

Supplemental material for

“Revitalizing Collective Resources in Mountain Areas Through Community Engagement and Knowledge Cocreation”, by Cristina Dalla Torre, Sara Stemberger, Juri Bottura, Manola Corrent, Stefano Zanoni, Davide Fusari, and Paola Gatto, published in *Mountain Research and Development* 42(4), 2022. (See <https://bioone.org/toc/mred/42/4>)

TABLE S1 Identified collective resources, visions and actions organized according to SESF categories.

SESF first tier dimensions	SESF second tier dimensions	Identified elements
Resource System (RS)	RS1- Clarity of system boundaries	Aside of the forest, the community huts and the pastures – which are collective assets – there is also a collective use and enjoyment of private property, allowed by the people of the village.
	RS2- Type of resource (human built, natural)	Hiking and biking trails Mowed pastures Community hut Typical rural elements of the settlement The landscape Local technological and ecological knowledge Local stories and tales on collective resources Nicknames and toponymy Typical rural buildings Timber Wetland Wild animals Picnic area Climbing crag Fresh water Children's play in the square
	RS3- Desired future for the community	Return of young emigrants and new inhabitants, more tourists to revitalize the community through new ideas A liveable, lively village A welcoming place to stay for young people Community united and responsible in caring for the village Community services Community at the centre of hospitality Village restaurant and bike grill Linking tourism with agriculture Soft recreational activities: walking trails with rest points and fauna and flora observation points

		<p>Typical mountain village enhancing tourism potential while preserving traditions</p> <p>New forms of accommodation: Small ecological flats in restored abandoned houses, tree houses</p> <p>Not radically changed from what it is today</p> <p>Climate change as a driver of the revitalization of the community through new inhabitants</p> <p>Careful, aware, kind, calm, smart, welcoming, balanced tourism: e.g. cycling and climbing</p> <p>A liveable, lively village</p> <p>An open village but with conscious roots</p> <p>An opportunity to shape dialogue between agriculture and sustainable tourism</p> <p>Agriculture that protects the land and biodiversity, sustainable, collaborative and collective, creates employment, valorises local and organic products, keeps the meadows sown, small-scale animal husbandry</p>
Governance System (GS)	GS1- Government organizations	<p>ASUC</p> <p>Municipalities</p>
	GS2- Non-government organizations	<p>Retired persons</p> <p>Youth Groups</p> <p>Associations for the promotion of the region</p> <p>Local producers</p> <p>Theatre companies</p> <p>Individuals with their abilities</p> <p>Forestry Consulting company</p> <p>Young, small-scale breeders</p> <p>Beekeepers</p> <p>New inhabitants and investors</p> <p>Owners of old houses ready to invest</p> <p>Schools and libraries</p> <p>Innovative entrepreneurs in hospitality</p> <p>Local museums and research centres</p> <p>Alpine and sports associations</p> <p>Young university students who come back to bring their talents</p> <p>Local guides</p> <p>Cycle tourists</p>
	GS3- Collective-choice rules (inclusion of women, newcomers, youth)	<p>The care of the land and landscape</p> <p>The functional use of collective resources, e.g. community hut</p> <p>The care of the settlement elements</p> <p>Collaboration among ASUCs</p> <p>Inter-municipal synergy</p> <p>Entrepreneurs who want to enhance the sense of community</p>
Actors (A)	A1- Number of actors	

	A2- Importance of resource (dependence)	Feeling of belonging
	A3- Appropriate leadership / entrepreneurship	The community rules The ASUC and the management of the collective resources Agriculture and farming practices Village entrepreneurs Skilled volunteers who share their time and skills Informal groups of volunteers
Action situation	I1- Harvesting	Access to forest near the village Silence and tranquility The wild character Convivial moments and local parties
	I2- Information sharing among users	Inhabitants' WhatsApp group The community bonds
	I3- Deliberation processes	
	I4- Conflicts	
	I5- Investment activities	
	I6- Desired actions, strategies	Increase attractiveness for young skilled people and new inhabitants Strengthen collective resource management by ASUC to prevent speculative investments Communicate and transmit collective resource management to youth Rethink collective resource management to meet future challenges Rethink breeding and agriculture models into a more regenerative, valorizing one for the region Diversify the offer of activities Environmental restoration of natural resources from pollution Link trails and paths Increase internet connection Limit motorized traffic in natural areas Create a convivial meeting place and moments for the community Shape outdoor environment education in schools to create awareness on the region since early age Shape a community entrepreneurship project to care for the region while creating job places Valorization of regional products and culture Change narrative into "I work where I live"