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Characterizing value chains' contribution to resilient and sustainable development in European mountain areas

Dr. Michele Moretti, PhD

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DI MILANO



About me

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Department of Agriculture, Food and Environment



900 students

80 teaching staff

200 technical-administrative staff

3 first level courses

3 second level courses

1 Phd school










Pisa Agricultural Economics - (<https://page.agr.unipi.it>)



















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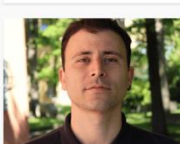
OUR TEAM

We are researchers from three different departments of the University of Pisa. Junior and senior, with diverse disciplinary backgrounds, and sometimes from very different corners of the world – what unites us is the passion for socio-economic research in agriculture, food and rural development.

 <p>PhD Student Tarek Allali</p> <p>in</p>	 <p>PhD Student Daniel Alpizar Rojas</p> <p>in</p>	 <p>Researcher Sabrina Arcuri</p> <p>in</p>
 <p>Associate Professor Maria Andreoli</p> <p>in</p>	 <p>PhD student Debella Deressa Bayissa</p> <p>in</p>	 <p>PhD Student Alessandro Buonaccorsi</p> <p>in</p>
 <p>Full Professor Gianluca Brunori</p> <p>in</p>	 <p>Full Professor Alessio Cavicchi</p> <p>in</p>	 <p>Full Professor Francesco Di Iacovo</p> <p>in</p>

 <p>PhD Student Salomon Espinosa Diaz</p> <p>in</p>	 <p>Researcher Laura Fastelli</p> <p>in</p>	 <p>Research Manager Elena Favilli</p> <p>in</p>
 <p>Assistant Professor Francesca Galli</p> <p>in</p>	 <p>Researcher Stefano Grandò</p> <p>in</p>	 <p>Research Manager Silvia Innocenti</p> <p>in</p>
 <p>PhD student Isabel Jaisli</p> <p>in</p>	 <p>PhD Student Marina Knickel</p> <p>in</p>	 <p>PhD Student Fabio Lepore</p> <p>in</p>

 <p>PhD Student Matteo Metta</p> <p>in</p>	 <p>PhD Student Gabriela Molina</p> <p>f in</p>	 <p>Researcher Michele Moretti</p> <p>in</p>
 <p>Associate Professor Roberta Moruzzo</p> <p>in</p>	 <p>Researcher Chinedu Obi</p> <p>in</p>	 <p>PhD Student Lorenzo Pagni</p> <p>in</p>
 <p>PhD Student Matteo Olivieri</p> <p>f in</p>	 <p>PhD Student Endar Purnawan</p> <p>f in</p>	 <p>Assistant Professor Francesco Riccioli</p> <p>in</p>

 <p>Researcher Silvia Rolandi</p> <p>in</p>	 <p>Associate Professor Adanella Rossi</p> <p>in</p>	 <p>Associate Professor Massimo Rovai</p> <p>in</p>
 <p>Researcher Paola Scarpellini</p> <p>f</p>	 <p>Researcher Ivano Scotti</p> <p>in</p>	 <p>Financial Manager Valentina Del Soldato</p> <p>in</p>
 <p>PhD Student Raiza R. O. Teixeira</p> <p>f in</p>	 <p>Researcher Daniele Vergamini</p> <p>in</p>	

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Our current key research focus include the following:

- Food security and food systems
- Analysis of 'value chains' in agri-food systems
- Dynamics and structural change in rural areas
- Innovation processes of technological, organisational and social nature
- Analysis of the design and formulation of agricultural, fisheries, food and rural development policies
- Multifunctionality of agriculture and plurality of farm business models

Outline

- The H2020 MOVING project
- Introduction
- Hypothesys
- The Conceptual Framework
- Methodology
- Instantiation
- Main Findings/Discaimers
- Policy implications

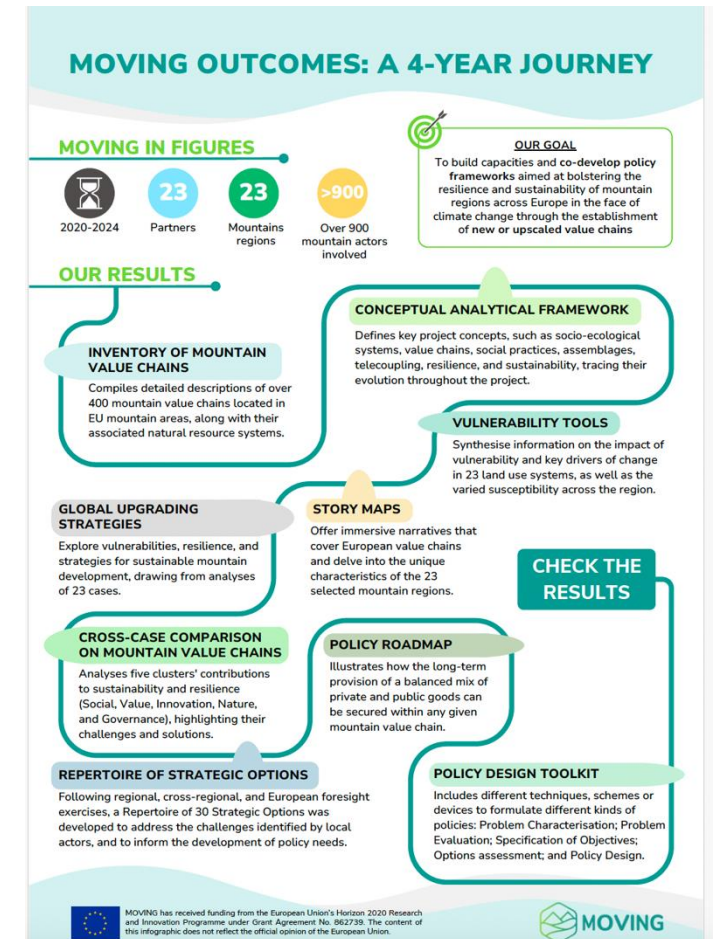
The MOVING project



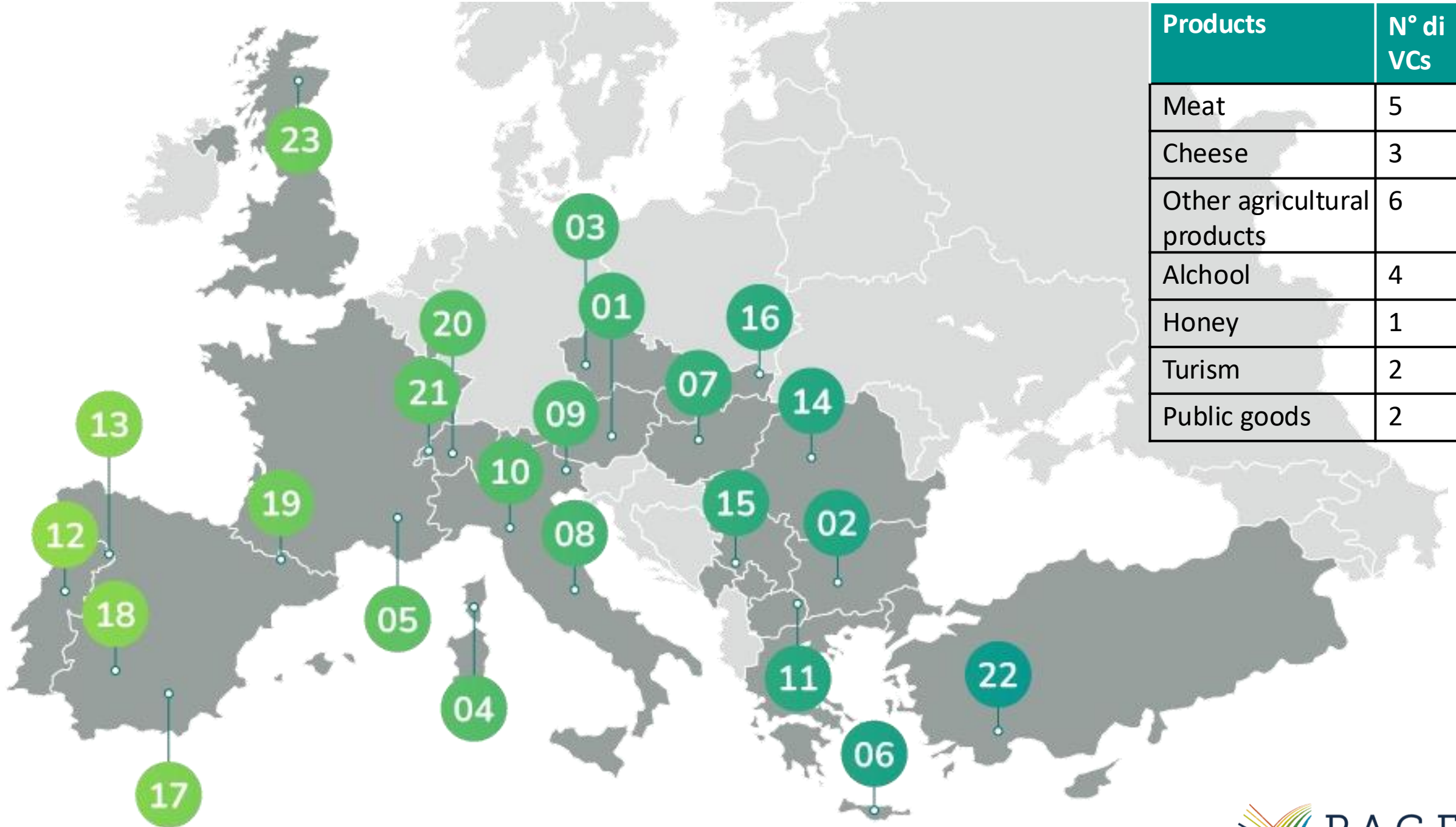
▲ 23 Partners from EU Member and Associated countries

▲ 23 Mountain Regions

▲ 23 Case-study Value Chains



<https://www.moving-h2020.eu/>



Products	N° di VCs
Meat	5
Cheese	3
Other agricultural products	6
Alcohol	4
Honey	1
Turism	2
Public goods	2

The MOVING project



To build capacities and **co-develop policy frameworks** aimed at bolstering the resilience and sustainability of mountain regions across Europe in the face of climate change through the establishment of **new or upscaled value chains**

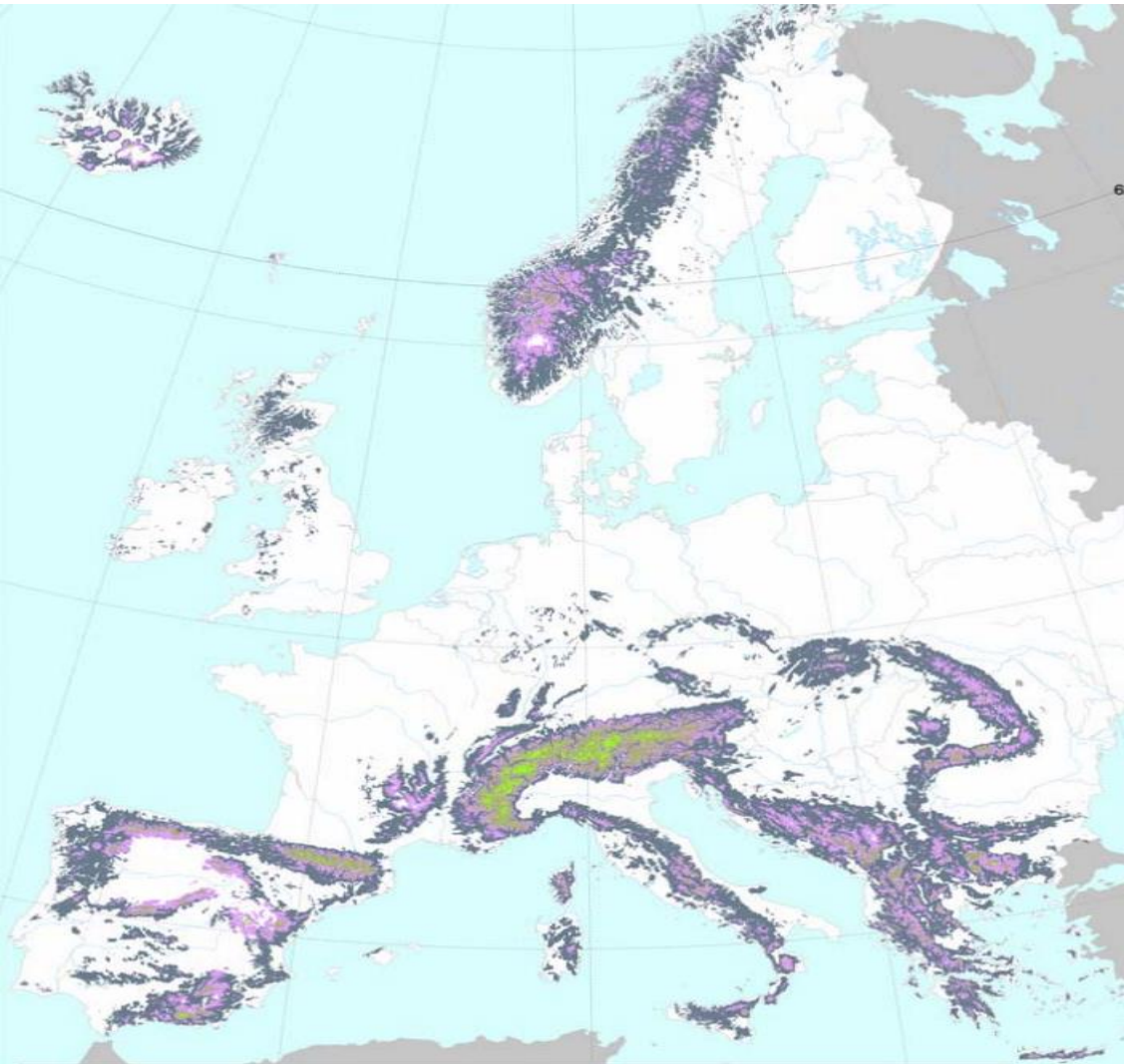


Visual representation of the “nesting” of Policy Building Blocks within the MOVING [Policy Roadmap](#).



MOVING's seven key objectives.

Introduction



European Commission, 2004

- Cover 36% of the EU surface
- Are home to 16% of the EU population.
- Host a great diversity of ecosystems and land uses.
- Provide substantial support for the livelihoods of mountain communities.
- Essential ecosystem services for uplands and lowlands.
- Abandonment (people and businesses)
- Highly sensitive to climate change

Introduction – Policy environment



Systemic, integrated and assets-based policy approaches

The Long-Term Vision for Rural Areas (LTVRA)

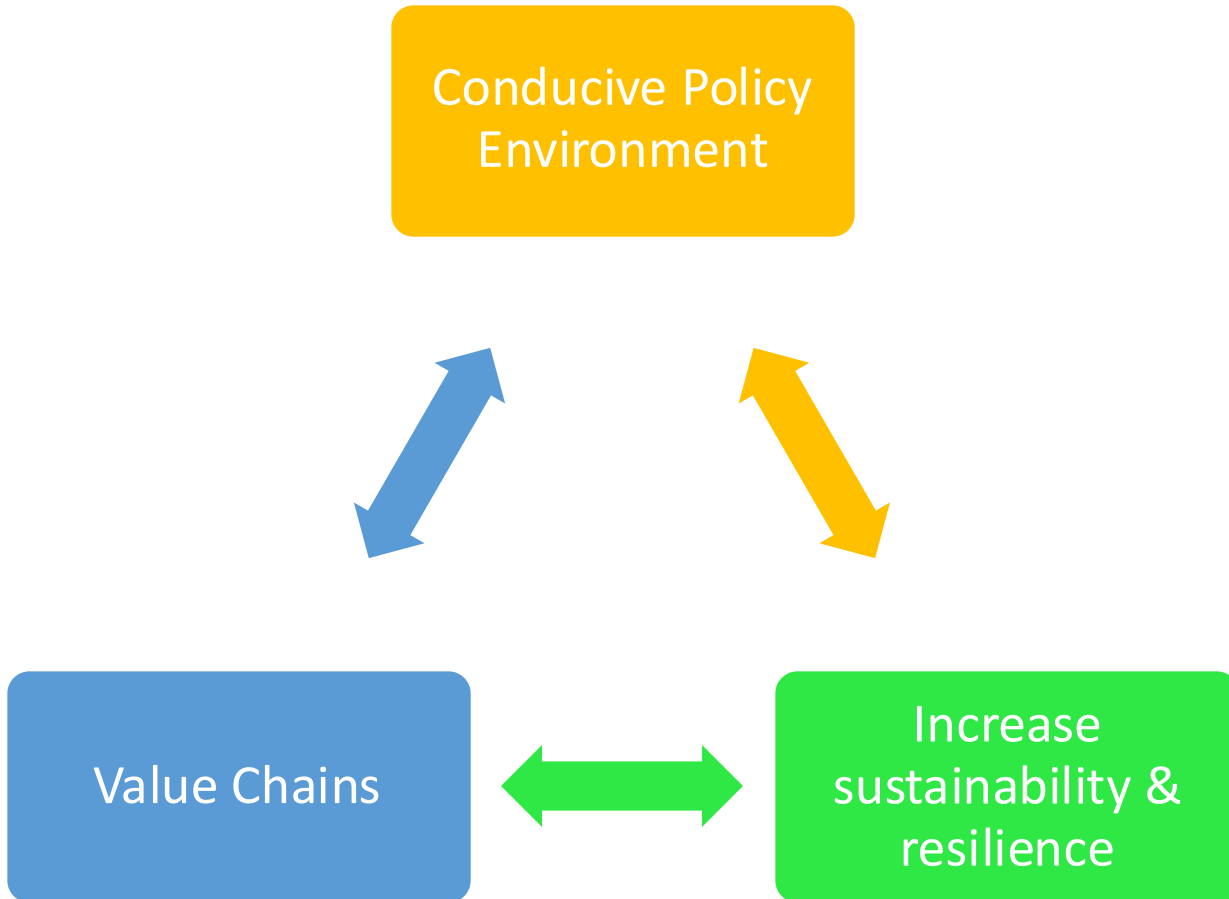


Introduction – Policy environment



- ✓ LEADER and more recently Community-Led Local Development programs.
- ✗ Not accounted in the implementation of cohesion policies (Carbone, 2018).
- ✗ Narrow agricultural-oriented rural policy approach (CAP – II Pillar)
- ✗ Not rewarding ecosystem protection in mountain areas (O'Rourke et al., 2016)

Hypothesis



MOUNTAIN **VALUE CHAINS** ARE CAPABLE OF **CREATING VALUE** WHILE ENHANCING MOUNTAIN **SOCIO-ECOLOGICAL SYSTEMS SUSTAINABILITY** THROUGH **CONDUCTIVE POLICY ENVIRONMENTS** CAPABLE TO SUPPORT LOCAL **ACTORS** IN THEIR **PRACTICES**

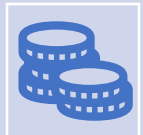
The Challenges



Turning SES outcomes into value



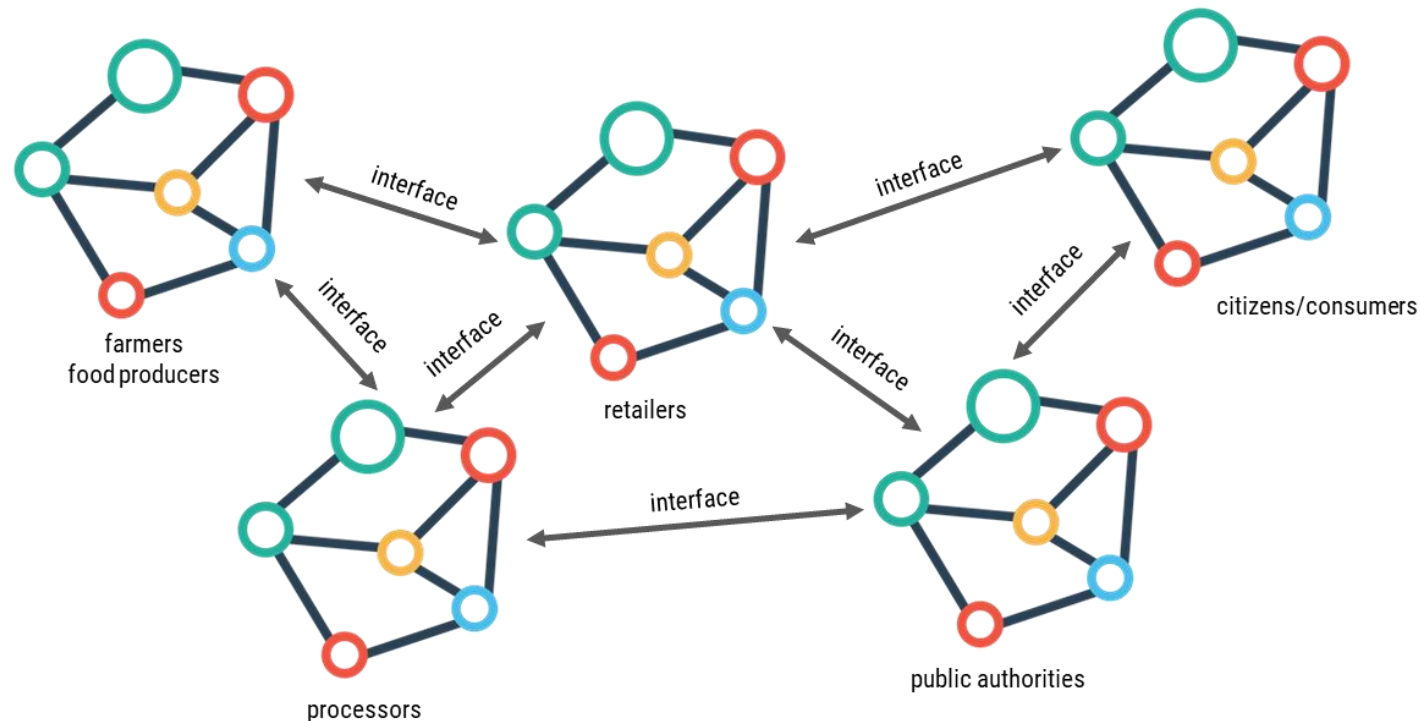
Ensuring continuity to value creation



Converting non-economic value into economic value

Value Chain

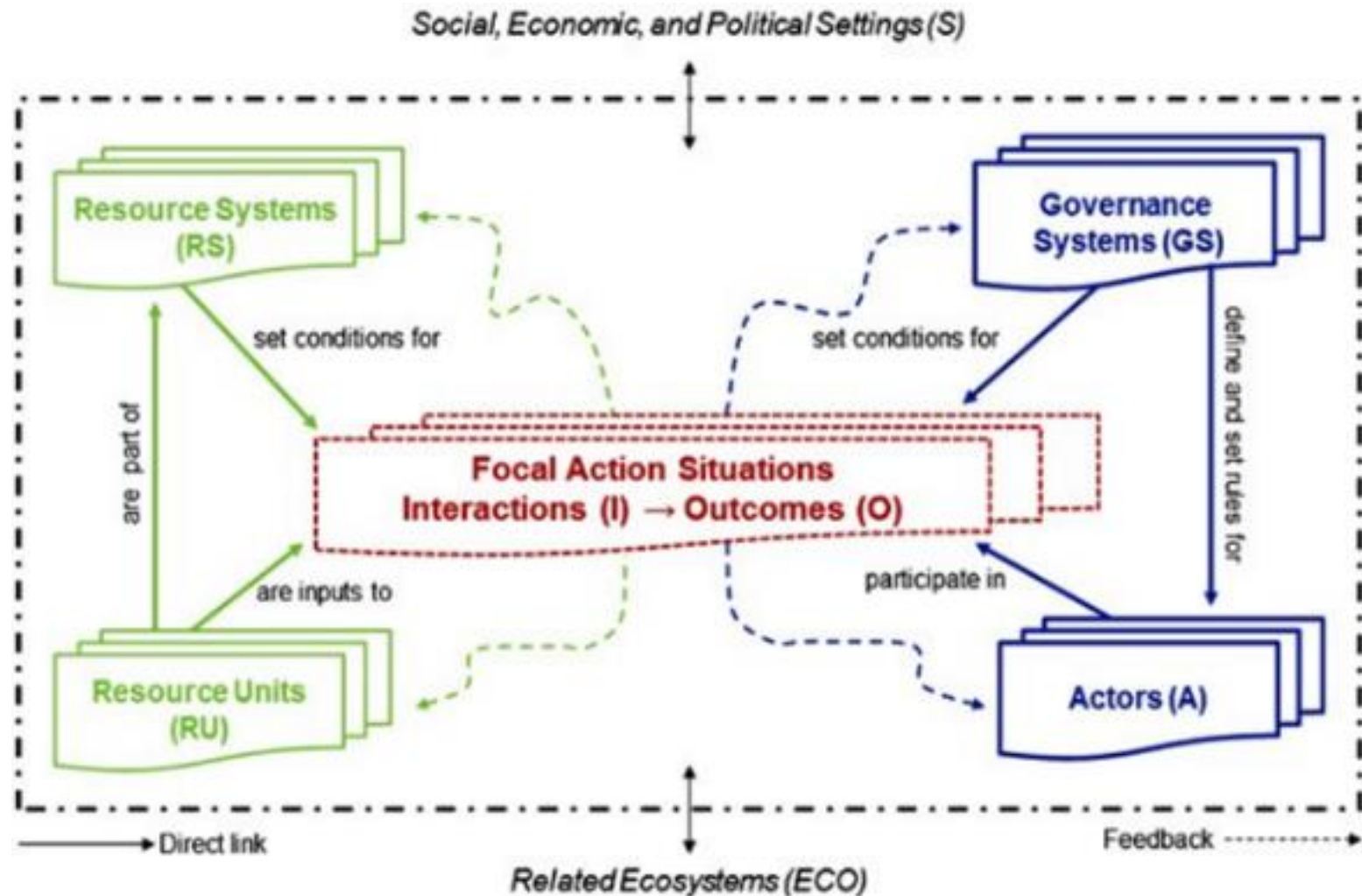
Value chain (VC) is the network of actors and activities geographically localised that - through upstream and downstream linkages (inputs, outputs, financial flows, information, etc.) - provide the consumer with a product (or service) obtaining in exchange a value to be distributed between the components of the chain.



Socio-Ecological System

Social-ecological systems (SES) are complex, interdependent and linked systems of people and nature which are nested across scales.

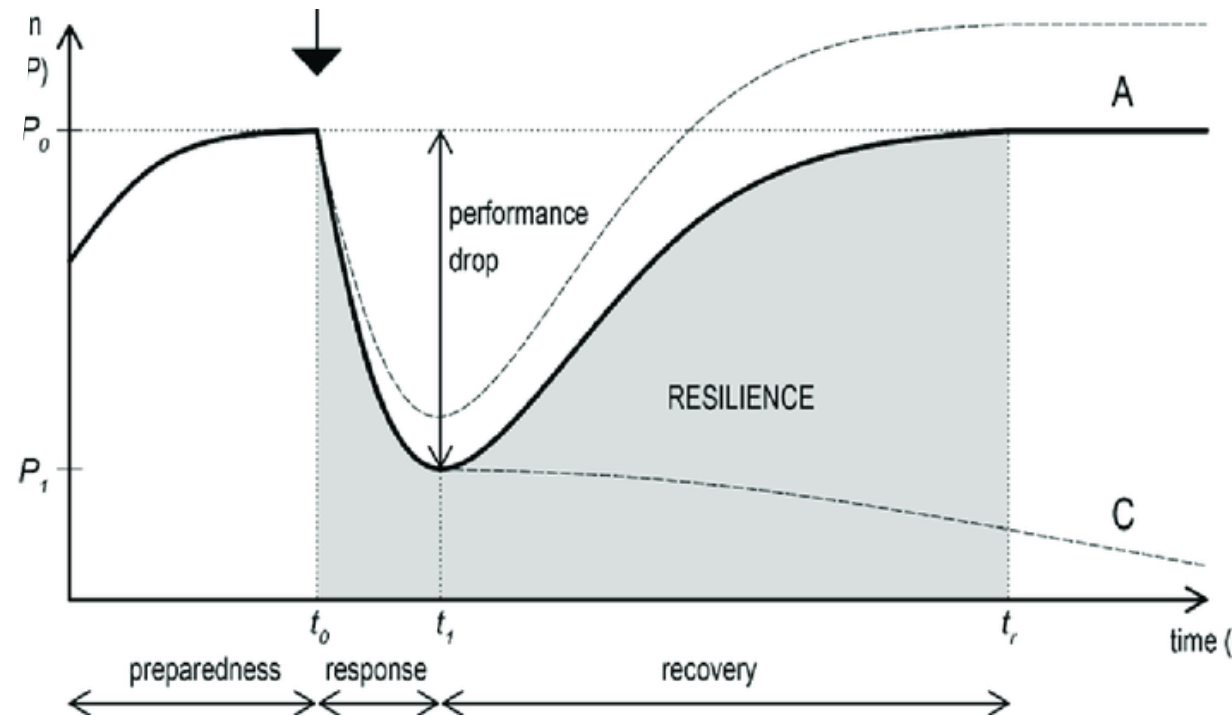
(McGinnis & Ostrom, 2014)

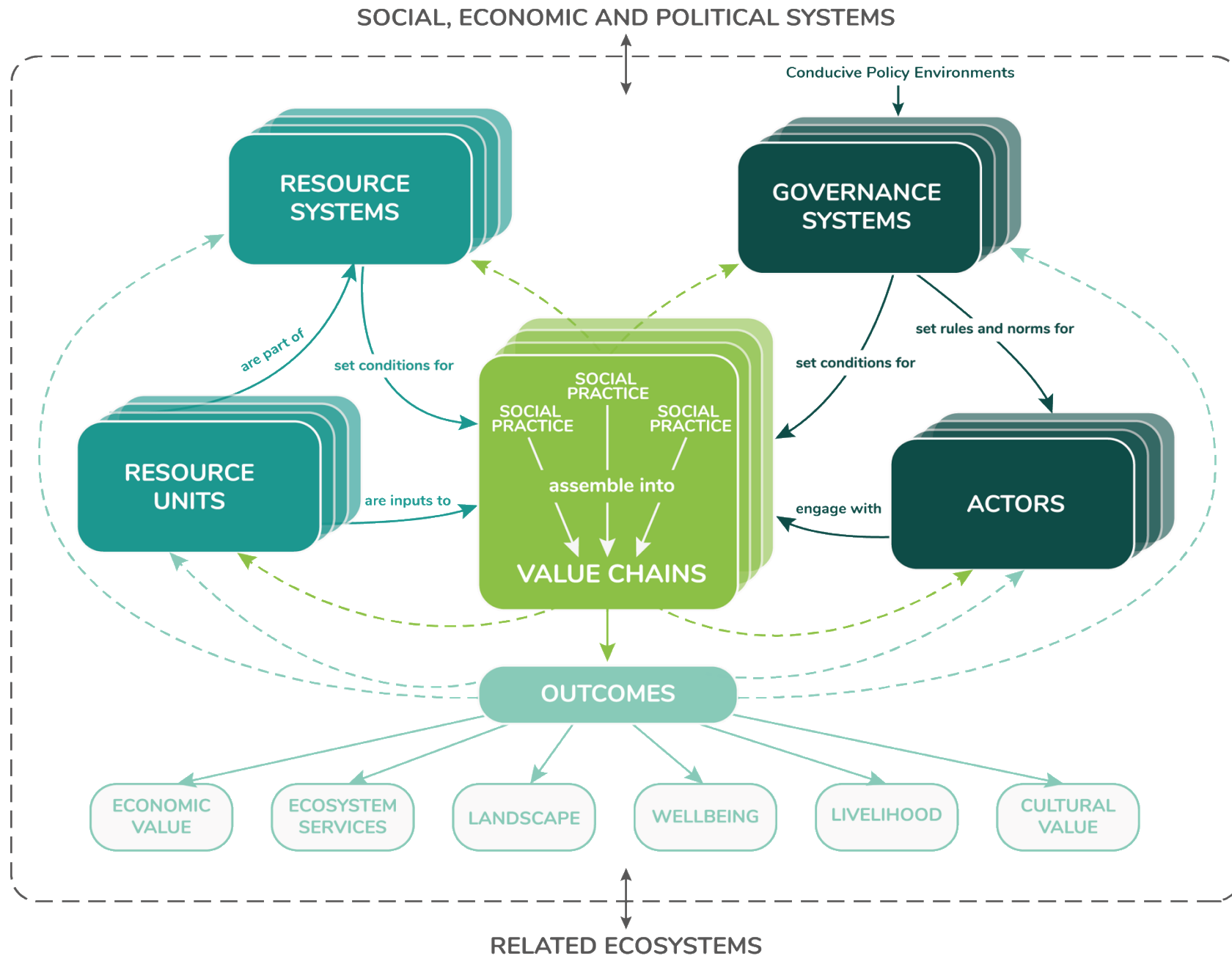


Vulnerability and Resilience

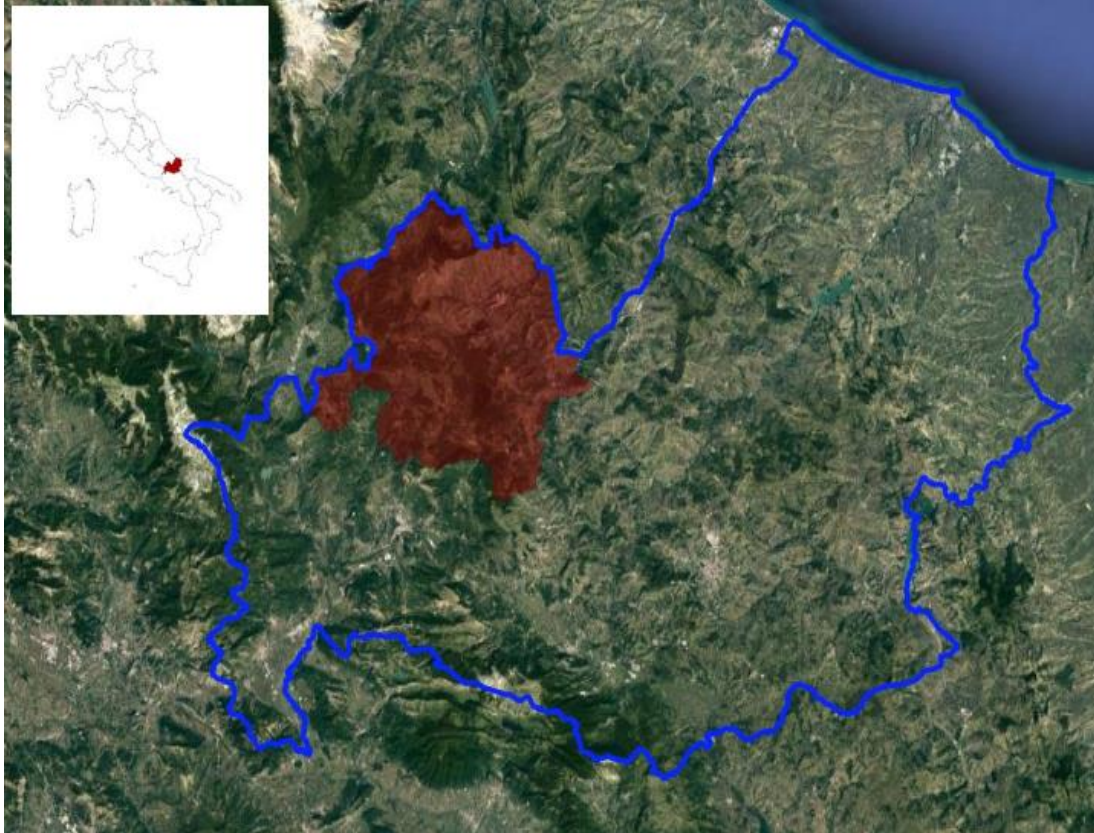
Vulnerability (V) can be defined as the propensity of exposed elements such as human beings, their livelihoods and assets to suffer adverse effects when impacted by hazard events, that can occur in the form of sudden shocks or continuous stressors

Resilience (R) refer to the capacity of a SES to avoid and/or withstand perturbations such that the system remains vital, maintaining mostly its structure and functions.





Methodology

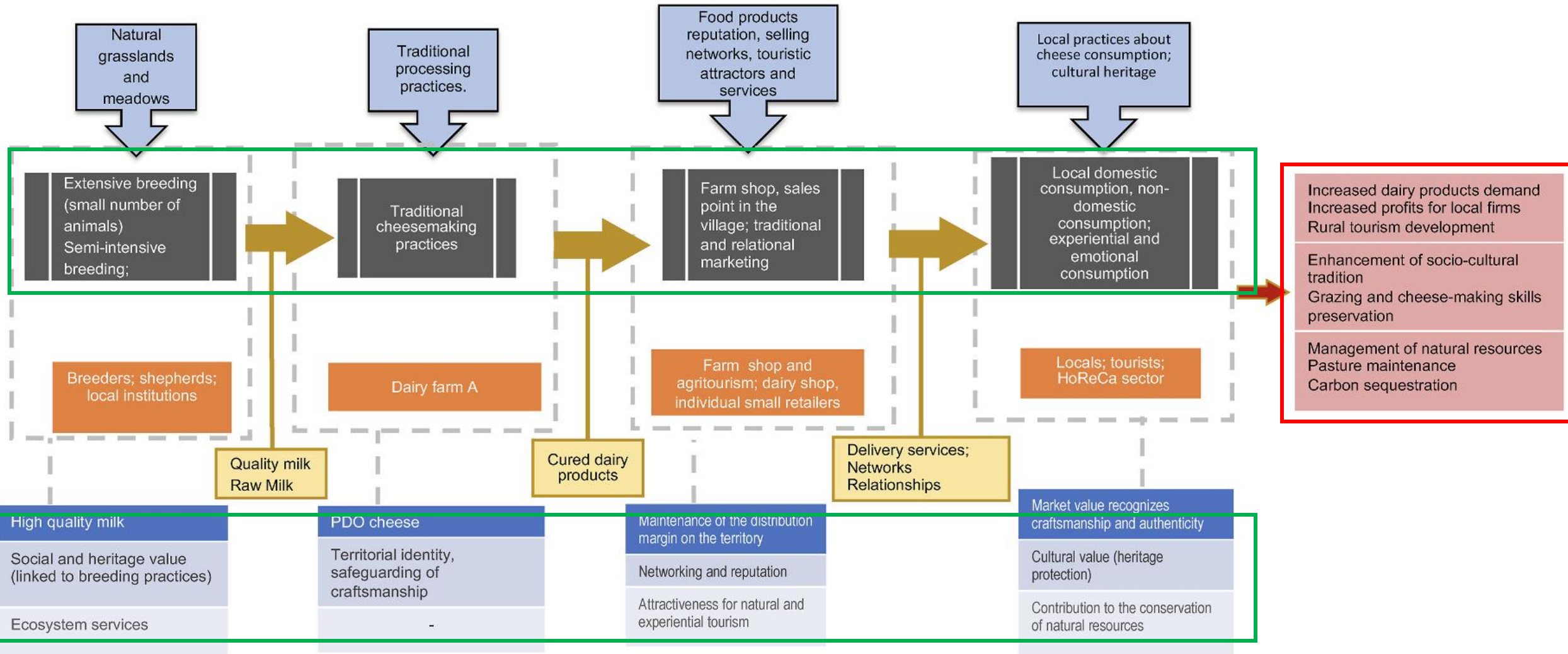


- Alto Molise SES
 - Dairy VC producing «Caciocavallo»
 - 2 different VC configurations
 - Strong identity connected with the SES

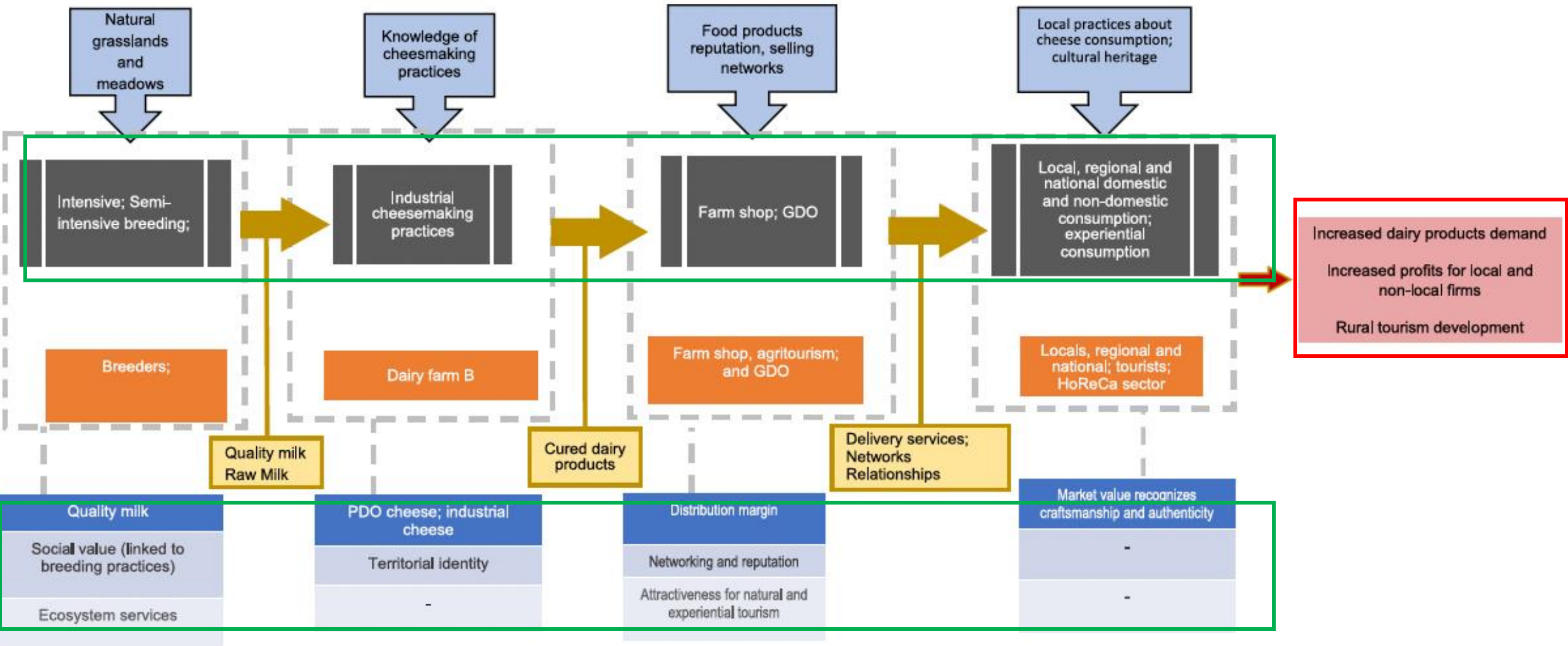
Data

- in-depth interviews with 15 key actors along the VC and local authorities and resource management.

Instantiation – Business model A



Instantiation – Business model B



Main findings

- Extended value chains analysis integrating it with the Socio-Ecological System (SES) framework.
- The SES analysis provides the meso-level approach to capture interactions between natural resources, actors, and governance systems determining value chain configurations.
- To identify how the configuration of value chains might provide resilience to disruptive trends
- To recognise leverage points to improve the sustainability of mountain SESs.
- Different value chain's configurations might result in different outcomes for the sustainable development of the SES.

Disclaimers

- Mountain Value Chains are not only agri-food related
- Administrative boundaries \neq Mountain ranges boundaries
- Lack of data
- Complex definition of the SESs' boundaries



Policy reflections

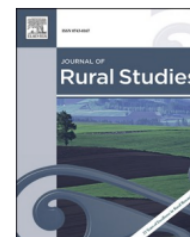
- The framework integrates value chains and socio-ecological systems.
- Identify the “*practices*” mobilizing natural, economic, and social resources within the context of SESs to generate «values».
- Pursue a systemic, integrated and asset-based approach to development policies.
- Realise the positive long-term vision of Europe’s (mountains) rural areas.



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

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Characterizing value chains' contribution to resilient and sustainable development in European mountain areas

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ABSTRACT

Mountain areas have been the testbed for sustainable development models focused on balancing their vulnerability and the value of their natural, cultural, and social resources. In these areas, the continuous adaptive interaction between bio-geophysical and socio-cultural processes assembles Socio-Ecological Systems (SES) characterized by a great diversity of ecosystems and land uses, which provide substantial support for the livelihoods of mountain communities and essential ecosystem services for uplands and lowlands. In this paper, we take value chains to be the operative units of analysis to examine human-natural systems interactions in mountain areas. Value chains mobilize resources and connect actors beyond territorial boundaries and economic sectors to generate economic, environmental, and social values. Strategies for local development of these areas



**Thanks for
your attention**

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