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Between Conservation and Development

Concretizing the First World Natural Heritage Site in the Alps Through Participatory Processes

This article presents an empirical interdisciplinary study of an extensive participatory process that was carried out in 2004 in the recently established World Natural Heritage Site "Jungfrau–Aletsch–Bietschhorn" in the Swiss Alps. The study used qualitative and quantitative empirical methods of social science to address the question of success factors in establishing and concretizing a World Heritage Site. Current international scientific and policy debates agree that the most important success factors in defining pathways for nature conservation and protection are: linking development and conservation, involving multiple stakeholders, and applying participatory approaches. The results of the study indicate that linking development and conservation implies the need to extend the reach of negotiations beyond the area of conservation, and to develop both a regional perspective and a focus on sustainable regional development. In the process, regional and local stakeholders are less concerned with defining sustainability goals than elaborating strategies of sustainability, in particular defining the respective roles of the core sectors of society and economy. However, the study results also show that conflicting visions and perceptions of nature and landscape are important underlying currents in such negotiations. They differ significantly between various stakeholder categories and are an important cause of conflicts occurring at various stages of the participatory process.

Keywords: *Sustainable regional development; nature conservation; participatory management planning; multi-stakeholder approach; democracy; World Heritage Sites; European Alps.*

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Introduction

In the international scientific and political discourses on nature conservation there is common agreement today that two basic factors have a strong influence on the success of concrete approaches: on the one hand, conservation goals and approaches have to be linked to development issues, and on the other hand, local participation in, and endogenous ownership of, such processes must be granted (Pimbert and Pretty 1997; Cleaver 2001; Thomas and Middleton 2003; Pratt 2004). Participation is understood not as an end in itself but as a means to facilitate processes of deliberation between different stakeholders who—based on the principles of fairness and empathy—collectively use and broaden public spaces, aiming at structural and personal transformations in view of more sustainable forms of development (Webler and Tuler 2000). What remains unclear and controversial, however, is the question of how to ensure that the potential for success in these factors is enabled in concrete situations and in a manner that takes sufficient account of the complexity of social, economic, and ecological reality.

The research was carried out in a Swiss Alpine region characterized by a long and deeply rooted tradition of direct democracy. This made it possible to study an increasingly important issue: what is the impact of the encounter or combination of local democracy with new forms of less formalized and face-to-face-based deliberation and negotiation between stakeholders who would not normally be directly involved in the development and implementation of policies (Swanson 2001)?

In order to concretize the recently established Jungfrau–Aletsch–Bietschhorn World Heritage Site (WHS) in the Swiss Alps, the WHS Management Centre designed and launched an extensive participatory multi-stakeholder process. The objective of this process was to negotiate and prioritize overall goals, specific objectives, necessary measures, and concrete projects for the region. The results were intended to serve as a core input for the subsequent development of a WHS management plan. The participatory process was accompanied by an interdisciplinary research project of the Swiss National Centre of Competence in Research (NCCR) North–South on sustainable regional development (Liechti and Wiesmann 2004) and on social learning processes (Rist et al 2004), which involved the disciplines of human and physical geography, sociology, and anthropology. This was a unique chance to observe and study the concrete application of an approach that intended to include the above-mentioned success factors.

The empirical study explored the ways in which the participatory process contributed to enhancing sustainable development, while also concentrating on the following specific research questions:

1. Through which concrete themes do negotiations and conflicts related to the basic problem of balancing conservation and development manifest themselves?
2. What kind of visions and perceptions of nature and landscapes are an underlying current during such negotiations?
3. What positions and attitudes do different actor categories develop in the negotiation process?

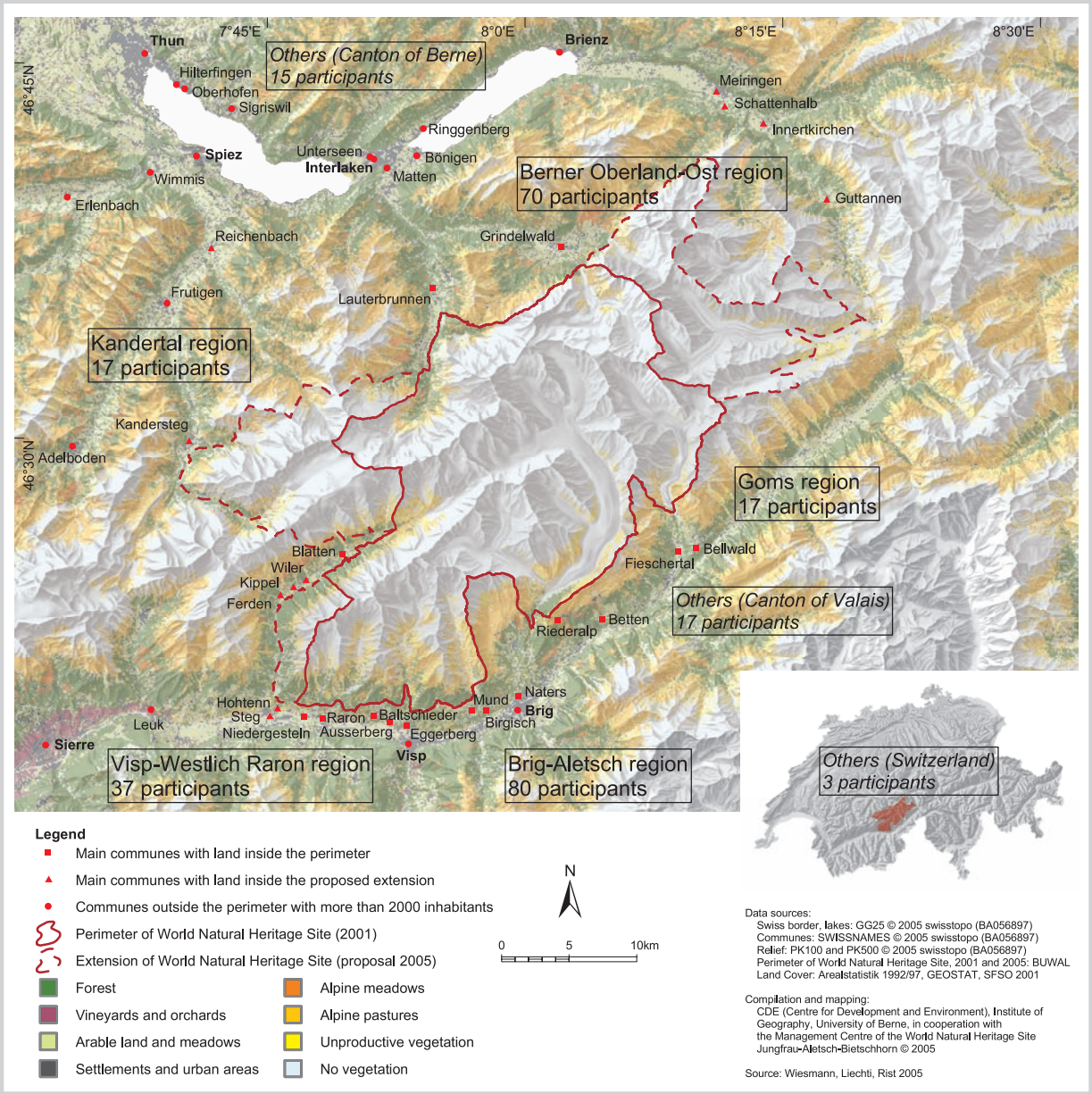


FIGURE 1 Map of the perimeter of the Jungfrau–Aletsch–Bietschhorn WHS and the entire related region, showing the seats of relevant communes (districts) and the number of representatives from different subregions who were involved in the participatory multi-stakeholder process for concretizing the WHS in 2004. (Map by Rebecca Hiller and Karina Liechti)

4. What is the relation between participatory processes and formalized democratic decision-making?

A World Natural Heritage Site between two hubs of regional development

In December 2001 the World Heritage Committee declared the Jungfrau–Aletsch–Bietschhorn region in the Swiss High Alps a World Natural Heritage Site. The justification for inscription in the list of World Heritage Sites is threefold: (1) The region covers the most glaciated part of the Alps, containing Europe's largest glacier and a range of classic glacial features, and it provides an outstanding geological record of the uplift and compression that formed the High Alps. (2) A range of alpine and sub-alpine habitats harbor a great diversity of wildlife, and plant colonization in the wake of retreating glaciers provides an excellent example of plant succession. (3) The impressive vista of the north wall of the High Alps has played an important role in European tourism, literature, and art (UNESCO World Heritage Center 2003).

The actual perimeter of the World Heritage Site (WHS) covers 824 km^2, including the extensions proposed to the east and the west (Figure 1). The WHS concentrates on the uninhabited high alpine zone and mainly consists of natural landscapes, with 80% of the area covered by glaciers and non-vegetated rocks, 8% by

unproductive vegetation, and 6% by alpine forests, whereas only about 5% of the area is covered by alpine vegetation serving as mountain pastures (SFSO 2001). The WHS straddles the border of the two Swiss cantons of Berne and Valais. The Bernese part to the north is characterized by steep mountain slopes and includes the well-known peaks of Eiger, Mönch, and Jungfrau (4158 m), as well as the Jungfraujoch (3471 m), with the highest railway station in Europe, built already in the early 20th century. A world-famous tourist attraction and departing point for ski tours, glacier treks, and mountaineering expeditions, the Jungfraujoch is also the only technically developed access point to the WHS (Figure 2). The Valaisan part of the WHS to the south is less steep and mainly dominated by extended glaciers and remote valleys that have largely maintained their original character and are, for the most part, untouched by the main tourist streams.

Due to its transboundary position (straddling the border between two cantons or provinces), the WHS is related to two major hubs of regional economic development: the highly developed tourist region in the eastern Bernese Oberland to the north, and the upper part of the main valley of Valais, where remote traditional agriculture was superseded by industrial and tourism development during the second half of the 20th century, to the south. This situation is reflected in the territories of the communes (local administrative unit comprising one or several villages) containing a share of the WHS: their core settlements and socioeconomic activities are located in the valley bottoms north and south of the High Alps, whereas the perimeter of the WHS covers only the remote periphery of these political units. Therefore, the overall Jungfrau–Aletsch–Bietschhorn (JAB) region extends beyond the perimeter of the WHS to include the communes (8 in the Canton of Berne and 18 in the Canton of Valais) whose territories contain shares of the Alpine World Heritage Site and its proposed extensions (Figure 1). This overall WHS region covers 1629 km^2 and is home to 35,000 inhabitants (SFSO 2005).

During the phase of preparing the nomination of the JAB region as a World Heritage Site before 2001, discussions on the differentiation of and relation

FIGURE 2 The Jungfraujoch (3471 m) with the Sphinx observatory and the Great Aletsch Glacier. (Photo courtesy of the Management Centre of the Jungfrau–Aletsch–Bietschhorn WHS)

FIGURE 3 Phases of the 2004 participatory process to concretize the Jungfrau–Aletsch–Bietschhorn World Natural Heritage Site.

Phases of the participatory process in the Jungfrau-Aletsch-Bietschhorn World Natural Heritage Site

Phases		Timing	Participants	Outcome
Preparation: Stakeholders	Preparatory workshop	Dec 2003	Selected participants from the region (12) and core group[a)]	Identification of key stakeholders and thematic fields
Forum round A: Objectives	F1 BE, F2 BE, F1 VS, F2 VS	Jan 2004	Participants (30–60 per forum) and core group	Refinement of 6 overall goals for the WHS and elaboration of 80 specific objectives
Intermediate: Negotiation and synthesis	Intermediate steps	Feb 2004	Participants Core group	Questionnaire on objectives; Internet discussion Synthesis of the forum results
Forum round B: Measures	F1 BE, F2 BE, F1 VS, F2 VS	Mar 2004	Participants (30–60 per forum) and core group	Refinement of conflicting objectives, elaboration of 226 specific corresponding measures
Intermediate: Negotiation and synthesis	Intermediate steps	Apr 2004	Participants Core group	Questionnaire on measures; Internet discussion Synthesis of the forum results
Forum round C: Actions	F1 BE, F2 BE, F1 VS, F2 VS	May 2004	Participants (30–60 per forum) and core group	Refinement of measures; discussion according to thematic thrusts; elaboration of 87 proposed actions
Intermediate: Negotiation and synthesis	Intermediate steps	Jun 2004	Participants Core group	Internet communication Grouping of the proposed actions into 21 project lines
Finalization: Project lines	Final meeting	Jun 2004	All participants of the forums and core group	Prioritization of the 21 project lines and notices of interest in specific projects by participants
Implementation of project lines	Projects	as of July 2004	Participants according to their respective interests	Concretization and implementation of the WHS Management Plan

F1 = Forum on agriculture, forestry, tourism and trade; **F2** = Forum on education, sensitization, and natural and cultural values; **BE** = Canton of Berne; **VS** = Canton of Valais

[a)] Core group: WHS Management Centre plus moderators and researchers

between the internal perimeter and the adjacent areas of the communes that are territorially bound to the WHS played an important role in revealing both synergies and contradictions between conservation and development issues. The process was based on consultations between communes, civil society organizations, nature conservation NGOs, and public administration at the cantonal (provincial) and federal (national) levels. It led a majority of the inhabitants of the communes affected by the proposed perimeter to vote in favor of participating in the initiative for a WHS. In the *Charter of Konkordiaplatz* (Verein Weltnaturerbe Jungfrau–Aletsch–Bietschhorn 2001a) the concerned Bernese and Valaisan communes emphasized their involvement and leadership in the regional endeavor of establishing a WHS. They agreed to commonly engage in sustainable development in their communes in general, and to maintain their stewardship of the natural and cultural heritage of the entire region, including both the WHS perimeter and the adjacent areas. This agreement formed the basis for the implementation and concretization of the World Heritage region after its formal recognition by the World Heritage Committee in 2001 (Verein Weltnaturerbe Jungfrau–Aletsch–Bietschhorn 2001b).

Methodology

The present study analyzes the participatory multistakeholder process (Hurni 1998; Breu et al 2005, in this issue) that was initiated by the Management Centre of the WHS after the Jungfrau–Aletsch–Bietschhorn (JAB) region was formally declared a World Heritage Site and the institutional arrangements for its management were formalized, in 2004. The process was divided into several phases (Figure 3), and involved participants from various subregions (Figure 1). Some of the participants were selected after a preparatory workshop (Figure 3); others joined as a result of several announcements in the media and on the Internet, or of face-to-face communication.

The main empirical basis for this study consists of 268 standardized questionnaires filled in by the participants of the participatory process. One hundred and forty-two of these questionnaires—distributed after forum round A—assess the list of 86 objectives for the WHS perimeter

and the adjacent region that were defined and negotiated during round A (Figure 3). Another 126—distributed after forum round B—assess the 226 measures to implement the objectives for the World Heritage Site and region that were proposed and discussed during round B. The results of each of these surveys produced key inputs for discussion in the following forum round (Figure 3). In both cases participants approved or rejected objectives and measures, and, in case of approval, assigned priorities ranging from "very high" to "low" priority.

According to respondents' self-categorization, they represented the following actor categories: agriculture and forestry (33 respondents for objectives and 30 for measures), tourism (24 and 23), transport, crafts, industry, and trade (9 and 13), nature conservation (16 and 17), education and culture (15 and 16), public administration (23 and 25), no specification (22 and 2). The likely occurrence of overlaps within the actor categories cannot be tackled in this quantitative approach, but will be further elaborated in future discussions of forthcoming results.

The return rate was over 75% for both questionnaires; this reveals the commitment and importance assigned to the process by the participants. The evaluation of objectives and measures took place *after* the discussions in the forums, which means that participants evaluated the outcome of their *own* negotiation processes. On the one hand, this explains why acceptance rates were generally high; on the other, it also underlines the existence of significant disagreement and conflicts in those cases where individual objectives and measures were rejected (rejection rate [%] = 100 – acceptance rate [%]).

In addition to the data from the questionnaires, the present study builds on qualitative data gathered through carefully documented participatory observation of discussions throughout the workshops, as well as analysis of abundantly documented formal and informal feedback on the 2004 process as expressed in letters or e-mails to the WHS Management Centre and in the local and regional press.

Negotiating conservation and development in a participatory process

When the idea of establishing a WHS was concretized in the late 1990s, the region's population reacted with skepticism. During the process of preparing the 2001 nomination their attitude turned into broad acceptance and enthusiasm. This was the result both of broad campaigns involving strong personalities, and of a formal democratic decision-making process at the level of the communes involved.

However, following the approval of the WHS in 2001 it became clear that the high level of acceptance in the region was based on very diverse and conflicting expectations. A comprehensive evaluation of opinions expressed in the local press between 1997 and 2003 revealed that some parties expected increased conservation efforts within the perimeter, while others expected increased attention to be given to cultural landscapes and the unique characteristics of the entire region; yet another large group of stakeholders expected immediate economic gains based on the World Heritage label. These results showed that the high level of acceptance of the WHS achieved through formal democratic procedures was not based on common goals and strategies for implementation and management in the WHS perimeter and region.

The contradictions between acceptance and expectations that remained after the formal democratic decision in 2001, along with the need for a WHS Management Plan based on broad acceptance, made it necessary to initiate the participatory multi-stakeholder process discussed in the present study. The aim of this process was to negotiate concrete objectives, measures, and activities for the WHS, and to enhance ownership and common responsibility in the region. This approach is in line with new paradigms in environmental policy-making that build on communication, deliberation, negotiation, and social learning (Kaufmann-Hayoz et al 2001), as well as with the new role postulated for conservation areas in sustainable regional development approaches (Hammer 2003). Figure 3 gives an overview of the phases, structures, objectives, and outcomes of the participatory process which took place in the first half of 2004 and involved 256 representative participants (see also Figure 1).

At first, the negotiations in the forums confirmed the diverse and conflicting expectations related to the establishment and management of the WHS. However, it was interesting to note that conflicts and alliances related to differing objectives that occurred during forum round A partly disappeared or were transformed during the negotiation of measures, actions, and project lines in the forum rounds B and C (see Figure 3 for the process; for concrete examples see Table 3, discussed below). The reason for this is that many objectives which emerged as conflictual in principle in forum round A do not require concrete measures and action. For example, some objectives related to a higher degree of conservation do not require immediate measures because no human or natural processes currently endanger the values to be conserved. (see also Wiesmann and Liechti 2004). At the same time, many measures that were the object of controversies in forum rounds B and C are not linked to disputed goals and objectives. These aspects were systematically addressed in intermediate steps between the forum rounds (Figure 3) and led to a considerable reduction of conflicts and an increased potential for thorough compromises. This reflective approach resulted in 86 consolidated objectives and 226 related measures that balance development and conservation

TABLE 1 Thematic fields and corresponding number of objectives and measures proposed by the stakeholders, resulting from the forum rounds A and B in the WHS in 2004.

Thematic fields	Number of specific objectives formulated	Number of specific measures formulated	Total number of objectives and measures
Tourism	14	45	59
Agriculture	10	27	37
Transport	11	24	35
Forestry	9	23	32
Environmental sensitization	6	19	25
Crafts and trade	6	19	25
Energy	6	10	16
Landscape development	1	13	14
Industry	4	8	12
Information centers	1	11	12
Fauna and flora	3	9	12
Hunting	5	3	8
Culture	0	8	8
Education and research	2	4	6
Fishery	2	3	5
Integrative goals of sustainable development	**6**	–	**6**
Total	**86**	**226**	**312**

aspects for the WHS and the adjacent region. Finally, these objectives and measures were prioritized and grouped into 21 project lines—7 related to conservation issues, 7 to development efforts, and 7 to sensitization and management (Managementzentrum Weltnaturerbe Jungfrau–Aletsch–Bietschhorn 2004a and 2004b).

Basic pathways to development and conservation

Analysis of the results and outcomes of the participatory process reveals basic pathways to development and conservation as conceived by the participants. First, the study examined the 86 objectives and 226 corresponding measures that were proposed and discussed during the forums. It can be assumed that those themes for which the largest number of objectives and measures were formulated raised most attention among the various stakeholders and can therefore be considered particularly important with regard to achieving the overall goals of sustainable development in the region, and balancing development and conservation in the WHS. Table 1 lists 15 thematic fields with the numbers of corresponding specific objectives and measures elaborated during the participatory process, sorted by the total number of objectives and measures per thematic field.

The ranking in Table 1 shows that stakeholders attribute the greatest power to contribute to the overall goal of sustainable development to the 2 economic sectors of tourism and agriculture. This conclusion is further enforced when considering that the transport sector (rank 3) is very closely linked to tourism and that forestry (rank 4) is, in most cases, related to agricultural enterprises. The strong position of these 2 sectors indicates that local stakeholders see tourism as the most important economic force and basis of livelihoods in the region both at present and in future, and that agriculture plays a key role with regard to the ecological and sociocultural dimensions of sustainable mountain development (see also Bätzing 2003). Table 1 further indicates that objectives and measures related to other economic sectors, to sensitization and information, or

TABLE 2 Basic orientations of pathways to development and conservation underlying the 86 objectives and 226 measures defined during the multi-stakeholder participatory process.

Basic orientation of pathways	Objectives and measures related to basic orientations
1. Maintenance of current conservation status	6 objectives and 7 measures focusing on the status quo of current conservation measures such as maintaining water bodies as habitats for fish, or protection of endangered species.
2. Reinforcement of nature protection	12 objectives and 42 measures aiming to enhance nature conservation and re-establish "natural landscapes" to the highest degree possible, in order to assure survival of endangered species or improve landscapes from an aesthetic point of view.
3. Preservation of current cultural landscape	15 objectives and 17 measures aiming to assure permanent reproduction of a cultural landscape, including adequate compensation for restrictions in resource and landscape use as well as for special reproductive services such as combating shrub invasion.
4. Increased economic use of space and resources	18 objectives and 26 measures aiming at a more intense economic use of resources involving new products in tourism, sport events, and souvenir and food production; this also comprises the creation of more room to maneuver for trade, handicrafts, and other industries in the region.
5. Improved planning for regional development	11 objectives and 34 measures aiming to transform the area into a region for "sustainable regional development" based on an in-depth discussion of conservation and development needs, taking into account the means for conflict mitigation.
6. Sensitization and awareness creation	12 objectives and 54 measures aiming to raise awareness of the WHS among certain groups of local actors and tourists; this also includes education, standardized (road) signs, and presentation of the region in the media.
7. Enhancement of regional resource cycles	9 objectives and 20 measures aiming to enhance the use of on-site resources (eg use of wood from the region for construction) and keep transportation at a minimum level.
8. Concerted promotion and marketing	3 objectives and 26 measures that deal with marketing, labeling, and more coordinated action between subregions of the WHS in order to promote regional products and services.

to ecological conservation are seen as supplementary to the 2 core strategies of sustainable development—tourism and agriculture.

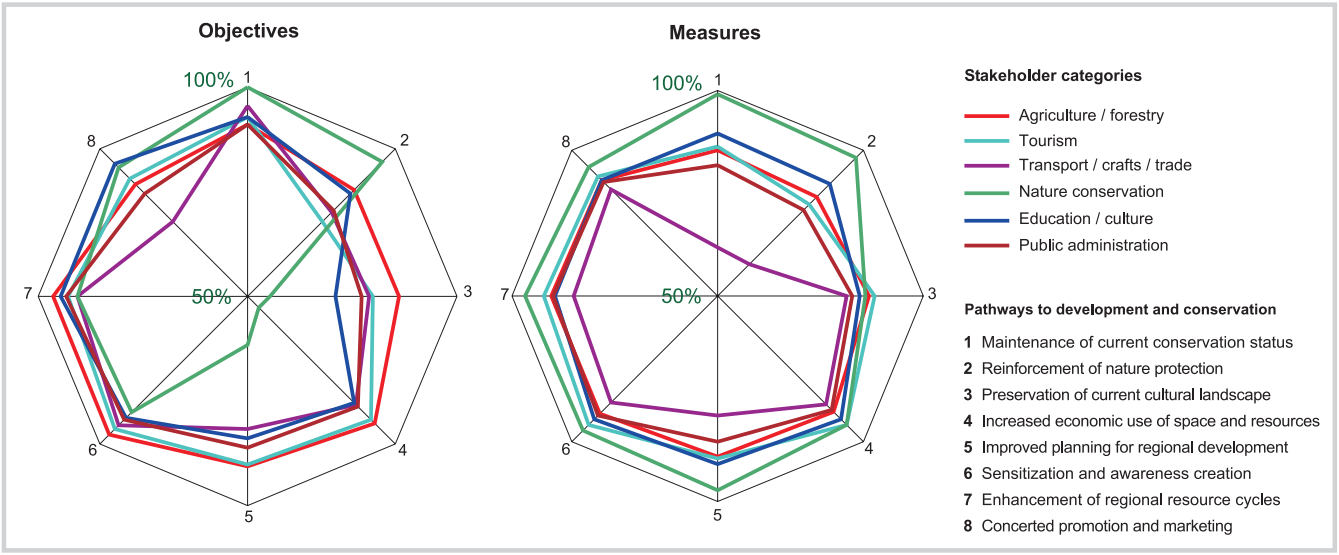
A more detailed analysis of the range of objectives and measures resulting from the participatory process was achieved by grouping them according to basic orientations assumed to underlie the various stakeholders' visions of pathways to development and conservation. Table 2 shows the 8 basic orientations that researchers distilled from the negotiations in the participatory process. The first 4 categories relate to different perceptions of and positions vis-à-vis landscape and nature. While orientations 1 and 2 refer to nature and natural landscapes, orientation 3 puts more emphasis on long-term interactions between humans and nature, and thus on cultural landscapes. Orientation 4, finally, reveals an understanding of space and nature mainly limited to resource functions. The fact that all of these 4 views of nature and landscape were reflected and concretized in specific objectives and measures for the WHS and the region, indicates that local stakeholders are well aware of the importance of multifunctional perspectives and approaches to sustainable development.

Basic orientations 5 to 8 deal less with nature and the environment than with societal and economic processes and structures. They mark strategic elements through which the various visions of sustainable regional development are to be achieved. The specific objectives and measures that stakeholders identified in relation to all 4 orientations indicate that the elaboration of pathways to sustainable development may have to be seen as an iterative process between different strategic positions and options.

Conflicts and common ground between different stakeholders

After each forum round of the participatory process (Figure 3) the results of deliberations were individually evaluated by each participant (see section on methodology). In particular, participants accepted or rejected the outcomes of their negotiations in terms of specific objectives and measures. Analysis of the rates of acceptance and rejection per participant category, and in relation to the above basic orientations underlying pathways to development and conservation, reveals conflicts

FIGURE 4 Acceptance of objectives and measures related to the basic orientation of pathways to development and conservation by different stakeholder categories.



and common ground between different stakeholders (acceptance rate [%] = 100 – rejection rate [%]). Figure 4 shows the results of this analysis for 6 stakeholder categories (see section on methodology). Table 3 gives examples of high and low acceptance rates of objectives and measures per basic orientation.

Results show that rejection rates are generally low: the 86 objectives were rejected by an average of 14.5% of the participants, the 226 measures by an average of 10.7%. This indicates that the participatory negotiations included and adequately considered the views and visions of the different stakeholders, although overall rejection rates reached over 40% at the level of some individual objectives and measures (Table 3).

Comparing the degrees of acceptance of the objectives as expressed by different actors, it becomes evident that 5 of 8 basic orientations of development and conservation pathways show conflicting valuations by one or several stakeholder categories (Figure 4). Most interestingly, the valuations of stakeholders representing nature conservation differ significantly from those of the other 5 stakeholder categories, whose acceptance rates are comparable in all 8 orientations. This difference relates to perceptions and views of nature and landscape. While nature conservationists show the highest acceptance rates of measures and objectives grouped in orientations 1 and 2 and directed at maintaining and reinforcing nature protection, they take a critical position towards objectives referring to cultural landscape, natural resource use, and related planning approaches (orientations 3, 4, and 5; see Figure 4). The respective average rejection rates of 38–46% are very high, considering that the objectives were evaluated after the deliberations in the forum rounds. This implies that conflicting views and visions of landscape development persist between conservationists and the other stakeholder categories.

More so, these conflicts potentially jeopardize the concretization of the WHS, as they touch on the key position with regard to strategies for sustainable regional development that local stakeholders assigned to agriculture and tourism. For example, the objectives of compensating or substituting agricultural landscape maintenance or of linking components of tourist infrastructure (orientations 3 and 4, Table 3) were rejected by 63% and 93% of the conservationists, as opposed to only 17% and 19% of the participants representing agriculture and forestry, and 22% and 0% of those representing tourism. Taking into account the fact that the percentage of representatives from outside the region was higher in the nature conservation group than in other groups—mainly because this actor category builds on well-established national networks in which local conservationists are strongly embedded—the above results may indicate a basic conflict between outsiders' visions of pristine nature and wilderness in a World Natural Heritage Site, on the one hand, and the local inhabitants' views of sustainable regional development, on the other hand.

However, when turning to the level of measures as displayed in Figure 4, the situation looks very different. Here, nature conservationists show high to very high acceptance rates in all 8 orientations, even in those they rejected at the level of objectives. This implies that the conflicting basic views on nature and landscape are not reflected at the level of concrete calls for action. In other words, ideological and visionary differences may dissolve when discourses between nature conservationists and local stakeholders are brought down to concrete action. The results displayed in Figure 4 further indicate that conflicts at the levels of measures and actions are mainly related to concrete and particular economic interests of different categories of local stakeholders. For instance,

TABLE 3 Examples of objectives and measures with high and low acceptance rates among the participants for each basic orientation of pathways to development and conservation.

Basic orientation of pathways	Acceptance rate	Examples of corresponding objectives (o) and measures (m)
1. Maintenance of current conservation status	High [99%]	Maintenance of fish habitats (o)
	Low [67%]	Ban on new river control structures in order to maintain fish habitats (m)
2. Reinforcement of nature protection	High [96%]	Establishment of game refuges (o)
	Low [57%]	Ban on mountain airfields in the perimeter (o)
3. Preservation of current cultural landscape	High [91%]	Local agriculture ensures sustainable use of cultural landscapes (o)
	Low [70%]	If agricultural use stops it has to be compensated by adequate landscape conservation measures (o)
4. Increased economic use of space and resources	High [96%]	Enhancement of agrotourism (o)
	Low [77%]	Linking components of tourism infrastructure (cable cars, hiking trails, etc) (o)
5. Improved planning for regional development	High [95%]	Elaboration of a conflict map to help prevent tourists from disturbing game (m)
	Low [75%]	Financial contribution from the tourism sector for sustainable development (m)
6. Sensitization and awareness creation	High [97%]	Better knowledge of native region among local inhabitants (o)
	Low [78%]	Informed access to the WHS from every entry point in the region (o)
7. Enhancement of regional resource cycles	High [97%]	Innovations in the use of local timber (m)
	Low [61%]	Use of a specific percentage of wood in every new building (m)
8. Concerted promotion and marketing	High [98%]	Cooperation in joint tourism marketing efforts (m)
	Low [68%]	Sale of WHS products in industrial firms, eg bread from the region offered in canteens (m)

representatives of the transport, industry and trade sectors expect development restrictions from nature protection measures, leading to high rejection rates in orientations 1 and 2. On similar grounds, stakeholders of the tourist sector reject the ban on mountain airfields or financial contributions to sustainability initiatives with rates of 70% and 33% respectively (Table 3).

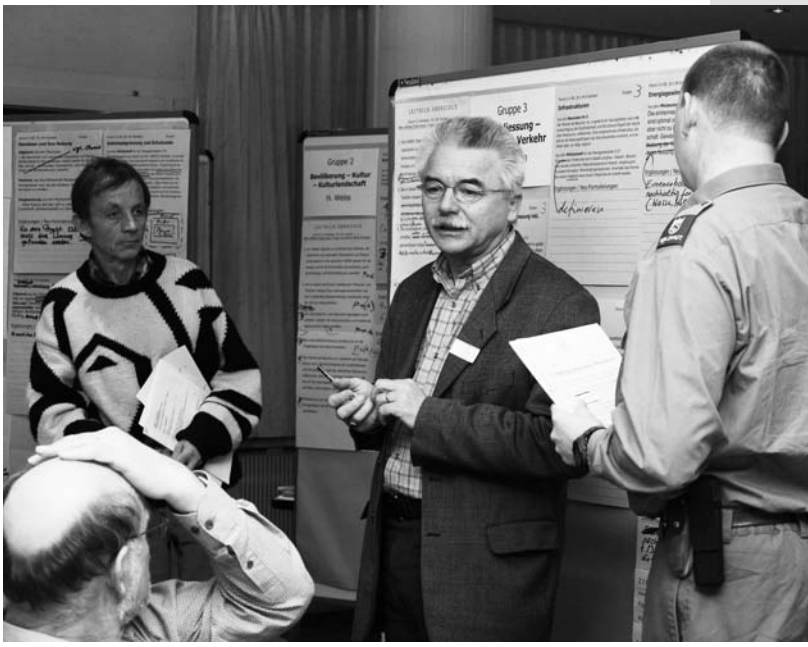
In sum, conflicts at the level of objectives are mainly related to differences between basic visions of the region and are therefore more pronounced between outsiders and insiders, while at the level of measures, they relate more to frictions between concrete interests of different local stakeholder categories (Figure 5).

Conclusions

Turning back to the research questions listed at the beginning of this paper, the results of the above analyses lead to the following conclusions regarding the nature and role of participatory multi-stakeholder processes in concretizing sustainable development and conservation in a WHS:

1) In relation to the question of the thematic levels relevant to the participatory process, the study clearly shows that negotiation of conservation issues related to the WHS must necessarily be linked to issues of development in the entire region. This implies that negotiating sustainable development—in the sense of finding an appropriate balance between conservation and development—must become the key concern for most participating stakeholders from the region. However, the results also show that the stakeholders are primarily interested in reaching concrete results and agreements on pathways and actions expected to promote sustainability, rather than in debating about a concrete vision of sustainability for the WHS and the region. Therefore, facilitation of debates on the role of key sectors such as mountain agriculture and tourism is most important when concretizing strategies for sustainable regional development. It is this orientation towards action, rather than vision, which justifies the fact that conflicts between different local stakeholder

FIGURE 5 Discussion among participants of the participatory process in the Jungfrau–Aletsch–Bietschhorn WHS. (Photo by Urs Wiesmann, 2004)



categories are mainly manifested at the level of measures, and less at the level of objectives.

2) The study, however, also reveals that different visions and perceptions of nature and landscape are an underlying current in the debate, and that they influence positions taken in negotiations. Three visions can be differentiated, all of them playing an important implicit role in concrete action-oriented discourse on sustainable regional development: first, a vision of pristine nature and natural landscapes that includes aspects of wilderness and a wide range of conservation issues; second, a vision of nature that is clearly related to humankind and is manifested as cultural landscape; and third, a vision that is dominated by the utility of nature and space, and focuses on economically relevant natural resources.
3) The study shows that it is possible to differentiate stakeholder categories according to the position and attitudes participants take in the negotiation process. Among these categories, a particular role is played by nature conservationists, who are frequently not local inhabitants but have an urban background and represent a vision of nature and natural landscapes needing protection. Their position conflicts with that of many local stakeholder categories, though less at the level of concrete measures than at the level of fundamental objectives. Among local stakeholders, two main positions can be differentiated. On the one hand, a broad alliance of actors related to agriculture, education, public administration, and partly tourism share a vision of endogenous development and cultural landscape; on the other hand, local tourism, industry, and transport operators emphasize economic utility and respective use of natural resources and landscapes. The participatory process succeeded in bridging the gap between these positions by solving conflicts related to objectives at the level of measures, and vice versa.
4) With regard to the relation between participatory processes and formalized democratic decision-making, the study clearly shows that the original democratic approval of the World Heritage Site in 2001 did not solve persisting conflicts related to balancing conservation and development. On the contrary, it led to the emergence of a broad range of contradictory expectations among the different stakeholders. The participatory process was a necessary strategy, complementary to formal democratic decision-making, to address these contradictions. However, reactions from part of the local elite and some formal representatives of civil society pointed to a challenge for the future: negotiation platforms must be related to present rules of representative democracy, which has a long and important tradition in the history of the Alps.

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