

Workshop Output WS 2.1.B

Title of workshop: Cultural ecosystem services – conflicts and limits

Prepared by

Moderators	Uta Schirpke, Rocco Scolozzi
Participants*	12

* Workshop participants that have submitted contributions to the workshop

General questions to please be answered in the workshop reporting

- 1) What was the focus of the workshop? Methodological issues and advancements or thematic issues (systems knowledge, transformation knowledge, target knowledge). Please check and fill in the matrix in the output section.

Methodological issues and advancements	Thematic issues		
	System knowledge	Transformation knowledge	Target Knowledge
X	X		

- 1) Which key points were discussed in the workshop as a whole? (This should be more a synthesis and not simply a summary of the key points in each presentation)

Key points concerned the conflicts in different uses and values associated to mountain ecosystem. Such conflicts can arise from improved accessibility that affect aesthetic value (in nonlinear manner) or from spreading of outdoor activities (e.g. backcountry skiing) or from over access to small and sensitive areas. Conflicts between users or between different uses are increasingly recognized by both residents and tourists, while built infrastructures and tourism facilities are realized to sustain the local economy and to bring more tourists into pristine spots. Accessibility is also recognized as an impact factor on iconic species.

The discussions revealed that there is the need for a common framing of how to define conflicts related to cultural ecosystem services (CES), how to disentangle different associated processes and how to agree on limits of use or access to mountain ecosystems. Here, outdoor recreation as the most prominent CES plays a crucial role, as the increasing demand for outdoor recreation and different ways of recreational enjoyment (new types of outdoor activities) have important effects on socio-ecological systems and other CES. These effects are not yet studied or have been addressed only recently in some preliminary studies.

- 2) What is your opinion on the current state of knowledge concerning your topic(s) (focusing on mountain regions)? *Please check and fill in the matrix on the following page.*

Overall assessment of the state of:

What is your personal opinion on the current state of knowledge concerning the topic(s) addressed in your workshop. Please tick the appropriate field. Brief explanations are appreciated.

State of knowledge	Very good	Good	Poor	Very poor	Not appropriate	Comments
Global			X			<i>Different perceptions, rules and definitions</i>
Regional		X				<i>European Alps</i>
Scattered case study-based knowledge	X					<i>Some single study areas have been studied for long time</i>
Knowledge about past states/trends				X		<i>Almost no data due to novelty of concepts and processes (e.g. extreme sports appeared only recently)</i>
Knowledge about current situation			X			<i>First studies on recent trends</i>
Knowledge about future states/trends/thresholds				X		<i>High uncertainty about ecological and social processes and new trends</i>
Knowledge about the system			X			<i>See above</i>
Knowledge about shaping pathways to more sustainable development (transformation knowledge)			X			<i>Only few experiences with local stakeholders</i>
Knowledge about envisaged goals (target knowledge)			X			<i>No strategic planning available</i>

Ideas for questions to potentially be answered by the moderators after the workshop in the reporting (please delete what is not useful):

- 1) Were there any new insights and/or findings presented? If yes, which ones?

New findings from fieldwork and data analyses were reported, which confirm some plausible hypotheses (e.g. more access means more impacts) and new insights emerged about the potential of a systems thinking approach to understanding and managing (preventing or mitigating) conflicts in CES.

- 2) What was the main message/consensus of your workshop?

The workshop revealed that a common framework is lacking to define conflicts and limits related to CES. There was high agreement among all workshop participants that a market-based valuation of CES disregards important cultural and social values, but accounting for traditional and cultural values may better support the definition of limits of CES. A way of understanding the complexity of CES is making explicit the underlying social and ecological processes, aiming at “information feedback” that inform us and the users the impact we are causing to adjust our/their behaviors. This includes the knowledge on the values of CES for agents, a deeper understanding of the social and economic drivers in CES management, the interactions between users, value-based interventions, as well as of the consequences of our actions or management on people and nature.

- 3) Were major uncertainty issues identified and discussed? If yes, which ones?

There was a general agreement that CES are mostly of intangible character and their (sometimes subjective) value is difficult to capture. During the discussion it became also clear that limits are strongly related to people’s perceptions and that they depend on the location. For example, factors that limit outdoor recreational use may be different in different countries (e.g. safety plays an important role in South America but not in Europe) or perceptions of a certain factor may be different for people from different cultures (e.g. people from different countries have different perceptions of what actually means safety). Consequently, personal experiences, living conditions, the cultural background and other factors can influence the definition of limits or thresholds.

- 4) Was there any significant controversy (if so, what?) that requires new data (or further exploration of existing data) to resolve the issue? (explain)

The definition of an acceptable accessibility (or impact) is a controversy, which requires not only qualitative and quantitative data but also a map of processes (feedback loops) underlying the interventions and the impacts (e.g. reinforcing demand of accessibility and economic benefit). Systems thinking paradigm says that to change a system one should work “with” existing feedback loops (selecting those that cause positive dynamics) or replace those that are creating unwanted conditions; this could a promising approach in managing the conflicts in CES.

- 5) Were new research questions raised? If yes, would working on these questions need to involve other disciplines (which ones)?

How to define locally relevant limits to access or use of CES, how to agree on these with local stakeholders, i.e. both ecosystem managers and users/beneficiaries (tourists, hikers, etc.)

- 6) Did the workshop identify research topics (e.g. environmental drivers other than climate) that are, in your opinion, currently greatly underrepresented in mountain research, but should urgently be addressed?

The discussion confirmed that interdisciplinary approaches could support a better understanding of complex relationships, but especially social sciences and anthropology are still underrepresented. Here, systems thinking could support more interdisciplinary approaches as it allows integrating different kinds of data on social dimensions and natural processes.

Further Comments

In the session discussion, all the workshop participants were involved in a group discussion (with two working-groups) while the audience (21 people assisting the flash talks) was involved in short introductory session of participatory modelling.

Such session consisted of 3 phases:

1. INTRODUCTION to Systems thinking by illustrating a causal loop diagram representing the main processes involved in conflicts between different uses and values associated to CES
2. REVIEW phase: each participant was asked to write impressions on the simple model in terms of understandability, plausibility and usefulness
3. INTEGRATION phase: the participants were asked to suggest renaming of current variables and or adding further variables useful to illustrate better the processes of interest

In exploring the simple causal model, most recognized the need to further improve of the definitions of variables, which should always be accompanied by measurement criteria and interpreted in terms of dynamics over time. Even general insights emerged. One of these was about the relationship between normative knowledge (related to values, desired state or conditions) and scientific knowledge; for instance in defining any limits in use or accessibility anyone have in mind some definition of what is desirable or not. Such desirability is not neutral, but rather subjective, for that reason it should always be made explicit (so it can be debated and agreed). This would require taking into consideration the users/stakeholders perspectives, possibly including it in the model. Concluding, it was clear for all participants that any further development of the presented model necessarily requires a real case study. In just 45 minutes, they have already begun to better organize their ideas and share them in a structured way.