

# Biosphere Reserves as drivers of regional governance? Communication challenges within the UNESCO Biosphere Reserves Engiadina Val Müstair (Switzerland) and Schwäbische Alb (Germany)

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**Keywords:** Biosphere Reserves, communication strategies, communication structures, communication processes, regional governance, regional development, peripheral regions, case studies

## Abstract

This article examines the influence of Biosphere Reserves' (BRs) communication strategies on regional governance processes. We conducted semi-structured interviews with regional stakeholders in the UNESCO Biosphere Reserves Engiadina Val Müstair (Switzerland) and Schwäbische Alb (Germany), and evaluated the influence of the BRs' communication strategies on regional communication structures. Our findings show that BRs can take on the role of mediators of vested interests within regional governance. In order to achieve this goal, BR managers would be advised to adopt a comprehensive communication strategy, i. e. comprising the aspects of information, participation, coordination and cooperation. This, however, is directly dependent on the BRs' financial and human resources.

## Profile

Protected area

UNESCO Biosphere

Reserves Engiadina Val

Müstair (Switzerland)

and Schwäbische Alb

(Germany)

## Introduction

In an increasingly globalized world, new challenges need to be negotiated and discussed at both regional and local levels. Recognizing the necessity of sustainable transformation, Biosphere Reserves (BRs) serve as “*model regions of sustainable development*” (Borsdorf & Jungmeier 2020, p. 3). But how, precisely, are socio-political tensions and conflicts of interest negotiated in these protected areas?

As part of the UNESCO Man and the Biosphere (MAB) programme, BRs strive to create a scientific basis for fostering the relations between people and their environment (MAB 2021). Launched in 1974, the MAB programme has established “*learning spaces for sustainable development*”, and has been reworked, reassessed and realigned at various stages (UNESCO MAB History 2021). In 2016, the Lima Action Plan emphasized the importance of promoting sustainable local development while “*creating added values and benefits*” for people living in BRs (Alfarè et al. 2019, p. 54; UNESCO MAB 2017). By linking national and regional policy-making processes, decision makers were not only to promote deliberative and participatory decision-making, but also to establish new partnerships and networks between public and private actors (UNESCO 2016).

To implement the revised goals of the MAB programme, BR management boards (BRMBs) are legally obliged to engage with new forms of political and social negotiation. The extent to which BRs actually incorporate these required aspects of governance has been the subject of thorough research since the 2010s.

While early analytical frameworks assessed the quality of BR management structures (Schliep & Stoll-Kleemann 2009; Lockwood 2010), they hardly addressed the impact of communication. In the 1990s, related disciplines were already debating the role of communication, and Selle (1997), among others, developed comprehensive approaches to assess communication in planning processes. Based on these theoretical approaches, we apply concepts of communication to the field of BR governance research in order to address the following research questions: To what extent do BR structures contribute to changes in communication between regional actors in sustainable regional development? How do these changes influence regional governance processes?

We conducted 22 semi-structured interviews with regional stakeholders in the UNESCO Biosphere Reserves Engiadina Val Müstair (EVMBR) in eastern Switzerland, and Schwäbische Alb (SABR) in southern Germany, and evaluated BRs' communication strategies and their influence on regional communication structures. While we consider BRs to be important drivers of regional governance, we assume that the effectiveness of governance is often reduced, on an ongoing basis, by unresolved conflicts of interest. Here, BRs may take on the role of mediators of vested interests by applying a comprehensive communication strategy.

## Conceptual background

Regional governance describes systems of rules and forms of coordination and communication be-

tween public and private actors at the regional level who are not institutionally linked (Fürst 2004, 2007). In order to be able to pursue sustainable development, BRs depend on well-implemented forms of governance (Graham et al. 2003). BRs contribute to the success of regional development by actively promoting coordinated and rule-governed spatial development to obtain collectively binding decisions (Fürst et al. 2005; Newig 2011; Pütz & Job 2016). Often, governance structures depend on consensus and collaboration of fundamentally different actors who “*work under different incentive systems and, hence, have different logics of action*” (Fürst 2007, p. 17).

The challenges of ensuring collaboration and agreeing compromises in BRs can only be met by systematically involving regional stakeholders in negotiation processes. In the early 2000s, Schliep & Stoll-Kleemann (2009) examined how governance could be implemented effectively in BRs. They emphasized that governance weakness “*can be corrected by enhancing communication among stakeholders, fostering active participation and pushing capacity development*” (Schliep & Stoll-Kleemann 2009, p. 917). Shortly afterwards, a concrete proposal was put forward by Lockwood (2010) to assess the quality and effectiveness of protected area management. While the importance of BRs for sustainable regional development has been investigated with increasing frequency over the last ten years (e.g., Weixlbaumer et al. 2015; van Cuong et al. 2017), research has paid little attention to the issue of communication. Rather, communication is understood only as an accessory of participatory processes and, consequently, is only mentioned as a side note. This has become even more evident since the Lima Action Plan further elaborated on the significance of participatory processes in BRs (UNESCO 2016).

Recognizing the importance of such deliberative and participatory decision-making processes, we understand communication as “*the transmission of meaning from one person to another or to many people, whether verbally or nonverbally*” (Barrett 2014, p. 6). We argue with Selle (1997) that *communication* serves as an umbrella term encompassing multiple aspects (Figure 1).

Applied to planning theory and practice (Selle 1997, 2006), (good) communication and thus a comprehensive communication strategy include the provision of sufficient information and opportunities for participation. Communication in this fuller sense also comprises co-decision-making by third parties, and the coordination of measures and programmes between interdependent actors within one sphere as well as the cooperation of independent actors from different spheres. Thus, regional governance can only successfully contribute to the development of a region when communication-driven as well as communication-enhancing processes are integrated from the start. In mediating between different stakeholder perspectives, BRs must take the following sufficiently into account: raising awareness and sensitization, creating

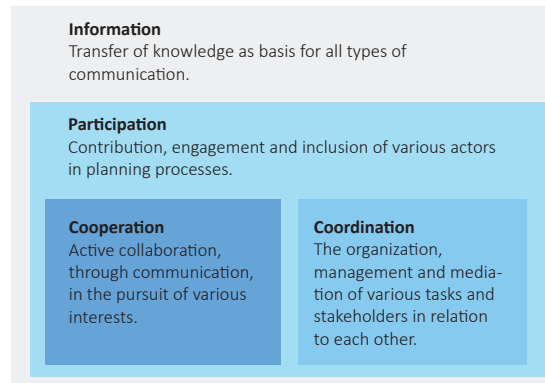


Figure 1 – Comprehensive communication. Source: own design following Selle (1997).

structures that allow for the participation of internal and external stakeholders, bringing different actors together, and coordinating actors in the implementation of their joint projects.

Clearly, simply bringing people together does not guarantee successful communication or compromise. Social learning issues, knowledge, experience, uncertainties, complexities and ambiguities, among other aspects in group-based decision-making, all have to be addressed. Here, legitimacy can only be achieved through the variety and relevance of its participants; only then can a normative transformation, with a shared commitment towards a sustainable change, be achieved (Enayati 2002).

In practice, it is necessary to create a communication environment with formal and informal communication channels that enables all participants to articulate their values and feelings (Enayati 2002; Sellke et al. 2016). Failing to implement such an environment might jeopardize a BR’s sustainable development. In general, designating areas as BRs establishes new institutional structures – understood as formal or informal rules that structure human interactions, both constraining and facilitating them (North 1990) – and long-lasting management structures (Fürst et al. 2005). The institutionalization of sustainable development through BRs, in turn, helps to establish a multi-level system of regulatory structures at different levels (supranational, national, regional, local) as well as top-down and bottom-up processes (vertical coordination) (Pütz & Job 2016). BRs become a key instrument for the mediation of processes without themselves being free of special interests (e.g., promoting sustainable development).

## Research locations

Our research locations are two contrasting BRs: the *alpine-rural* EVMBR in eastern Switzerland, and the *peri-urban* SABR in southern Germany. The two BRs are characterized by pronounced *internal* variety in terms of their topography and socio-cultural aspects that have evolved over time. Designated in 2017, the EVMBR covers an area of 44,857 ha and is sparsely

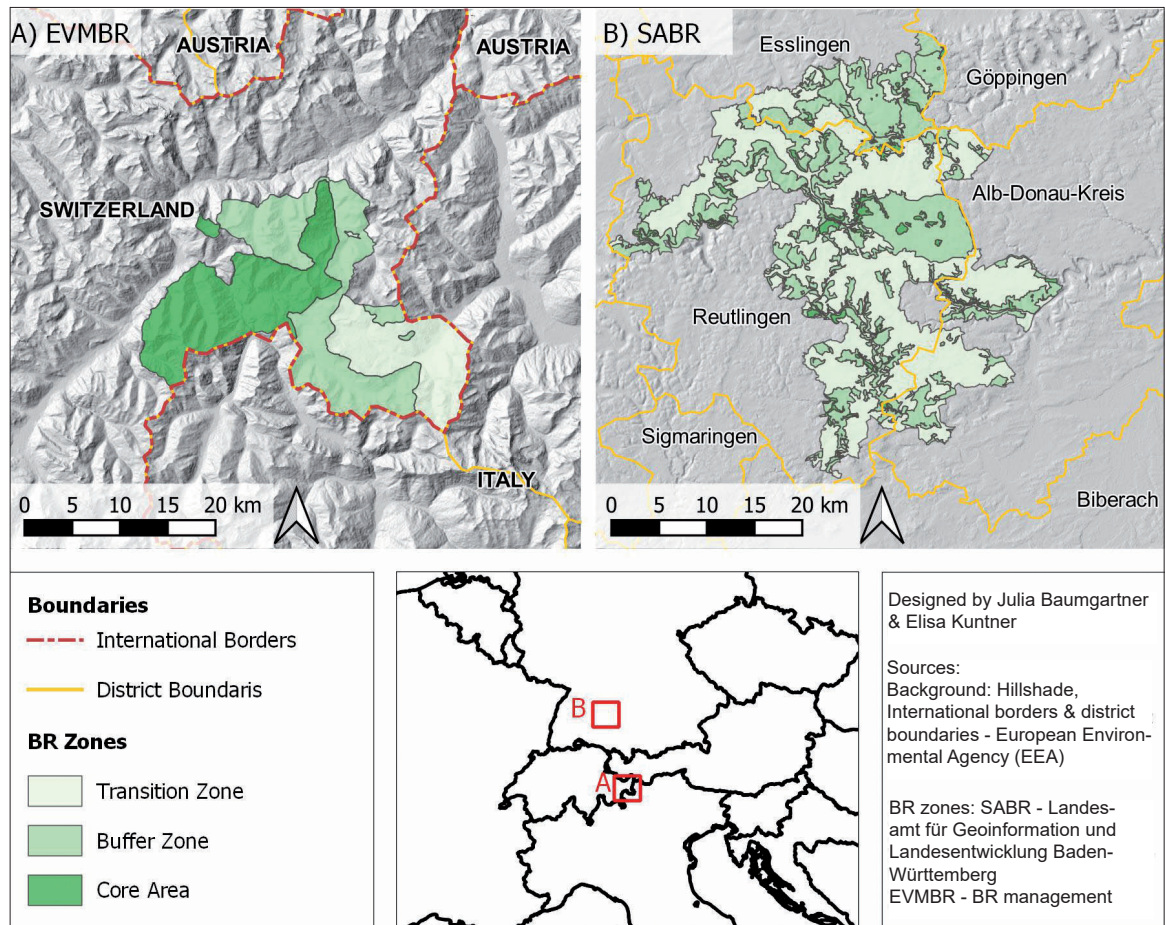


Figure 2 – Overview map of the Biosphere Reserves (BRs) Engiadina Val Müstair (EVMBR, Switzerland) and Schwäbische Alb (SABR, Germany).

populated, with approximately 8,500 inhabitants (von Lindern et al. 2020). It extends over two main valleys (Engiadina Bassa, Val Müstair), which are separated by a high alpine pass (Ofenpass). Due to its peripheral location on the southeastern border of Switzerland and the close proximity of the Val Müstair to the Italian autonomous province of South Tyrol, relations between the valleys were for a long time relatively under-developed. When designating the BR, one major challenge was to combine the existing commitment to nature conservation of the Swiss National Park (established in 1914) with tourism and agricultural land use in the municipalities of the Engiadina Bassa and Val Müstair. Today, the EVMBR is characterized by a complex management structure consisting of three funding partners: the Swiss National Park, and the municipalities of Val Müstair and Scuol (Filli & Abderhalden 2020).

Designated in 2009, the SABR covers 85,268 ha within the districts of Esslingen, Reutlingen and Alb-Donau, and is densely populated, with more than 143,500 inhabitants (von Lindern et al. 2020). The BR is characterized by the lower Albvorland, the Albtrauf ridge, and the higher Albhochland of the Schwäbische Alb mountain range. These topographical particularities have influenced the development of urban,

peri-urban and rural municipalities. The decision to designate this region as a BR was related to the commitment of the surrounding communities and the federal state of Baden-Württemberg to protect the land that became vacant when the military training area Gutsbezirk Münsing was abandoned. Today, the area serves as the core of the protected area. The fragmented overall zoning (Figure 2) is explained by the requirement that each SABR municipality contribute a certain percentage of its area to all three zones.

## Methodology

To examine the influence of communication in regional governance processes within the SABR and EVMBR, we conducted 22 semi-structured interviews (eleven in each BR) between January and March 2021 (Figure 3). Due to the COVID-19 pandemic, all interviews were conducted online and recorded digitally; each lasted between 35 and 50 minutes. Following a theory-based sampling process (Glaser & Strauss 1967), we targeted stakeholders playing an active role in shaping governance processes in their respective regions, including mayors, local politicians, regional government representatives, members of both BRMBs, and external experts.



Sampling strategy	Theoretical sampling Mayors, local politicians, external experts, regional government, all representatives and members of both BR managements	A broad range of important stakeholders inside both BRs (e. g. 7 out of 29 mayors contacted decided to participate)	Barriers	Selection bias (interviewees who decided to participate may have a stronger or more positive affiliation with BRs); Institutional diversity of the BR, different political systems at the municipal level between the two countries (Switzerland and Germany)
Data collection	January – March 2021	22 semi-structured interviews in total (11 per research site), ranging from 35 to 50 mins		Travel restrictions due to pandemic: not being able to visit research sites
Data processing	Transcription of all interviews recorded	Qualitative content analysis (Mayring & Fenzl 2014), coding in MAXQDA		Interviews and transcripts: strong regional accents and use of local dialects

Figure 3 – Research Process; BR – Biosphere Reserves. Source: own figure.

While we aimed to interview similar types of stakeholders in both research areas, institutional differences between the BRs and the different political systems in the two countries (Switzerland and Germany), in particular at the municipal level, had to be taken into account during data collection. In the SABR, for example, more interviews with mayors were conducted (seven out of eleven), while in the EVMBR interviews with local political representatives and experts dominated (six out of eleven). To ensure comparability, the same thematic interview categories and similar questions were used; each interview was fully transcribed. Subsequently, the transcripts were subjected to a qualitative content analysis, in the context of the respective area of investigation, and compared to each other.

Although we aimed to capture a broad range of stakeholders, and thus perspectives on communication strategies in BRs, the voluntary character of the interviews may have caused some selection bias, as the stakeholders who chose to participate are likely to have a stronger or more positive relationship with the BR. All stakeholders interviewed were asked about their involvement in, as well as their knowledge of, local stakeholder networks, BR-related changes in regional communication structures, and developments of BR-related bottom-up processes. The collected data were then compared with the findings of the literature review, which had been conducted previously.

## Results

Since their designation as protected areas and the associated responsibility to enhance the relationship between people and their local environment, both BRs aimed to establish new communication structures and dialogues between regional stakeholders. Acknowledging the diversity of communication structures and interests at the regional level, we examined the role of BRs as active facilitators of communication networks and platforms, as well as their role as spatial incubators for sustainable inter-municipal cooperation and coordination. In what follows, therefore, we elaborate on

changes of communication processes, and identify the barriers they encounter.

In their role as regional protagonists, BRMBs have created new institutional entities such as steering committees, boards of directors and inter-municipal assemblies, which in turn develop internal organisational and external communication structures. In doing so, they help to consolidate and intensify regular discourses between different administrative districts (SABR) or valleys (EVMBR).

Within the SABR, this becomes particularly evident through regular joint meetings of the BRMB and the steering committee (*Lenkungskreis*). The steering committee has an advisory capacity that supports the development and orientation of the BRMB. Although similar structures, such as a biosphere council (*Biosphärenrat*) and steering boards (*Lenkungsausschüsse*), exist in the EVMBR, their leverage is reduced by the sometimes-problematic intersection of protected areas and municipalities, and their respective areas of responsibility. The complex administrative structure of the EVMBR makes it difficult to evaluate whether a comprehensive communication strategy exists or is being applied. This becomes evident when even stakeholders who are directly involved struggle to distinguish the different responsibilities of each protected area.

In contrast, the management board of the SABR is better equipped in terms of financial and human resources (more than 25 employees), both of which are considerable. Here, the SABR might have benefited from its special funding model. As pointed out by several interviewees, the direct financial involvement of municipalities within the BR has not only led to a greater commitment to developing sustainability-oriented projects but has also increased the financial scope of the BR management and the BR in general.

Yet the development of a new communication strategy does not automatically lead to active stakeholder engagement. This became apparent, for instance, when available funding was not entirely used up by stakeholders for project development.

In both BRs, individual stakeholders exert a great influence on the local population, and ultimately de-

termine whether a particular project enjoys local support or not. In recognizing this dependency, both the SABR and EVMBR try to influence directly those who are known to have some power in fashioning decision-making and communication processes. Having learned from complex negotiation processes in the past, the BRMBs now mediate between different stakeholders, including in informal ways outside official meetings.

In the debates about enlargement that took place in both BRs during our data collection, the direct involvement of influential local stakeholders became particularly evident. With the help of bilateral talks, the EVMBR, for instance, tried to obtain an overview of different interests to minimize potential conflict and fears before communicating the idea of enlargement to the public. For this purpose, the BRMB commissioned a feasibility study with key stakeholders from both the Val Müstair and the valley Engiadina Bassa that evaluated framework conditions, success factors and barriers to collaboration (Regiun Engiadina Bassa / Val Müstair 2019).

By initiating and managing projects, the BRMBs fulfil an important role in alliances and networks. They specifically seek to involve not only regional stakeholders, but also segments of the general population. For instance, the association *Biosphärengebiet Schwäbische Alb e.V.* plays an important role in creating opportunities for participation and their embeddedness in the region. The association is open to all interested parties and consists of a network of municipalities and companies, ecological, societal and economic associations, and private individuals who are involved in the implementation of the BR's objectives.

However, both BRs are confronted by a particular challenge: their participatory formats and discussion panels often involve only a small circle of committed stakeholders who are already actively engaged in many projects and networks. In the SABR, it is evident that the successful implementation of sustainability-oriented projects is related to the long-term commitment and personal conviction of *pioneer* municipalities and their mayors. Municipalities such as Bad Urach, Münsingen and Römerstein, located in the very centre of the SABR, have been involved in the implementation of a model region for sustainable development ever since the proposal in 2005 to establish a protected area around the former military training area. The development of a mutual trust-based relationship between the SABR and those *stakeholders of the first hour* was fostered especially through regular dialogue within and between the committees and working groups. Although smaller municipalities and individual stakeholders also have equal representation in these committees, a distinct contrast appears in the extent to which BR-related issues are addressed on a day-to-day basis. This divergence can be observed in particular in the EVMBR, where limited financial and human resources prevent closer cooperation with new stakeholders.

Within the SABR, however, equal representation of municipalities and individual stakeholders does not guarantee their equal involvement; in the SABR, this inequality is reduced through cross-municipality cooperation and pro-active consulting services of the BRMB. Various small SABR municipalities, such as Neuffen and Beuren, appointed a joint environmental officer to engage more intensively with sustainability discourses and the BR.

In combining our findings regarding changes in regional communication structures, we observed attempts by the EVMBR and SABR to mitigate the influence of spatial barriers. By integrating both centrally and peripherally located municipalities more comprehensively into the further development of their respective regions, these municipalities serve as spatial incubators. Both BRs are shaped by their topographical characteristics, which contribute to the emergence of peripheral and central areas. These characteristics fostered the development of socio-cultural differences over time, and complicated cross-stakeholder and inter-municipal cooperation and collaboration. Identification with long-standing small-scale municipal structures continues to be of importance for local stakeholders. The BRMBs have also been able to strengthen an identification with the natural environment over a larger scale. Our findings suggest that this development has been fostered by a more consistent communication strategy and representation in both areas. As establishing communication strategies is directly dependent on the financial and human resources of the BRMBs, differences in the success of their implementation between the SABR and EVMBR could be observed. Since BRMBs often act as mediators of vested interests, they must be considered important drivers of regional governance. However, the extent to which BRMBs influence the effectiveness of governance is yet to be assessed.

## Discussion and conclusion

Reflecting on the role of BRs as establishers of new institutional entities and as facilitators of increased stakeholder involvement while acknowledging their ability to mitigate socio-spatial barriers, we now discuss their agency within regional governance. We build on Selle's (1997) notion that the comprehensive incorporation of communication into planning processes reduces the likelihood of unresolved conflicts of interest. We therefore argue that BRs, as important actors within regional development, should establish and implement sufficiently comprehensive and transparent communication strategies.

This becomes evident when BRs act as mediators of vested interests, following a more holistic approach to sustainable regional development. In practice, they foster bottom-up decision-making processes while committing themselves to the goals of the MAB programme. In enhancing participatory and network

structures, they improve the exchange of information between stakeholders, which significantly increases the acceptance of BRs (von Lindern et al. 2020; Newig et al. 2011).

Given that development projects and planning processes are often threatened with rejection due to seemingly irreconcilable conflicting interests, it is an important task of BRMBs to achieve compromise in the interest of sustainable development. However, their ability to do so very often depends on financial and human resources. Being embedded in superordinate structures, BRs require the ongoing support of traditional political and administrative structures such as municipalities and districts (Pütz & Job 2016; Runst & Stoll-Kleemann 2020).

While we consider BRs as important drivers of regional governance, we argue that the effectiveness of governance is often reduced by unresolved conflicts of interest. Thus, BR managers would benefit from the application of comprehensive communication strategies to strengthen regional governance.

Acknowledging the disparities identified between the EVMBR and SABR, we recognize the importance of a comparison between the effects of communication strategies in further case studies. We believe that extending contemporary frameworks (Schliep & Stoll-Kleemann 2009; Lockwood 2010) for assessing the quality of BR management structures with comprehensive communication strategies could make a significant contribution to the understanding of protected area management, and thus to guidelines for BRMBs.

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