

## An outline of research for systemic governance of protected areas: building partnerships for sustainable management

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Categories of protected areas, socio-economic-ecological systems, systemic governance, partnerships

### Protected areas as socio-ecological-economic systems

Protected areas are embedded within a system of various socio-economic-ecological interactions and conditions on international, national, regional and local geographical, political, value-ethical and cultural scales (figure 1).

The category or classification of a protected area is influenced by the regional political and cultural differentiation in the place as well as by the acceptance of the local population and the visitors, respectively tourists. The category has an influence on how the population is affected or can benefit from the protection of an area and what kind of visitors are coming or even engaging in the protected area. Category groups have a decisive and inverse influence on the visitor management and protected area governance, which itself is also steered by political and cultural characteristics. The regional differentiations concern all aspects of protected areas in their social, ecological and economic interactions (figure 1).

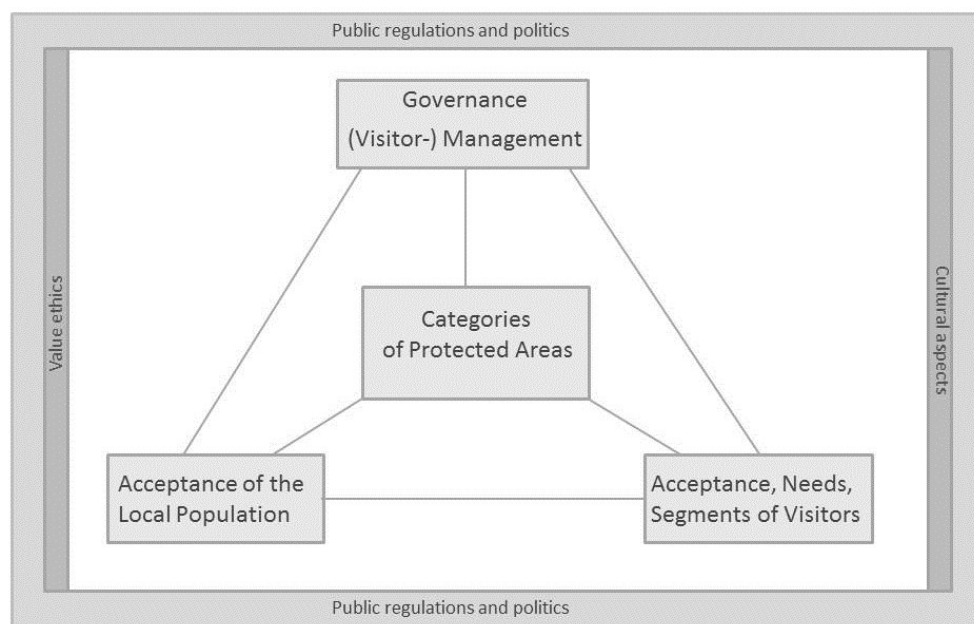


Figure 1: Categories of protected areas are defined and shaped by the interaction of the protected areas governance model, part of it being the visitor management, by the acceptance and the support of the local population, and by the demand and needs of different visitor segments. There is also a reverse influence of a chosen category to the governing body, and to the acceptance of the population and the visitors. Cultural aspects and value ethics influence this triangular relational network, while public regulations and politics define the regulatory frame.

### Categories of protected Areas

With the World Parks Congress in South Africa in September 2003, a new paradigm of protected areas and its management emerged (PHILLIPS 2003). "The opening plenary sessions at the Congress featured several speakers who advocated for IUCN protected area categories V (protected landscape) and VI (managed resource areas) as the main focus for protected area activity in the future" (LOCKE & DEARDEN 2005: 1). The definition of new categories, such as category V Protected Areas (IUCN 1994: 22) had the aim to open the categories to land, "where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity". While not explicitly stated, the definition also incorporates notions of well-being: "contentment, satisfaction, or happiness derived from optimal functioning" (McDOWELL 2010). Natural ecosystems perform both fundamental life-support services and

services that enhance our subjective happiness. The UN Millenium Ecosystem Assessment (2005), for instance, emphasizes the significance of ecosystem services for human wellbeing and as a wider research program presents case studies for a number of different ecosystems as a way to understand the complex social-ecological system. The importance of material and non-material ecosystem services for human well-being is increasingly being accepted and is used as an argument for protecting cultural and natural landscapes.

The new categories including cultural landscapes respond to the fact that in Europe and in developing countries we can find many cultural humanized landscapes with a high biodiversity, depending on extensive non-industrial land use, which are also important for ecosystem services and well-being in the society. As in National Parks, preserving and protecting the health of the ecosystems and therefore the ecological integrity is the main goal, the idea of strict protection is stronger based in societies in North America and Scandinavia than in central Europe, even though there are some differences in the public and cultural understanding of wilderness between North America and Scandinavia. For example, in Scandinavia maintaining a wilderness character also means protecting the Sami culture and livelihoods and therefore e.g. the possibilities of hunting in protected areas (SAARINEN 2007).

The new category areas focus on sustainable development and consider conservation of wild biodiversity to a lesser extent (LOCKE & DEARDEN 2005). "The focus of management of category V areas is not conservation per se, but about guiding human processes so that the area and its resources are protected, managed and capable of evolving in a sustainable way" (PHILLIPS 2002: 10).

As the management from categories V and VI can make sense in distinct areas in Europe it poses some problems for areas with a higher percentage of wild areas: LOCKE & DEARDEN (2003) criticize this new paradigm as protected areas are being recast as tools for social planning and income generation instead of strict conservation. These new categories are especially a problem for the North American and Scandinavian protected areas; for example, the USA named all its National Forests, including areas that were heavily logged and used for mining and oil and gas extraction, as category VI areas. As a result the US has almost 40% of its forest area classified as 'protected', which does not reflect reality (BISHOP et al. 2004; LOCKE & DEARDEN 2005). On the other hand, many of the sites worldwide designated to meet the Convention on Biological Diversity 'Aichi Target 11' will be located within IUCN's categories V (Protected Landscapes/Seascapes) and VI (Protected Area with Sustainable Use of Natural Resources) (MCCOOL et al. 2012).

Actual discussions about the 'sustainable' production of energy in protected areas in Europe (e.g. at the 'Rheinfall' or in the 'Naturpärke' in Europe) show, that there are differing ideas on the aims of protected areas in different societies and on what visitors expect from a protected area. The discussion between conservation of landscapes and the use of renewable energies shows that sustainability is interpreted very differently by different stakeholders. In Iceland e.g. actual power plant development reduces the naturalness of places, which affects nature conservation and the development of nature based tourism (SÆÞÓRSÐÓTTIR 2010). This discussion seems to be different in North America where the conservation in protected areas is more important.

Also the remoteness and population density plays a major role in protected areas categories, as building up new accessibilities can lead to more intensive use of areas (VOLL et al. 2011, VOLL 2012).

These regional natural contexts and the regional social contexts strongly influence the existence of different categories of protected areas. To strengthen protected areas in their different kinds and for future developments, more research has to be done on the relations within these different categories and their systemic governance (including visitor management), the needs, segments and acceptance of tourists, the acceptance of the local population, and the reciprocal influences in different political, cultural and ethical contexts.

## **Acceptance, needs and segments of visitors to protected areas**

Visitor management in the context of changing demands, values and expectations of tourists, but also of the public, the affected population and other stakeholders has become a new challenge for the management of protected areas. In general tourism, visitors have traditionally been understood as customers, while the literature calls for a visitor-management partnership, where tourists are seen as partners in designing joint services (e.g. FUCHS 2004, MICHEL 2001). More recent trends in adopting such an understanding can be observed, for example Parks Canada who implemented a new approach for visitor management: "Instead of viewing the issue as a dichotomy of people versus parks, a cohesive management approach integrates three elements. From here the Agency can achieve its expressed objective of ensuring that Parks Canada programs are representative of and relevant to Canadians" (JAGER et al. 2006: 19).

Questions arise, such as what are the current expectations of park visitors on infrastructure, on the level of protection, categories of parks, and (how) do they differ from other tourists to unprotected destinations? How can the visitor become integrated as a partner in meeting the complex and overlapping objectives of protected areas - for ecological preservation, social wellbeing, cultural integration, but also integrated in an economic business model, dependent on the willingness-to-pay of visitors. In meeting the needs of a worldwide increase in tourism to protected areas, protected area managers must correspondingly pay an increasing attention to the type and quality of visitor experience offered and at the same time protect the ecological integrity of the park (PRISKIN & MCCOOL 2006).

Respecting the needs of park visitors is important for funding and acceptance in society as well as for a successful park management. Especially as "domestic and international funding for protected areas development has been declining since the 1990s. The global financial crisis that started in 2007 has resulted in increasing public debt and austerity measures in even the more developed countries, with forecasted adverse impacts on protected areas staffing and operations" (MCCOOL et al. 2012: 98f.). Besides the financial aspects in the staffing and operations of

protected areas, also the aspect of cultural change in society and changing visitor needs seems to play a more and more important role in the demand of nature based tourism in protected areas. In Canada e.g. from 2001 to 2005 visits to national parks dropped by 3% while the overall Canadian population grew by almost 4% and visiting historical and cultural attractions is one of the fastest growing niche tourism markets (JAGER et al. 2006). It is therefore clear that underpinning any attempt at developing a park's tourism potential must be a greater appreciation of tourists' characteristics (COCHRANE 2006). COCHRANE (2006) developed therefore a typology of national respectively international protected area visitors and on demographic and behavioral characteristics respectively preferences for facilities and experiences. To find out more about the acceptance of parks by tourists and the needs of tourists is substantial for the management and marketing of protected areas as the largest challenge related to the visitor experience in protected areas is linked to the management of expectations: "Visitors to protected areas have expectations about what they will see and the level of infrastructures, such as the trails and information facilities, that often have no link to reality. Visitors tend to develop the same expectations about the quality of services available, particularly in relation to education and viewing opportunities no matter which protected area they visit, from a national park in the USA to a small protected area in a mountain region in Asia. In the visitors' imagination a 'protected area' is one type of recreation product" (CARBONE 2006: 56). "While the science of identifying what visitors seek has strong conceptual foundations, the art of managing these opportunities is less well developed. One of the challenges for the future is for closer collaboration involving social scientists and protected area managers" (PRISKIN & MCCOOL 2006: 9).

A study about a potentially existing 'green tourist' in the Swiss National Park found for example that tourists are visiting the national park mainly due to their interest for nature, while considering social and ecological aspects both in holiday and in daily life behavior more; about 75% of the Park visitors in this study have a higher willingness-to-pay for sustainable tourism services, in accordance with their general social and ecological behavior during holidays and at home. This 'green tourist' is above average age, educated, is visiting the National Park more frequently and is staying longer than tourists not showing their level of integrated sustainability demand and behavior. At the same time visitors do not completely understand the concept of sustainability, but are willing to pay more for sustainable service offers, such as a visit to a protected area (LUTHE et al. 2012). This opens new opportunities for governing protected areas which lead from sheer acceptance of a visitor to a real partnership if the relation of the management with visitors is increasingly understood as a joint partnership for sustaining a park as well in an economic context.

### **Acceptance of the local population**

Besides better integrating the needs and expectations of tourists in forms of a partnership with the management, there should be a similar focus on the needs and expectations of the local population. Especially in regions with a strict conservation mandate the regional development aims can be fulfilled almost only by integration of the population in the tourism industry. But also in protected areas with a stronger orientation towards sustainable development, the local population has to be integrated in use and protection strategies. In realizing new protected areas there are still exist fears from the local population that the local economy could be negatively affected, especially in Europe (MOSE & WEIXLBAUMER 2003). Therefore WEIXLBAUMER (2009) refers to two processes which integration is a main success factor for a protected area: The participation of the local population into the management even after a protected area has been established, and at the same time a regional based governance model which is independent from community politics. FORSTER & SIEGRIST (2009) name e.g. besides the integration of the local tourism industry the participation of other stakeholders from agriculture, forestry, nature, landscape and local culture as being critical for a touristic conception of a protected area. Therefore professional touristic potentials should include the ideas and needs of the local population (FORSTER & SIEGRIST 2009). The research on the acceptance of the local population for protected areas in Europe is a relatively new research field as the foundation of most national parks and other protected areas in Central Europe only started in the last decades (MOSE 2009; JOB 1996).

### **Governance and Visitor Management**

The interaction between the needs of tourists and the local population and the categories of protected areas is more or less determined by the status and regulations of the single protection category. But there is space for progress by involving the visitors, the local population and other stakeholders in the management of a protected area within their mandate, organized and facilitated by a systemic governance approach. The needs and expectations of visitors and the local population must be aligned with management standards of protected areas such as 'limits of acceptable change', 'visitor impact management' or the 'visitor activity management process'. For example, in Finland the protected area authority of Metsähallitus Natural Heritage Services applied the concept of 'Limits of Acceptable Change', and at the same time created two progressive quality programs in tourism: Green Destination Quality Net (Green DQN™) and Green Destination Management Net (Green DMN®), which effectively bring together local actors from the tourism industry and the nature conservation field to promote sustainable tourism (TAPANINEN 2010).

The state-of-the-art in visitor experience management yet concentrated on helping managers to make decisions in management frameworks as 'Recreation Opportunity Spectrum' or 'Tourism Opportunity Spectrum' or 'Limits of Acceptable Change' (MCCOOL 2006). Implementing a successful management requires first a regular monitoring of visitor experiences and a careful interpretation of the resulting data which must be set against specific management and performance indicators and objectives. The findings should be then integrated with other strategic site planning information (CESSFORD & MUHAR 2003; BUSHELL & GRIFFIN 2006). "Routine monitoring of such things as visitor characteristics, expectations, satisfaction and experiences can contribute to this understanding. Management decisions can then be based on tangible information, not rough judgment" (BUSHELL

& GRIFFIN 2006: 31). Ideally, this information should be collected in a consistent way over time, comparable with other sites and service providers so that benchmarking is possible, easily and efficiently collected, readily and conveniently analyzed so that the data is current and reliable, with clear implications for planning and management; and physically and intellectually accessible to all parks agency staff whose management roles could be enhanced by this knowledge about visitors (BUSHELL & GRIFFIN 2006). Globally there is also a need to integrate this data with the UN List of Protected Areas (SHEPPARD 2006).

On the other side the purpose of a 'contemporary' visitor experience management are benefits for the society: "These benefits may involve reduced family divisiveness, greater worker productivity, increased personal incomes or reduced crime. Benefits from experiencing a high quality opportunity might also include additional support for a protected area, increased labour income in the local area or an accelerating interest in conservation" (McCOOL 2006: 4-5).

But even today only one quarter of existing protected areas are managed with a high degree of effectiveness (McCOOL et al. 2012) There are many actors involved in managing tourism in protected areas: local businesses, community and destination marketing, organizations that promote the protected area, planners, architects, engineers and construction workers, scientists and management which holds the legal responsibility to protect an area's natural heritage (McCOOL et al. 2012). As for example SIEGRIST (2004) shows, nature park protagonists and tourist protagonists in nature park tourism in the Alps are suspicious to each other regarding their individual aims for protection. Therefore governance plays a key role since through governance processes public interests can be identified, debated and legislated upon (McCOOL et al. 2012). By integrating the stakeholders in governance processes of protected areas it could be especially promising to include the visitors in governance as well, in order to manage protected areas more adjusted to particular needs of visitors in each regional context, thus developing a partnership with tourists (LUTHE et al. 2012).

Participatory and multi-level, scale-adapted governance are current responses to lacking effectiveness of environmental policy in Europe and other modern democracies (NEWIG & FRITSCH 2008). DEARDEN & BENNETT (2005) found that the management of IUCN protected areas categories I-III has become more participatory and that the middle and low developed countries have made more progress than the high developed ones in ensuring decentralized and participative protected areas management (DEARDEN & BENETT 2005). But it is important to consider, that "[...] improved governance can follow multiple pathways. The challenge is to understand the particular context of the protected area systems, globally, nationally, and locally and the various pathways and their advantages and disadvantages. Every situation is unique yet has commonalities that can be better understood through a structured series of case studies at the national and regional levels" (DEARDEN & BENETT 2005: 98f.).

In terms of protected areas management and governance, EAGLES (2009: 244) made a comparison of different protected area management models and governance criteria: "[...] according to standard governance criteria, the combination of government ownership of the resources and nonprofit management comes close to the ideals of good governance." But this management concept is often related to a certain financial configuration: "In wealthy localities, with a public that accepts the principle of paying higher taxes in order to gain equity in public services, the national park model prevails. All of Scandinavia fits into this situation. Conversely, in countries where the ability of government to use tax income for conservation is restricted, a parastatal model or the public for-profit model predominates. Most of Africa fits into this situation. This indicates that financial efficiency may be a pivotal criterion, one that underlies all the others. Unless one has financial efficiency, the fulfillment of the other criteria is problematic" (EAGLES 2009: 243). When implementing governance structures in national parks and protected areas it is at the same time necessary that they are established on the two over-arching, intertwined and well-recognized goals which are conservation of natural and cultural resources and the provision of education and recreation services (EAGLES & McCOOL 2002).

### **An outline for future research**

Recent trends in outdoor recreation in the United States and worldwide show, that public interest in nature based recreation and appreciation of natural areas continues to grow. "Participation in most outdoor activities has increased significantly since 1960, with activities such as camping, bicycling, canoeing and skiing increasing as much as tenfold during this time" (CHRISTOPHER et al. 2009: 1).

In awareness of the actual challenges and chances in protected areas management and recreation tourism described above, it shows that more research has to be done on what visitors expect in different regions from protected areas and how these expectations can be met by giving the visitor more influence in terms of governance and management, while also giving more influence to the local population and at the same time respecting the goals of protected area categories within their mandate on the regional/national level. The interactions in this systematic approach are manifold. A first step would be to find out more about visitor needs and characteristics in differing cultural and ethical contexts in case studies of different protected areas such as North America, Scandinavia, Middle and Eastern Europe, Africa, Oceania, and Asia. In a study on demand and willingness-to-pay of tourists in the Swiss National Park, LUTHE et al. (2012) found out more about the aims and the structure of so called 'green tourists', willing to pay more for ecological and social sustainable services and products, both in their holidays and their daily life. Especially the demand and the willingness-to-pay for sustainable tourism, the protected areas tourism as such and the changing understanding and demand of what visitors expect in protected areas has to be interpreted in a multicultural context and in various political and value-ethical surroundings, reflecting also the different categories of protection. Another promising line of research should analyze how these findings from different cultural and regional contexts could be implemented better in a systemic governance

model, in which the visitor and the local population are playing an active engaging role in the form of a partnership, but at the same time respecting the overall goals of the particular protected area category.

The discussed socio-economic-ecological elements of protected areas governance are intertwined in a complex way, and the goal of developing a contemporary governance model where population and visitors are integrated in a strategic partnership call for a systemic transdisciplinary research program, identifying systemic leverage points for intervention, mapping dynamics of developments in a geographical context, and integrating cultural and ethical differences, while embracing their complexity.

## References

- BISHOP, K., DUDLEY, N., PHILLIPS, A. & S. STOLTON 2004. *Speaking a Common Language: Uses and Performance of the IUCN System of Management Categories for Protected Areas*. Cardiff, UK: Cardiff University, The World Conservation Union & World Conservation Monitoring Centre.
- BUSHELL, R. & T. GRIFFIN 2006. Monitoring visitor experiences in protected areas. *Parks, The international journal for protected area managers*, Vol 16 No 2: 25-33.
- CARBONE, G. 2006. Perspectives of the tourism industry on the elements affecting visitor satisfaction in protected areas. *Parks, The international journal for protected area managers*, Vol 16 No 2: 53-57.
- CESSFORD, G. & A. MUHAR 2003. Monitoring Options for Visitor Numbers in National Parks and Natural Areas. *J. Nat. Conserv.* 11: 240-250.
- CHRISTOPHER, A., MONZ, C. A., COLE, D. N., LEUNG, Y. F., MARION, J. L. 2009. Sustaining Visitor Use in Protected Areas: Future Opportunities in Recreation Ecology Research Based on the USA Experience 2009. *Environmental Management*. DOI 10.1007/s00267-009-9406-5.
- COCHRANE, J. 2006. A typology of tourists to protected areas. *Parks, The international journal for protected area managers*, Vol 16 No 2: 10-17.
- DEARDEN, P. & M. BENNETT 2005. Trends in Global Protected Area Governance 1992-2002. *Environmental Management* Vol. 36, No. 1, pp. 89-100.
- EAGLES, P.F.J. 2009. Governance of recreation and tourism partnerships in parks and protected areas. *Journal of Sustainable Tourism* Vol. 17, No. 2, 231-248.
- EAGLES, P.F.J. & S.F. MCCOOL 2002. *Tourism in National Parks and Protected Areas. Planning and Management*. New York.
- FORSTER, S. & D. SIEGRIST 2009. Erfolgsfaktoren für den Tourismus in Pärken und UNESCO-Gebieten. In: SIEGRIST, D. & M. STREMLow (eds.). *Landschaft Erlebnis Reisen. Naturnaher Tourismus in Pärken und UNESCO-Gebieten*. Zürich. pp. 107-199.
- FUCHS, M. 2004. Strategy Development in Tourism Destinations: A Data Envelopment Analysis Approach. In: *Poznan Economics Review*, Vol. 4, No. 1, pp. 52-73.
- GRAHAM, J., AMOS, B., & T. PLUMPTRE (2003). *Governance principles for protected areas in the 21<sup>st</sup> century*. Ottawa, ON: Institute on Governance.
- IUCN 1994. *Guidelines for Protected Areas Management Categories*. Gland, Switzerland: IUCN.
- JAGER, E., SHEEDY, C., GERTSCH, F., PHILLIPS, T., DANCHUK, G. 2006. Managing for visitor experiences in Canada's national heritage places. *Parks, The international journal for protected area managers*, Vol 16 No 2: 18-33.
- JOB, H. 1996. Großschutzgebiete und ihre Akzeptanz bei Einheimischen – Das Beispiel der Nationalparke im Harz. In: *Geographische Rundschau* 48, H. 3, S. 159-165.
- LOCKE, H. & P. DEARDEN 2005. Rethinking protected area categories and the new paradigm. *Environmental Conservation* 32 (1): 1-10.
- LUTHE, T., STANGL, B., JOOS, F., NABITZ, S. & P. BOKSBERGER. 2012. Green Tourist. Eine Studie zu Bewusstsein und Verhalten von Gästen des Schweizerischen Nationalparks bezüglich Nachhaltigkeit im Urlaub und im Alltag. Bericht Nr. 001812 der ITF Forschungsberichte/ITF Working Papers, Chur. ISSN 2296-0465.
- MCCOOL, S., HSU, Y.C., ROCHA, S.B., SÆÞÓRSÐÓTTIR, A.D., GARDNER, L., FREIMUND, W. 2012. Building the capability to manage tourism as support for the Aichi Target. *Parks* 2012 Vol. 18.2: 92-106.
- MCCOOL, S. 2006. Managing for visitor experiences in protected areas: promising opportunities and fundamental challenges. *Parks, The international journal for protected area managers*, Vol 16 No 2: 3-9.
- McDOWELL, I. 2010. Measures of self-perceived well-being, *Journal of Psychosomatic Research* 69: 69-79.
- MICHEL, J. 2001. *Erlebnis Berg. Qualitätsanforderungen an Luftseilbahnen und ihre Dienstleistungen*. Dissertation at the University of Berne. Institute for Leisure and Tourism (FIF). *Berner Studien zu Freizeit und Tourismus*. Band 39.
- MOSE, I. 2009. Akzeptanz, Einstellung und Image als Einflussgrößen von Großschutzgebieten. Einige theoretische und methodische Vorüberlegungen. In: MOSE, J. (ed.) *Wahrnehmung und Akzeptanz von Großschutzgebieten. Wahrnehmungsgeographische Studien* Band 25.
- MOSE, I. & N. WEIXLBAUMER 2003. Grossschutzgebiete als Motoren einer nachhaltigen Regionalentwicklung? Erfahrungen mit ausgewählten Schutzgebieten in Europa. In: HAMMER, T. (ed.) *Grossschutzgebiete – Instrumente nachhaltiger Entwicklung*. 35-96. München.
- NEWIG, J. & O. FRITSCH 2008. Environmental governance: Participatory, multi-level - and effective? *UFZ Diskussionspapiere*, No. 15/2008.

- PHILLIPS, A 2003. A modern paradigm. *World Conservation Bulletin* 2: 6–7.
- PHILLIPS, A. 2002. IUCN Category V Protected Areas Guidelines – Protected Landscapes/Seascapes. Cambridge, UK & Gland, Switzerland: IUCN.
- PRISKIN, J. & S.F. MCCOOL 2006. Parks, *The international journal for protected area managers*, Vol 16 No 2: 3-9.
- SÆBÓRSDÓTTIR, A.D. 2010. Tourism struggling as the wilderness is developed. *Scandinavian Journal of Hospitality and Tourism* 10(3):334-357.
- SAARINEN, J. 2007. Protected areas and regional development issues in northern peripheries: nature protection, traditional economies and tourism in the Urho Kekkonen National Park, Finland. In MOSE I.(ed). *Protected areas and regional development in Europe. Towards a new model for the 21st Century*,199–211. Ashgate, Aldershot.
- SHEPPARD, D. 2006. The New Paradigm for Protected Areas: Implications for Managing Visitors in Protected Areas. In: SIEGRIST, D., CLIVAZ, C., HUNZIKER, M. & S. ITEN (eds.) *Exploring the Nature of Management. Proceedings of the Third International Conference on Monitoring and Management of Visitor Flows in Recreational and Protected Areas*. University of Applied Sciences Rapperswill, Switzerland September 2006. 33–45.
- SIEGRIST, D. 2004. Sustainable tourism and large protected areas. Analysis models and success criteria of a sustainable tourism management using the example of the Alps. In: *Policies, Methods and Tools for Visitor Management.*, 319 – 325.
- TAPANINEN, M. 2010. Promotion of sustainable tourism in Finland national parks. In: Hsu, Y.C. (ed.) *Proceedings of the Conference on “Vision and strategy for world’s national park” and “Issues confronting the management of the world’s national park”*. pp. 65-78.
- UN Millenium Ecosystem Assessment 2005. *Ecosystems and Human Well-being: Volume 1 Current State and Trends*. Island Press, 2005.
- VOLL, F., EICHHOLZ, N. & V. RIEDMANN 2011. Nachhaltiger Tourismus in Georgien. Aktuelle Tourismusentwicklungen im Kaukasus am Beispiel Swanetiens. In: *Natur und Mensch*. Seite 47-60.
- VOLL, F. 2012. Die Bedeutung des Faktors „Erreichbarkeit“ für den Alpenraum. Erarbeitung eines alpenweiten Modells der Erreichbarkeit von Metropolen und Regionalzentren vor dem Hintergrund aktueller Diskussionen um Regionsentwicklung in Abhängigkeit von räumlicher Lage. [online] Erlangen, Univ. Diss., 2012 <http://www.opus.ub.uni-erlangen.de/opus/volltexte/2012/3417/>.
- WEIXLBAUMER, N. 2009. Schutzgebietslandschaften als Möglichkeitsräume für einen naturnahen Tourismus. In: SIEGRIST, D. & M. STREMLow (eds.). *Landschaft Erlebnis Reisen. Naturnaher Tourismus in Pärken und UNESCO-Gebieten*. Zürich. pp. 191-203.

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