

CASE STUDY

MOUNTAIN WOOD AND THE PRODUCTS OF TRADITIONAL LIVESTOCK BREEDS IN SLOVENIAN ALPINE SPACE – AN ATTEMPT TO ENHANCE MARKET VALORISA- TION OF ESBOs (SLOVENIA)

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1 Introduction: What is the case study about?

Summary: Enhancing rural vitality and preserving habitats through market valorisation of locally sourced products

Table 1: Case study overview

Country	Region	Farming/forestry system	Action	ESBOs	Drivers	No. managers
Slovenia	Upper Savinja Valley	HNV farming: permanent grassland + sustainably managed forests	Increasing valorisation of locally sourced goods	Rural vitality Grassland/forest habitats Genetic resources Public health and recreation	Economic and social decline Market demand Private initiative Action-based research	212

Geographical and socio-economic characteristics of the study area

The study area includes two mountain municipalities (Solčava and Luče) in the Upper Savinja Valley at the border with Austria in the North of Slovenia, covering 21,300 ha and approximately 2,000 inhabitants (Statistical office of Slovenia, 2016). This remote, sparsely populated area is characterised by small municipalities in a typical alpine setting, over 80 % forest cover and narrow valleys nested between the tall peaks of Kamnik-Savinja Alps. The area is settled in a distinctive pattern called *celek* or '*celk*', characterised by scattered secluded farms on slopes with a relatively large estate in one piece, i.e. not fragmented (large forest estates, some alpine meadows), and small conurbations in narrow alpine valleys.

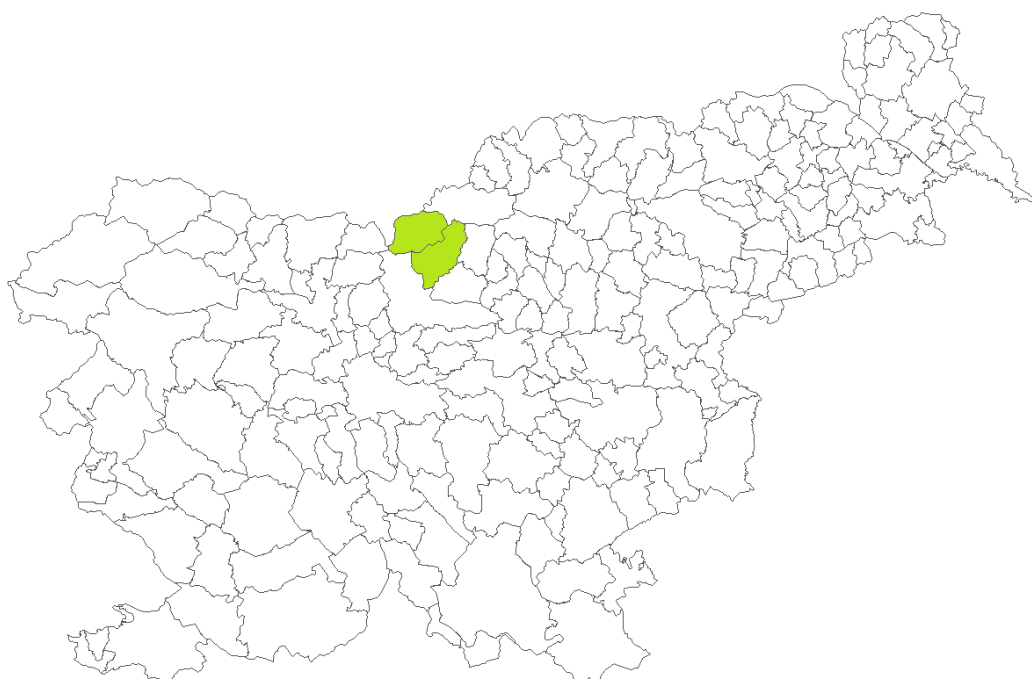


Figure 1: Location of case study within Slovenia



There were 157 farms in Luče and 55 in Solčava in 2010 (SORS, 2016). The main agricultural activity is ruminant livestock production on permanent grassland and focused on dairy and meat with the local (autochthonous) sheep breed “*Jezersko-Solčava*” sheep, the autochthonous cattle breed “*Cika*”, as well as the Brown cattle breed. Farming is not the exclusive or main activity of most of the farms; some are focused on forestry, others on tourism and other economic activities. Thus, of 50 active farms in Solčava, 18 are engaged in tourism and 26 in other supplementary activities. Like elsewhere in the Alps, natural conditions do not allow for intensive farming. A third of the farms are organic, others manage land extensively. Half of the farms are located on altitudes above 1,000 m and all lie in areas with natural constraints. The average size of these farms is 130 hectares (which is atypical for Slovenia, where the average farm size is 6,7 ha). This is a historical legacy since the Middle ages, when some families were granted the right to settle this area, exploit the forest and form independent holdings, which managed to survive even the turbulent times of the communist experiment in the 20th century. Agricultural land usually represents a small share of the holdings; according to our field study investigation, this proportion ranges from 10 to 30 per cent. The rest is mainly forest. Where accessibility and/or the slope of the terrain permit, the forests have been commercially exploited for centuries. Forests have traditionally represented the main (or important supplemental) source of farm income and the main source of capital for investment (Mavsar, 2005).

Table 2: Land use in the study area

		Area (ha)	Number of holdings
All utilized land	Luče	4504	157
	Solčava	5683	55
Agricultural land	Luče	1066	156
	Solčava	536	55
Utilized agricultural area	Luče	983	156
	Solčava	n/a	55
Fields	Luče	8	140
	Solčava	1	43
Permanent grassland and pasture	Luče	954	155
	Solčava	501	55
Permanent crops	Luče	21	39
	Solčava	n/a	10
Forest	Luče	3381	149
	Solčava	3732	52
Unproductive land	Luče	58	157
	Solčava	1415	55

Source: SORS, 2016. 2010 data.

The economic performance of the area is relatively favourable, despite the harsh living and production conditions and isolated location. Historically, this area was managed by large family holdings, operating in a relatively advanced, rational and economically efficient manner, handing their estates down from one generation to another and causing them to consider the long-term effects of their management. A natural consequence of this has been sustainable



land management that has resulted in preserved forest, agricultural land, special aesthetic quality of the landscape and diverse, preserved grassland habitats. The area has been building on its 'green growth' character, particularly in the last decades, adapting quickly to the growing market demand for outdoor tourism and agri-tourism. Farmers in the area have always been advanced compared to farmers elsewhere, adopting technological advancements and making use of the natural setting (e.g. transport, primary processing of wood, animal production technologies, tourism) (Mavsar, 2005).

The area is characterized by high-nature value (HNV)¹ farming, in part because the natural constraints dictate it, and in part because it makes economic sense to do so: the species-rich semi-natural grassland habitats, created and maintained using adapted breeds of domestic animals (especially the abovementioned autochthonous *Jezersko-Solčava* sheep and cattle breed *Cika*), and well-managed, selectively cut forests, are very attractive to tourists. About 75 % of the municipality of Solčava and 50 % of Luče are protected under Natura 2000 (ZRSVN, 2013). There are two major nature parks (protected areas) in the area, *Logarska dolina*² and *Robanov kot*³, which have both been very popular tourist destinations due to their beautiful landscapes since the beginning of the 20th century (Anko et al., 2007). With growing affluence and mobility of (predominantly) domestic visitors in the 1970's and 1980's, popularity of the area increased, which holds in particular for its main landmark, the *Logarska valley*. The area became a popular destination for daily excursions, putting strong pressure on the local infrastructure, environment, and local community as such. The pressure of tourists during peak seasons created enormous problems with motor traffic congestion, uncontrolled and unauthorized parking, burning and deliberate or accidental damage to natural and cultural heritage. As a reaction to the unfavourable consequences of massive tourism, the local community led an initiative to establish a protected area. In 1992, the local community established a private company Logarska d.o.o. The company has been granted the right to manage tourist visits for the duration of the municipal concession, including the right to charge an entrance fee for motor vehicles to the *Logarska valley*. This enables it to regulate the market, in addition to providing income to cover the cost of employment of permanent and seasonal staff, which ensures the management of urban and tourism infrastructure – including interpretation and other items of tourist infrastructure (Anko et al., 2007). The case of Logarska d.o.o. represents a unique management practice in which the local community joined forces to preserve their natural heritage.

¹The essence of HNV farming is its semi-natural character that provides a multitude of habitats and other ecosystem services. See <http://www.hnvlink.eu/what-is-hnv/>

² <http://www.logarska-dolina.si/>

³ <http://www.solcavska-panoramska-cesta.si/en/destination/the-robanov-kot-valley>





Figure 2: Landscape with alpine farm

Source: <http://www.solcavska-panoramska-cesta.si/si/znamenitosti#visokogorske-kmetije>

ESBO focus

As the predominate users of the land in the study area, farming and forestry have decisively marked the cultural landscape, contributing strongly to rural vitality and indirectly, through tourist visits, to public health and recreation. The sustainable practices used here have contributed to the preservation of permanent alpine grassland and forest habitats and traditional breeds (two of them autochthonous), which constitute both important genetic resources and cultural heritage. Based on the interviews and focus groups conducted in the area (see Appendix), we found that there are two main ways in which the delivery of ecological and social benefits from agriculture and forestry can be enhanced.

The first concept is based on ensuring a constant purchase of the meat of the local breeds, which should help to maintain farming and thereby contribute to the preservation of grassland habitats, genetic resources and rural vitality. We dubbed this concept “**Traditional breeds**”, and based on the results of the first two steps of the project (see the Step 1-2 report), our action-based research was directed towards finding the possibility to form a value chain with meat products, which would help to valorise the attributes linked with local livestock production, such as mountain products, organic production and/or local breeds.

The second concept is again founded on the search to improve the economic position of the local population through improving the market appreciation for the locally sourced wood; an important collateral benefit is the contribution towards preserving forest habitats. We call this



concept “Mountain wood”, borrowing the name from previous attempts of the local community to valorise high quality and special characteristics of local wood species.⁴

During our action-based research, whose aim was to build upon existing local initiatives, the two concepts have diversified into two distinct socio-ecological systems and we have tried to analyse and develop them both with the cooperation of their respective stakeholders (which naturally overlap to a certain extent). For clarity, this report is structured in a way that clearly separates the two socio-ecological systems. We briefly summarize the events that represented the main milestones in our research in Tables 3 and 4.



Figure 1: National workshop

⁴ <http://www.solcavsko.info/index.php?id=14>

Table 3: Research milestones phase I – Analysis of ESBOs and prioritisation

Date and location	Event	Main actors	Main questions	Findings/output
17. September 2015, Solčava (Centre Rinka)	National workshop	Farmers, municipality representatives, CAE ⁵ , representatives from institutions	What is the general level of understanding of PG/ESS in different spheres of society connected to farming/forestry? Examples?	‘Mountain wood’ singled out as a good attempt at valorisation of high-value products, which could contribute to the enhanced provision of ESBOs. There are no producer groups active for either meat or wood, but farmers realise the potential for value-added.
15. January 2016, Solčava (Centre Rinka)	Focus group with local actors on institutional drivers of ESBO provision	CAE, municipality representative, farmer (local opinion-maker), freelance entrepreneur Marko Slapnik (‘gatekeeper’)	What are the main characteristics of Solčavsko, its development potential and obstacles?	Forest ecosystem services are undervalued or not valued at all. Communication between people is weak, there is no common private interest, attempts to establish a cooperative have failed; usually the issue is money. There are excessive bureaucratic hurdles related to on-farm slaughter that result in high costs and make sheep-rearing unreasonable. Projects tend to die after financing ends. Big lack of mutual trust. Though there are interesting stories, the locals are weak at marketing them. Locals want to be independent of subsidies.
5. May 2016, Solčava (Centre Rinka)	Validation of SES for Solčava/Luče	CAE, farmers, forest service representatives, municipality representatives	Testing of the draft SES. What is the farmers’ view of benefits from agriculture & forestry? Are they willing to cooperate to improve their valorisation? How can cooperation be strengthened?	A common brand (for all local products) and market image for the entire area is needed to be marketed to a limited segment of tourists/consumers; mass tourism is unwanted. Value chains must be formed – common interests must be found, as reliance on the public purse (agricultural policy funding, municipality projects) is perceived to be too great. There is a lack of knowledge in many fields (marketing, law, technology) – a multidisciplinary approach is required.
13.-15. June 2016, Solčava/Luče	Field work (semi-structured interviews)	Farmers, processors, institutional and corporate purchasers of produce	Focus on livestock and grassland habitats. What are the capacities regarding rearing, slaughter, processing? Are farmers, processors and tourist operators ready to cooperate under a common brand?	There is interest, but nobody really ready to carry the initiative. Previously, there were attempts to collectively invest into both, a local slaughterhouse and a sawmill, but both have failed in the final stages of realisation. In both cases, farmers were ready to cooperate in principle, but untrusting, cautious and individualistic. Motivation for collective action on this topic is weak. A feasibility study and economic analysis is prepared on the part of UL, to be presented to local stakeholders at a future meeting.

⁵ Chair for agricultural economics policy and law, Biotechnical faculty, University of Ljubljana



Table 4: Research milestones phase II – Potentials for valorisation of ESBOs

12. October 2016, Domžale	Meeting with Alojz Lipnik, forest owner, professional forester (Forest Service) and former mayor of Solčava	A. Lipnik and CAE	What are the potentials to build on the existing initiative to increase valorisation of Mountain wood?	There is potential, a consortium could be formed to integrate the entire value chain. Research is required to establish a scientific basis for MW characteristics. Project funding is needed in the first stages of value chain development. A project coordinator/facilitator is to be contacted.
6. January 2017, Domžale	Focus group meeting to elaborate on further steps regarding MW	A. Lipnik, Slavka Zupan, CAE	How to approach the “Mountain wood” idea? Who are possible members of the consortium? What do we wish and are able to achieve? What are the main points in terms of content? Which public funding projects are we eligible for?	The project makes sense, but must be oriented towards creating output in the form of final, designed marketable wooden products. The consortium should combine researchers, forest owners, wood processors, a certification house and designers. A project proposal is to be prepared for the RDP measure Cooperation.
10. January 2017, Ljubljana	Focus group with researchers in wood science	BF (CAE, wood science specialists), A. Lipnik, Damjan Oražem (Director, Forest Service) S. Zupan, Miha Humar (Biotechnical faculty Dean and head of wood science department), Jožica Gričar (Forestry Institute)	Are wood science specialists willing to cooperate and see a potential in the field? How to approach research regarding the properties of Mountain wood?	Certification of Mountain wood is recognised as a meaningful step towards market valorisation. Wood science specialists are willing to provide their expertise to define the technological parameters needed for the certification of the timber.
20. January 2017, Solčava	Workshop with wood processors and wood science specialists	BF (CAE, marketing and wood science), A. Lipnik, S. Zupan, local wood processors	What is the willingness of local entrepreneurs to cooperate? What are the knowledge gaps? What kind of marketing approach is needed? Which products are to be developed?	The term MW must be specified in terms of species and growth conditions, rough physical parameters must be established, prototype products are to be presented. Consciousness of higher quality/value must be established in the consumer.
27. January 2017, Domžale	Meeting with certification organization	BF (CAE, marketing), Bureau veritas, S. Zupan, A. Lipnik	What are the necessary steps for certification? Which products does it make sense to certify?	Clear and easily enforceable criteria must be established for certification. It makes more sense to define location, growth conditions, time of felling etc., than specific characteristics of the wood, as testing can be very costly. Certificate owner must be determined. A standard must develop over time, so conditions must not be too restrictive. The same certificate can be developed further down the value chain, but it is sensible to start with logs and planks at first.
1. February 2017, Ljubljana	Meeting with ministry representatives	BF (CAE, marketing, wood science), Forest Service, ministry representatives, S. Zupan	Does the project accommodate the parameters of the envisaged measure – is it possible to form an Innovation partnership and apply for RDP funding (under the	The project seems eligible. There are no limitations regarding project leader. The Ministry welcomes the initiative. Solčava is adequate as a pilot case.



			measure Cooperation)? Is choosing Solčava as a pilot case for Slovenia adequate? Who (which kind of institution) can be project leader?	
3. February 2017 Ljubljana	Meeting with the company dealing with the design	Lenka Kavčič, S. Zupan	What needs to be taken account of when preparing the project? How do design experts see the possibilities of cooperating in the project?	The selected company with experience in design is willing to cooperate in the project. A network of designers should be formed to accommodate the processors' need for new products. Rules/guidelines for design should also be set, in order to form a brand and reinforce the quality schemes.
14. February 2017, Solčava	Presentation of the results of the feasibility study about the valorisation of local breeds through the establishment of a value chain of meat products.	UL - Pegasus group and local stakeholders dealing with animal breeds – farmers, processors, cooperative representatives, municipality representatives, tourist operators	Presentation of the potentials for establishment of value chain for meat products – scope and arrangements of functioning, economic potentials, future steps, examination of factors that influence the valorisation of ESBOs (e.g. mountain products, organic meat, local breeds).	Livestock production in the area has untapped potentials for valorisation of ESBOs (HNV farming, traditional breeds). Current strategies in this respect are limited to individual attempts, mainly linked with tourism (gastronomy). Strengthening of the local food supply chains, and increased value-added of primary production are the priorities of the local development strategy, and there is a potential to develop the idea. There must be sufficient economic interest for collective action. The municipality can provide the framework, but cannot substitute entrepreneurial initiative. Willingness of farmers, to enter the existing collective attempts (branded organic beef Ekodar; fresh lamb supply chain, Loška zadruga) remains limited.
21. February 2017, Domžale	Meeting with core group for MW consortium	BF (CAE, marketing, wood science), Forest Service, S. Zupan, A. Lipnik, L. Kavčič	Next steps	Practical questions regarding the establishment of the consortium and certification, further elaboration of project proposal for Cooperation.
31. March 2017, Solčava	Kick-off consortium meeting	Researchers (BF, Forestry institute), Forest service, Forest owners, wood processors, certification body, design company	What should the formal structure of the consortium be? Which steps are required by the beginning of the project? How to start research regarding the material? Pilot projects for wooden products? Promotion and dissemination? Coordination?	(report pending)



2 Definition of the social-ecological system (SES) studied

2.1 Figure of the SES, using the revised SES Framework

CASE STUDY: 'TRADITIONAL BREEDS'

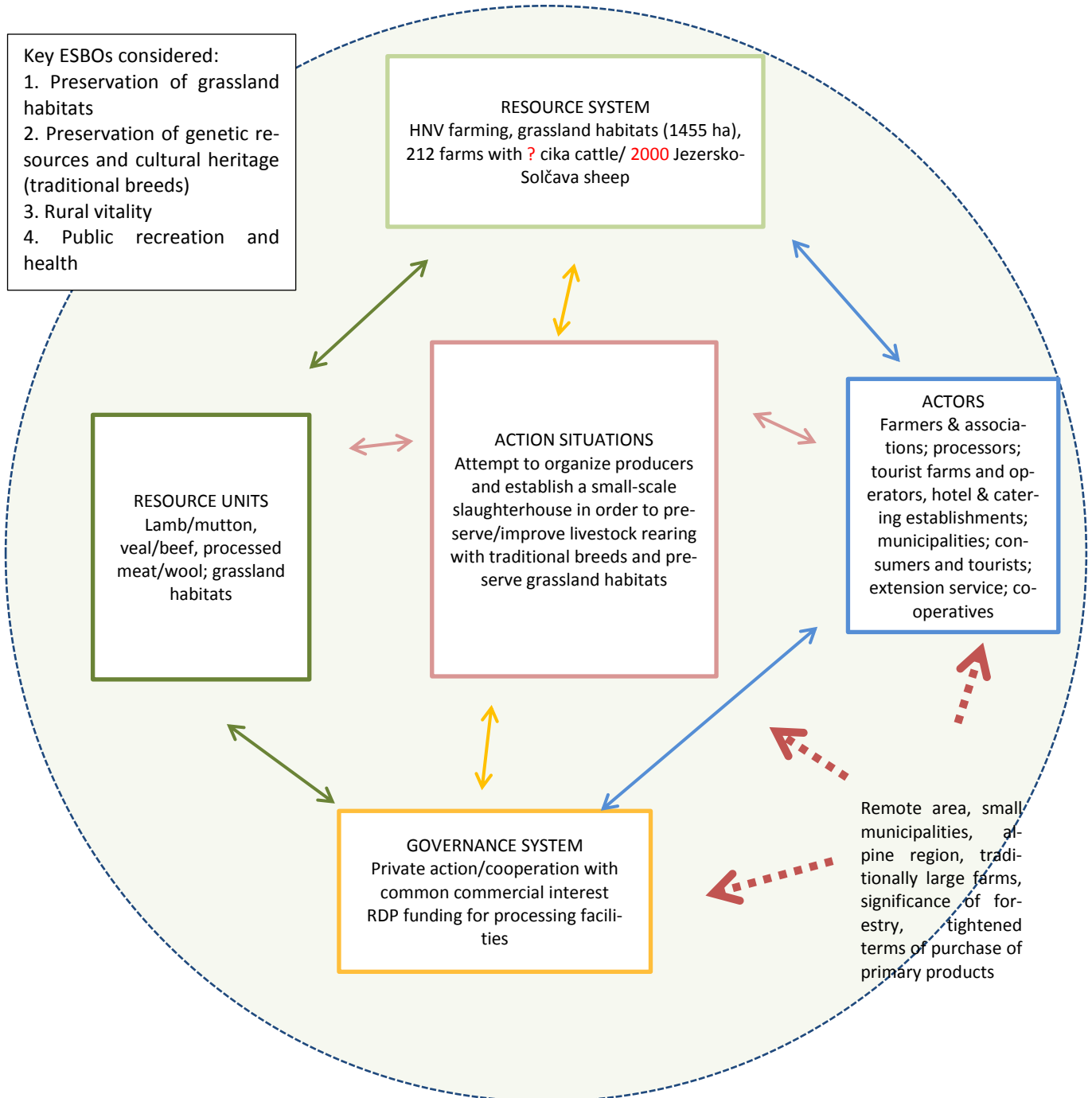


Figure 1
Summary of the SES framework for the Traditional breeds case study
(adapted from Ostrom and Cox 2010; McGinniss and Ostrom 2014)

CASE STUDY: 'MOUNTAIN WOOD'

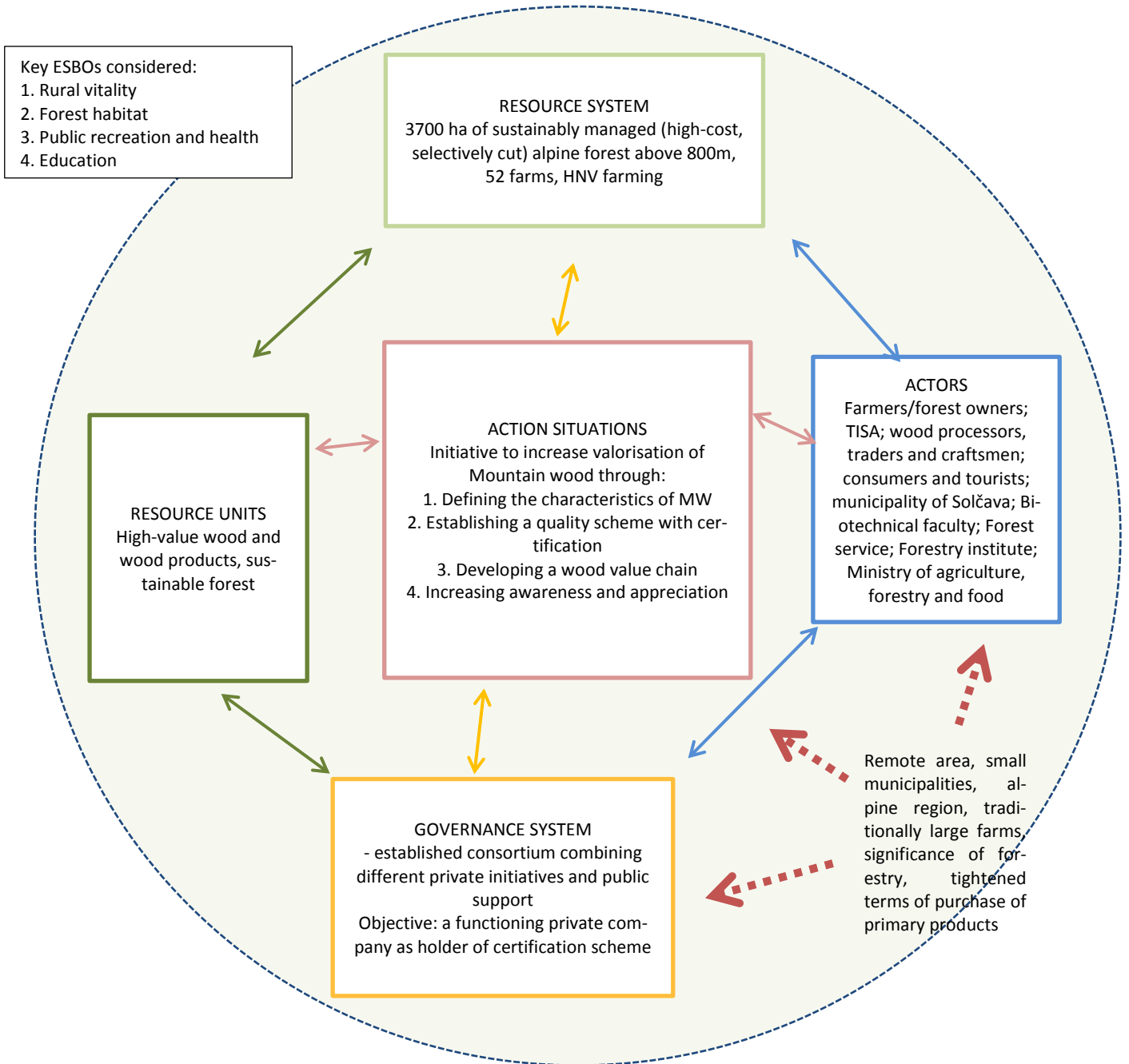


Figure 2
Summary of the SES framework for the Mountain wood case study
(adapted from Ostrom and Cox 2010; McGinniss and Ostrom 2014)

2.2 Description of the SES

The broader (**macro**) setting is the same for both subsystems. The region is remote, with small, sparsely populated municipalities, and has historically been dominated by extensive, large, self-sufficient farmers. Like elsewhere in Slovenia, value chains are weak and primary producers are struggling under the downwards price pressure due to EU accession and opening markets. The processing industry in many sectors was caught unprepared and was crowded out by processed products from better integrated production systems, especially in the wood sector (National workshop; Workshops 2 and 3). There is also general economic decline – the largest agricultural-forestry cooperative (Kmetijska zadruga Mozirje) was liquidated in 2014. On the other hand, an increasing number of consumers are seeking quality, durable products with a known origin (e.g. Workshop 3).



Figure 2: Main characteristics of the entire socio-ecological system

'TRADITIONAL BREEDS'



Figure 3: The Jezersko-Solčava sheep

Source: <http://www.ovce.si/>



Figure 4: The cika cow

Source: http://www.zoo-ljubljana.si/fileadmin/user_upload/slike/Tiskovna_kmetija/Cika_Jagoda_Rafko_Rokavec.jpg



Action situation

In this part of the study, the action-oriented research was focused on increasing the valorisation of the locally sourced meat and wool from adapted traditional breeds (*cika* cow and Jezersko-Solčava sheep) in order to preserve or enhance the ESBO provision, mainly through maintaining the grassland habitats. Through our interviews, we established that for the farmers to consider increasing (for some even to just maintain) their herds, they would require better access to slaughtering facilities, as the sanitary regulatory regime prevents them from slaughtering on-farm, if they wish to market the meat (processed or unprocessed) (Workshop 2). We focused primarily on the attributes that differentiate local products from their competitors. The fieldwork revealed that these attributes could relate to the origin (e.g. branded products), quality (e.g. organic produce, premium quality), or local breeds (*Jezersko-Solčava* sheep and *cika* cattle). In order to build on these attributes, a value chain needs to be established. The products would target selected market outlets on the upper part of the price range (e.g. selected restaurants, delicatessen shops). A local slaughterhouse, pointed out by the local producers, would indeed mean just one of the missing parts of the value chain. Further steps towards adding value and increasing ESBO provision would require solidary participation of farmers in the scheme, which would ensure a steady supply and additional (or better coordinated) processing/distribution activities.

Resource system

The resource system comprises extensive grassland habitats (1455 ha), high in biodiversity. There are 55 farms in Solčava and 157 in Luče, all managed sustainably and many in organic production. In both municipalities, around 90 % of all agricultural land is permanent grassland or pasture. There are about 29 sheep breeders in Solčava and 44 in Luče (SORS, 2016).

ESBOs

The main ESBO considered is the preservation of grassland habitats through preserving or enhancing traditional extensive grazing. This would be done through the use of traditional breeds that are adapted to the harsh local conditions, preserving both animal genetic resources and cultural heritage. The increased revenue and decreased costs would help to improve rural vitality and alleviate the trend of depopulation, which is starting to show (SORS, 2014). Finally, preserving traditional practices and healthy semi-natural habitats – if properly communicated to consumers and tourists, possibly under a common brand (e.g. ‘Solčavsko’, akin to Toscana) – would add to the tourist appeal, helping to attract visitors to the region, increasing public recreation and health and reinforcing the improved rural vitality. This initial idea of a common brand has diverged into two specific product groups, possibly to be revived as a single destination trademark at a later time.

Actors

The main actors in this SES are breeders and their associations – there are two breeders’ associations in the area (Association Raduha and the Association of breeders of the Jezersko-



Solčava sheep). In addition, there is a felting association (Bicka), whose primary goal is to promote the sheep breeding tradition of the area⁶ through traditional felting and wool products from the Jezersko-Solčava breed, which is known for its wool of relatively high quality.

The second group of actors include those who use meat as an input in their trade: processors, tourist farms, hotels and catering establishments; these categories overlap somewhat. There is demand for local meat (in particular lamb) from these entities, which is not always fully met by local production; to meet the demand of their customers, they sometimes resort to importing (expensive) lamb from across the border (Interview, Hiša Raduha). Other tourist organisations are also connected to this group, as are consumers and tourists (visitors), who usually wish to enjoy the full experience that the area has to offer, including lamb dishes.

The municipality of Solčava is participating very strongly in the promotion of tourism, local gastronomic and craft products. Recently, it established a public institution called Centre Rinka⁷, named after a famous waterfall in Logarska dolina, through which it is helping to build on the area's 'green tourism' image and compensating somewhat for the lack of experience in marketing. Through this organization, the municipality links and coordinates activities of local tourism and leisure operators. The Centre also serves as a shop, restaurant and cultural venue, hosting felting workshops, exhibitions and other events.



Figure 5: Centre Rinka (left) and the waterfall after which it is named (right)

Sources: <http://www.solcavsko.info/index.php?id=16>;

http://www.slotrips.si/sis-mapa/skupina_doc/slo/galerija/1348347851_3678_logarska_dolina_slap_rinka15.jpg

⁶ Statistical evidence shows that sheep breeding has been decreasing over the last century. As learned through the interviews, at least to some extent, this is also a question of social status. Sheep breeding has been often regarded by farmers as inferior/backward in comparison with cattle breeding.

⁷ <http://www.solcavsko.info/index.php?id=16>

The strongest local agri-food actor, cooperative Šaleška dolina z.o.o., which is successfully developing a brand of organic beef produce Ekodar (<http://ekodar.si/v2/>), is searching for new suppliers from the local area (Interview, Ivo Drev). A similar approach (full traceability of produce, innovative approaches to marketing and distribution) could also be successfully extended to the Jezersko-Solčava lamb.

Resource units

The main resources of this system are lamb/mutton and veal/beef and processed meat/wool from the traditional breeds. In addition, we consider species-rich alpine grassland habitats as a resource. All these are foundations of the tourist offer and offer of specialty food products, and consequently source of income for the area's inhabitants.

Governance system

The initiative to establish a small-scale slaughterhouse would be based on private action, i.e. cooperation on the part of the farmers (and perhaps other members of the value chain, like processors and distributors), who would have enough common commercial interest to invest in such an undertaking. Public financing (e.g. the RDP measure Establishment of new Producer Organisations (M9), or Cooperation – operation “Short supply chains and local markets” (M16.1)) could serve as a catalyst through funding of physical investments (e.g. processing facilities) or marketing activities (e.g. developing sales outlets and distribution channels).

‘MOUNTAIN WOOD’



Figure 6: Mountain wood: Solčava primary school

Source: <http://www.solcavsko.info/index.php?id=20>



Action situation

The initiative under this subsystem aims to increase the valorisation of the locally sourced Mountain wood, with the main expected consequence being improved livelihoods (rural vitality) of the local populace, as well as greater appreciation and preservation of the forest habitats. This would take place in the following steps:

1. Defining the characteristics of Mountain wood: Currently there is no exact definition of Mountain wood, but a volume of circumstantial evidence regarding its quality based on oral and written tradition, dendrochronological analyses⁸ (Levanič and Čufar, 2000), the persuasion of producers and an increasing demand from the market (National workshop). Though there have been some studies on the parameters defining the characteristics of mountain wood, none of them have been comprehensive. Therefore, scientific analysis is also a part of this initiative, in addition to determining which elevations, locations or land plots are eligible as harvesting sites for such wood. At the moment, it is roughly defined as wood growing at elevations above 800 m (GIS, 2009).
2. Establishing a private quality scheme with certification: As part of its branding strategy, the wood acquired is to be certified after the standards are determined, in order to increase the material's visibility and trustworthiness.
3. Developing a wood value chain: At the moment, the vast majority of wood harvested in Solčava is sold off as logs or planks (National workshop). There is almost no processing industry in the area, other than a few successful small-scale undertakings. The initiative aims to connect producers, traders and processors, as well as designers and architects, to develop prototypical products with a common market image as high value-added products. The main idea would be to connect local farmers and entrepreneurs, shortening travel times and decreasing the carbon footprint.
4. Increasing awareness and appreciation: The special qualities of this wood and its products must be adequately communicated to the public. This requires a well-aimed marketing strategy and campaign.

Resource system

The pilot case, limited to the municipality of Solčava, comprises 3700 ha of sustainably managed alpine forest above 800 m on 52 farms. Similarly to the 'Traditional breeds' case, it is part of the extensive, HNV farming conducted by the farmers in this area, which supports rich habitats, high biodiversity and other ecosystem services. Due to the practice of selective cutting and respecting traditional rules, managing a forest in this manner is accompanied by high costs for the farmers/foresters (Workshop 3).

ESBOs

The main ESBO in this subsystem is rural vitality, as a consequence of higher value-added for the local populace, resulting in increased employment and better economic outlook. Another very important aspect is the preservation of forests, both as a resource base and as a habitat

⁸ Dendrochronological analyses revealed that the age of the wooden frame of the roof of the parish church exceeds 700 years (Herlah and Slapnik, 2010)



due to sustainable management. If this kind of management is adequately rewarded and recognized by the market, farmers/foresters will be incentivized to stick to them, while on the other hand it may also spur producers in other regions to start using them.

Introducing a strong local brand is expected to increase the visibility of the entire region, resulting in more tourist visits and further improving the livelihoods of those involved. This is connected to the third ESBO, i.e. improved wellbeing (public recreation and health) of visitors. Finally, as part of the information activities under the initiative, educational facilities regarding Mountain wood and the importance of sustainable forestry would be set up.

Actors

Farmers/forest owners are the main group in this initiative, providing the resource; some of them are members of the local Association of forest owners TISA. Other partners include people further down the value chain: wood processors, traders and craftsmen, and finally consumers of wood products and tourists. In addition, the consortium comprises research institutions: the Biotechnical faculty (wood science specialists to explore the physical characteristics of the wood and agricultural economists to develop the business plan, certification scheme and marketing strategy) and Forestry institute, as well as the Forest service, which is a possible candidate for certificate owner (though at this point it is just as likely that a firm or institute will be established by the consortium). The Ministry of agriculture, forestry and food also has an important role, as it will be the one initially financially supporting the project (through RDP support, Measure Cooperation M16d⁹), which means that it will have a say in determining the direction of the initiative.

Resource units

Mountain wood is wood from trees growing at higher elevations, cut according to specific traditional practices and at certain times, i.e. respecting the traditional rules for defining the time of timber felling (use of lunar calendar). This wood is generally thought to be denser, more durable and therefore better for products that are supposed to last a longer period of time or withstand tougher conditions (GIS, 2009). Products from this wood, crafted taking in account its special characteristics and aimed at the appropriate market segment, could have a very high value-added. In addition, the material comes from forests that have been managed sustainably (selective cutting) for centuries, allowing forest habitats to renew themselves naturally. Similarly to the traditional grazing practices mentioned above, this is something that is duly appreciated by the more knowledgeable buyers.

Governance system

The goal of the initiative is to establish a consortium combining different private initiatives and public support. The final objective is to have a functioning private company owning the certification scheme. At the moment, the consortium is still forming and is functioning informally, but it is expected that some kind of legal entity with clear rules will be formed, most probably within the duration of the project PEGASUS.

⁹ See: <http://www.program-podezelja.si/en/rural-development-programme-2014-2020>



2.3 Levels of ESBO provision, trends and determinants

‘TRADITIONAL BREEDS’

1. Preservation of alpine grassland habitats (currently 1,455 ha): Whether or not these are being preserved, can be assessed using orthophoto imaging and expressed as percentage of utilized agricultural land, while the reason that these habitats are being preserved – special species inhabiting them – would have to be assessed differently: most likely with specimen counts.
2. Preservation of genetic resources and cultural heritage (traditional breeds): herd sizes of relevant breeds (Jezersko-Solčava sheep and Cika cattle). There is a marked information gap here due to the fact that the agricultural statistics does not keep records of breeds, whereas other systems, such as public breeding services, keep records only about the breeding herds/flocks and not on the entire population of a breed.
3. Rural vitality: immigration/emigration indices, socio-economic indicators, number of inhabitants engaged in farming, percentage of income from farming, etc. The difference in market price between sheep meat (or beef) of ‘conventional breeds’ and local breeds, such as Jezersko-Solčava sheep meat (or Cika beef) could serve as an indirect indicator.
4. Public recreation and health: Number of tourists (currently reported 18.000 overnight stays¹⁰; Local tourist office data, internal report). Naturally, it would be exceedingly difficult to acquire data that would enable attributing additional visits to improved appreciation of traditional breeds.

The biggest problems regarding the provision of Jezersko-Solčava lambs (identified as a product with the strongest market potential in our field research) are ensuring a steady supply of animals and delivery of lamb slaughtered in registered slaughterhouses and certified/authorised by veterinary authorities; the latter is legally prescribed condition for further preparation and sales of meat products. Interviews with the breeders reveal two main obstacles in this respect; distance to the nearest registered slaughterhouse and increased costs, which surpass the sellers’ price.

As demand for local ingredients in culinary specialties is increasing (JRC, 2013), in particular in tourist destinations, there is a great potential for increasing value-added, but farmers are unable to meet it due to a lack of organized joint appearance on the market. They are dependent on public (CAP) funding (Workshop 2), which additionally reduces their incentives for change (increasing herd sizes, perhaps establishing new grasslands, seeking new ways to market their meat) and cooperation, adding to the already present risk aversion and lack of trust. The main limiting factor is the (lack of) readiness of the breeders to engage in collective action, which also entails economic investment and responsibility. They are ready to connect in the sense of organising events, but not economically. This is also why several initiatives (e.g. organising cooperatives) have failed. On the other hand, there is also a lack of a pull factor in the form of an external organisation ready to bear some of the risk and help with the collective actions.

¹⁰ The field study findings (reported figures of overnight stays in interviewed tourist businesses) suggest that the figure underrates the actual situation, as the data only record registered visitors in the municipality of Solčava (which is more frequented by tourists than the municipality of Luče).



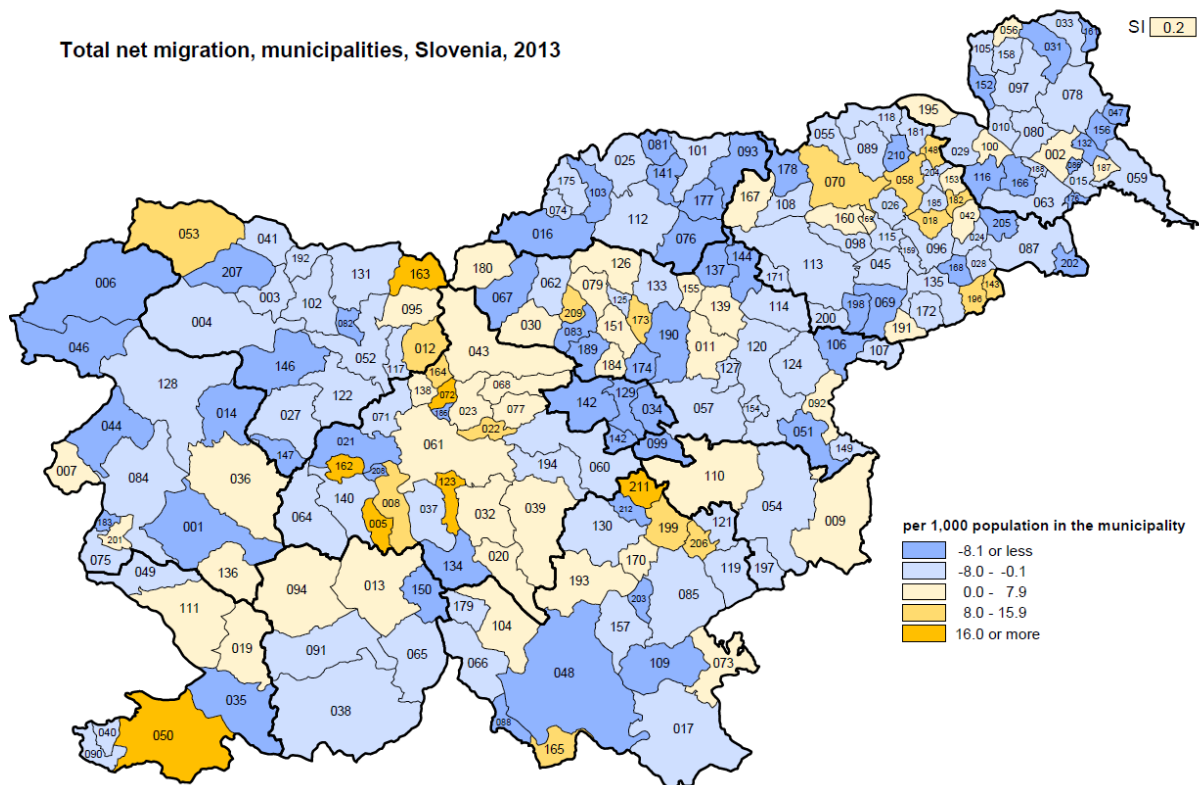


Figure 7: net migration in Slovenia. Note: Solčava=180; Luče=067. Source: SORS, 2015.

‘MOUNTAIN WOOD’

1. Forest as resource base and habitat (currently 7,113 ha): Ortophoto imaging; expressed as percentage of farmland. Specimen counts for species. Difference in market value of plots designated as eligible Mountain wood harvesting sites can be used as an indirect indicator. Quality assessment criteria must also be established for Mountain wood – there is still a large research gap in the physical properties and specific applications of different kinds of wood.
2. Rural vitality: see under ‘Traditional breeds’. The difference in market price between ‘conventional’ wood and Mountain wood could serve as an indirect indicator.
3. Public recreation and health: Number of tourists.
4. Education: number of events/visitors to events/educational institutions.

The main issue related to Mountain wood is the knowledge gap regarding the material’s properties, and a lack of a coherent marketing strategy. Though the appreciation from buyers of primary products is already quite high¹¹ (National workshop), there is little awareness further down the value chain, resulting in less appreciation and lower value-added. Again, there is potential for enhanced provision, but it depends on adequate communication and awareness-

¹¹ The area has a centuries-old reputation of high-quality structural timber, in particular larch and spruce, and ‘self-controlled’ supply of timber by local forest owners. This results in a relatively high price, as illustrated by one of the participants at the February 2017 workshop (local wood processor): »price of larch in Solčava is like price of fish in Dalmatian restaurants - next to none«.



raising. The main factor in the formation of the consortium was the existing good idea and the readiness of different “outsiders” – researchers, Forest service representatives, wood processors and others – to build on it, to the benefit of all involved. If the idea’s fate had been left to the interest of the locals, it is likely that the result would be yet another failed initiative. It is fair to say that the UL Pegasus team has sparked the current process of the formation of the consortium, which is integrating the main local stakeholders along the supply chain. However, the fact remains that the mere formation of the consortium is no guarantee of its success. If local entrepreneurs do not commit to the realisation, failure is almost certain. On the other hand, representatives from national institutions will guarantee the dissemination of the idea into other projects, which could contribute to the realisation of the initiative’s goals. Project funding to get the project going will be crucial.



Figure 8: Previous logo for ‘Solčava wood’, established under a Leader project in 2009-10

Source: <http://www.solcavsko.info/index.php?id=24>

2.4 Ancillary economic and social benefits provided ‘on the back’ of ESBOs

As we have already written above, we believe that improved awareness and appreciation, reflected in a higher market price for both of the main local products, would have numerous collateral benefits. Increased revenues would contribute towards maintaining settlement and thus rural vitality, as well as provide additional opportunities for investment in appropriate infrastructure to continue building on the ‘sustainable tourism’ character of the region. Increased appreciation and understanding could also lead to further investment of time and resources into the integration of new technologies with traditional practices and process optimisation with closed production loops. The products emerging from this region would have a long-term focus, displacing products with short life cycles from the market, thus helping to reduce pollution. New or expanded educational activities could help reach the younger generations and communicate to them the benefits of sustainable farming practices (and consumption patterns). Finally, the case could serve as a successful example for other regions with similar conditions or aiming to achieve similar goals.

3 Shifting societal norms, collective learning and voluntary actions

In both analysed cases (“Traditional breeds” and “Mountain wood”), the main issue of preserving and enhancing the valorisation of ESBOs is related to the improvement of the land managers’ economic situation, and increased value-added throughout the whole supply chain. It is a necessary condition for the provision of ESBOs, which is in turn directly related with the

production of agricultural and forestry goods. Natural conditions, forestry regulation and agricultural support are in fact directing farmers towards the provision of certain ESBOs (e.g. habitat preservation, public health and recreation). However, maintaining settlement in this remote area is conditional upon improving the economic situation by adding value to agricultural and wood products. This is where the lack of working value chains, which we see as crucial, becomes apparent. While land managers are aware of the ESBOs resulting from their practices and higher quality of their products, they are still selling them as ‘generic’ timber, through diversified sales channels, irrespective of its potentials for adding value through (local) processing and addressing more sophisticated (and lucrative) value chains, like eg. designed furniture. . Therefore, market valorisation of mountain wood must be increased through strengthened vertical cooperation, high-quality processing, and quality assurance (certification), as was found during stakeholder consultations in the first phase of our research (see Table 2).

It is also symptomatic of the entire region that communication with a serious intent to commit and cooperate economically is absent. The strong individualism has even strengthened since the break of collectivism and the communist experiment at the end of the 1980’s, despite the fact that the cooperative movement was very important for the modernisation and development of family farms before WW2. Farmers do not believe in the advantages of common economic endeavours, especially not the most successful ones, the ones who could lead collective actions. Almost all cooperation takes place in the form of loose interest-associations (e.g. the felting association Bicka). The workshops and interviews conducted during our project have shown that if there is no external element forcing them into economic cooperation, with clear positive changes for individuals, they will continue on their own for as long as possible. The sheer size of their holdings and public financial (CAP) support still allow it.

The main difference between the two subsystems is that there is a greater awareness by those engaged in **forestry and wood processing** of the need to establish a value chain. For example, both processors present at the Solčava on January 20th, 2017, stated that there is an increasing demand for quality, locally sourced, ‘natural’ materials, and that this potential ought to be realized. However, until now there was never sufficient motivation for serious collective action. It seems that the critical mass has now been reached, to a large extent with the help of our action research, which served as a platform for frequent and fruitful communication between different actors. It is thus only an external impulse that was able to bring about the realisation of an already-present idea. It is fair to say that Alojz Lipnik (former mayor of Solčava, local Forest Service officer, and forest owner), with the help of researchers from UL, was the main motivator behind the apparent success of this initiative. It remains to be seen whether it will gather enough momentum to persist after the conclusion of the pilot Cooperation project. In addition to the need for an external impulse, we are also discovering the importance that charismatic, dedicated leaders have for collective action.

In the **meat** value chain, on the other hand, this critical mass of producers and processors was never reached, mainly due to a lack of interest of breeders for a collective action, and/or no processors/distributors sufficiently motivated to establish and lead the meat value chain(s). It seems that they are waiting for somebody else to set up a risk-free system that they could choose to enter if and when it suited them. Though we have prepared a feasibility study and



economic analysis for a slaughterhouse and presented it to the community¹², we have not been able to spark enough interest for ESBO enhancement under this subsystem and are concluding our research (and reporting) at this point. Whether the information presented at the final workshop (14.2.2017) will be used further, depends entirely on the local stakeholders and their readiness to commit. There were indications at this workshop of the realization that the development of this value chain must be driven by private interest and 'entrepreneurship action'. In addition, several attendants stressed that cooperation, commitment and communication are crucial for the development of the region in general, and for developing the fresh lamb supply chain in particular. Somehow surprisingly, the willingness of local breeders to enter the existing schemes operating in the region (branded organic beef Ekodar; fresh lamb supply chain, Loška zadruža) remains limited. One possible explanation for this is that the breeders' individual sales channels are enough lucrative to keep their interest for collective action low.

Measures of public support have different effects on the behaviour of land managers and their interest in collective action. CAP measures, which are important in this area and have a significant effect on the farmers' economic situation, have contradictory effects. On the one hand, they directly contribute towards ESBO provision by stimulating it, but on the other, by improving the economic position of the most educated and entrepreneurial, they hamper collective action that might be founded on value-added products. Perhaps this is the reason behind the greater readiness for collective action found in the forestry sector, which does not enjoy this level of support. While this is difficult to judge, the hypothesis is commonsensical.

Agricultural policy does offer support for the formation of value chains, including ESBO-based, through measures like Leader and Cooperation. However, in practice, these forms of public support are not yet developed in Slovenia (and probably in quite a few other Member States). Cooperation, a new RDP measure, has proven crucial in the attempt to organise a value chain, as the consortium has formed around the possibility of acquiring funding through this measure. It was the possibility of cost coverage for the network to develop the idea into a final product that stimulated participants to invest their voluntary work. It also merits stressing that the planners and enforcers of Rural Development Policy (i.e. the Ministry of Agriculture, Forestry and Food in the role of the RDP Managing Authority) are inexperienced when it comes to such projects and were even open to exchanges of information and experience. Despite the demand for such measures, the measure Cooperation is still not alive in Slovenia due to administrative hurdles and gaps in human capacity: implementation of the measure is lagging due to lack of experience with such broad and complex measures that involve adaptation of the decision-making process as Ministry level. Implementing this kind of measure demands a higher level of understanding of the issue at hand, as it requires substantive evaluation of proposals, rather than box-ticking. Future CAP reforms should certainly give greater importance to such measures and develop appropriate practices and administrative procedures, as well as ensure appropriate capacity building for administrative bodies tasked with implementation.

¹² The presentation took place on 14 February 2017 in Solčava.



4 Mechanisms, (collective) actions and governance arrangements to enhance the level of ESBO provision

4.1 Organisational capacities, leadership, networking and communication

As indicated, there is currently a consortium under formation for creating a value chain for Mountain wood in order to increase its appreciation and valorisation. We were unsuccessful to achieve something similar in the meat value chain (traditional breeds); in fact, we did not even reach a basic initiative to improve and stabilise purchase with the help of private agents, let alone endeavour to establish the concept of a new product based on ESBO provision. This can in large part be attributed to the lack of a leader (or group of individuals) willing to commit fully, more so than to a lack of potential in terms of market demand. In the case of Mountain wood, the initiator and currently recognized leader is Alojz Lipnik, the local leader, with a strong support from the UL research group. However, the initiative is growing quickly, with new participants joining, and as its functioning becomes more formalized, leadership is likely to be transferred to a group of representatives from the different stakeholders.

Current members of the consortium, which is still informal, include:

- Alojz Lipnik as a person respected by the community (gatekeeper), forest owner and professional Forest Service officer. His interest for cooperation is both professional and private.
- Researchers from the Biotechnical faculty, falling into three categories:
 - The Pegasus group – members of the chair of agricultural economics, whose primary interest is to explore and improve the conditions for successful valorisation (and consequently provision) of local ESBOs.
 - Wood science specialists, whose primary interest is in exploring the mechanical properties of Mountain wood and possibilities for its application. They also wish to improve the notoriously dysfunctional wood value chain in Slovenia.
 - A marketing specialist, brought aboard to determine the appropriate market approach.
- Forest owners, whose primary interest lies in improving the appreciation of their product and consequently in improving their livelihoods or decreasing their dependence on public funding, which is slowly decreasing in real terms.
- The public Forest service, representing the public interest for forests in their environmental and conservational tradition; this organisation has a good understanding of the concept of ESBOs and, what is more, understands that their better market valorisation is in the public interest.
- Wood processors, who wish to gain a competitive advantage and improve their market access by using a resource whose properties are undisputedly superior (i.e., scientifically proven to be of a distinctive quality and certified).
- A certification institution is to be included in the development of the certification scheme.

The next workshop, to be held at the end of March, will determine the content and structure of the new consortium for Mountain wood and find how wide the support for this is regionally.



The main strength of our initiative is in the expertise and experience of the participating actors. Its weaknesses, on the other hand, are the possibilities of not reaching and maintaining a critical mass of forest owners and timber processors willing to participate, and the chance of the initiative losing momentum after the pilot project is concluded. This can be overcome if the scheme shows itself to be economically sustainable in the long run. There are numerous successful examples in the food sector of certification schemes that managed to achieve the same goal; there are also examples of products in the wood industry that are managing to achieve a higher market value¹³ by invoking scientific evidence for its beneficial effects (e.g. research on *Pinus Cembra* conducted by Joanneum Research¹⁴).



Figure 9: Current members of the informal consortium.

4.2 Innovative governance arrangements and mechanisms supporting ESBO provision

The main innovation of our initiative is that it is transferring experience from agriculture and the food industry, i.e. establishing a quality certification scheme to improve valorisation in the forestry sector. To our knowledge, there is only one other similar scheme in existence, the 'Bois du Jura' scheme¹⁵, a France-Switzerland transnational scheme certifying wood from this area as protected designation of origin (PDO), transferring logic from the food sector to wood. Another innovative element is the attempt to include such a scheme into the RDP through a new measure, attempting to valorise ESBOs nationally through a private/public initiative. The initiative is building on previous efforts to characterise and valorise Mountain wood (GIS, 2009), which already took some steps in that direction, but never reached enough funding and support. The main novelties in this initiative are:

- Establishing an integrated value chain by communicating with and bringing together a variety of actors who have an economic or scientific interest. In addition, the Ministry of Agriculture, Forestry and Food has already expressed a positive view about the eligibility of the project for the RDP measure Cooperation.
- Creating a certification scheme with clear standards in order to improve the visibility and credibility of the material and its processed products.
- The use of a common and coherent marketing approach.

This is possible mainly because there is a market potential that the local forest owners and wood processor recognise and want to exploit. This potential is backed up by the external

¹³ see. e.g. <http://www.lip-satler.si/en/content/15-woodland>

¹⁴ http://humanresearch.at/newwebcontent/?page_id=96&lang=en

¹⁵ We thank Marie Clotteau from Euromontana for directing our attention towards this scheme.



institutional support offered by the Biotechnical faculty (University of Ljubljana). While the case of Solčava is a pilot project, the main ambition is to create a private brand and quality scheme that includes all mountain areas in Slovenia and even has the potential to spread across the border.

Over the course of our PEGASUS research, it became clear that purely economic incentives are not enough for the majority of locals to cooperate; that there has to be a well-defined, well-communicated and practically risk-free scheme (with an initialised and developed business model and pilot projects at the least) for them to join. This was particularly evident in the ‘Traditional breeds’ case, where we were unsuccessful in reaching a critical mass of supporters that would be willing to leave their current comfort zone. This caution, in addition to the generally present mistrust, is also one of the reasons why we are using a professional facilitator and project coordinator to guide and direct efforts under the ‘Mountain wood’ initiative. This has certainly proven to be valuable, as it has prevented many a misstep that would have resulted in wasted time and resources.

Conversely, if the forest owners and timber processors choose to abandon the initiative (i.e. choose not to provide the ESBOs resulting from the improved valorisation of Mountain wood), there is no point in maintaining a consortium, and it is likely to be disbanded. Thus, the key to enhanced ESBO valorisation lies in the hands of local “providers” of ESBOs and, as it seems, in the hands of the included national institutions (UL, Forestry institute, Forest service) and their ability to acquire additional funding. In the long run, of course, its existence hinges on market realisation.

Public institutions represent a crucial factor in turning a small local scheme into a generic national scheme. The UL research team namely “believe” that such an approach is highly transferable, especially the certification scheme. Though it is to be developed at first for Solčava, it can (and actually should) be applied to other regions in Slovenia or elsewhere in the Alps. There are 316,433 ha of forest above 800 m (roughly a quarter of all forests; Forestry institute personal communication) and currently about 2500 firms in wood processing and furniture production in all of Slovenia – this illustrates the potential for improving economic performance and employment opportunities of the sector. The cooperation of research institutions also adds to the credibility of the entire initiative, which is very important when establishing a certificate. This is an interesting experiment, combining public and private interest.

One of the risks faced by the forming consortium is related to liquidity. Namely, the source of funding that will most probably be the measure Cooperation under the RDP, requires the beneficiaries to cover their expenses themselves, until they are reimbursed. Finding funding for the intermediary period is likely to be a serious issue. A further issue, as indicated above, is that the initiative could die off after funding ends, which has happened to projects in Solčavsko in the past. This is also something that the locals are wary of and was repeatedly pointed out by workshop attendants, as well as by Alojz Lipnik, who attributed much of the existing mistrust to this factor. This is why it is important to prove the concept’s viability in the first few years, as only this will keep producers engaged and attract others into the scheme. Perhaps such a success might also persuade them to transfer the same approach to the meat from traditional breeds.



4.3 The role and impact of policy in ESBO provision

With respect to the agriculture (consisting mainly of livestock production) and its ESBOs (HNV farming, traditional breeds), CAP Pillar II payments play an important role in maintaining herd sizes, and farm incomes, while their role in stimulating collective action (eg. producer groups, vertical integration) and adding value of their produce is disputable. In fact, various payments that farmers are receiving may even be serving to the contrary, as they seem to be fostering complacency. The prevailing part of CAP support currently in place is serving to maintain the status quo at best, while any breakthroughs would demand stronger collective action, or private engagement. While there is policy support for this, e.g. for investment in processing facilities, there seems to be little economic incentive to connect individual investments into robust local supply chains.

It has been crucial for the more successful Mountain wood initiative that there is a new policy measure under the Rural development policy (Cooperation) that allows for such a broad scope of activities and for so many different stakeholders to be involved. The sub-measure (operation) ‘Technological development in agriculture, forestry and the food industry’ is aimed specifically at fostering cooperation between different actors in the relevant sectors, with the final goal of achieving new solutions and innovative approaches to technological advancement in farming, forestry and the food industry. It is under this umbrella that we aim to establish the consortium at first. After the meeting with ministry representatives, who have confirmed that our idea suits their expectations regarding the measure, the path towards a concrete project proposal became even clearer. Without this confirmation, the initiative would most likely have died off. While there are other policy measures addressing specific ESBOs, especially under the Rural Development Programme (e.g. support to producers’ organizations, investment support) there are no others that are quite so comprehensive, allowing an entire value chain to be formed. This is in fact also a learning opportunity for Ministry representatives, who have never before been approached with such a broad proposal.

We are also counting to some extent on financial support from other policy fields, like research funding, support under the ‘Strategy of smart specialisation’, which falls under cohesion support (support for new products based on research innovation) and investment into processing facilities and support to producers’ organisations under the CAP. In addition, the new Local Action Groups (LAGs) under the LEADER/CLLD support have been established and confirmed for the current period, the appropriate legislation (Decree on the implementation of community-led local development in the programming period 2014-2020, OJ RS 42/15, 28/16 and 73/16) has been adopted and the organisations are currently gathering proposals for projects. However, such a broad approach only rarely finds a place in LEADER projects, which are underfunded and often lack project ideas that transcend narrow local boundaries. Generally speaking, of the entire array of CAP measures, none offer comprehensive support to value chains. This should be addressed when programming CAP measures in the next period.

It is important to stress that there are very few measures under the Slovenian RDP, much fewer than the EU regulation 1305/2013 allows for, that support forestry activities; there is a marked lack of support for quality schemes and ‘forest-environmental’ schemes, and we believe that policymakers ought to consider introducing such schemes. Over half of RDP funding in Slovenia is currently dedicated to agri-environmental and climate payments, support for



organic farming and support for farming in areas with natural constraints. These are certainly useful for ESBO provision in this area, as they are helping to keep farmers on the land, but they generally have little developmental momentum. In fact, forestry regulatory policy has been more relevant to the sustainability of the forestry sector. The Resolution on the National Forest Programme (2007) defines the national policy on forest management, guidelines for the preservation and development of forests and conditions for their exploitation or multipurpose use. The Act on Forests of the Republic of Slovenia (1993) regulates the protection, silviculture, exploitation, and use of forests based on forest management plans. In addition, it defines forest functions and introduces the system of forest management planning.

Table 5: Broad policy measures and legislation affecting ESBO provision

Traditional breeds	Mountain wood
CAP Pillar I (Direct payments)	
CAP Pillar II: M4 – Support to processing facilities M10 – Agri-environmental-climate schemes (Payments for endangered breeds, Permanent grassland payments, Mountain pasture) M11 – Organic farming M13 – Areas with natural constraints M19 – LEADER	CAP Pillar II: M8 – Investments in forest area development and improvement of the viability of forests M16 – Cooperation M19 – LEADER
Veterinary and sanitary regulations	Strategy for smart specialization
	Forestry regulations (National forest programme, Act on Forests)

4.4 The role of the private sector in ESBO provision and enabling factors

As stated above, we have found little real interest from the private sector to further develop the **meat** value chain; we believe that this is due to complacency on one side and a lack of private interest on the other.

Despite the fact that funding for **mountain wood scheme** will originally be governmental and that the main participating institutions, i.e. the University of Ljubljana, Forestry institute and Forestry service, are public, the final aim of the initiative is to establish a working private certification scheme with economic incentives for forest owners and other actors to cooperate.

Some actors in the area, especially timber processors, have already received and acknowledged signals from the market that it is ready to accommodate products with this kind of value added, i.e. products that meet the demands of environmentally conscious consumers who seek quality wood products from forests that are managed sustainably and are durable. However, despite there being some forms of support from the CAP (e.g. support for producers' organizations), this has not been taken up by primary producers, and as mentioned above,



support for integrated value chains is still missing in the CAP concept of support to a great extent¹⁶, and entirely in the Slovenian context.

Another risk that is perhaps present more in private than in public certification schemes is that they can be perceived by consumers as less trustworthy or having lower standards, perhaps even misleading. They may also be enforced less stringently (sanctioning violations and free-riding behaviour) but this ultimately depends on the certificate owner.

5 Potential pathways towards an enhanced provision of ESBOs

The Mountain wood initiative is highly scalable. After the certificate and brand are established, they can be applied (either directly or as an approach) to other mountain forests in Slovenia (316.433 ha above 800 m altogether), and even to the entire Alpine region.

1. Rural vitality: If we choose the difference in market price between 'ordinary' wood and Mountain wood as an indirect indicator¹⁷, an increase can be expected, though the actual percentage depends on the marketing strategy (i.e., which segment of the market will be aimed at) and its success. Similarly, it is difficult to estimate the number of additional jobs, but given the rich resources, we believe it is far from negligible.
2. Forest as resource base and habitat: If the initiative is successful, the provision of this ESBO should remain the same.
3. Public recreation and health: The local tourist office currently records 18.000 overnight stays yearly, mainly in the municipality of Solčava. It is difficult to predict the extent of the increase that might be attributed only to this initiative. Among other planned activities, the emerging consortium 'Mountain Wood' aims to build a sales showroom, mainly for the promotion of the 'leading theme' that connects the partners along the Mountain Wood value chain.

The main limiting factor for the survival of the initiative is the ability of the group to establish market viability after it is cut off from public support. This must be taken account of when establishing a formal organisation and care should be taken to select competent people to lead it, or to at least establish rules that prevent a single person or group from advancing only their own interest. This is strongly related to the general lack of trust. It can only be built up slowly and in the meantime, internal shocks must be kept at a minimum. Once the organisation is fully functional, however, it should be quite robust, as the locals are sound entrepreneurs.

While there is plenty of precedent of successful initiatives similar to the Traditional breeds case across Europe, it does not seem to be sufficiently interesting in this region at the moment.

¹⁶ There are a few cases where policy was implemented in a way that supports more integration, e.g. in the Netherlands, UK and Estonia, but these are exceptions to the rule.

¹⁷ According to the local Forest service employees and wood processors (information from the National workshop and Workshop 3), the wood already fetches a somewhat higher market price. However, this is difficult to substantiate with hard data, as these market prices are not reported separately.



6 Suitability of the SES framework and ‘action-orientated approach’ in the analysis of ESBO provision

We believe that the breakdown of the socio-ecological system into variables and sub-variables allows for a satisfactory level of analysis of the main elements that ought to be addressed in order to enhance provision of the desired ESBOs. It considers the interplay of different ecological and social elements and allows for the identification of the crucial relationships between them, highlighting those that can be influenced most effectively through action-oriented research.

However, despite attempting to be as precise as possible without undue reductionism, it still leaves a lot of room for researcher error, as much is left to expert judgement; on the other hand, it is unlikely that this can be avoided entirely when analysing a dynamic socio-ecological system.

Our experience with this type of research has been that it is not sufficient to only address the physical and policy constraints that are pointed out by interlocutors. It is very important to consider motivation for change (both its strength and its nature) and willingness to engage in collective action on a certain matter.

The action-based approach proved very fruitful, as it allowed us to set up the Mountain wood consortium, which is now building towards a very concrete project proposal. In case of the Traditional breeds case, even though our analysis and messages to the community may be facing a lack of interest at the moment, they may still be built upon at a later time.

7 Main conclusions derived from the Steps 3-4 analysis

7.1 Key findings on the particular SES and the provision of ESBOs

While there is existing demand from the market, the idea of increasing the valorisation of Mountain wood was in need of some extra encouragement, which was provided by the University of Ljubljana Biotechnical faculty, and a structured approach towards the steps needed to realize the idea. This way, a critical mass of proponents ready to consider economic cooperation has been reached.

This case, especially when compared to the Traditional breeds case (which is much more supported by policy), shows that public support is not sufficient to enhance ESBO provision considerably, there has to be a strong local initiative, preferably a private one: a market potential (demand) on one side and a sufficient supply (in the sense of economy of scale) on the other. Key actors must be willing to build a story on the basis of a common, private interest; for this, they must of course be both competent and charismatic. A modern, integrated approach is therefore needed: as we have seen, these elements came together in the Mountain wood case; in the Traditional breeds case, the main actors are still relying too strongly on others and staying in their past patterns of behaviour.

However, though public support is not a sufficient condition for success, it is a necessary one; either this or a private investor with sufficient interest and private capital is capable of funding such a project, and the latter seems highly unlikely. We have also stressed the importance of



national and local interests in our report, as well as individual and leadership capacity to create such projects and ideas.

It is also important to have a network of partners with clear roles that they are capable of fulfilling. In the case of Mountain wood, the specific tasks of each actor are clear and logical.

7.2 Key findings on governance arrangements and institutional frameworks

Especially in countries that have undergone transition, it is difficult to gain support for collective actions that brings together different interests and are based on private initiative, even if they generate benefits for all: the successful individual, the general public (ESBOs) and others cooperating in the endeavour. This is perhaps understandable, given the experience with different levels of (forced) collectivisation and perception that this kind of action constitutes ‘doing all the work’ on the part of the potential initiators and free-riding on the part of the rest. Therefore, these kinds of approaches towards policy issues are quite novel and difficult to realise in practice. We believe that this is an innovation in public support, which, if realised, could be a good example for other similar projects. While the RDP measure Cooperation offers this possibility, it should be stressed that the administration (probably not only in Slovenia) is having serious difficulties in introducing such measures. It is difficult to evaluate and select such projects, as well as to devise monitoring methods and indices. The practice of these kinds of projects, which resembles more that of research projects, is very different from that of classical Rural Development policy, and therefore quite limited in its execution. Our case serves to demonstrate the importance of introducing a more bottom-up approach into the CAP, devolving some of the decision making to lower levels and building capacity of administrators, thus bringing policy closer to local needs. Another conclusion is that the needs of policy end-users would be better met if the planning of project funding was conducted in closer cooperation between the funders and the funded (i.e., proposers of projects). This relates not only to better administration, but also to content: to what policymakers see as policy priorities. They are quite inexperienced in recognising the need for such concerted approaches and forming policy measures to accommodate them; however, this kind of public support, endorsing the creation of value chains, can go a long way towards enhancing ESBO provision.

7.3 Other enabling or limiting factors

It is vital to consider the importance of knowledge, training and education, and to combine competent people from different fields into a multidisciplinary approach that addresses as many elements of the socio-ecological system as possible. Only this kind of initiative can be resilient and sustainable.

7.4 Contributions to EU strategic objectives

We believe that the Mountain wood initiative addresses all three EU objectives of inclusive, smart and sustainable growth. The main ESBOs address:



- sustainability (forest as a resource base and habitat): one of the main aims of the initiative is to support maintaining traditional forestry practices through improving their appreciation on the market; increased consumption of better quality, durable products, should also displace less sustainable products from the market and send signals to other producers to modify their practices.
- social inclusion and employment (rural vitality; public health and recreation): the improved valorisation of Mountain wood is expected to increase revenues and spur the creation of jobs, while the improved visibility of the area should attract more tourists to enjoy the landscape (as well as additionally creating revenues and jobs).
- innovative capacity (education): in addition to the educational value of this pilot project, an important element of its realisation will be to persuade the locals of the importance of innovation in a rapidly changing market setting and equipping them with the capacity to do so.

7.5 How about the transferability of the approach/mechanism used?

The presented case of Mountain wood is mainly innovative in the sense that it generates new questions and offers possibilities for a qualitative shift in the provision of forestry-related ESBOs by introducing quality schemes, bringing together market actors and public institutions as a necessary precondition for this, and opening up new possibilities for the creation of better public measures. We think that this is especially important for countries emerging from former communist regimes. Transition has brought about fairly neoliberal approaches based on individualism, while market subjects are generally unconnected, especially in food and wood chains. This has led to inadequate market stability and economic results for small entities, leading to social degradation for entire social strata and geographical regions, and consequently lower provision of ESBOs.

The example of organising a consortium for Mountain wood is an attempt to create a new approach, to take up good practices from other regions and find solutions for better provision of ESBOs in the future. We believe that the approach itself is transferable and can serve as an informative case, especially for regions facing the consequences of transition.

In countries that still exhibit elements of transition, with somewhat less developed market and government systems in place, creating functioning value chains and efficient support through existing support schemes, can importantly help actors with weaker market positions and undervalued products, i.e. products whose full value is not acknowledged by consumers. This is especially important for many ecosystem services that are currently underrepresented in markets, resulting in a lack of incentives for their provision.



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Documentation of research and action progress:

National workshop (Solčava, 15 September 2015):

- Luka Juvančič (BF)
- Tina Kocjančič (BF)
- Emil Erjavec (BF)
- Luka Juvančič (BF)
- Ilona Rac (BF)
- Cvetka Mavrič (Centre Rinka)
- Marko Slapnik (freelancer)
- Alojz Lipnik (Forest service)
- Andreja Borec (Faculty of Agriculture and Life Sciences)
- Anton Breznik (Forest service)
- Ariana Libertin (Ministry of agriculture, forestry and food)
- Barbara Trunkelj (Chamber of Agriculture and Forestry of Slovenia)
- Barbara Zagorc (Agricultural institute of Slovenia)
- Dragan Matijašič (Forest service)
- Igor Ahačevič (Ministry of agriculture, forestry and food)
- Janja Matk (famer)
- Jožica Jerman Cvelbar (Ministry of agriculture, forestry and food)
- Marija Planina (Ministry of agriculture, forestry and food)
- Mojca Čučnik (Ministry of agriculture, forestry and food)
- Uroš Zgonec (Ministry of agriculture, forestry and food)
- Urša Keše (Ministry of agriculture, forestry and food)
- Marjeta Ženko (Chamber of Agriculture and Forestry of Slovenia)
- Miha Koprivnikar (Chamber of Agriculture and Forestry of Slovenia)
- Dominik Pečovnik (Chamber of Agriculture and Forestry of Slovenia)
- Matej Bedrač (Agricultural institute of Slovenia)
- Mojca Tomažič (Institute of the Republic of Slovenia for Nature Conservation)
- Matej Simčič (Institute of the Republic of Slovenia for Nature Conservation)
- Olga Oblak (Chamber of Agriculture and Forestry of Slovenia)
- Vesna Erhart (Association for the development of the Slovenian countryside)
- Stanka Dešnik (Nature park Goričko)
- Andrej Udovč (BF)
- Danijela Bojkovski (BF)
- Ivan Pečovnik (Raduha)



Workshop 1 (Solčava, 15 January 2016): Focus group with local actors on institutional drivers of ESBO provision. Participants:

- Luka Juvančič (BF)
- Tina Kocjančič (BF)
- Ilona Rac (BF)
- Cvetka Mavrič (Centre Rinka)
- Klemen Matk (farmer)
- Marko Slapnik (freelancer)

Workshop 2 (Solčava, 5 May 2016): Validation of SES for Solčava/Luče, mandate for the Field work

- Luka Juvančič (BF)
- Emil Erjavec (BF)
- Ilona Rac (BF)
- Jurij Pohar (BF)
- Danijela Bojkovski (BF)
- Maja Vrisk (BF, student)
- Katarina Prelesnik (mayor, municipality of Solčava)
- Aneta Šiljar (Tourist information centre Luče)
- Bernarda Prodnik (municipality Solčava, Bicka)
- Vida Matk (farmer)
- Marko Slapnik (freelancer, Poseben dan)
- Alojz Lipnik (Forest Service, former mayor of Solčava)
- Toni Breznik (Forest Service)

Field work (Solčava and Luče, 13-15 June 2016); a series of in-depth interviews with farmers, processors, institutional and corporate purchasers of produce benefitting from ESBO of the CS area (animal production, mountain wood); interviewees:

- Cvetka Mavrič, Mateja Brlec Suhodolnik (Centre Rinka, LAG),
- Bernarda Prodnik (municipality Solčava, Bicka)
- Štefka Goltnik, Sonja Moličnik Oblak (Agricultural extension service Mozirje)
- Bernarda Brezovnik (Agricultural extension service Mozirje)
- Ivo Drev (manager, Agricultural cooperative Šaleška dolina)
- Ivan Pečovnik (farmer)
- Tomaž Marovt (farmer)
- Boštjan Rihter (farmer)
- Klemen Matk (farmer)
- Barbara Petek (caterer, Dom planincev)
- Karli Gradišnik (farmer)
- Helena Krivec (farmer)
- Marko Suhodolnik (farmer)
- Marjana and Matej Vršnik (farmers)
- Franc Ošep (farmer)
- Martina Breznik (innkeeper, Hiša Raduha)



- Domen and Vida Matk (farmers)
- Franci Plesnik (hotelier, Kmečka hiša Ojstrica)
- Gregor Plesnik (farmer)
- Nina Plesnik (manager, Hotel Plesnik)
- Avgust Lenar (hotelier, tourist farm Lenar)
- Andreja Bizjak (innkeeper, Na Razpotju)

Strategic meeting (Domžale, 12 October 2016): Meeting with Alojz Lipnik, forest owner, professional forester (Slovenia Forest Service) Forest Service) and former mayor of Solčava; present:

- Alojz Lipnik
- Emil Erjavec (BF)
- Luka Juvančič (BF)
- Ilona Rac (BF)

Focus group (Domžale, 6 January 2017): Meeting to elaborate on further steps regarding Mountain wood; present:

- Alojz Lipnik
- Emil Erjavec (BF)
- Luka Juvančič (BF)
- Ilona Rac (BF)

Focus group with researchers in wood science (Ljubljana, 10 January 2017):

- Emil Erjavec (BF)
- Luka Juvančič (BF)
- Miha Humar (BF, dept. of Wood Science)
- Alojz Lipnik
- Damjan Oražem (Director, Slovenia Forest Service)
- S. Zupan (K&Z Consulting)
- Jožica Gričar (Slovenian Forestry Institute)

Workshop 3 (Solčava, 20 January 2017): discussion with wood processors and wood science specialists regarding potentials for valorisation:

- Emil Erjavec (BF)
- Luka Juvančič (BF)
- Jurij Pohar (BF)
- Muha Humar (BF)
- Boštjan Lesar (BF)
- Ilona Rac (BF)
- Jožica Gričar (Slovenian Forestry Institute)
- Alojz Lipnik (Slovenia Forest Service)
- Slavka Zupan (K&Z Consulting)
- Alojz Selišnik (wood processor, Melu)
- Stanko Kopusar (wood processor, Tiples)



Meeting with certification organization (Domžale, 27 January 2017):

- Emil Erjavec (BF)
- Luka Juvančič (BF)
- Jurij Pohar (BF)
- Ilona Rac (BF)
- Alojz Lipnik (Slovenia Forest Service)
- Slavka Zupan (K&Z Consulting)
- Peter Bele (Bureau Veritas)
- Nace Kregar (Bureau Veritas)

Meeting with representatives of the Ministry for agriculture, forestry and food (MAFF), re-
garding the measure Cooperation (Ljubljana, 1 February 2017)

- Emil Erjavec (BF)
- Jurij Pohar (BF)
- Ilona Rac (BF)
- Slavka Zupan (K&Z Consulting)
- Miha Humar (BF)
- Jože Prah (Forest Service)
- Tanja Gorišek (MAFF)
- Marija Žamut (MAFF)
- Uroš Zgonec (MAFF)

Meeting with designer company (Ljubljana, 3 February 2017)

- Lenka Kavčič (designer, AFRONT)
- Slavka Zupan (K&Z Consulting)

Workshop (Solčava, 14 February 2017) - Presentation of the results of the feasibility study

- Luka Juvančič (BF)
- Ilona Rac (BF)
- Maja Vrisk (BF, student)
- Primož Kopač (BF, student)
- Katarina Prelesnik (mayor, municipality of Solčava)
- Ivan Pečovnik (farmer; sheep breeders' association Raduha)
- Franc Plesnik (hotelier, Kmečka hiša Ojstrica)
- Matej & Marjana Vršnik (tourist farm Robanov kot)
- Matjaž & Martina Breznic (inn owners, Hiša Raduha)
- Branko Petek (farmer and meat processor)
- Boštjan Pihler (farmer and meat processor)
- Helena Krivec (tourist farm Ramšak)
- Milena Marolt (tourist farm Stoglej)
- Terezija Mavrič (Zavod Savinja)
- Janja Matk (tourist farm Matk)
- Mateja Brlec Suhodolnik (Centre Rinka)



Focus group (Domžale, 21 February 2017) – next steps meeting

- Emil Erjavec (BF)
- Jurij Pohar (BF)
- Luka Juvančič (BF)
- Ilona Rac (BF)
- Slavka Zupan (K&Z Consulting)
- Miha Humar (BF)
- Jožica Gričar (Forestry Institute)
- Alojz Lipnik (Forest Service)
- Lenka Kavčič (AFRONT)



9 ANNEX: Reflections on the case study methodology used

As these issues were already covered extensively in the previous sections, we only include a very brief overview here.

9.1 Objectives and activities undertaken with initiative/stakeholders

Objectives:

Increasing the valorisation of high-value products through private initiatives to maintain or improve the provision of ESBOs.

Actions:

Traditional breeds: field research, feasibility study and economic analysis for a small-scale slaughterhouse

Mountain wood: creating a project proposal for the measure Cooperation, communication with stakeholders and public interest representatives

Actors:

Traditional breeds:

- Marko Slapnik ('gatekeeper'): helped pinpoint main issues, facilitated communication with farmers
- Farmers, meat processors, tourist operators, local extension service: source of information regarding the feasibility of the establishment of a small-scale slaughterhouse

Mountain wood:

- Alojz Lipnik ('gatekeeper'): initiator of proposal, facilitator
- Forest owners: providers of Mountain wood
- Wood processors: providers of practical information regarding wood quality/properties, market demand and design ideas; entrepreneurial push
- BF: coordinator and developer of project concept, business idea and plan (CAE); researcher of wood properties (dept. for Wood science)
- Forest service, Forestry institute, Ministry of food, agriculture and forestry: representatives of public interest

9.2 Outcomes and further steps

Traditional breeds: feasibility study and economic analysis for a small-scale slaughterhouse. Presented at local workshop. The main conclusion is that significant private action is required, which in turn needs sufficient economic interest.

Mountain wood: project proposal for the measure Cooperation (undergoing preparation). To be submitted to Ministry upon publication of public tender. Consortium projected to start official work in 2018.



9.3 Judgement on the process

Traditional breeds: Farmers had few expectations, as they are themselves sceptical due to bad past experience. It is likely that BF's output will not fall on fertile ground until there is significant private interest for action (collective or individual).

Mountain wood: Initiative for action came from within the study area. Expectations were not high at the outset, but it gradually turned out that there is interest for this kind of cooperation on all sides. Communication with the right stakeholders and private interest for action were crucial.

Please refer to section 7 for more details.

9.4 Supporting data and statistics

Project proposal for the measure Cooperation (to be provided subsequently)

