


Sustainable Land Use and Management

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With the rapid development of urbanization and social economy, the utilization and protection of land have become one of the great social problems globally. Excessive urbanization has not only brought significant challenges to the sustainable utilization of urban land [1], but also imposed far-reaching, negative implications on farmland as well as ecological environment protection [2,3], as both urban and rural land are faced with overexploitation, and the harmony of the human–land system has yielded to discord. Unreasonable land-use planning and allocation are gradually reducing the efficiency and sustainability of urban land use, and also branching out the conversion scale of farmland to construction land. However, farmland reduction and urbanization not only give rise to ecological environmental issues, such as land degradation, environmental pollution, carbon emission increases, and so on, but also induce many social problems around land interests [4–6].

The implementation of Protection policies for cultivated land, as an important type of land use, is an essential element of sustainable land use and management. Meanwhile, cultivated land conservation is a recognized worldwide topic and is central to ensuring food security and maintaining social stability [7]. The first paper in this Special Issue first summarizes the current dilemmas of China’s cultivated land protection at the theoretical level, and preliminarily depicts the external foundation of CLPP in view of China’s topography and spatial distribution of cultivated land (Contribution 1). This paper uses CLPP texts as research samples based on grounded theory to construct an analytical framework.

From a practical point of view, land transfer, as an important means of farmland policy, is an important channel in sustainable land use and management. And optimizing land management is a promising approach to mitigating climate change [8]. Based on inter-provincial panel data from 2005 to 2020, the study examined the influence of land transfer on agricultural green transformation and its underlying mechanism by using a two-way fixed effect model and an intermediary effect model. The study found that land transfer substantially promotes agricultural green transformation and encourages the progress of agricultural technology (Contribution 2). On the basis of exploring the mechanism and effect of agricultural land transfer on agricultural carbon emissions, the correlation between agricultural land transfer and agricultural carbon emissions was tested so as to clarify the mechanism of agricultural land transfer affecting agricultural carbon emissions and its future trends (Contribution 3). Meanwhile, under the background of ecological civilization construction and the overall planning of land and space, the paper, taking Chayu County, a typical alpine valley area of southeast Tibet as an example and based on the remote sensing interpretation data of three periods in 2000, 2010 and 2020, employed the three-level spatial scale from the village level to analyze and calculate the regional ecosystem service value and their dynamic changes (Contribution 4). It is also important to examine theoretically and empirically whether and how Digital financial inclusion (DFI) can reinforce cultivated land green utilization efficiency (CLGUE) through the mediator of cultivated land transfer (CLT) under the background of food security, social stability and environmental protection (Contribution 5). The study explored the mediating mechanism between DFI and CLGUE



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from the perspective of CLT, and the results showed that there is regional heterogeneity in DFI in terms of promoting and improving CLGUE, with a more positive relationship in the main grain marketing areas.

In addition to agricultural land, rapid and excessive urbanization has also brought significant challenges for the sustainable use and management of urban land. The metropolitan area of Istanbul, with its rapid urbanization rate, has faced intense pressure regarding the sustainability of urban habitats. This paper provides an understanding of how urbanization changed the function of the spatial distribution of the urban mosaic by combining medium-resolution data with high-resolution satellite imagery, evaluating the overall landscape structure and elucidating the landscape functions in an urban environment based on the landscape structure (Contribution 6). Moreover, there is also a study on urban green development efficiency (GDE) adopting a three-stage DEA model for Yangtze River Delta cities (Contribution 7). The results showed that the GDE level showed heterogeneity in different cities. And the GDE was enhanced by increasing the proportion of the tertiary industry and the green area of built districts but weakened when the area of built districts (ABD) reflecting urban construction was expanded.

The following papers of this Special Issue examined the efficiency of sustainable green development from the perspective of urban–rural integration and explored policies and strategies for the sustainable land use and management in the context of natural geological disasters and social issues surrounding land interests. Under the constraints of scarce land resources and the need for high-quality economic and social development, one paper measured the efficiency of URID from the input–output perspective, taking into account the impact of carbon emissions; it also calculated the efficiency of URID and described the spatio-temporal characteristics in 73 cities within three major city clusters in the Yangtze River Economic Belt (YREB) from 2010 to 2019, and analyzed the input–output optimization strategies for URID within each of these major urban systems (Contribution 8). As a typical geological disaster, landslides also bring a great challenge to sustainable land use and management. The GRA–MIC fusion correlation calculation method was used to select the factors influencing landslide displacement, and the CNN–BiLSTM model was used for prediction. The experimental prediction results showed that the model proposed in this paper can be popularized and applied in areas with frequent landslides and provide strong support for disaster prevention and reduction and land use management (Contribution 9). The ecological impacts of land use change are also reflected on the quality of bird habitats. Habitat loss and degradation due to land use change and loss is a major threat to biodiversity worldwide (Contribution 10). Studies have shown an inverted U-shaped relationship between the intensity of LUC and the PGSH. This study could provide a reference for measuring the impacts of LUCC on bird species, enabling the protection of bird species and habitats that need it most.

In relation to land interests, one study assessed the extent to which Land Tenure Institutional Factors (LTIFs) influence on-farm Sustainable Land Management (SLM) investment in the highlands of Ethiopia through unbundling tenure security across a bundle of rights. The study strengthened the notion that security of tenure may be a necessary condition. And an in-depth analysis of the security of tenure categories across a bundle of rights is necessary to help formulate context-specific SLM policy and strategy incentivizing smallholders' on-farm SLM investment (Contribution 11). Land management issues are also embedded in displacement and resettlement-associated poverty caused by water conservancy projects (WCP). The study found that rural re-settlers were more resilient to forced majeure because land guarantees employment and food supply, allowing households avoidance of secondary livelihood destruction (Contribution 12).

Sustainable development is currently a hot topic that has attracted global concern, and the process of land use and management profoundly affects the realization of sustainable development goals [9,10]. This Special Issue gathered studies regarding sustainable land use and management from different research perspectives, aiming to contribute to the global challenges of the sustainable urban and rural development in the rapidly urbanizing world.

Conflicts of Interest: The authors declare no conflict of interest.

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