

Chapter 7

Grey Literature Systematic Rapid Review of Neo-Endogenous Life Cycle Rural Development within EAFRD regulation 1305/2013

* Lorenzo Capobianco, Salvatore Polverino and Hourakhsh Ahmad Nia

1. Introduction: Background, Rationale and Relevance of the Objective

Evidence is growing to underscore the significance of Land Fragmentation as pivotal key issue of degradation (Smiraglia D. et al., 2017) in the historical context of Italy. The Rationale is inspired by: a) self-assessments recently tracked by Kourachanis N. in 2020, who recognized the value of empirically based analysis of Keynesian welfare state overlapping with the concept of social citizenship and new politics of consumption (Micheletti M. & Dietlind S., 2012); b) “Areas with Natural Constraints” (ANCs) which offer indirect evidence of a RG socio-economical trigger, making a significant difference with Italian coastal areas, whose process of migration (Jiang D. et al., 2023) is identified by Gkartzios M. & Lowe P. (2014/19) in terms of exogeneous variables; c) “Inland areas” (Aree Interne), whose demography is dramatically declining (Belliggiano A. et al., 2020) due to the overall absence of economic opportunities, below average income levels, as also stated by Smith D. et al. (2021) with the definition of a “*rent-gap theory*” and transport issues (Public Investment Evaluation Unit – UVAL, 2014); d) Rome’s countermeasure “Italian National Action Plan (NAP)” issued at the local scale, to mitigate LM and fragmentation of farmland (Et al, Abba Saleh, 2021, Halbac R. et al., 2022, Muchová Z. et al., 2014, Ntihinyurwa D. & Vries W., 2021) and forestry that in Southern Europe (Zamfir R. H. C. et al., 2022) is interested by early desertification process, as also issued by Agenzia Coesione Territoriale, SNAI, and new soil sciences trends (Stankovics P. et al., 2020) together with marginalised farmers’ (Buchta S. & Štulrajter Z., 2008, Phiri A. et al., 2022) dis-empowerment (Ab Halim et al., 2023), in order to reduce sustainable practices (Prete F., 2022) with the transferral of land to adjacent owners or “*inter vivos*” (Szilágyi J., 2019); e) adaptability of the investigation in Eastern (Antipova E., 2013, Slivinskaya L., 2019) and Central Europe (Juskova K., 2014) with a few parcel-oriented indicators (Sklenicka P. et al., 2014/17, Robinson D., 2011, Zhou Q. et al., 2022) also related to urban growth and pattern analysis (Wen C. & Wang L., 2022); f) replicability of econometrics, regarding the shaping of local land markets and agricultural development corresponding to a “Co-optation of Environmental Citizenship”.

The relevance of the two proposed frameworks items are intended as a *rapid* review by determining: a) an adaptation of foresight methodology that converges a top-down-bottom-up approach by Gusmanov R. et al. (2020), and b) a tailored version of the pyramidal cascade by authors La Notte A. et al., (2016), and Rugani B. et al. (2019) as a heuristic and holistic participatory policy modelling proposed on the Common International Classification of Ecosystem Services’ (CICES) guideline.

Corresponding Author: * S. Polverino

Department Training and Internationalization, Ordine degli Architetti, Pianificatori, Paesaggisti, Conservatori di Napoli e Provincia, Napoli, Italy

e-mail: formazione@napoli.archiworld.it

How to Cite This Chapter:

Capobianco, L., Polverino, S., & Ahmad Nia, H. (2023). Grey Literature Systematic Rapid Review of Neo-Endogenous Life Cycle Rural Development within EAFRD regulation 1305/2013. In H. A. Nia & R. Rahbarianyazd (Eds.), *Convergence of Contemporary Thought in Architecture, Urbanism, and Heritage Studies*, (pp. 84-99) Cinius Yayınları. <https://doi.org/10.38027/ICCAUA2023EN0365>

1.1. Conceptualizing and defining meaningful participatory research

Participatory exploration shares a larger set of transparent and inclusive features. Conventionally, “*participatory research*” follows a rigid and vertical pattern without the purpose of the effort of adapting a reconceptualizing of non-academic actors. The relevance evidence of the need of a collaborative civic participation (Dee T. S., 2004) across dissimilar disciplines beyond Boundary Spanners (BS) (Meerkek I. & Edelenbos J., 2018/19) is prompted by the British authors Phillips M. & Smith P. Datten (2018) who confirmed RG as the assemblage of “*circulatory sociologies of translation*” and “*consider how comparison might take place*”, as “*an increasingly open question*”; the RG definition is actually confined within the Anglo-Saxon context (Lowe P. & Neil W., 2007, Stockdale A., 2006/10) as an interdisciplinary guesswork, however not yet officially integrated outside by foreign socio-political areas of influence.

1.2. Research Question and Aim of this Scoping Review

In 2021, we started to consider the “*Camaldoli Manifesto*” (Dematteis G. & Magnaghi A., 2021, Società Dei Territorialisti, 2021) as the most recent and pertinent volume endeavoring the “*Disadvantaged-scape*” scenario in the Italian context, also overlapping with the mountain communities (Siddik A. & Rahman A., 2022) of “*new mountaineers*” (Bolognesi M. & Corrado F., 2021) and amplified in peri-urban-rural contexts with an important Hill Cover however not yet recognized by the status of “*Comunità Montane*” membership (Salsa A., 2021).

Ordine Architetti Napoli commissioned a selection of key recommendations emerging from the rural studies in order to qualify emerging concepts such as “*open innovation*” and “*social impact investing*” slowly challenging the existing crises of agribusiness, particularly exacerbated in mountain-hill contexts with evident social and productive depletion (Ventura F., 2018).

The primary scope of this review was to highlight experimental self-governing capacities, as encouraged by a few multiscale programs. At this moment, based on available peer-reviewed published, we decided to adopt a Grey Literature Systematic Review by including trusted governmental sources to define a universal European disadvantage indicator within a policy-maker setting.

2. Materials and Methods

Preparatory from foresight methodology (Gusmanov, R. et al., 2020), we assembled the preliminary three stages framework, aimed to conciliate a bottom-up and top-down intersection (Banerjee S. et al., 2021, Creutzig F. et al., 2012, Jänicke M., 2015) for a shared perspective on Multi-level Governance and Policymaking (Jänicke M., 2015) in the forest-based bioeconomy for Landscape Architecture (LA) of Italy (Ramcilovic S., 2022, Taffetani F., 2009).

Due to its complexity, the effort was moved towards a *rapid* scoping review to accomplish our institutional deadlines, aiming to illustrate a suite of training materials helpful to navigate throughout the dispatches released by Italian Authorities engaged in rural studies.

Eurostat doesn't yet include any substantial space to RG phenomena, in terms of demographic and economic balance (Lozano F. et al., 2023, Wen C. & Luqi W., 2022), but puts effort by highlighting the first PAC pillar (Ciaian P. et al., 2015, Tosun J. et al., 2023) from which corporations benefitted subsidies instead of Small and medium-sized enterprises (SMEs) (Vavrejnova M. & Lüpsik S., 2007).

This is currently still relegated to non-applied, academic-theoretical, and empirical LA research (Štulrajter B., 2008). To overcome the omission of the RG keyword on the Statistical Atlas, two indicators on discrete variables related to RG are deemed: ANC and CLC, which, taken singularly, pass over RG issues. CAP is likely the most important trigger, externalizing payments to endogenous variables (Belliggiano A. et al., 2020). Valuation suggests ANCs for national Census on small scale of disadvantaged areas (Ministero delle Politiche Agricole Alimentari e Forestali, 2010), similar to CLC inventory to improve GIS correspondence using Change Mapping (CHA), intersected to Copernicus top-down service, based on MMU.

2.1. Search terms and databases

“Participatory” is utilized as an overarching phrase to encompass a variety of specified research methodologies to solve the lack of awareness (Afshar J. & Najla S., 2020) in Public Administration (PA) (Kekez A. et al., 2019); this appears in Table 1 as we designed the initial communicative framework (Carta V. & Licciardo F., 2019),

including findings summarized according to the rapid review format by acquiring Italian digital databases (ASL), international Editors (Springer International) and data from National Archives and Records Services across Europe (EC-JRC, EUROSTAT, ICOMOS, UEF//EREPOSITORY). Not limited to top-down criteria, we included a further tailored adaptation of the Material Circularity Indicator (MCI) and Life Cycle Assessment (LCA).

3. Results

3.1. Overview of proposed frameworks

The proposed multiscale framework encompasses three distinct stages: Pre foresight, Foresight, and Post foresight. Each stage addresses various aspects related to sustainable agri-business (Artto K. et al., 2008) and changes in land use planning (Caputo J. et al., 2020, Helin T. et al., 2014, Jänicke D., 2023), aiming to foster environmental protection from colonization (Varvarousis A., 2019), access (Korthals A. & Willem K., 2022), governance support, and long-term sustainable practices. In the Preforesight stage, a collaborative bottom-up forum is established to facilitate a self-assessed Life Cycle Impact Assessment (LCIA) under EU Regulation 1305/13.

This interactive platform, accessible online and through front desk assistance, educates transparent actors to actively participate (Cruz J. et al., 2023, Hoskins B. et al., 2008), paired with social media experts (Andrachuk M. et al., 2019) in defining environmental boundaries and receive free assessments and top-down guidance.

Additionally, the stage introduces a new set of indicators and explores the potential of (neo)endogenous (Atterton J. et al., 2011, Navarro V. et al., 2022) and exogenous Land Cover regulations (Karvonen J. et al., 2017), enhancing the framework's effectiveness.

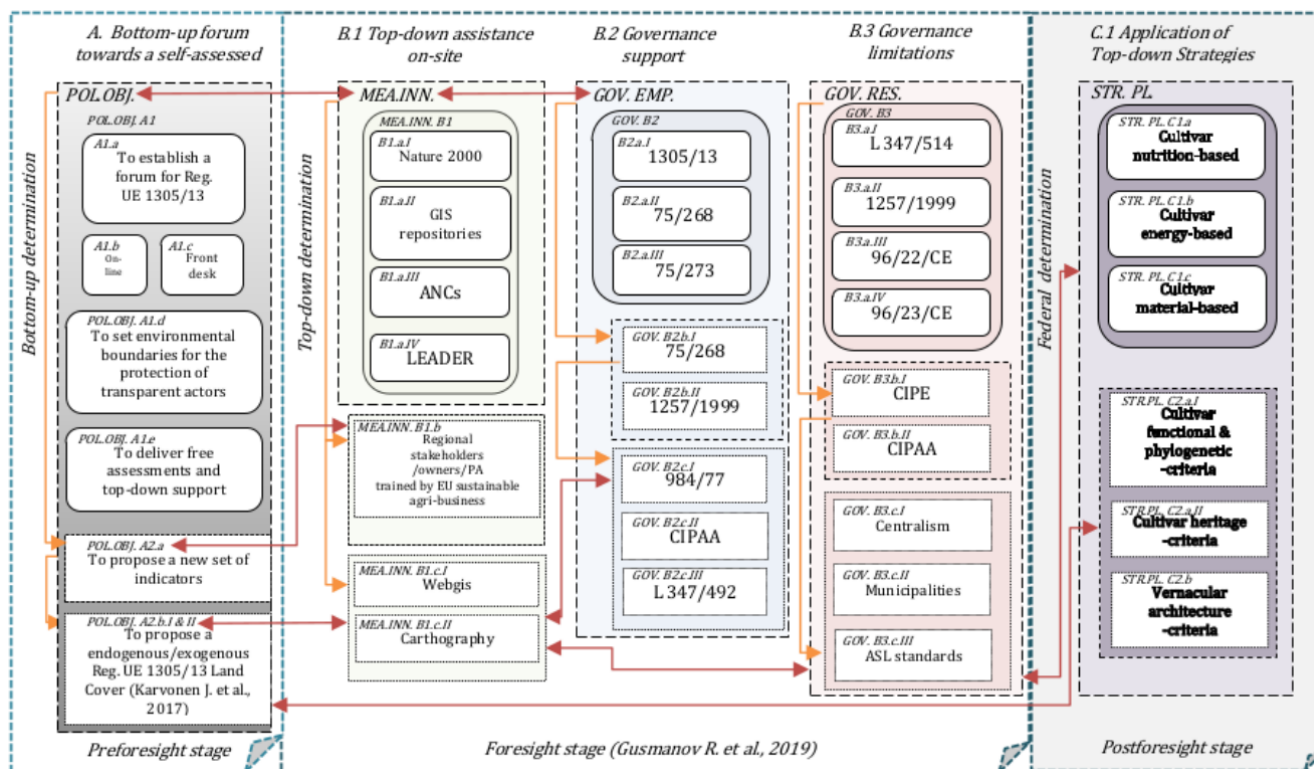


Table 1. Dimensions of agricultural innovation to repair the EU 1305/2013 status based on the foresight methodology (Gusmanov, R. et al., 2020).

Transitioning to the Foresight stage, three pivotal components emerge. Firstly, top-down assistance is provided on-site to stimulate innovation (Voorberg H. et al., 2015) in sustainable practices, leveraging resources such as Nature 2000, GIS repositories, and areas with natural constraints. Leadership initiatives and specialized training for regional stakeholders, landowners, and public authorities in EU sustainable agri-business (Furmankiewicz M., 2012) and Webgis Cartography foster knowledge dissemination and

collaboration. Secondly, governance support takes center stage, empowering governments through strategic regulations such as 1305/13, 75/268, 75/273, 1257/1999, 984/77, CIPAA, and L 347/492.

However, the stage also acknowledges governance limitations, including potential challenges posed by regulations like L 347/514, 1257/1999, 96/22/CE, 96/23/CE, CIPE, CIPAA, centralism in Rome's government, and the varied interests of municipalities. Furthermore, it highlights the need to consider and adhere to ASL standards, a comprehensive set of safety and health codes applicable to indoor activities, to ensure public welfare.

Finally, the Post foresight stage focuses on applying top-down strategies that align with local criteria (Avolio M. et al., 2015), such as cultivar nutrition-based, energy-based, and material-based approaches. Emphasizing functional and phylogenetic-criteria, heritage preservation together with adopting vernacular architecture-criteria (ICOMOS) (González P., 2017, Scazzosi L., 2018), these strategies aim to promote sustainable and nutrition-focused agricultural practices. By integrating these strategies in agricultural complex mosaics (Lukyanova, T. et al., 2020), the framework strives to achieve long-term sustainability, conserve minor biodiversity (Blanchette A. et al., 2021, Forest F. et al., 2007, Hagen E. et al., 2017), and safeguard cultural heritage (Motta R. et al., 2020).

Overall, the multiscale framework represents a comprehensive and inclusive approach to address the complexities of sustainable agri-business and land use planning with a volunteered geographic information census (Connors et al., 2012). By considering environmental impact of forest-based bioeconomy (D'Amato D. et al., 2020), governance support, and post foresight strategies, the framework seeks to create a resilient and sustainable agricultural landscape, fostering the well-being of communities and the environment alike (Igalla M. et al., 2020, Jalonen H., 2021).

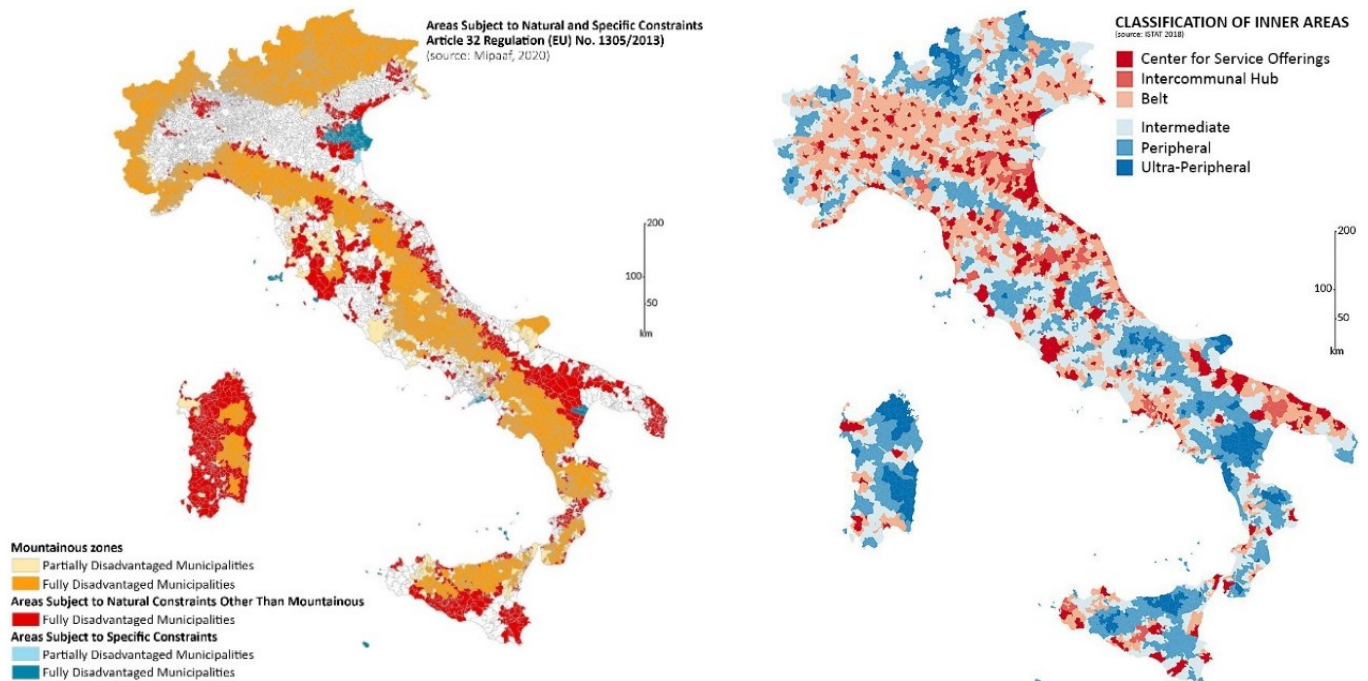


Figure 1 (left). New Delimitation of Areas Subject to Natural and Specific Constraints (After Fine-Tuning) (Article 32, Regulation (EU) No. 1305/2013). Data source: Rete Rurale Nazionale.

Figure 2 (right). Map of the Italian “Inner Areas” defined by Strategia Nazionale per le Aree Interne. Data source: ISTAT www.istat.it (CC BY-SA 4.0). From Wikimedia Commons, the free media repository, authorship: Marco Vedoà.

3.2. Early-Stage Considerations for Study Design and Planning

The proposed multi-dimensional framework comprises distinct sections, divisions, groups, classes, and sub-classes, each contributing to a comprehensive approach in achieving the central governance goal of sustainable land use and agri-business practices.

In the Central Governance section, the primary focus is on defining the scope and goal of sustainable land use planning and agri-business. This section establishes a coherent and unified direction to guide all subsequent activities within the framework.

Moving to the Inventory of Fundamental Blocks division, a comprehensive analysis of essential components is conducted. This division serves as a foundational step in identifying key factors and elements crucial for sustainable land use planning. Through this analysis, key considerations and variables are determined to inform decision-making processes.

Within the MCDM LCIA Group, a robust Multi-Criteria Decision Making (MCDM) approach is adopted to assess the Life Cycle Impact Assessment (LCIA) of various elements. The focus includes domesticated plants, silviculture plants (Avolio M. et al., 2014), reared livestock, vegetation with natural constraints under EU Regulation No. 1305/2013, and built-up land use.

This assessment aims to identify the environmental impact of different practices and guide sustainable choices. Moving further, the Cultivar-based Class focuses on distinct approaches to sustainable agriculture. These include nutrition-based practices (N.984/77), energy-based approaches (Lozano F. et al., 2022), material-based strategies (Resource Productivity), functional & phylogenetic-criteria considerations, and heritage-criteria inspired by GIAHS (Globally Important Agricultural Heritage Systems) and ICOMOS (International Council on Monuments and Sites, 2017) guidelines.

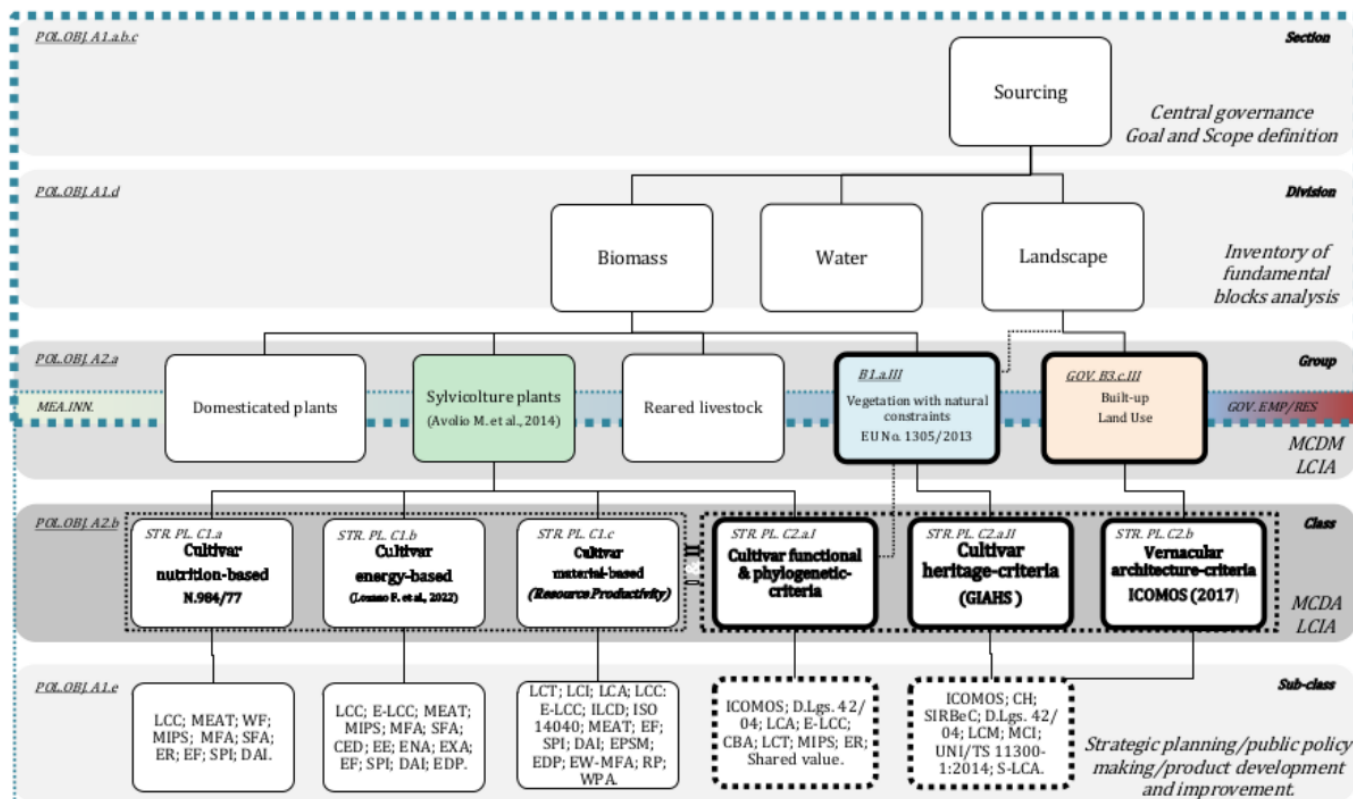


Table 2. Block diagram of the hierarchical structure of the Common International Classification of Ecosystem Services (CICES) paired with LCA and LA subclasses. STR.PL.C1.a/b/c are classes based on cultivar inventories & technology transfer, conceptualized from the exogenous variables derived by Gkartzios M. & Lowe P. (2019): Focus of rural development, i) Agricultural industrialisation and specialisation, ii) Encouragement of labour and capital mobility.

This diverse set of criteria allows for a holistic approach to sustainable cultivar selection and management.

Within the Strategic Planning/Public Policy Making/Product Development (Neumeier S., 2012. Randma T., 2022) and Improvement sub-class, a range of sustainability indicators and metrics are considered, by indicators encompassing Life Cycle Costing (LCC), Material and Energy Accounting (MEAT), Water Footprint (WF), Material Input Per Service Unit (MIPS), Material Flow Analysis (MFA), Substance Flow Analysis (SFA), Ecological Footprint (EF), Societal Progress Indicator (SPI), Domestic Assets Index (DAI), among others.

3.3. Community-Centered Research: Setting MFA-LCA Thresholds and Assessing LCSA Relevance in the CICES Model

The Common International Classification of Ecosystem Services (CICES) framework is hierarchically keen to tailored adaptation. In the study, Material Circularity Indicator (MCI) and Life Cycle Assessment (LCA), are reciprocally integrated to test, execute, and be assessed, rural communities as also stated by Italian recovery plan post covid with respect of SJ, the disadvantaged circularity and environmental impact, of raw materials (European Environment Agency, 2022), and refined products. MCI limits rely on qualitative and quantitative material-oriented assessments, while LCA includes semantic-grounded environmental assessment by quantifying environmental effects.

LCC Life Cycle Costing. Equation 1

$$LCSA = LCA + E-LCC + S-LCA \text{ (Serenalla S. et al., 2012). Equation 1.1.}$$

	MCI	LCA	MCI & LCA
Returns	Simplified accountancy approach that deepens service life extension to solve resource scarcity, potential for reusable biomass and woods and their energy recovery.	Simplified approach of creating environmental value with shared-financial-net attributes that include quantitative emissions and impacts.	Integrated approach that accelerates the input and output flows stated by Environmental Product Declarations (EPD) indicators (ISO 14025) with the initial forum consultation and then self-assessed questionnaires.
Difficulties	It requires expertise, skills, and specialized LFI software to accurately analyse materials cycle of managed and mismanaged bio-waste.	Time-consuming and resource-intensive vision that is overpassed by highly flexible cycle-dependent assumptions.	Weak bibliography and co-participatory tools difficult to be established and traceable (Levidow L. et al., 2019) within agreeable system boundaries (Meerkerk & Edelenbos, 2018).

Table 3. Block diagram MCI + LCA, i.e., S- (Social) and E- (Environmental) (Sala S. et al., 2013/21). LFI stands for Linear Flow Index with linear product flow-traced resulting from virgin materials and closing this one-dimensionality in the matter of unrecoverable waste. LCSA stands for Life Cycle Sustainability Assessment.

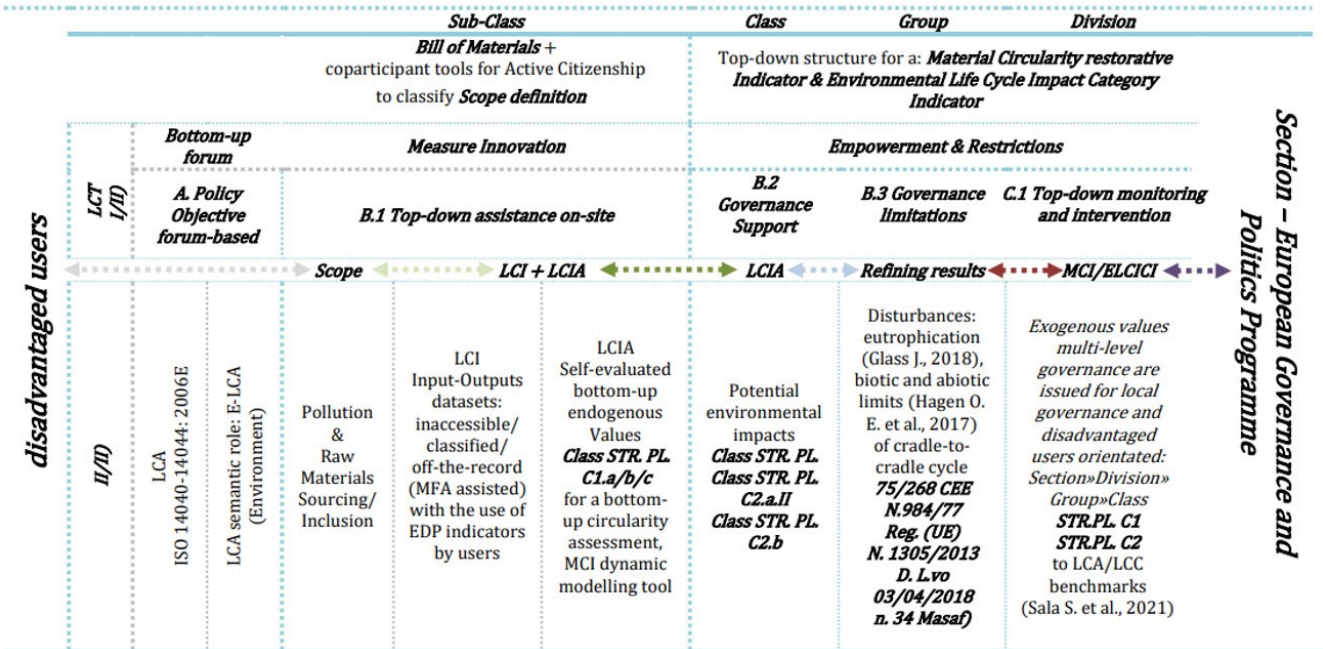


Table 4. Block diagram MCI + E-LCA (D’Amato D. et al., 2019) conceptualized on the initial hypothesis of “Beyond endogenous and exogenous modes” (Gkartzios M., & Lowe P. 2018) based on ISO 14040-14044 standards for the International Reference Life Cycle Data System, a JRC report.

3.4. European Charter for Rural Areas, ante-litteram PSR

The legal definition of rural communities was discussed in a recent article (Szilágyi, J., 2019), which extensively explored the serious top-down limitation of Article 39. According to the study, the European Charter for Rural Areas did not clearly imply local endogenous characteristics, leaving this centralized policy as a mere political application in the drafting of laws during the years (Kenny M. & Luca D., 2021, Kourachanis N., 2020). Specifically, the European Charter for Rural Areas laid the foundations for a generic, uniform recognition on a national scale without the necessity of tailored territorial derogations.

Despite these limitations, the term “*rural community*” is mentioned in the same article. It refers to a settled group of people living in a defined rural area who are connected by an anthropological bond of traditions and values to be addressed to future shared non-monetary features (Brooks T. et al., 2015, Fischer G., 1972, Huang S. et al., 2021). This territorial entity is described as having a degree of protection to preserve the interests of individual members, overlapping with administrative concepts of “*farming community*” under a household responsibility system (Zhang X. et al., 2023) and “*agricultural community*” for a “*face-to-face*” supply chains in favour of the “*re-activation of the depressed or more refractory [neo-endogenous] internal resources that, otherwise, would be inexorably doomed to extinction*” (Belligiano A. et al., 2020), as by predating the first generation of the European Agricultural Fund for Rural Development, in contrast with the second draft of “*The European fundamental document of the Rurality*” (1994), disregarded as aggressive for the LA of Western European countries.

Given legal implications in force, the European central apparatus has addressed these gaps through the intervention of the Court of Justice of the European Union (CJEU), protecting individual freedoms and equality in the free market with Article 39 of the Treaty on the Functioning of the European Union (TFEU): “[t]he objectives of the common agricultural policy shall be:[...] thus to ensure a fair standard of living for the [‘]agricultural community[’]” and “the cultural and historical characteristics of the countryside should be preserved.” (Di Fazio S. & Modica G., 2018).

Based on this legal research, which clarifies that the responsibility for the Common Agricultural Policy of the European Union lies with the second pillar, the study proceeds to define the topic of disadvantaged areas, based on the same Charter, which affirms: “*the social structure of agriculture and from structural and natural disparities preserving a “permanent agricultural community”*” a salso confirmed by authors Chatzichristos and Barrai (2021).

4. Discussion

4.1 Internal areas recognition towards a defined model of Rural Gentrification

Internal areas are *ex-facto* self-regulated following proactive community concept “*governance-beyond-the-state*” planning and a progressive LA property valuation system whether the cultural vernacular heritage must be fully prioritized or developed for economic growth under a household responsibility system.

To foster RG awareness, local governments may embrace Next Generation EU tools, in consistency with territorial BSS, in the subject of public projects, i.e., zoning ordinances (Areas of Outstanding Natural Beauty and Sites of Special Scientific Interest), and LU *status-quo* actions corresponding to low income “*rent-gap theory*”.

LA promotion is actualized employing social media and can have both positive and negative impacts on rural communities facing RG. On the one hand, social media can help preserve LA heritage and raise BS awareness, for the hidden values of rural LAs.

However, it can also contribute to the perception of an “*authentic*” lifestyle that may not accurately reflect the lived experiences of long-time residents. This can lead to a dilution of the original residents’ ability to determine their community’s future, as new residents with different key values and lifestyles reshape the communal memory of the place.

Ultimately, a collaborative approach risk-project-based that includes input from all stakeholders would ease the flexibility of rural communities, while preserving non-monetary criteria (Fischer G., 1972) by adapting to changing economic with social dynamics and co-shaping risk distribution patterns in public-private partnerships (PPPs), with measured follow-ups rectified to Keynesian welfare’ weighted environmental criteria, whether residual or institutional.

5. Conclusions

The implementation of Directive 1305/2013 of the European Parliament and the Council, as an economical application of rural development guidelines through the European Agricultural Fund for Rural Development (EAFRD), issued by the National Rural Development Plan (RDP) and regional RDPs, is applied with this primary tool for planning rural policies in Italy under the EU framework.

In Italy the Directive 1305/2013 is applied through the “*Fondo Europeo Agricolo per lo Sviluppo Rurale*” (FEASR) and “*Piano di Sviluppo Rurale*” (PSR) at a national and regional scale and faces off the many challenges of the complicated morphology of the Italian peninsula. Despite significant efforts, the Directive has not yet been explicitly aligned with exogeneous and neo-endogenous variables.

5.1. Mountain Disadvantaged Areas (MDA)

Also known as “*Zone Svantaggiate Montane*” (ZSM), MDAs comprise the mountainous regions of Italy and largely overlap with Areas of Natural or other specific Constraints (ANCs) that agricultural firms face; in terms of specific operational challenges, its distinct features are indicated by European indicators as: steepness and rugged terrains, limited accessibility, difficulties in mechanizing agricultural machineries and exposition to climatic factors.

MDAs in Italy are predominantly characterized by forests, as highlighted in the recent Legislative Decree 3 April 2018, n.34. This decree specifies the minimum areal agroforestry coverage required to be classified as a forest, emphasizing its critical role in environmental protection and the promotion of sustainable practices. Additionally, it serves as a foundational framework for recognizing the Italian “*disadvantaged-scape*” at multiple levels.



Figure 3. Mixed agricultural-forestry-livestock use in a context of disadvantaged complex mosaics: Herbaceous Crops (Quintarelli V. et al., 2022) of *Hedysarum coronarium* L. at forest margins (2022). Piana di Monte Verna (CE), Italy. Credits: All Rights Reserved to Salvatore Polverino.

Figure 4. Efficiency of *Hedysarum coronarium* L. agronomic production at small scale for zootechnical output for dairy goats. (2022). Piana di Monte Verna (CE), Italy. Credits: All Rights Reserved to Salvatore Polverino.

MDAs pose challenges for farmers and, therefore, have been identified as areas deserving special attention and support through specific measures outlined in the Italian Rural European Plan. These measures encompass various initiatives, such as landscape and heritage conservation, enhancing accessibility to rural areas, promoting sustainable agricultural practices that integrate emerging concepts like soil erosion and circularity, fostering rural tourism, and supporting the overall rural life and economy in mountainous regions.

In relation to Foresight adaptation, we have identified three pivotal stages that can initiate a front desk and a free professional online technical forum, enabling individual property owners to benefit without the need

to pay for agronomists and chemical or geotechnical measurement services. As a reciprocal contribution, they highlight environmental qualities that have not yet been brought to the attention of policy makers: to identify these environmental features, we conceptualized a robust Multi-Criteria Decision Making (MCDM) approach coped to the Common International Classification of Ecosystem Services (CICES), also harmonizing with subclasses from Life Cycle Assessments (LCA) and Landscape Architecture (LA). The top-down process enables us to identify suitable biomass and landscape qualities, emphasizing plant species that can thrive in forested soil and compete with non-domesticated forestry species; the convenience of such selected plants ensures regrowth and require low maintenance, yielding significant biomass material for energy purposes.

Furthermore, the chosen species exhibit adaptability to challenging areas, making them well-suited for tree and herbaceous cover crops, aligning with the literary values and cultural reading of vernacular landscapes; the strategic planning is organized into distinct classes and can offer valuable guidance to policy makers in their application efforts. Additionally, we incorporate both corporate and non-corporate LCA subclasses and legally enforceable LA codes applicable in Italy.

5.2. Non-Mountain Disadvantaged Areas (NMDA)

NMDAs encompass non-mountainous zones in Italy facing disadvantages in agriculture generally allocated in peri urban belts, i.e., high environmental fragility, low soil fertility, fragmented water availability due to artificial land use, and other anthropic specific challenges, i.e., remediations, infrastructure land use and electromagnetic radiation, that may jeopardize the endurance of agricultural activities. Spatial heterogeneity in peri-urban areas in Italy has arisen due to uncontrolled urbanization processes that initiated in the 1960s, resulting in the conversion of agricultural land into built-up areas.

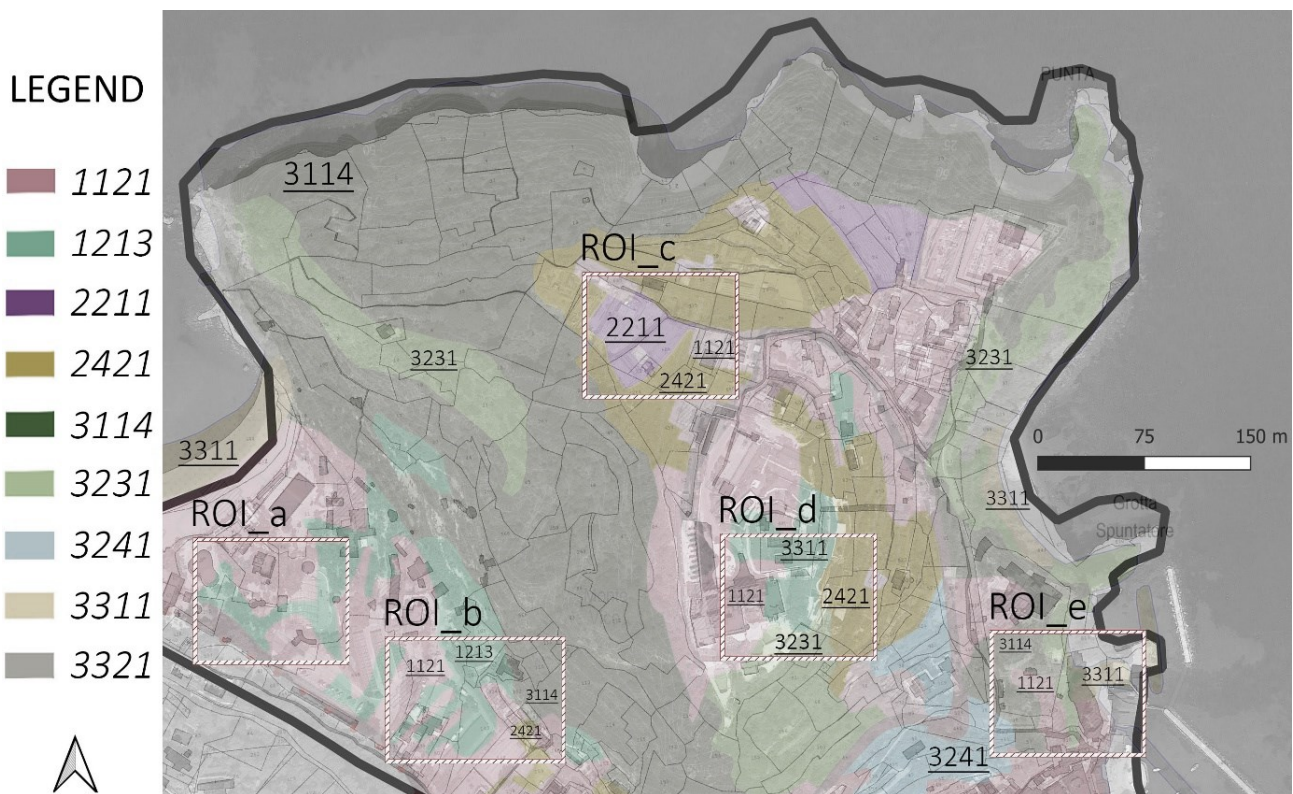


Figure 3. Example of fine-tuned sub mapping: the Corine Land Cover (developed for Lacco Ameno Municipality) “Rural Chart” overlapping with the cadastral parcellation (Geoportale Cartografico Catastale, Agenzia delle Entrate; 1121: fragmented residential texture, 1213: gardens and green urban and peri-urban areas, 2211: vineyards in radial pattern, 2421: gardens and complex cultural systems, 3114: broadleaf forests predominantly composed of chestnut trees, 3231: mediterranean scrubland, 3241: natural areas undergoing unmanaged evolution (abandonment), 3311: shores, 3321: bare rocks and cliffs.

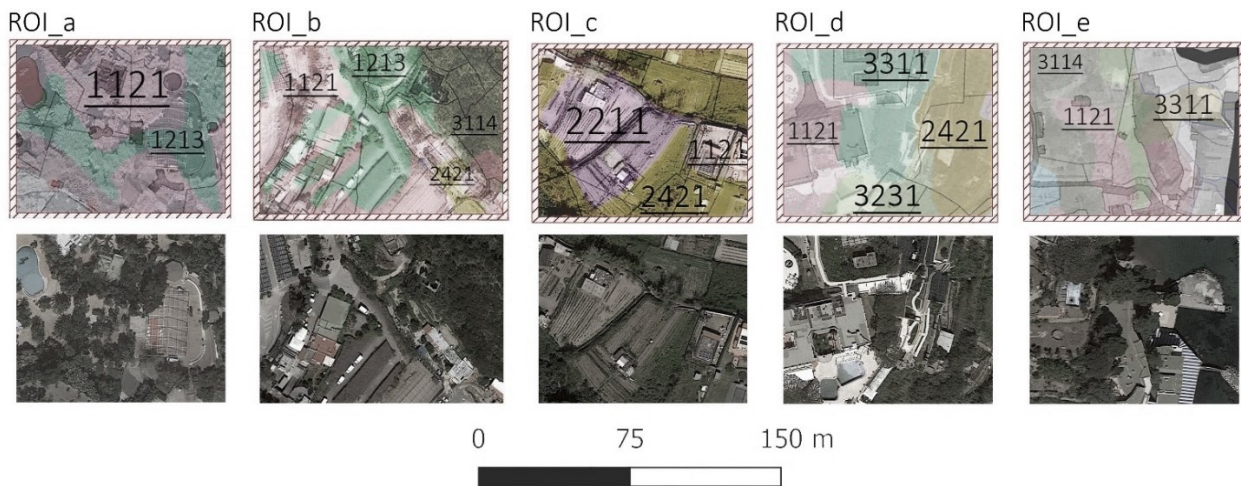


Figure 4. Regions of Interest (ROI) paired with Satellite Imagery in Google Earth. Access to the governative site on 06/08/2023: <https://www.comunelaccoameno.it/aree-tematiche/territorio-urbanistica-edilizia/piano-urbanistico-comunale?limit=20&limitstart=0> (<https://www.agenziaentrate.gov.it/portale/web/guest/schede/fabbricaterreni/consultazione-cartografia-catastale/infogen-consultazione-cartografia>). Monte Vico in Lacco Ameno (NA), Italy.

To tackle the scarcity of green belts in terms of productive vegetated land cover, effective masterplan policies should be implemented, embracing a bottom-up approach that aligns with the preferences of private landowners to benefit from sustainable and intensive land management systems.

At a local scale, virtuous municipalities have attempted to renovate their respective “*Piano Urbanistico Comunale*”, or “Municipal Master Plan” by incorporating hybrid urbanistic tools and digital mappings, to be updated on a precise yearly-based basis, i.e., the “*Carta della ruralità*” or “*Rural Chart*”, enhancing a *fine-tuning* fractioning of micro- herbaceous and horticultural zones.

Hence, this dissertation aims to launch a set of unpredictable measured analysis, also meta-reviewed by our department in future, and introduce i) local Boundary Spanners (BS) to contain ii) Rural Gentrification (RG) phenomena as determining factors of material, and immaterial Landscape Architecture (LA) features. Disadvantaged cadastral Census can be indeed amplified by adapting multi-level governance models towards transparent territorial rural areas that are characterised by analogue difficulties. This introductory Grey Literature Systematic Rapid Review of Neo-Endogenous features, aims to consolidate the urgency of a shared review-policy update that is still prolonged.

Italian RG is still unclear phenomena due to new outcomes, in terms of and we will encourage by the end of this year, an extensive meta-review analysis to forecast the requirements of peers and policymakers in order to embrace *bottom-up* necessities, also respecting the “*Not In My Yard*” (NIMBY) attitude, thus following adequate semantic associations in defence of its local self-determination, equally convenient and moderate, and conducting a fine tuning evaluation of transparent actors.

5.3. Neo-Endogenous Life Cycle Rural Development

From an entrepreneurial perspective, we applied the Life Cycle Costing and Life Cycle Sustainability Assessment equations, listing the 6-slot matrix that addresses the feasibility and challenges of initiating a bio-waste supply chain and flexibility. Horizontal communication, as per ISO 14040-14044, between disadvantaged users and the European central government, starts with the implementation of E-LCA with the aim of minimizing waste and operational inefficiencies of raw materials. It involves classifying endogenous forest sources of unrecorded inputs based on predefined company indicators using a bottom-up approach. Forest owners are then engaged to complete a self-assessment questionnaire, listing biomass residues compatible with other internal purposes within the supply chain or local social fabric.

The obtained results are subsequently transferred to the top-down structure, which interfaces with the MCDM (Multi-Criteria Decision Making) version of the productive life cycle impact. This enables the European central government to identify endogenous disturbance factors, both biotic and abiotic, and ultimately proposing the introduction of exogenous components characterized by higher biodiversity.

The issue of land abandonment and its cadastral fragmentation is a common challenge faced by mountainous, rural, and peripheral urban areas and leads to a distinct, shared, and uneven dichotomy that

significantly impacts LA heritage: in this common intervention framework, the following intervention methods are estimated with a focus on replicability and minimal impact, effectively considering the economic returns for the landowners, transcending geographical borders, and confronting various industry-driven logics.

Acknowledgement

This research did not obtain any specific grant from *Ordine Architetti Pianificatori Paesaggisti Conservatori di Napoli e Provincia*, Italy.

Conflict of Interests

The authors declare no conflict of interest related to this study. The research was conducted in a transparent and ethical manner, and all data were collected and analysed objectively in a manner that no relationships could bias the results or interpretation of the study. The investigation is a segment of Training and Internationalization tasks among the other features c/o *Ordine Architetti Pianificatori Paesaggisti Conservatori di Napoli e Provincia*, Italy.

Data availability statement

The data that support the findings of this study are available on request from the lead researcher, Salvatore Polverino, at formazione@napoli.archiworld.it. The data are not publicly available due to their containing potentially identifying and sensitive participant information. Access to the data will be granted upon request and approval by the Institutional Review Board c/o *Ordine Architetti Napoli* and will be subject to a data sharing agreement that ensures the confidentiality and anonymity of the participants. Requests for access to the data will be considered on a case-by-case basis and will require a clear explanation of the intended use and analysis of the data.

Ethics statements

This study was conducted in accordance with the principles of the European code of ethics for scientific research ruled by the Declaration of Helsinki (2013) and was approved by the Institutional Review Board. Informed consent was obtained from all participants prior to their participation in the study, and all data collected were kept confidential and anonymous. Participants were informed of their right to withdraw from the study at any time without penalty. The study did not involve any harm or risk to the participants, and all data collected were used solely for research purposes. Data were stored securely and were accessible only by the research team. Any questions or concerns regarding the study can be directed to the lead researcher at: department Training and Internationalization, Piazzetta Matilde Serao 7, 80132, Napoli, Italy, or formazione@napoli.archiworld.it. We thank Prof. Ahmad Nia in the guise of external expert and representative for the Mediterranean area.

Credit author statement

The authors made unique contributions to their membership of the Ordine Architetti Napoli affiliation while collaborating within the Training Department: President Prof. Arch. Lorenzo Capobianco directed the research, Secretary Ing. Arch. Salvatore Polverino conducted the primary research and Prof. Arch. Hourakhsh Ahmad Nia co-assisted the final draft with data orientation and policy-making Boundary Spanners.

References

- Ab Halim, A., & Mohd Noor, M. (2023). Assessing Rural Community Empowerment through Community Internet Centre: Using Asset Mapping and Surveys Method. *JOIV: International Journal on Informatics Visualization*, 7(1), 265. <https://doi.org/10.30630/joiv.7.1.1155>
- Afshar Jahanshahi, Asghar, Tahereh Maghsoudi, e Najla Shafighi. (2021). «Employees' Environmentally Responsible Behavior: The Critical Role of Environmental Justice Perception». *Sustainability: Science, Practice and Policy* 17, fasc. 1 : 1–14. <https://doi.org/10.1080/15487733.2020.1820701>.
- Alonso González, Pablo. (2017). «Heritage and Rural Gentrification in Spain: The Case of Santiago Millas». *International Journal of Heritage Studies* 23, fasc. 2 : 125–40. <https://doi.org/10.1080/13527258.2016.1246468>.
- Andrachuk, Mark, Melissa Marschke, Charlotte Hings, e Derek Armitage. (2019). «Smartphone Technologies Supporting Community-Based Environmental Monitoring and Implementation: A Systematic Scoping Review». *Biological Conservation* 237 : 430–42. <https://doi.org/10.1016/j.biocon.2019.07.026>.
- Antipova, Ekaterina. (2013). «Rural settlement pattern in Belarus». *Bulletin of Geography. Socio-economic Series* 19, fasc. 19 : 7–18. <https://doi.org/10.2478/bog-2013-0001>.

- Artto, Karlos, e Jaakko Kujala. (2008). «Project Business as a Research Field». *International Journal of Managing Projects in Business* 1, fasc. 4 : 469–97. <https://doi.org/10.1108/17538370810906219>.
- Atterton, Jane, Robert Newbery, Gary Bosworth, e Arthur Affleck. (2011). «Rural Enterprise and Neo-Endogenous Development». In *The Handbook of Research on Entrepreneurship in Agriculture and Rural Development*, di Gry Alsos, Sara Carter, Elisabet Ljunggren, e Friederike Welter, 13602. Edward Elgar Publishing. <https://doi.org/10.4337/9780857933249.00022>.
- Avolio, Meghan L., Diane E. Pataki, Stephanie Pincetl, Thomas W. Gillespie, G. Darrel Jenerette, e Heather R. McCarthy. (2015). «Understanding Preferences for Tree Attributes: The Relative Effects of Socio-Economic and Local Environmental Factors». *Urban Ecosystems* 18, fasc. 1 : 73–86. <https://doi.org/10.1007/s11252-014-0388-6>.
- Banerjee, Swati, Luciane Lucas dos Santos, e Lars Hulgård. (2021). «Intersectional Knowledge as Rural Social Innovation». *Journal of Rural Studies*, S0743016721001078. <https://doi.org/10.1016/j.jrurstud.2021.04.007>.
- Belliggiano, Angelo, Alberto Sturla, Marco Vassallo, e Laura Viganò. (2020) : «Neo-Endogenous Rural Development in Favor of Organic Farming: Two Case Studies from Italian Fragile Areas». *European Countryside* 12, fasc. 1 : 1–29. <https://doi.org/10.2478/euco-2020-0001>.
- Blanchette, Allison, Tara L.E. Trammell, Diane E. Pataki, Joanna Endter-Wada, e Meghan L. Avolio. (2021). «Plant Biodiversity in Residential Yards Is Influenced by People's Preferences for Variety but Limited by Their Income». *Landscape and Urban Planning* 214 : 104149. <https://doi.org/10.1016/j.landurbplan.2021.104149>.
- Bolognesi, Monica, e Federica Corrado. (2021). «Editoriale». *Scienze Del Territorio*, 9 maggio 2021, Vol. 9 : La nuova centralità della montagna / The new centrality of mountains. <https://doi.org/10.13128/SDT-12815>.
- Buchta, S., e Z. Štulrajter. (2008) : «Marginalised groups of rural population». *Agricultural Economics (Zemědělská ekonomika)* 54, fasc. 12 : 566–74. <https://doi.org/10.17221/285-AGRICECON>.
- Carta, Valentina, e Francesco Licciardo. (2019). «Le Strategie Di Comunicazione Nelle Politiche Di Sviluppo Rurale. Alcune Implicazioni per La Valutazione». *Italian Review of Agricultural Economics*, 53-66 Pages. <https://doi.org/10.13128/REA-11212>.
- Ciaian, Pavel, d'Artis Kancs, e Sergio Gomez y Paloma. (2015). «Income Distributional Effects of CAP Subsidies: Micro Evidence from the EU». *Outlook on Agriculture* 44, fasc. 1 : 19–28. <https://doi.org/10.5367/oa.2015.0196>.
- Connors, John Patrick, Shufei Lei, e Maggi Kelly. (2012). «Citizen Science in the Age of Neogeography: Utilizing Volunteered Geographic Information for Environmental Monitoring». *Annals of the Association of American Geographers* 102, fasc. 6 : 1267–89. <https://doi.org/10.1080/00045608.2011.627058>.
- Creutzig, Felix, Alexander Popp, Richard Plevin, Gunnar Luderer, Jan Minx, e Ottmar Edenhofer. (2012). «Reconciling Top-down and Bottom-up Modelling on Future Bioenergy Deployment». *Nature Climate Change* 2, fasc. 5 : 320–27. <https://doi.org/10.1038/nclimate1416>.
- Cruz, Joana P., Carla Malafaia, José Eduardo Silva, Maria Rovisco, e Isabel Menezes. (2023). «Educating for Participatory Active Citizenship: An Example from the Ecological Activist Field». *Environment, Development and Sustainability*, . <https://doi.org/10.1007/s10668-022-02866-7>.
- D'Amato, D., M. Gaio, e E. Semenzin. (2020). «A Review of LCA Assessments of Forest-Based Bioeconomy Products and Processes under an Ecosystem Services Perspective». *Science of The Total Environment* 706 : 135859. <https://doi.org/10.1016/j.scitotenv.2019.135859>.
- Dee, Thomas S. (2004) : «Are There Civic Returns to Education?» *Journal of Public Economics* 88, fasc. 9–10 : 1697–1720. <https://doi.org/10.1016/j.jpubeco.2003.11.002>.
- Dematteis, Giuseppe, e Alberto Magnaghi. (2021). «La Visione Della Montagna Nel Manifesto Di Camaldoli». *Scienze Del Territorio*, 11 febbraio 2021, Vol. 9 : La nuova centralità della montagna / The new centrality of mountains. <https://doi.org/10.13128/SDT-12582>.
- Di Fazio, Salvatore, e Giuseppe Modica. (2018). «Historic Rural Landscapes: Sustainable Planning Strategies and Action Criteria. The Italian Experience in the Global and European Context». *Sustainability* 10, fasc. 11 : 3834. <https://doi.org/10.3390/su10113834>.
- Et. al., Abba Saleh. (2021) : «Validation of Land Fragmentation and Rural Sustainability Assessment Scale». *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 12, fasc. 5 : 1325–31. <https://doi.org/10.17762/turcomat.v12i5.1801>.
- Georgios, Chatzichristos, e Hennebry Barraí. (2021). «Social Innovation in Rural Governance: A Comparative Case Study across the Marginalised Rural EU». *Journal of Rural Studies*, S0743016721001765. <https://doi.org/10.1016/j.jrurstud.2021.06.004>.

- Gkartzios, Menelaos, e Mark Scott. (2014) : «Placing Housing in Rural Development: Exogenous, Endogenous and Neo-Endogenous Approaches: Housing and Rural Development». *Sociologia Ruralis* 54, fasc. 3 : 241–65. <https://doi.org/10.1111/soru.12030>.
- Forest, Félix, Richard Grenyer, Mathieu Rouget, T. Jonathan Davies, Richard M. Cowling, Daniel P. Faith, Andrew Balmford, et al. (2007). «Preserving the Evolutionary Potential of Floras in Biodiversity Hotspots». *Nature* 445, fasc. 7129 : 757–60. <https://doi.org/10.1038/nature05587>.
- Furankiewicz, Marek. (2012). «LEADER+ TERRITORIAL GOVERNANCE IN POLAND: SUCCESSES AND FAILURES AS A RATIONAL CHOICE EFFECT: LEADER+ TERRITORIAL GOVERNANCE IN POLAND». *Tijdschrift Voor Economische En Sociale Geografie* 103, fasc. 3 : 261–75. <https://doi.org/10.1111/j.1467-9663.2011.00680.x>.
- Gkartzios Menelaos, e Lowe Philip. (2019). «Revisiting Neo-Endogenous Rural Development». In *The Routledge Companion to Rural Planning*, a cura di Mark Scott, Nick Gallent, e Menelaos Gkartzios, 1^a ed., 159–69. Routledge. <https://doi.org/10.4324/9781315102375-17>.
- Gusmanov, Rasul, Almir Askarov, Milyausha Lukyanova, Vitaliy Kovshov, e Eugene Stovba. (2020). «Strategic Planning of Rural Development Based on Foresight Methodologies». *Scientifica* 2020 : 1–10. <https://doi.org/10.1155/2020/5195104>.
- Hagen Oliveira Emily, Hagen Oskar, D. Ibáñez-Álamo Juan, L. Petchey Owen, and L. Evans. Karl. (2017) «Impacts of Urban Areas and Their Characteristics on Avian Functional Diversity». *Frontiers in Ecology and Evolution* 5 : 84. <https://doi.org/10.3389/fevo.2017.00084>.
- Halbac-Cotoara-Zamfir, Rares, Gloria Polinesi, Francesco Chelli, Luca Salvati, Leonardo Bianchini, Alvaro Marucci, e Andrea Colantoni. (2022). «Found in Complexity, Lost in Fragmentation: Putting Soil Degradation in a Landscape Ecology Perspective». *International Journal of Environmental Research and Public Health* 19, fasc. 5 : 2710. <https://doi.org/10.3390/ijerph19052710>.
- Helin, Tuomas, Anne Holma, e Sampo Soimakallio. (2014). «Is Land Use Impact Assessment in LCA Applicable for Forest Biomass Value Chains? Findings from Comparison of Use of Scandinavian Wood, Agro-Biomass and Peat for Energy». *The International Journal of Life Cycle Assessment* 19, fasc. 4 : 770–85. <https://doi.org/10.1007/s11367-014-0706-5>.
- Hoskins, Bryony, Béatrice D’Hombres, e Joann Campbell. (2008). «Does Formal Education Have an Impact on Active Citizenship Behaviour?» *European Educational Research Journal* 7, fasc. 3 : 386–402. <https://doi.org/10.2304/eeerj.2008.7.3.386>.
- Huang, Shuping, Jinda Qi, Wei Li, Jianwen Dong, e Cecil Konijnendijk van den Bosch. (2021). «The Contribution to Stress Recovery and Attention Restoration Potential of Exposure to Urban Green Spaces in Low-Density Residential Areas». *International Journal of Environmental Research and Public Health* 18, fasc. 16 : 8713. <https://doi.org/10.3390/ijerph18168713>.
- Igalla, Malika, Jurian Edelenbos, e Ingmar van Meerkerk. (2020) : «What Explains the Performance of Community-Based Initiatives? Testing the Impact of Leadership, Social Capital, Organizational Capacity, and Government Support». *Public Management Review* 22, fasc. 4 : 602–32. <https://doi.org/10.1080/14719037.2019.1604796>.
- Jalonen, Harri, Jussi Kokkola, Harri Laihonen, Hanna Kirjavainen, Valtteri Kaartemo, e Miika Vähämaa. (2021). «Reaching Hard-to-Reach People through Digital Means – Citizens as Initiators of Co-Creation in Public Services». *International Journal of Public Sector Management* 34, fasc. 7 : 799–816. <https://doi.org/10.1108/IJPSM-01-2021-0008>.
- Jänicke, Martin. (2015) : «Horizontal and Vertical Reinforcement in Global Climate Governance». *Energies* 8, fasc. 6 : 5782–99. <https://doi.org/10.3390/en8065782>.
- Jiang, Deping, Xiang Ji, Dong Wang, e Pin Liu. (2023). «Spatiotemporal changes in land use and landscape fragmentation in coastal plain areas—A case study of Yancheng City, China». *Frontiers in Sustainable Food Systems* 7 : 1105897. <https://doi.org/10.3389/fsufs.2023.1105897>.
- Juskova, Katerina. (2014). «OPTIONS AND TRENDS OF LAND CONSOLIDATION IN THE CZECH AND SLOVAK REPUBLICS, WITH REGARD TO COMMON HISTORICAL DEVELOPMENT OF OWNERSHIP AND USAGE RIGHTS». <https://doi.org/10.5593/SGEM2014/B52/S20.062>.
- Karvonen, Jaakko, Pradipta Halder, Jyrki Kangas, e Pekka Leskinen. (2017). «Indicators and Tools for Assessing Sustainability Impacts of the Forest Bioeconomy». *Forest Ecosystems* 4, fasc. 1 : 2. <https://doi.org/10.1186/s40663-017-0089-8>.
- Kekez, Anka, Michael Howlett, e M Ramesh. (2019). *Collaboration in Public Service Delivery*. Edward Elgar Publishing. <https://doi.org/10.4337/9781788978583>.
- Kenny, Michael, e Luca Davide. (2021): «The Urban-Rural Polarisation of Political Disenchantment: An Investigation of Social and Political Attitudes in 30 European Countries». *Cambridge Journal of Regions, Economy and Society* 14, fasc. 3 : 565–82. <https://doi.org/10.1093/cjres/rsab012>.

- Korthals Altes, Willem K. (2022) : «Land Policy for Rural Development in the European Union and Its Impact on Access to Land». *European Countryside* 14, fasc. 4 : 658–74. <https://doi.org/10.2478/euco-2022-0033>.
- Kourachanis, Nikos. (2020). *Citizenship and Social Policy: From Post-War Development to Permanent Crisis*. Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-030-59827-3>.
- La Notte, Alessandra, Dalia D'Amato, Hanna Mäkinen, Maria Luisa Paracchini, Camino Liqueste, Benis Egoth, Davide Geneletti, and Neville D. Crossman. (2017). «Ecosystem Services Classification: A Systems Ecology Perspective of the Cascade Framework». *Ecological Indicators* 74 : 392–402. <https://doi.org/10.1016/j.ecolind.2016.11.030>.
- Levin, Gregor, e Doan Nainggolan. (2016). «The Significance of Spatial Fragmentation of Land Ownership for Occurrence of Scrubs on Semi-Natural Grasslands». *Landscape Ecology* 31, fasc. 9 : 2031–44. <https://doi.org/10.1007/s10980-016-0379-5>.
- Lowe, Philip, e Neil Ward. (2007). «Sustainable Rural Economies: Some Lessons from the English Experience». *Sustainable Development* 15, fasc. 5 : 307–17. <https://doi.org/10.1002/sd.348>.
- Lozano, Francisco J., Rodrigo Lozano, Diego F. Lozano-García, e Antonio Flores-Tlacuahuac. (2023) : «Reducing Energy Poverty in Small Rural Communities through in Situ Electricity Generation». *Discover Sustainability* 4, fasc. 1 : 13. <https://doi.org/10.1007/s43621-023-00128-8>.
- Lukyanova, Milyausha T., Vitaliy A. Kovshov, Zagir A. Galin, Zariya A. Zalilova, e Eugene V. Stovba. (2020). «Scenario Method of Strategic Planning and Forecasting the Development of the Rural Economy in Agricultural Complex». *Scientifica* 2020 : 1–9. <https://doi.org/10.1155/2020/9124641>.
- Meerkerk, Ingmar van, and Edelenbos, Jurian. (2018). *Boundary Spanners in Public Management and Governance*. Edward Elgar Publishing. <https://doi.org/10.4337/9781786434173>.
- Micheletti, Michele, e Dietlind Stolle. (2012) : «Sustainable Citizenship and the New Politics of Consumption». *The ANNALS of the American Academy of Political and Social Science* 644, fasc. 1 : 88–120. <https://doi.org/10.1177/0002716212454836>.
- Motta, R, M Agnoletti, M Marchetti, P Mori, R Romano, F Salbitano, T Sitzia, e G Vacchiano. (2020). «On the protection of cultural heritage in forest landscapes». *Forest@ - Rivista di Selvicoltura ed Ecologia Forestale* 17, fasc. 6 : 109–13. <https://doi.org/10.3832/efor3690-017>.
- Muchová Zlaticam, Leitmanová Mária, Petrovič František. (2014). «ELIMINATION OF THE FRAGMENTATION OF LAND OWNERSHIP AS AN INITIATIVE FOR POSITIVE CHANGES IN A COUNTRY, SPECIFIC (IMPLEMENTED) EXAMPLE VELKE VOZOKANY (SLOVAKIA) PROJECT AREA». <https://doi.org/10.5593/SGEM2014/B22/S9.031>.
- Navarro-Valverde, Francisco, Marilena Labianca, Eugenio Cejudo-García, e Stefano De Rubertis. (2022). «Social Innovation in Rural Areas of the European Union Learnings from Neo-Endogenous Development Projects in Italy and Spain». *Sustainability* 14, fasc. 11 : 6439. <https://doi.org/10.3390/su14116439>.
- Neumeier, Stefan. (2012). «Why Do Social Innovations in Rural Development Matter and Should They Be Considered More Seriously in Rural Development Research? - Proposal for a Stronger Focus on Social Innovations in Rural Development Research: Social Innovations in Rural Development». *Sociologia Ruralis* 52, fasc. 1 : 48–69. <https://doi.org/10.1111/j.1467-9523.2011.00553.x>.
- Ntihinyurwa, Pierre Damien, e Walter Timo de Vries. (2021). «Farmland Fragmentation, Farmland Consolidation and Food Security: Relationships, Research Lapses and Future Perspectives». *Land* 10, fasc. 2 : 129. <https://doi.org/10.3390/land10020129>.
- Phillips, Martin, e Darren P Smith. (2018). «Comparative Approaches to Gentrification: Lessons from the Rural». *Dialogues in Human Geography* 8, fasc. 1 : 3–25. <https://doi.org/10.1177/2043820617752009>.
- Phiri, Austin T., Howele M.A.C. Toure, Oliver Kipkogei, Rokiathou Traore, Pamela M.K. Afokpe, & Alemayehu Abebe Lamore. (2022). «A Review of Gender Inclusivity in Agriculture and Natural Resources Management under the Changing Climate in Sub-Saharan Africa». *Cogent Social Sciences* 8, fasc. 1 : 2024674. <https://doi.org/10.1080/23311886.2021.2024674>.
- Prete, Filemona. (2022). «The Italian Legal Framework of Agricultural Land Succession and Acquisition by Legal Persons». *Journal of Agricultural and Environmental Law = Agrár- és Környezetjog* 17, fasc. 33 : 141–54. <https://doi.org/10.21029/JAEL.2022.33.141>.
- Quintarelli, Valentina, Emanuele Radicetti, Enrica Allevato, Silvia Rita Stazi, Ghulam Haider, Zainul Abideen, Safia Bibi, Aftab Jamal, e Roberto Mancinelli. (2022). «Cover Crops for Sustainable Cropping Systems: A Review». *Agriculture* 12, fasc. 12 : 2076. <https://doi.org/10.3390/agriculture12122076>.
- Ramcilovic-Suominen, Sabaheta. (2022). «Envisioning Just Transformations in and beyond the EU Bioeconomy: Inspirations from Decolonial Environmental Justice and Degrowth». *Sustainability Science*. <https://doi.org/10.1007/s11625-022-01091-5>.

- Randma-Liiv, Tiina, e Veiko Lember, (2022). a c. di. «Engaging citizens in policy making: The potential and challenges of e-participation». In *Engaging Citizens in Policy Making*. Edward Elgar Publishing. <https://doi.org/10.4337/9781800374362.00006>.
- Robinson, Derek Thomas. (2012). «Land-Cover Fragmentation and Configuration of Ownership Parcels in an Exurban Landscape». *Urban Ecosystems* 15, fasc. 1 : 53–69. <https://doi.org/10.1007/s11252-011-0205-4>.
- Rugani, Benedetto, Danielle Maia de Souza, Bo P. Weidema, Jane Bare, Bhavik Bakshi, Blane Grann, John M. Johnston, et al. (2019). «Towards Integrating the Ecosystem Services Cascade Framework within the Life Cycle Assessment (LCA) Cause-Effect Methodology». *Science of The Total Environment* 690 : 1284–98. <https://doi.org/10.1016/j.scitotenv.2019.07.023>.
- Sala, Serenella, Andrea Martino Amadei, Antoine Beylot, e Fulvio Ardente. (2021). «The Evolution of Life Cycle Assessment in European Policies over Three Decades». *The International Journal of Life Cycle Assessment* 26, fasc. 12 : 2295–2314. <https://doi.org/10.1007/s11367-021-01893-2>.
- Sala, Serenella, Francesca Farioli, e Alessandra Zamagni. (2013). «Life Cycle Sustainability Assessment in the Context of Sustainability Science Progress (Part 2)». *The International Journal of Life Cycle Assessment* 18, fasc. 9 : 1686–97. <https://doi.org/10.1007/s11367-012-0509-5>.
- Salsa, Annibale. (2021). «Autogoverno Dei Territori Montani». *Scienze Del Territorio*, Vol. 9 : La nuova centralità della montagna / The new centrality of mountains. <https://doi.org/10.13128/SDT-12583>.
- Scazzosi, Lionella. (2018). «Rural Landscape as Heritage: Reasons for and Implications of Principles Concerning Rural Landscapes as Heritage ICOMOS-IFLA 2017». *Built Heritage* 2, fasc. 3 : 39–52. <https://doi.org/10.1186/BF03545709>.
- Sklenicka, Petr, Vratislava Janovska, Miroslav Salek, Josef Vlasak, e Kristina Molnarova. (2014) : «The Farmland Rental Paradox: Extreme Land Ownership Fragmentation as a New Form of Land Degradation». *Land Use Policy* 38 : 587–93. <https://doi.org/10.1016/j.landusepol.2014.01.006>.
- Sklenicka, Petr, Jan Zouhar, Ivana Trpáková, e Josef Vlasák. (2017). «Trends in Land Ownership Fragmentation during the Last 230 Years in Czechia, and a Projection of Future Developments». *Land Use Policy* 67 : 640–51. <https://doi.org/10.1016/j.landusepol.2017.06.030>.
- Slivinskaya, Liudmila. (2019) : «Rural development in Belarus: the “ agrorodok ”: between rural and urban?» A cura di S. Bell, A. Fisher, M.H. Maia, C. Pallini, e V. Capresi. *SHS Web of Conferences* 63 : 05001. <https://doi.org/10.1051/shsconf/20196305001>.
- Smiraglia, Daniela, Ilaria Tombolini, Loredana Canfora, Sofia Bajocco, Luigi Perini, e Luca Salvati. (2019). «The Latent Relationship Between Soil Vulnerability to Degradation and Land Fragmentation: A Statistical Analysis of Landscape Metrics in Italy, 1960–2010». *Environmental Management* 64, fasc. 2 : 154–65. <https://doi.org/10.1007/s00267-019-01175-6>.
- Smith, Darren P., Martin Phillips, Andreas Culora, e Chloe Kinton. (2021). «The Mobilities and Immobilities of Rural Gentrification: Staying Put or Moving On?» *Population, Space and Place* 27, fasc. 7. <https://doi.org/10.1002/psp.2496>.
- Società Dei Territorialisti/E. (2021). «Manifesto Di Camaldoli per Una Nuova Centralità Della Montagna». *Scienze Del Territorio*, 13 giugno 2021, Vol. 9 : La nuova centralità della montagna / The new centrality of mountains. <https://doi.org/10.13128/SDT-12924>.
- Stankovics, Petra, Luca Montanarella, Piroska Kassai, Gergely Tóth, e Zoltán Tóth. (2020). «The Interrelations of Land Ownership, Soil Protection and Privileges of Capital in the Aspect of Land Take». *Land Use Policy* 99 : 105071. <https://doi.org/10.1016/j.landusepol.2020.105071>.
- Stockdale, Aileen. (2010). «The Diverse Geographies of Rural Gentrification in Scotland». *Journal of Rural Studies* 26, fasc. 1 : 31–40. <https://doi.org/10.1016/j.jrurstud.2009.04.001>.
- Stockdale, Aileen. (2006). «Migration: Pre-Requisite for Rural Economic Regeneration?» *Journal of Rural Studies* 22, fasc. 3 : 354–66. <https://doi.org/10.1016/j.jrurstud.2005.11.001>.
- Szilágyi, János. (2019). «The Changing Concept of Rural Community and Its Importance in Connection with the Transfer of Agricultural Land». *Zbornik Radova Pravnog Fakulteta, Novi Sad* 53, fasc. 2 : 619–30. <https://doi.org/10.5937/zrpfns53-20715>.
- Taffetani, Fabio. (2009). «Boschi residui in Italia tra paesaggio rurale e conservazione». In *Atti del Terzo Congresso Nazionale di Selvicoltura*, 283–94. Accademia Italiana di Scienze Forestali. <https://doi.org/10.4129/CNS2008.038>.
- Tosun, Jale, Simon Schaub, e Charlene Marek. (2023). «Europeans’ Attitudes Toward the Goals of Agricultural Policy: A Case of Rural–Urban Divide?» *Political Studies Review*, 147892992211495. <https://doi.org/10.1177/14789299221149505>.
- Varvarousis, Angelos. (2019). «Crisis, Liminality and the Decolonization of the Social Imaginary». *Environment and Planning E: Nature and Space* 2, fasc. 3 : 493–512. <https://doi.org/10.1177/2514848619841809>.

- Vavrejnova, M., e S. Lüpsik. (2007) : «Some comparisons across Central and East European countries in terms the rural population living standard». *Agricultural Economics (Zemědělská ekonomika)* 53, fasc. 1 : 36–44. <https://doi.org/10.17221/846-AGRICECON>.
- Ventura, Francesca, Elisa Guerra, e Filibero Altobelli. (2018). «Atti del XXI Convegno Nazionale di Agrometeorologia Agrometeorologia per le Politiche di Sviluppo Rurale Agrometeorology for Rural Development Policies». Text. <https://doi.org/10.6092/UNIBO/AMSACTA/5886>.
- Voorberg, W. H., V. J. J. M. Bekkers, e L. G. Tummers. (2015). «A Systematic Review of Co-Creation and Co-Production: Embarking on the Social Innovation Journey». *Public Management Review* 17, fasc. 9 : 1333–57. <https://doi.org/10.1080/14719037.2014.930505>.
- Wen, Chen, e Luqi Wang. (2022). «Landscape Dynamics in a Poverty-Stricken Mountainous City: Land-Use Change, Urban Growth Patterns, and Forest Fragmentation». *Forests* 13, fasc. 11 : 1756. <https://doi.org/10.3390/f13111756>.
- Zhang, Ximing, Xiao Li, e Hui Wang. (2023). «Why Do Farmers Support Stable Land Ownership? Marketization with Chinese Characteristics». *Sustainability* 15, fasc. 2 : 1729. <https://doi.org/10.3390/su15021729>.
- Zhou, Qingqing, Jingru Chen, Cecil C. Konijnendijk van den Bosch, Wenbing Zhang, Liying Zhu, Yessica Maria Rueda Vera, e Jianwen Dong. (2022). «Constructing an Aims-Indicators-Methods Framework for Green Space System Planning in China». *Urban Forestry & Urban Greening* 67 : 127437. <https://doi.org/10.1016/j.ufug.2021.127437>.