visitor flows.

The main tools available for the protected areas consist indeed in an information-awareness-raising approach, in regulation measures concerning specific sites and in the development of new and park-specific offers. Those offers need to be innovative and attractive to succeed and to show effect on deviation of tourist flows from sensitive sites.

But the picture of innovative approaches in Alpine protected areas is not as clear as one might expect: too often classic approaches to tourism dominate, and innovative, new approaches are limited and, if existing, mostly based on classic concepts such as pedagogical trails, visitor centres and guided

tours. What is necessary would be to promote new concepts and allow the protected areas, with help from governments, to take the financial risks to develop attractive offers able to bring visitors away from usual and famous but ecologically fragile sites to other parts of the protected areas to gain new nature experiences. The principal focus here must be on promotion and nudging for new sensations and powerful images of nature.

Nevertheless, so far, no radical “game-changer” of Alpine tourism is on the horizon in the Alpine protected areas even if in some parks individually interesting concepts can be seen. It is rather a continual change by soft transition and the promotion of sustainable nature-based activities and offers by Alpine protected areas with well-known concepts based on the discovery of nature and specific park-and-nature-oriented activity offers by the parks in the field and also in visitor centres.

Those - not always completely - new or innovative offers need still to be further developed and strongly promoted to become more attractive and “sought after” by the visitors. Strong media campaigns including social media may support such a strategy of making nature-based activities including sports practices attractive to the users.



The project has also shown the need to integrate the climate change aspect in the elaboration of future offers, especially considering the nature hazards especially at high altitude (loss of permafrost) but also increasing risks for earth slides and floods. Especially in the field of glacier retreat, new information and awareness-raising offers can be provided for the surfaces becoming free of ice and where ecological and geomorphological processes can be observed and explained.

This is one showcase where stronger links between attractive offers and environmental education, especially for the young public, can be developed and integrated in new offers.

It is crucial to ensure close cooperation between protected areas in the field of sustainable tourism and the promotion of activities respectful to nature. There is a need for a coherent image emanating from Alpine protected areas to promote activities in line with their mission and to communicate about them. This is also true for a common political lobbying towards more regulation where habitats and biodiversity are in danger, including in protected areas with a lower protection status.

All parks need to have the legal tools to limit frequentation if tourist activities are contrary to the protection vocation of the parks. If those possibilities are not available or not wished for by the political framework, the name “park” becomes a kind of false labelling or greenwashing.

Globally, more international cooperation in the field of sustainable “park tourism” is needed to provide and to communicate new concepts for nature-based tourism to the general public. Alpine protected areas have the unique possibility to promote this kind of tourism together as they are principally not in competition with each other, contrary to classical tourism destinations. And even if within the Alps tourism destinations and parks overlap, the communication can and must be different!

Finally, there is one major issue concerning new and innovative tourist offers from Alpine protected areas: it is not the one single activity which makes the difference to classic tourism approaches – it is a global and coherent offer the Alpine protected areas can provide including spectacular landscape discovery, real nature experience and a solid information offer about the destination for all age classes and different types of visitors.



REFERENCES

ALPARC. (2019)

Destination Parks. Final Report.

Chambéry, France: ALPARC.

fr.alparc.org/alpine-resources/final-report-destination-parks

ALPARC. (2023)

Alpine Parks 2030. Biodiversity conservation for generations to come.

(G. Plassmann & O. Coronado-Cortes, Eds.).

Chambéry, France: ALPARC.

alparc.org/alpine-resources/alpine-parks-2030-final-report

Biosphärenregion Berchtesgadener Land. (n.d.)

Health and recreation - Green Care.

brbgl.de/en/fields-tasks/research-and-monitoring/health-and-recreation-green-care

Braun, V. (2020)

The Nature Park movement in Austria – from recreational areas to(wards) model regions for sustainable development. *Eco.Mont*, 12(1), 64–69.

[doi.org/https://doi.org/10.1553/eco.mont-12-1s64](https://doi.org/10.1553/eco.mont-12-1s64)

CBD. (2012)

Réponse de la FRANCE à la notification 2012-018 de la CDB sur la mise en oeuvre du programme aires protégées.

www.cbd.int/doc/world/fr/fr-nbsap-powpa-fr.pdf

EUROPARC. (2021)

How to become a Europarc Sustainable Destination. Technical Guidelines & Terms of Reference.

Regensburg, Germany: EUROPARC Federation.

www.europarc.org/wp-content/uploads/2022/01/EN-Sustainable-destinations-technical-guidelines.pdf

Dudley, N. (ed.) (2008)

Guidelines for applying protected area management categories.

Gland, Switzerland: IUCN.

www.portals.iucn.org/library/node/30018

Huber, D., Freidl, J., Pichler, C., Bischof, M., Kiem, M., Weisböck-Erdheim, R., Squarra, G., De Nigris, V., Resnyak, S., Neberich, M., Bordin, S., Zechner, R., & Hartl, A. (2023)

Long-Term Effects of Mountain Hiking vs. Forest Therapy on Physical and Mental Health of Couples: A Randomized Controlled Trial.

International Journal of Environmental Research and Public Health, 20(2), 1469.

doi.org/10.3390/ijerph20021469

IUCN. (2005).

Benefits Beyond Boundaries. Proceedings of the Vth IUCN World Parks Congress.

Gland, Switzerland and Cambridge, UK: IUCN.

portals.iucn.org/library/node/8662

Jones-Walters, L. (2015)

From Intrinsic Value to Socioeconomic Value.

Envision 2050: The Future of Protected Areas, by Doody, D.

ensia.com/features/envision-2050-the-future-of-protected-areas

Kals, E., Müller, M., Zieris, P., & Bruckbauer, S. (2023)

Green Care / Nature and Mental Health. Final report of the scientific monitoring study.

UNESCO Biosphere Reserve Berchtesgadener Land, UNESCO Biosphere Reserve Rhön, Catholic University of Eichstätt-Ingolstadt.

brbgl.de/storage/2023/12/Final_report_KU_GreenCare.pdf

Long, C., Lu, S., Chang, J., Zhu, J., & Chen, L. (2022)

Tourism Environmental Carrying Capacity Review, Hotspot, Issue, and Prospect.

International Journal of Environmental Research and Public Health, 19(24), 16663.

doi.org/10.3390/IJERPH192416663

Siegrist, D., Gessner, S., & Ketterer Bonnelame, L. (2015)

Naturnaher Tourismus. Qualitätsstandards für sanftes Reisen in den Alpen.

Bern, Switzerland: Haupt.

UNWTO. (1983)

Risks of Saturation of Tourist Carrying Capacity Overload in Holiday Destinations.

Madrid, Spain: UNWTO.

doi.org/10.18111/9789284407545

UNWTO. (n.d.)

Sustainable development.

www.unwto.org/sustainable-development

Zekan, B., Weismayer, C., Gunter, U., Schuh, B., & Sedlacek, S. (2022)

Regional sustainability and tourism carrying capacities. *Journal of Cleaner Production*, 339, 130624.

doi.org/10.1016/J.JCLEPRO.2022.130624

APPENDIX

1 List of Alpine protected areas involved in the WELCOME project (not exhaustive)

SURVEY			
#	Protected Area	Category	Country
1	Aree Protette Alpi Marittime	Nature / Regional park	Italy
2	ASTERS - Conservatoire d'Espaces Naturels de Haute-Savoie	Nature reserve	France
3	Biosphärenpark Nockberge	UNESCO Biosphere Reserve	Austria
4	Hochgebirgs-Naturpark Zillertaler Alpen	Nature / Regional park	Austria
5	Nationalpark Berchtesgaden	National park	Germany
6	Nationalpark Gesäuse	National park	Austria
7	Nationalpark Hohe Tauern Kärnten	National park	Austria
8	Nationalpark Hohe Tauern Salzburg	National park	Austria
9	Nationalpark Kalkalpen	National park	Austria
10	Naturepark Pfin-Finges	Nature / Regional park	Switzerland
11	Naturpark Beverin	Nature / Regional park	Switzerland
12	Naturpark Weißbach	Nature / Regional park	Austria
13	Parc National de la Vanoise	National park	France
14	Parc National du Mercantour	National park	France
15	Parc Naziunal Svizzer	National park	Switzerland
16	Parco naturale Adamello Brenta	Nature / Regional park	Italy
17	Parco naturale Dolomiti Friulane	Nature / Regional park	Italy
18	Parco naturale Mont Avic	Nature / Regional park	Italy
19	Parco naturale Prealpi Giulie	Nature / Regional park	Italy
20	Triglavski Narodni Park	National park	Slovenia
21	UNESCO Biosphäre Entlebuch	UNESCO Biosphere Reserve	Switzerland



INTERVIEWS

#	Protected Area	Category	Country
1	Aree Protette Alpi Marittime	Nature / Regional park	Italy
2	ASTERS - Conservatoire d'Espaces Naturels de Haute-Savoie	Nature reserve	France
3	Biosphärenpark Nockberge	UNESCO Biosphere Reserve	Austria
4	Hochgebirgs-Naturpark Zillertaler Alpen	Nature / Regional park	Austria
5	Nationalpark Berchtesgaden	National park	Germany
6	Nationalpark Hohe Tauern Kärnten	National park	Austria
7	Nationalpark Kalkalpen	National park	Austria
8	Naturepark Pfyn-Finges	Nature / Regional park	Switzerland
9	Parc National de la Vanoise	National park	France
10	Parc Naziunal Svizzer	National park	Switzerland
11	Parco naturale Dolomiti Friulane	Nature / Regional park	Italy
12	Parco naturale Mont Avic	Nature / Regional park	Italy
13	Parco naturale Prealpi Giulie	Nature / Regional park	Italy
14	Triglavski Narodni Park	National park	Slovenia
15	UNESCO Biosphäre Entlebuch	UNESCO Biosphere Reserve	Switzerland

CLOSING EVENT

#	Protected Area	Category	Country
1	Aree Protette dell'Ossola	Nature / Regional park	Italy
2	Biosphärenregion Berchtesgadener Land	UNESCO Biosphere Reserve	Germany
3	Nationalpark Berchtesgaden	National park	Germany
4	Nationalpark Gesäuse	National park	Austria
5	Nationalpark Hohe Tauern Kärnten	National park	Austria
6	Netzwerk Schweizer Pärke	Park network	Switzerland
7	Parco naturale Prealpi Giulie	Nature / Regional park	Italy
8	Triglavski Narodni Park	National park	Slovenia
9	Julius-Maximilians-Universität Würzburg	Other	Germany
10	Pilum GmbH	Other	Austria

WEB REVIEW

#	Protected Area	Category	Country
1	Aree Protette Alpi Marittime	Nature / Regional park	Italy
2	Aree Protette dell'Ossola	Nature / Regional park	Italy
3	ASTERS - Conservatoire d'Espaces Naturels de Haute-Savoie	Nature reserve	France
4	Biosfera Val Müstair	UNESCO Biosphere Reserve	Switzerland
5	Biosphärenpark Großes Walsertal	UNESCO Biosphere Reserve	Austria
6	Biosphärenpark Nockberge	UNESCO Biosphere Reserve	Austria
7	Hochgebirgs-Naturpark Zillertaler Alpen Nature	Regional park	Austria
8	Krajinski Park Logarska dolina	Landscape park	Slovenia
9	Landschaftspark Binntal	Landscape park	Switzerland
10	Nationalpark Berchtesgaden	National park	Germany
11	Nationalpark Gesäuse	National park	Austria
12	Nationalpark Hohe Tauern	National park	Austria
13	Nationalpark Kalkalpen	National park	Austria
14	Natur- und Geopark Steirische Eisenwurzten	Nature / Regional park	Austria
15	Naturpark Beverin	Nature / Regional park	Switzerland
16	Naturpark Diemtigtal	Nature / Regional park	Switzerland
17	Naturpark Karwendel	Nature / Regional park	Austria
18	Naturpark Mürzer Oberland	Nature / Regional park	Austria
19	Naturpark Nagelfluhkette	Nature / Regional park	Germany
20	Naturpark Ötztal	Nature / Regional park	Austria
21	Naturpark Pfyn-Finges	Nature / Regional park	Switzerland
22	Naturpark Tiroler Lech	Nature / Regional park	Austria
23	Naturpark Weißbach	Nature / Regional park	Austria
24	Netzwerk Schweizer Pärke	Park network	Switzerland
25	Parc Ela	Nature / Regional park	Switzerland
26	Parc National de la Vanoise	National park	France
27	Parc National des Ecrins	National park	France
28	Parc National du Mercantour	National park	France
29	Parc naturel régional de Chartreuse	Nature / Regional park	France
30	Parc naturel régional des Baronnies provençales	Nature / Regional park	France
31	Parc naturel régional des Préalpes d'Azur	Nature / Regional park	France
32	Parc naturel régional du Massif des Bauges	Nature / Regional park	France
33	Parc naturel régional du Queyras	Nature / Regional park	France
34	Parc naturel régional du Vercors	Nature / Regional park	France
35	Parc Naziunal Svizzer	National park	Switzerland
36	Parchi naturali Alto Adige-Südtirol	Nature / Regional park	Italy

WEB REVIEW

#	Protected Area	Category	Country
37	Parco regionale dell'Adamello	Nature / Regional park	Italy
38	Parco delle Orobie Valtellinesi	Nature / Regional park	Italy
39	Parco naturale Adamello Brenta	Nature / Regional park	Italy
40	Parco naturale Dolomiti Friulane	Nature / Regional park	Italy
41	Parco naturale Mont Avic	Nature / Regional park	Italy
42	Parco naturale Prealpi Giulie	Nature / Regional park	Italy
43	Parco Nazionale dello Stelvio	National park	Italy
44	Parco Nazionale Dolomiti Bellunesi	National park	Italy
45	Parco Nazionale Gran Paradiso	National park	Italy
46	Parco Nazionale Val Grande	National park	Italy
47	Parco Val Calanca	Nature / Regional park	Switzerland
48	Park Škocjanske jame	Nature / Regional park	Slovenia
49	Triglavski Narodni Park	National park	Slovenia
50	UNESCO Biosphäre Entlebuch	UNESCO Biosphere Reserve	Switzerland
51	UNESCO-Welterbe Schweizer Alpen Jungfrau-Aletsch	UNESCO Natural World Heritage Site	Switzerland

2 List of initiatives in Alpine protected areas

INITIATIVES IN ALPINE PROTECTED AREAS

Pag.	Initiative	Protected Area (or Organisation)	Theme	Country	Source
32	Eco-climbing	Parco naturale Dolomiti Friulane	Sports and recreational	Italy	Link
32	Climbing code of ethics	Parco Nazionale Gran Paradiso	Sports and recreational	Italy	Link
32	Georrafting	Natur- & Geopark Steirische Eisenwurzten	Sports and recreational	Austria	Link
33	Luchs Trail	ARGE Luchs Trail	Sports and recreational	Austria	Link
33	Trans Nationalpark	ARGE Trans Nationalpark	Sports and recreational	Austria	Link
33	Giroparchi	Fondation Grand Paradis	Sports and recreational	Italy	Link
33	Tour dei Minerali	Aree Protette dell'Ossola	Sports and recreational	Italy	Link
33	Destination Maritime Mercantour	Parc National du Mercantour Aree Protette Alpi Marittime	Sports and recreational	France Italy	Link
33	Cross-borders itineraries	Triglavski Narodni Park	Sports and recreational	Slovenia	Link
33	Naturbelassene Wege	Nationalpark Gesäuse	Sports and recreational	Austria	Link

INITIATIVES IN ALPINE PROTECTED AREAS

Pag.	Initiative	Protected Area (or Organisation)	Theme	Country	Source
33	Wilderness area	Parco Nazionale Val Grande	Sports and recreational	Italy	Link
33	Nivolet Bike Day	Parco Nazionale Gran Paradiso	Sports and recreational	Italy	Link
33	Giornata della bici	Parco Nazionale dello Stelvio	Sports and recreational	Italy	Link
34	Mountaineering Villages	Bergsteigerdörfer	Sports and recreational	Various countries	Link
35	Book a Ranger	Nationalpark Gesäuse Nationalpark Hohe Tauern Nationalpark Kalkalpen	Guided and themed	Austria	Link Link Link
35	Actionbounds	Nationalpark Berchtesgaden	Guided and themed	Germany	Link
35	Der Schatz am Tiroler Lech	Naturpark Tiroler Lech	Guided and themed	Austria	Link
35	Erlebnisweg klimawandeln	Naturpark Mürzer Oberland	Guided and themed	Austria	Link
35	Ökologischer Fußabdruck	Nationalpark Hohe Tauern	Guided and themed	Austria	Link
35	Climate research	Nationalpark Kalkalpen	Guided and themed	Austria	Link
35	Gipfelkunst im Fluss der Zeit	UNESCO-Welterbe Schweizer Alpen Jungfrau-Aletsch	Guided and themed	Switzerland	Link
36	Forest process paths and Silent Beech	Nationalpark Gesäuse	Guided and themed	Austria	Closing Event
36	GeoDorf	Natur- und Geopark Steirische Eisenwurzten	Guided and themed	Austria	Link
36	Other geology-themed experiences	Natur- und Geopark Steirische Eisenwurzten	Guided and themed	Austria	Link
36	Geological tours	Park Škocjanske Jame	Guided and themed	Slovenia	Link
36	Speleogiulie	Parco naturale Prealpi Giulie	Guided and themed	Italy	Link
36	Vajont dam tours	Parco naturale Dolomiti Friulane	Guided and themed	Italy	Link
37	COGNITIO-FORT	Parc National du Mercantour Aree Protette Alpi Marittime	Guided and themed	France Italy	Link
37	Dog hiking tour	Parco naturale Dolomiti Friulane	Guided and themed	Italy	Link
38	Bearded vulture and Alpine habitat	Naturpark Pfyn-Finges	Wildlife observation	Switzerland	Link
38	Deer roaring excursions	Parco naturale Prealpi Giulie	Wildlife observation	Italy	Link
38	Insektenoase	Parc Ela	Wildlife observation	Switzerland	Link
39	Golden eagle/bearded vulture observation points	Nationalpark Berchtesgaden	Wildlife observation	Germany	Link
39	Observation tower	Naturpark Tyroler Lech	Wildlife observation	Austria	Link
39	Red deer observation point	Naturpark Tyroler Lech	Wildlife observation	Austria	Link
39	Wildlife centres	Parco naturale Dolomiti Friulane	Wildlife observation	Italy	Link

INITIATIVES IN ALPINE PROTECTED AREAS

Pag.	Initiative	Protected Area (or Organisation)	Theme	Country	Source
39	Wildlife centre	Parco regionale dell'Adamello	Wildlife observation	Italy	Link
40	Forest Bathing	Parco naturale Prealpi Giulie	Wellbeing and health	Italy	Link
40	Outdoor and high-altitude yoga sessions	Biosphärenpark Großes Walsertal	Wellbeing and health	Austria	Link
40	Local bathing culture	Wassertal	Wellbeing and health	Austria	Link
40	Wald der Sinne	Naturpark Mürzer Oberland	Wellbeing and health	Austria	Link
40	Ben-Essere in Natura	Parco regionale dell'Adamello	Wellbeing and health	Italy	Link
40	Green Care – Nature & Mental Health	Biosphärenregion Berchtesgadener Land	Wellbeing and health	Germany	Link
41	LiveAlpsNature	Various APAs	Wellbeing and health	Various countries	Link
41	Glückssphäre	UNESCO Biosphäre Entlebuch	Wellbeing and health	Switzerland	Interview
42	TWINGI	Landschaftspark Binntal	Cultural initiatives and events	Switzerland	Link
42	SuperPark - Visioni d'autore	Parco naturale Adamello Brenta	Cultural initiatives and events	Italy	Link
42	Steirischen Zauberwalds	Naturpark Mürzer Oberland	Cultural initiatives and events	Austria	Link
42	Erlebnissenen	Biosphärenpark Großes Walsertal	Cultural initiatives and events	Austria	Link
42	Savurando	Netzwerk Schweizer Pärke	Cultural initiatives and events	Switzerland	Link
42	Kulinarische Genussrunde	Biosphärenpark Großes Walsertal	Cultural initiatives and events	Austria	Link
43	Paniere del Parco	Parco naturale Prealpi Giulie	Cultural initiatives and events	Italy	Link
43	A Natale porta in tavola un territorio che ami	Aree Protette Alpi Marittime	Cultural initiatives and events	Italy	Link
43	Cucina Radicata	Aree Protette Alpi Marittime	Cultural initiatives and events	Italy	Link
44	Steinforscher-Rucksack	Landschaftspark Binnental	Children and youth	Switzerland	Link
44	Bergwald-Wundertüte	Park Ela	Children and youth	Switzerland	Link
44	Forscherbox	UNESCO Biosphäre Entlebuch	Children and youth	Switzerland	Link
44	Mooraculum	UNESCO Biosphäre Entlebuch	Children and youth	Switzerland	Link
44	Ani'malles	ASTERS - Conservatoire d'Espaces Naturels de Haute-Savoie	Children and youth	France	Link
44	Pravljični Gozd	Logarska Dolina Krajinski park	Children and youth	Slovenia	Link
45	Junior Ranger programme	EUROPARC	Children and youth	Various countries	Link
45	Capricorn Kitz	Naturpark Beverin	Children and youth	Switzerland	Link
45	Capricorn Club	Naturpark Beverin	Children and youth	Switzerland	Link
45	Una settimana da lupi	Parco delle Orobie Valtellinesi	Children and youth	Italy	Link

INITIATIVES IN ALPINE PROTECTED AREAS

Pag.	Initiative	Protected Area (or Organisation)	Theme	Country	Source
46	Wald der Sinne	Naturpark Mürzer Oberland	Accessibility and inclusion	Austria	Link
46	Silva Magica	Biosphärenpark Nockberge	Accessibility and inclusion	Austria	Link
46	Model accessibility management plan	Nationalpark Berchtesgaden	Accessibility and inclusion	Germany	Link
46	Joëlettes	Parco delle Orobie Valtellinesi	Accessibility and inclusion	Italy	Link
46	Joëlettes	Parc National du Mercantour Aree Protette Alpi Marittime	Accessibility and inclusion	France Italy	Link
46	Aventure Mercantour pour Tous	Parc National du Mercantour	Accessibility and inclusion	France	Link
46	All-terrain electric wheelchair	Naturpark Dientigtal	Accessibility and inclusion	Switzerland	Link
47	Parco senza frontiere	Parco naturale Adamello Brenta	Accessibility and inclusion	Italy	Link
47	Gran Paradiso VR - Nature and Culture Immersive Experience	Parco Nazionale Gran Paradiso	Accessibility and inclusion	Italy	Link
47	Paradisia Alpine botanical garden	Parco Nazionale Gran Paradiso	Accessibility and inclusion	Italy	Link
47	Campanula morettiana botanical garden	Parco Nazionale Dolomiti Bellunesi	Accessibility and inclusion	Italy	Link
48	Chamanna Cluozza	Parc Naziunal Svizzer	Mountain huts	Switzerland	Link
48	Refrigerator at the trailhead	Parc Naziunal Svizzer	Mountain huts	Switzerland	Link
48	Let's Green - No Time To Waste	Parco naturale Adamello Brenta	Mountain huts	Italy	Link
48	Pique-nique zéro déchet	Parc National de la Vanoise	Mountain huts	France	Link
49	Sustainable mobility initiatives	Netzwerk Schweizer Pärke	Transport	Switzerland	Link
49	Luggage Special	Biosfera Val Müstair	Transport	Switzerland	Link
49	Nockmobil	Biosphärenpark Nockberge	Transport	Austria	Link
49	Trekbus Gran Paradiso	Parco Nazionale Gran Paradiso	Transport	Italy	Link
49	Wanderbus	Naturpark Beverin	Transport	Switzerland	Link
49	Carpooling benches	Biosphärenpark Großes Walsertal	Transport	Austria	Link
49	Covoiturage services	Syndicat Mixte des Mobilités de l'Aire Grenobloise	Transport	France	Link
50	Bus and parking booking	Parco naturale Adamello Brenta	Transport	Italy	Link
50	WÖFFI – Wandern mit öffentlicher Anreise	Naturpark Karwendel	Transport	Austria	Link
50	Plan'n'hike	Schweizer Wanderwege	Transport	Switzerland	Link
51	Mobile Bildungsangebote	Nationalpark Berchtesgaden	Information and management	Germany	Link

INITIATIVES IN ALPINE PROTECTED AREAS

Pag.	Initiative	Protected Area (or Organisation)	Theme	Country	Source
51	Infomobil	Parc Ela	Information and management	Switzerland	Link
51	On-site ranger service	Parc Ela	Information and management	Switzerland	Link
51	Ecorangers	Parc naturel régional du Queyras	Information and management	France	Link
52	Geotrek	Geotrek (Parc National des Ecrins)	Information and management	France	Link
52	Digitize the Planet	Digitize the Planet	Information and management	Various countries	Link
52	Digitization process	Triglavski Narodni Park	Information and management	Slovenia	Closing Event
53	Winter sport management	Aree Protette dell'Ossola	Information and management	Italy	Link
53	Be Part of the Mountain	ALPARC	Information and management	Various countries	Link
53	Bivouac reservation system	ASTERS - Conservatoire d'Espaces Naturels de Haute-Savoie	Information and management	France	Link
53	Marchio di Qualità	Parco naturale Mont Avic	Information and management	Italy	Link
54	Azienda sostenibile award	Parco Nazionale dello Stelvio	Participatory approaches	Italy	Link
54	Produttore sostenibile award	Parco Nazionale dello Stelvio	Participatory approaches	Italy	Link
54	Tourismusforum	UNESCO Biosphäre Entlebuch	Participatory approaches	Switzerland	Link
54	Déclaration Tourisme Durable	Parc National de la Vanoise	Participatory approaches	France	Link
54	Miteinander im Biosphärenpark Nockberge	Biosphärenpark Nockberge	Participatory approaches	Austria	Link
55	Climbing and ski touring platform	Hochgebirgs-Naturpark Zillertaler Alpen	Participatory approaches	Austria	Interview
55	Fuschina d'ideas / Nossa via	Biosfera Val Müstair	Participatory approaches	Switzerland	Link
55	Natur-Erlebnis-Spielplatz	Naturpark Karwendel	Participatory approaches	Austria	Link
55	Custode del Parco	Parco naturale Adamello Brenta	Participatory approaches	Italy	Link



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