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Editorial

Special Issue "Landscape Analysis, Planning and Regional Development"

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Landscape analysis and planning have been facing more and more challenging goals with the rapid evolution of socioeconomic and environmental processes, the increasingly strict connections between urban and rural areas and the progressively multifaceted nature of many landscapes, the increasing need of activating virtuous circular processes among the various landscape resources, and the need of more and more integrated policies and plans at the various scales. Landscape identities and values represent strategic assets for regional development policies and programs, which must increasingly address the challenge of creating more inclusive and resilient societies, with the aim of increasing the competitiveness of all regions. This poses both conceptual challenges related to the set-up of regional planning and development models, as well as methodological challenges about the implementation of plans, policies, and programs.

This Special Issue addresses new challenges and cross-cutting issues in the landscape analysis and planning and regional development domains, with reference to rural, periurban and urban landscapes, and considering both natural and cultural landscape features, in everyday or outstanding or degraded landscapes, in line with the European Landscape Convention.

The studies contained in this Special Issue contribute both to the advancement of knowledge from a methodological and theoretical point of view and to generating new findings and evidence from the application of integrated methodologies to regional and local case studies from all over the world, in most cases using multidisciplinary and interdisciplinary approaches and participatory processes involving different stakeholders, to support policy making and decision making.

The study of land-use and land-cover changes has proved to be a fundamental method in the evaluation of landscape trends and consequent potential environmental issues. Many studies have analysed landscape trends and related impacts on ecosystem services; nevertheless, various challenges are still open, both from a methodological point of view for what concerns land-use inventory and land-use change analysis, and from an environmental impact assessment point of view. The work by Liu et al. (Contribution 1 in Appendix A) in the landscape ecological risk assessment field has focused on a high-scale approach, experimenting on the use of high-resolution land-use data on a small region case study in China, instead of lower-resolution data applicable to wide areas. The use of physically based reference spatial units (watersheds) instead of regular grids has allowed researchers to provide new insights in the assessment of changes in landscape ecological risk, also contributing to improving planning practices in order to better balance global and local landscape ecological risks.

Ecosystem services approaches are also valuable to study possible scenarios and development alternatives for landscapes that need to be regenerated or valorised. Marginal landscapes are challenging since the preservation and valorisation of natural and cultural heritage must meet overall sustainability requirements through balanced regeneration processes. Cervelli et al. (Contribution 2) have focused on detecting and analysing marginal landscapes and providing methodologies to define and evaluate the sustainability of

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different scenarios by conducting GIS-Based analysis and landscape metrics assessment in southern Italian study areas. Multicriteria analysis and scenario modelling have proved useful in supporting the definition of planning strategies and policies, aiming at a trade-off between nature conservation and development issues, also suggesting new opportunities for green infrastructure and a renewable energies chain.

Some research works have also addressed the analysis of the territorial impact of major social challenges—also related to emerging health issues—with reference to the settlement systems. Adobati and Debernardi (Contribution 3) have focused on the study of how smart working, increasingly used during and after the COVID-19 pandemic, is changing the geographies of living in the Italian context. Aiming at enhancing the potential offered by remote working for environmental, social, and territorial sustainability objectives, the authors have outlined possible territorial scenarios for the main metropolitan areas of the country.

Evaluating ecosystem services across natural and cultural contexts, both in rural and in urban areas, is a very topical and increasingly challenging subject. National forests are a core element of the world's biodiversity, and the development of land management plans represents a key phase of the overall analysis, planning and monitoring process, since it also allows supporting the periodical amendment and revision of the planning strategies. Driscoll et al. (Contribution 4) have focused on the assessment of the ecological integrity of national forests in the western U.S. The method proposed and developed by the authors was aimed at the assessments of riparian and groundwater-dependent ecosystems and has proved suitable to inform future forest and project planning for the restoration and maintenance of structure, function, composition, and connectivity.

Ecosystem-service-based policies can support the regeneration of rural heritage, including rural areas known worldwide for traditional cultivations that can be severely impacted by plant pathogens, threatening major parts of these traditional agricultural landscapes. An emblematic example of this issue is represented by the monumental olive groves cultivated in southern Italy, being destroyed by Xylella fastidiosa Bacterium. Semeraro et al. (Contribution 5) focused on a periurban area of the Apulia region, shaped by the millennial co-evolution between human actions and ecological processes, and have applied landscape resilience analysis focusing on ecosystem services to understand the potential effects and trade-offs of regeneration policies. In particular, the ecosystem service analysis at a local scale was aimed at supporting an integrated regeneration approach between land-use and land-cover with social, ecological, and economic evolution visions towards a sustainable future. The study has allowed the definition of regeneration policies promoting the replacement of dead olive groves with more resistant olive trees as a strategy to stimulate social components of the landscape and improve the resilience of ecosystem services in peri-urban areas in the interest of the cultural heritage of the users and benefits that they provide, including tourism.

The integrated study of both regulatory and cultural ecosystem services is a very challenging topic, cross-cutting various disciplines. In this regard, the landscape concept represents a very useful framework for a balanced integration of natural and cultural assets and values in spatial planning. D'Ascanio et al. (Contribution 6) have applied a landscape approach to the Pantelleria national park in the Mediterranean basin, proposing zoning criteria to be implemented in the plan of the park. The definition of different zones of the protected area has been based on the multicriteria analysis of landscape features and patterns, environmental quality, traditional agriculture, and architectural heritage, allowing the researchers to combine promotion of quality of natural assets and the protection of historical rural values threatened by the abandonment of remote areas.

Urbanisation is severely challenging the resilience of urban areas, where there is a growing demand for ecological benefits of green infrastructure, while ecological networks are increasingly weakened by soil sealing trends and climate change. Xu et al. (Contribution 7) have studied the evolution of the structure of the ecological network of the Wuhan metropolitan area over a 20-year period, understanding how and where the resistance

and connectivity of the network have increased, with beneficial stabilization of the overall structure of the network and improvement of resilience. Their research has also studied the relationships between changes in the ecological network as a whole and regional/local resilience, providing useful insights for systematic management of an ecological security pattern. Bottlenecks and opportunities for an improved integration of ecology in land use planning and development have been studied by Barbé and Frascaria-Lacoste (Contribution 8). Their work analysed the mitigation hierarchy and its implementation in the French context from an ecological point of view, questioning the principle of biodiversity offsetting and the adequacy of the mitigation hierarchy with the objective of no net loss of biodiversity.

Nature-based solutions have proved effective both in terms of environmental sustainability, human health and wellbeing, and cultural and social benefits. Many research works in this field have considered both solutions based on green areas and infrastructure, and human–animal interaction experiences. Addas and Maghrabi (Contribution 9) have studied the spatial patterns of urban green spaces in a Saudi Arabian context, mapping them using geographic information systems and investigating the perceived role of green areas from a social, environmental, and recreational point of view. Besides their crucial role in local climate regulation, the findings highlighted that accessibility, design, management, and safety that proved to be limiting factors in meeting the expected satisfaction level of the inhabitants, thus providing useful inputs to assist planners and policy makers in implementing the greening strategies at neighbourhood and city levels for urban environmental sustainability. Menconi et al. (Contribution 10) proposed a GIS-based method aimed at addressing this challenge, supporting local administrations in the design of urban green areas to meet availability, accessibility, attractiveness, and usability needs. Focusing on a case-study urban park in a medium-sized Italian city (Perugia), the research has investigated the complex relationships between quantitative availability and real accessibility and service quality, allowing the researchers to optimize accessibility to the broader system of urban green areas. Granai et al. (Contribution 11) implemented a cross-sector approach, bridging nature-based solutions and social innovation within the smart-city domain, to support urban strategic planning. The city of Lucca (Italy) has been chosen as a living lab, where a smart city based on human–animal relationships has been co-designed and co-deployed. Using a participatory approach, a public–private–people partnership has allowed us to implement the co-design of infrastructural solutions and soft nature-based solutions, stemming from the need to improve people's knowledge of animals.

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Appendix A List of Contributions

1. Liu, J.; Wang, M.; Yang, L. Assessing Landscape Ecological Risk Induced by Land-Use/Cover Change in a County in China: A GIS- and Landscape-Metric-Based Approach. *Sustainability* **2020**, *12*, 9037. https://doi.org/10.3390/su12219037.
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