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Editorial

Land Management in Territorial Planning: Analysis, Appraisal, Strategies for Sustainability—A Review of Studies and Research

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1. Introduction

Land is increasingly becoming a precious and limited resource. In the face of the constant growth of the world's population (according to a recent United Nations report, "World Population Prospects 2019: Highlights", the world's population is expected to increase by 2 billion persons in the next 30 years, from 7.7 billion currently to 9.7 billion in 2050 with an increase of 26%, and further to 10.9 billion in 2100 with an increase of 42%) during the land planning process, it is now even more necessary to think about strategies for the sustainable use of land in natural, agricultural, and urban contexts. Sustainability in land management must be sought through: (i) the protection of land by looking after its role in the ecosystem and environment, for natural land; (ii) the implementation of types of use that optimize its yield while preserving its fertility, for agricultural land; and (iii) the remediation of degraded areas, the development of infrastructure, improvement of the urban landscape's quality, and an appropriate relationship between urban fabrics and the countryside, for urban land. Therefore, it is crucial that decisions be made on the provision of territorial governance tools and strategies for conservation and the sustainable use of land in order to correctly use this resource.

Based on this premise, during the period of January 2020–April 2022, a Special Issue (hereinafter, SI) of the *Land* journal, published by MDPI, entitled "Land Management in Territorial Planning: Analysis, Appraisal, Strategies for Sustainability," was active.

The purpose of this Special Issue was to invite academics and researchers to submit proposals for papers that deal with the sustainable management of natural, agricultural, and urban land. Potential topics included, but were not limited to: evaluation methods and techniques to support choices in land planning; criteria and indicators for sustainability in land planning processes; strategies for enhancing the relationship between urban areas and agricultural and/or natural areas; innovative models for the environmental remediation of compromised areas; innovative tools for land planning and management; the protection, management, and safeguarding of natural areas; strategies for the transformation of degraded urban areas; and sustainable agriculture.

In its 26 months of operation, the SI collected a total of 46 proposals. Following a rigorous procedure of peer review, only 20 papers were accepted and published (13 in the first round, 7 in the second round). The different countries of the authors' affiliations (Australia, Belarus, Belgium, China, Czechia, Denmark, Italy, Serbia, Slovak Republic, Spain, Russia, USA) give the Special Issue a strongly international character.

Analysis (weighted according to the various authors' affiliations) of the geographical provenience of the published articles returns the following data (in round numbers): 42.5% of the published articles come from China (of which 2.5 come from Hong Kong), 15% from Spain, 10% from the US, 6.6% from Italy, 5% from Mexico, 5% from Serbia, 2.5% from

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Czechia, 2.5% from the Slovak Republic, 2.5% from Russia, 2.5% from Belarus, 2.5% from Belgium, 1.7% from Australia, and 1.7% from Denmark. The same analysis in continental terms points out that 42.5% of the published articles come from Asia, 40.8% from Europe, 15% from America, and 1.7% from Oceania, while none of the articles come from Africa.

The SI paid special attention to the study of evaluation methods related to land management in territorial planning by collating a significant number of case studies characterized by: (i) decision problems to be solved; (ii) providing, for the problems to be solved, decision support tools. This second issue appears to be of particular interest to the field of research investigating the relationship between decision-making problems and annexed evaluation methodologies in land transformation processes. It appears to be of wide interest today as evaluation, internationally, is considered a strategic and supporting activity in land government activities.

2. Review on Published Articles

The present section reports a literary review that uses the publications in the SI as a perimeter. A brief description of the research papers subject to publication is presented below by establishing a classification according to the prevailing type to which the proposed methods belong.

Multicriteria approaches were used in 3 of the 20 papers.

The article "Analysis of Super-Gentrification Dynamic Factors Using Interpretative Structure Modeling" by Shi et al. [1] concerns the study of super-gentrification and related dynamic factors using interpretative structure modeling (ISM) and cross-impact matrix multiplication applied to a classification (MICMAC) analysis.

The article "Integrated Evaluations of Resource and Environment Carrying Capacity of the Huaihe River Ecological and Economic Belt in China" by Hsu et al. [2] affects the study of so-called "double evaluations" of resource and environmental carrying capacity using the fuzzy analytical hierarchy process (FAHP) method.

The article "A Regional GIS-Assisted Multi-Criteria Evaluation of Site-Suitability for the Development of Solar Farms" by Prieto-Amparán et al. [3] proposes an evaluation model for the suitability of sites suitable for hosting solar farms (DSF) using a GIS-based multicriteria decision-making methodology (MCDM), which is presented for site suitability assessment using quantitative and qualitative criteria, using analytic hierarchy process and ranking methods.

Participation and social assessment tools and techniques were used in 5 of the 20 papers.

The article "How Government's Policy Implementation Methods Influence Urban Villagers' Acceptance of Urban Revitalization Programs: Evidence from China" by Jin et al. [4] proposes a survey through interviews of urban villagers in the city of Hangzhou, China, in order to provide new knowledge for implementing more effective policies to proceed with housing revitalization programs in the perspective of sustainable urban development.

The article "Regional Economic Sustainability: Universities' Role in Their Territories" by Gallardo-Vázquez and Folgado-Fernández [5] focuses on the study of social development, an essential element of sustainability. Using questionnaires, the satisfaction levels of a stakeholder group, observing the influence of quality and innovation on this group's perceptions of the public university's operations, were assessed.

The article "Untangle the Complex Stakeholder Relationships in Rural Settlement Consolidation in China: A Social Network Approach" by Yang et al. [6] proposes a stakeholder analysis aimed at identifying the relationships of stakeholders involved in activities related to settlement transformation, especially of the rural type.

The article "Policy Strategies to Revive Rural Land in Peri-Metropolitan Towns: Resource Identification, Capitalization, and Financialization" by Li et al. [7] studies the problems of peri-metropolitan rural areas. A historical-interpretive approach is proposed, involving planning policy analysis, questionaries, and in-depth interviews with the stakeholders involved.

The article "The value assessment and planning of industrial mining heritage as a tourism attraction: the case of Las Médulas cultural space" by Caamaño-Franco et Suàrez [8] studies the transformation of a mining site (Las Mèdulas) for tourism purposes by analyzing the support and perceived impacts of the local population. The proposed empirical method combines documentary analysis and fieldwork, informal interviews with territorial actors, and surveys of residents.

Regression analysis was used in 2 of the 20 papers.

In the article "Did Government Expenditure on the Grain for Green Project Help the Forest Carbon Sequestration Increase in Yunnan, China?", Lu et al. [9] use the least squares dummy variable method to process MODIS Land Cover Type data with the aim to improve the efficiency of government spending on coal supply by identifying the most suitable areas.

The article "Mass Appraisal Modeling of Real Estate in Urban Center by Geo-graphically and Temporally Weighted Regression: A Case Study of Beijing's Core Area" by Wang et al. [10] proposes an upgrade of the traditional linear regression model in mass appraisal adopted for comparative analysis of three different models, including multiple regression analysis (MRA) with ordinary least squares (OLS), geographically weighted regression (GWR), and geographically and temporally weighted regression (GTWR).

Economic assessments were used in 3 of the 20 papers.

The article "Coupling Analysis of Urban Land Use Benefits: A Case Study of Xiamen City" by Ji et al. [11] studies the relationship between land use and its associated benefits, proposing a multi-dimensional index system jointly using the entropy weight method (EWM), the coupling coordination degree model (CCD), and the dynamic coupling coordination degree model (DCCD).

The article "Does Land Expropriation Experience Increase Farmers' Farmland Value Expectations? Empirical Evidence from the People's Republic of China" by Yan et al. [12] studies trends in farmland values following expropriation for public needs, studied through quantitative analysis models, using 2015 cross-sectional data from the China Household Finance Survey (CHFS).

The article "The Assessment of Density Bonus in Building Renovation Interventions. The Case of the City of Florence in Italy" by Battisti and Campo [13] studies the density bonus as a reward element to incentivize urban regeneration initiatives and proposes a balance sheet model (BSM), revised from an economic perspective, to identify the reward conditions that guarantee the economic-financial feasibility of the building regeneration.

GIS-based and statistical approaches were used in 6 of the 20 papers.

The article "Land Use/Land Cover Data of the Urban Atlas and the Cadastre of Real Estate: An Evaluation Study in the Prague Metropolitan Region" by Micek et al. [14] falls within landscape research and in particular the branch that studies land use. Relevant information is provided on real estate databases (such as that of the Land Registry) evaluated with the intention of increasing awareness of their limitations, strengths, and weaknesses, thus facilitating decision making on their use options. The data were processed using approaches with different levels of thematic harmonization and statistical tools to quantify the similarities and differences between the researched data. The comparison methods used for land use/land cover data with different nomenclature were based on an aggregation approach or modified difference indices.

The article "Historical-Genetic Features in Rural Settlement System: A Case Study from Mogilev District (Mogilev Oblast, Belarus)" by Gorbenkova et Shcherbina [15] studies the development of the settlement system that is considered to be one of the fundamental objectives in land use planning, using historical-genetic analysis which is considered to be the most effective approach to study the transformational changes in settlement systems.

In the article "A GIS-Based Multicriteria Index to Evaluate the Mechanisability Potential of Italian Vineyard Area" by Cogato et al. [16], an evaluation methodology is proposed to optimize the planting of new vineyards according to rational and sustainable criteria, taking into account the potential mechanizability of existing vineyard areas using GIS

analysis of landscape and management parameters such as average slope, vineyard block shape, length-to-width ratio, headland size, training system, and row spacing.

The article "Ski Resort Closures and Opportunities for Sustainability in North America" by Moscovici [17] studies phenomena related to the closure of many ski resorts in North America (59 percent of those built since the 1960s), mostly due to climate change. The author proposes a data analysis finalized to define directions for sustainable planning of activities. The results of the article consist of a set of recommendations for achieving station sustainability goals and making their management efficient.

The article "Vulnerability to Flood Risk: A Methodological Proposal for Assessing the Isolation of the Population" by Sortino Barrionuevo et al. [18] studies the vulnerability of a population subject to isolation following flood events, providing a methodological proposal that addresses this issue through a series of mapping developed by the authors in a study area classified as an area of significant potential flood risk (ARPSI) in southern Spain.

The review "Stewardship of Industrial Heritage Protection in Western Europe and China: Value and Dilemma" by Liao et al. [19] analyzes the management of industrial real estate, offering a comparison of case studies from Western Europe and China on how industrial heritage is managed.

Quality assessments were used in 1 of the 20 papers.

The article "The Methodology for Supporting Land Use Management in Collective Housing toward Achieving Energy Efficiency: A Case Study of New Belgrade, Serbia" by Gajic et al. [20] proposes a methodology to support urban land use planning and management, especially applicable in cases of smart city planning and specifically energy-efficient housing. The proposed methodology is based on the failure modes and effects analysis (FMEA) approach, which consents to identifying (and thus avoiding) unintended consequences within a defined system.

3. Results and Conclusions

Deepening what has already been anticipated in Section 1 regarding the SI results, the collation in a single editorial product of significant and diversified assessment case studies related to problems that need to be addressed in planning/programming and/or land management is *per se* fairly significant. A common approach is detectable in all the contributions: assessment tools play a key role in solving the problems in land management in territorial planning. Although they have different scientific sophistications, the assessment tools used in the case studies always pursue the finality of providing a basic cognitive framework for decision making, deemed more reliable than choices dictated by expertise or purely political reasons.

The combined reading of the published papers makes it possible to detect the complexity of the systems in which the territory is governed/managed; this complexity requires considering available opportunities and resources and their possible combinations, and restoring value and guidance to public institutions capable of producing, accumulating, and circulating forms of innovation and social intelligence. These principles need to be concretely tested in complex, multi-actor processes that assume the territorial dimension as a determining factor. This must necessarily be carried out by giving priority to the recovery of areas compromised by now-discontinued activities, limiting the use of new soils and natural resources, which are increasingly precious in light of the progressive growth of the world's population, and ensuring an equitable distribution of the benefits derived from land transformations, including horizontal governance in decisions.

In this way, research on assessment methods and techniques in land management in territorial planning, to which this SI has contributed, is aimed at identifying and testing transparent and inclusive assessment models that enable informed and shared decision making, thus being able to transform and/or manage the territory in the direction of greater equity, inclusiveness, and resilience. Therefore, assessment methods and techniques can be useful tools to achieve environmental, economic, and social sustainability

which in a widespread way across the planet must characterize every intervention of land transformation and management.

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