

# CONCEPTUAL FUNDAMENTALS OF LAND MANAGEMENT AND LAND MANAGEMENT IN UKRAINE DURING THE PERIOD OF GLOBALIZATION

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## Abstract

The application of institutional theory in the development of land management and land surveying to solve land problems in the period of globalization is due to the problems of human security and sustainable development. Institutional theory must justify the use and protection of land not only as a material but also as a public good. Four scientific positions were highlighted, which characterize the international institutionalization of land organization and land planning and related processes: 1) international institutionalization of land organization and land planning as a process of transition to international principles and standards of sustainable land management; 2) international institutionalization of land organization and land planning as a process of creating information on land ownership to ensure comparability of land statistics in the field of land resources and geospatial database and statistical reporting of different countries; 3) international institutionalization of land organization and land planning as a process of unification and harmonization of information systems for land accounting at the international level; 4) international standardization as a process of bringing national norms of territorial and spatial planning of land use development to international level while preserving essential national peculiarities. The relationship between the components of the process of globalization of land management and land surveying is characterized by the impact of globalization on the development of land management and land management. Implementation of institutions and institutes of land management and land surveying is carried out through coordination, redistribution, transactional and capitalization functions for the formation of sustainable (balanced) land use.

**Keywords:** globalization, land management, land surveying, land use, land resources.

## Introduction

All components of economic science are involved in the study of globalization processes. Unlike economists, for land managers, the development and unification of the land management process and land management documentation lack a convincing theoretical basis. The best thing that can be done to scientifically substantiate the expediency of globalization of land management and land surveying is a reference to neoclassical economic theories that profess the expansion of the space of "free capitalist choice." However, as shown by Tretiak A. and other researchers in the works «Scientific hypothesis of interpretation of land management as a socio-economic institution» and «Development of land management system based on the latest institutional and behavioral theory» (Третяк et.al, 2021), it is already yesterday.

The application of institutional theory in the development of land management and land surveying to solve land problems in the period of globalization is due to the security of human life and sustainable development (Третяк et.al, 2021), in particular, processes of climate change, combating desertification and degradation of land and other natural resources.

The main consequences of globalization are the international division of labor, migration across the planet of capital, human and industrial resources, standardization of legislation, economic and technical processes, as well as the convergence of cultures of different countries. According to research by Zos-Kior M. globalization – is the highest stage of social relations based on liberalization and the network principle of the organization, in a single global financial and information space (Зось-Кіор, 2016). So, as noted by Zos-Kior M., and we agree with him, does not have to have the world's largest economy to be considered more or less integrated into the process of globalization - it is important to integrate into global information projects, most of which are on managing limited non-renewable resources, which belong to the land (Зось-Кіор, 2016).

Accordingly, the specific content of global problems is the globality of the studied system or process not so much in quantitative as in qualitative terms. Golovnin M. believes that globalization is giving something a global scale, a global character (Golovnin, 2003).

According to Pankiv Z., it is related to the information transformation of society, not to the scale or economic activity (ПАНЬКІВ, 2008).

The purpose of the article is to study the direction of institutional development of land management and land management in Ukraine in the period of globalization.

### **Methodology of research and materials**

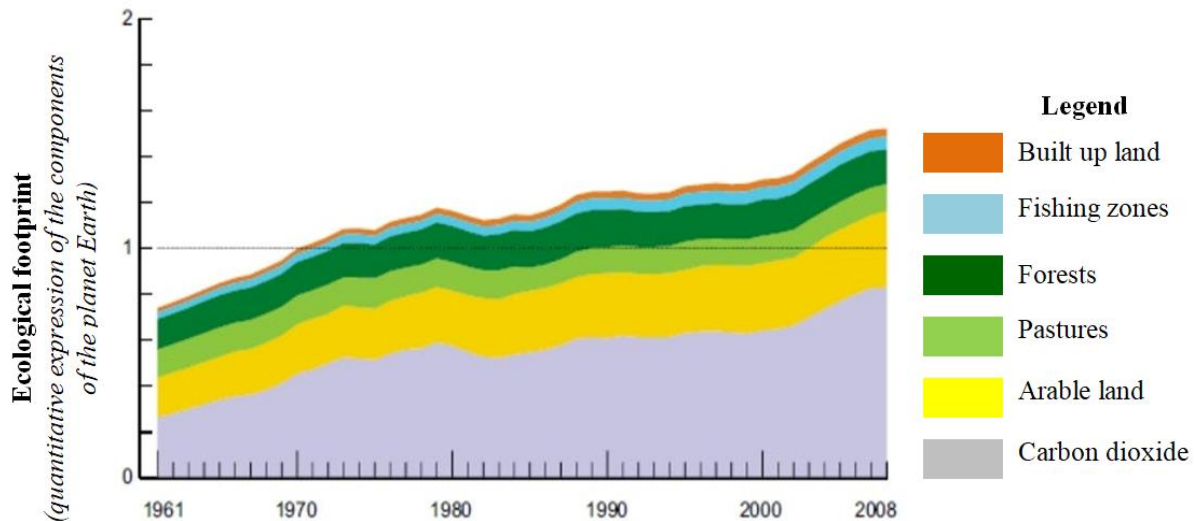
The methodology of studying the processes of globalization of land management and land surveying determines that the subject of the study is the application of institutional theory in the development of land use and land management to solve land problems. For this, the conceptual approach to the relationship between the components of the process of globalization of land management and land surveying is characterized by the impact of globalization on the development of land management and land surveying. Solving land problems in the period of globalization is due to the problems of human security and sustainable development.

### **Discussions and results**

Based on the urgency of the impact of globalization on land management and land use, it is necessary to clarify the essence of globalization for land management and land surveying, including through the action of major current global issues, its impact, and land response to globalization. and the ability of the state to take measures by national law to promote positive and neutralize or mitigate negative consequences of these influences.

The use of land resources is the most important function in the land management system of any country. It determines the prospects of rational nature management, which is a means of implementing the land policy of the state, as well as the coherence of national, regional, and local interests in the rational use of land (Tretiak et.al, 2019).

Due to global climate change processes, and food security issues, any modern economy, including land, transformation must be considered in light of globalization. In this respect, land management and land managers face several key positions that can be called starting points. In Ukraine, which accounts for 0.4% of the world's land, about 5% of the world's mineral resources, including the world's most valuable soils, are extracted (ПАНЬКІВ, 2008), processed, and involved in production. In addition, these resources are used irrationally and extensively. According to Zos-Kior M. (Зось-Кіор, 2016), underutilized agricultural resources against the background of the global food crisis are becoming interesting for international agents. From this point of view, Ukraine has both guaranteed markets and the opportunity to significantly increase its international status, which will be impossible to ignore. At the same time, the high plowing of the territory of Ukraine hurts climate change. Among the main criteria used in world practice to determine the impact of economic activity on land resources and the environment, the most widely used are two: environmental footprint and energy efficiency, as the ratio of GDP to the amount of fuel consumed. The "ecological footprint" criterion is a standardized indicator that reflects the demand of the human population for natural (land) capital, which may even exceed the ecological capacity of the planet or the relevant territory of the country (region) to regenerate this capital. Alternatively, it is the land and water needed by the human population to obtain the renewable resources it consumes and to absorb the relevant waste it produces, using prevailing technologies. In other words, it measures the "amount of nature (land and other natural resources)" we use and compares it to how much "nature" actually has. This unit of measurement can be defined as the ratio between their needs and the amount of available land and other natural resources. In this way you can measure the pressure (impact) on the environment of any person, enterprise, organization, community, country, and population of the planet (fig. 1) (Ecological footprin..., 2021) In 2008, the total biocapacity of the Earth was 12.0 billion ha or 1.8 ha/person, while the ecological footprint was 2.7 ha/person (18.2 billion ha). The largest component of the ecological footprint (55%) is the forest area required for the sequestration of anthropogenic carbon dioxide emissions. In 2014, the Global Footprint Network assessed the ecological impact of humanity on the planet Earth and noted that the demands of mankind were 1.7 times faster than the restored components of the planet's ecosystem (Lin et.al, 2018). The population of the vast majority of developed countries uses more natural capital than is generated in their territory. Thus, the burden on the environment, including land resources in developed countries more than in others. The so-called ecological limits were calculated, which allowed nature to support human activities within the existing way of life. They amounted to 2.2 hectares per capita (Ecological footprin..., 2021).



**Fig. 1.** Global ecological footprint of the components of the planet Earth, 1961-2008 (Погоба, 2015)

The need for institutionalization of land management and land surveying in Ukraine in the period of globalization is beyond doubt. Shortly, scientists and experts' efforts should focus on finding the most appropriate ways to solve this problem. At first glance, its solution is not particularly difficult: it is enough for economists and competent experts to select the best that has accumulated in the theory and practice of land management and surveying of economically developed countries, construct the "best model" and disseminate it. However, such a seemingly obvious solution cannot be implemented in reality, and the reasons for this are as follows

- 1) features of economic development of different countries;
- 2) differences in the traditions of land management and land surveying (in many countries, these traditions have developed over several centuries and are quite different from Ukraine);
- 3) unequal understanding of the subject of land management and land surveying and its methodology;
- 4) significant features of current regulations;
- 5) inadequacy of the system of training and staffing of land management personnel;
- 6) different levels of equipment and use of information base and GIS technologies in land management activities.

Research (Третяк et.al, 2016) shows concern that in the field of institutionalization of land management and land management, the trend of universalization of approaches to land management and land cadastral processes worldwide is taking into account historical, national developments, features of institutions and specifics of certain sectors of the economy (Третяк et.al, 2021).

Research indicates the lack of a common scientific vision of the processes of international institutionalization and sometimes even misinterpretation of their application practices. This scientific problem has two polar positions: the unconditional perception of the international institutionalization of land management and land surveying as a panacea and an inevitable phenomenon, and criticism of the thoughtless implementation of international norms in the national environment. There are four existing scientific positions that characterize the international institutionalization of land management and land surveying and related processes: 1) international institutionalization of land management and land surveying as a process of transition to international principles and standards of sustainable land management (Третяк et.al, 2021) international institutionalization of land management and land surveying as a process of creating information on land ownership to ensure the comparability of land statistics in the field of land resources and geospatial database and statistical reporting of different countries; 3) international institutionalization of land management and land surveying as a process of unification and harmonization of information systems for land accounting at the international level (Третяк et.al, 2021); 4) international standardization as a process of bringing national norms

of territorial and spatial planning of land use development (Третяк et.al, 2021) to international ones while preserving essential national features.

The presence of a large number of relatively conflicting views on the institutionalization of land management and land surveying, especially standardization, harmonization, and unification of land use planning, sustainable land management, and land accounting in the world indicates a lack of common theoretical interpretation of these processes, a vision of its further development and influence on the construction of international and systems of national economic land relations and standards of land use organization in Ukraine. The analysis shows that without fundamental justification, any one-sided perception of this problem, giving preference to certain approaches is unacceptable. However, the quality of preparation of those fundamental normative and organizational documents that will determine the principles of preparation of international rules and standards and their implementation in domestic practice will depend on the scientific position and discussion of scientists on these issues.

In our opinion, rationing and standardization should be considered as a generalizing conceptual approach in this process, at two levels - national and international. The means of implementation (achievement, provision) of standardization are unification and harmonization. The unifying concept is the process of convergence as a convergence of national, regional, and global rules of land management and land surveying.

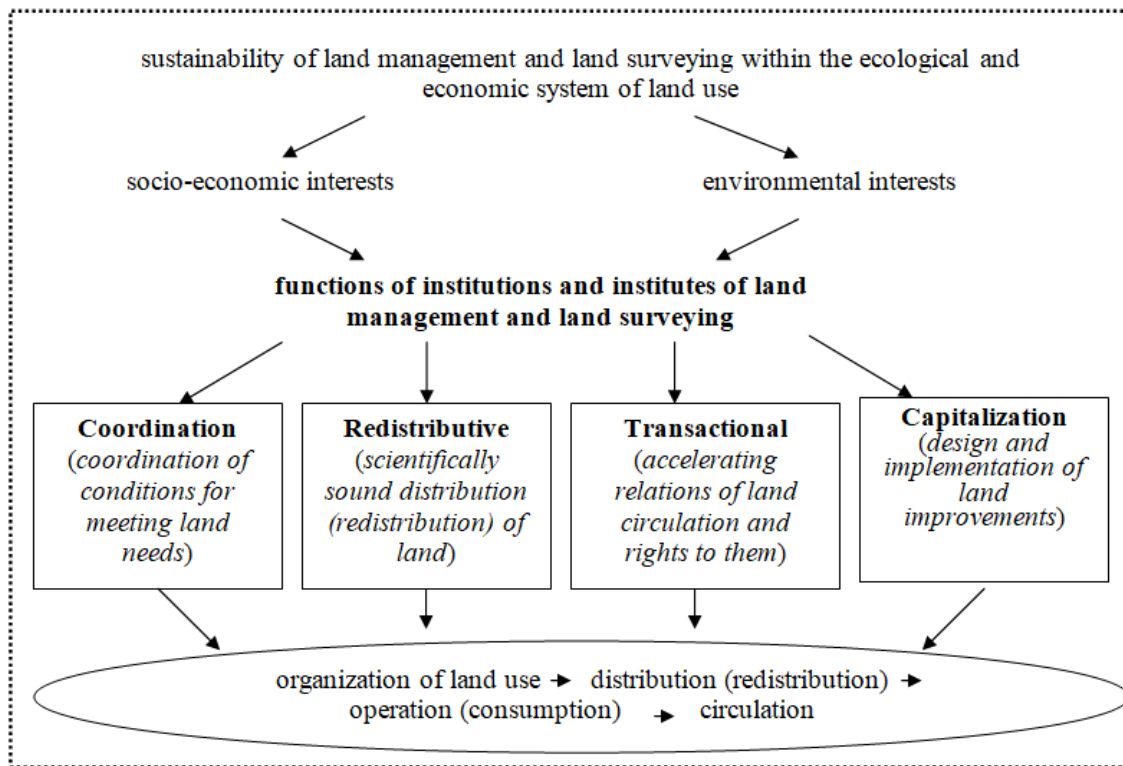
At the same time, the definitions that characterize the impact of globalization on the development of land management and land surveying are summarized by us as follows:

- rationing and standardization - the establishment of uniform rules (requirements, norms, standards) in the field of sustainable management of land resources and land use, including land management and land surveying;
- unification - elimination of differences between national norms and standards in the field of land protection and land management and land surveying in different countries;
- harmonization - bringing national norms and standards in line with existing international requirements;
- convergence - coordinated convergence of national, regional, and global norms, standards, and systems of sustainable land management, for which land management and land surveying is a fundamental mechanism and methods.

The generalization of existing and proposed approaches to the processes of international standardization of land management and land surveying allows us to conclude that rationing and standardization is a process of establishing harmonized rules for sustainable management of land and land use, land management, and land surveying at the national and international levels. This is ensured by unifying approaches to spatial planning of land use, land management, and land surveying, creating land information, cadastral accounting and evaluation, ie ensuring their comparability, or by harmonization, which is primarily motivated by the rules of land use planning, land management and land surveying and creation of land information to the uniform international requirements (international standards).

The specifics of the functioning of institutions and institutes of land management and land surveying in the formation of a system of sustainable (balanced) land use is that they are designed to regulate environmental and economic land relations entered into by economic entities and reconcile their conflicting interests by greening, the transformation of formal institutions of rational land use that provide real environmental and economic sustainability. The nature of the activities of institutions and institutes of land management and land surveying is determined by the effectiveness of their inherent functions in the implementation of interests at the present stage of development of the land use system (Третяк et.al, 2021) (fig. 2).

The functioning of institutions and institutes of land management and land surveying is well manifested in the analysis of the institutional capacity of the market of land management products and the state. As an institution, the market of land management products reveals coordination, redistribution, transactional and capitalization functions through the actions of objective economic laws of land use organization, distribution, appropriation, operation (consumption), and circulation. The market of land management products cannot effectively solve the threefold task of ensuring the stability of the ecological and economic system due to its spontaneity, so the main burden of forming the institutional environment should be borne by the state. Forming appropriate institutions and institutes, to some extent effectively solves the problems of reconciling the conflicting interests of the subjects at all stages of the process of forming a system of sustainable (balanced) land use.



**Fig 2.** Implementation of the functions of institutions and institutes of land management and land management

The role of effective institutions and institutes of land management and land surveying is to reconcile conflicting interests, the interaction of which is carried out in the framework of dialectical unity and the struggle of opposites manifested at different stages of the development of land relations. This approach to the analysis of institutions and institutes of land management and land surveying reveals a fundamental contradiction, which is the divergence of economic interests in the rapid and expanded consumption of land and other natural resources, even by deteriorating environmental quality and living standards, and environmental interests in land use resources, ensuring real growth in the quality of life by improving the environmental situation and preserving land resources and the environment for future generations.

To identify the nature of environmental and economic interests within the institutional environment of land management and land management, determining their logical systemic structure, it is necessary to analyze the essence of the phenomenon related to the interests of the level of subjectivity - land needs. But this is the subject of another study.

### **Conclusions and proposals**

Thus, we can identify four scientific positions that characterize the international institutionalization of land management and land surveying and related processes:

- the process of transition to international principles and standards of sustainable land management;
- the process of creating information on land ownership to ensure the comparability of land statistics in the field of land resources and geospatial database and statistical reporting of different countries;
- the process of unification and harmonization of information systems for land accounting at the international level;
- the process of bringing national norms of territorial and spatial planning of land use development to international ones while preserving essential national peculiarities.

The conceptual approach of the relationship between the components of the process of globalization of land management and land surveying is characterized by the impact of globalization on the development of land management and land surveying. Implementation of institutions and institutes of land management and land surveying is carried out through coordination, redistribution, transactional and capitalization functions for the formation of sustainable land use, distribution, appropriation, operation and circulation.

Prospects for further exploration are to study the nature of environmental and economic interests in the institutional environment of land management and land surveying, determine their logical systemic structure, and analysis of the essence of the phenomenon related to the interests of the level of subjectivity - land needs.

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