



Experience of Land Use Development Planning at the Local (Municipal) Level in the European Union

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Abstract

The article examines the development of theoretical and methodological approaches and practical recommendations for improving the ecological and economic foundations of land management and land management at the local level in the example of the European Union.

In practice, regional, spatial, strategic, landscape, and integrated types of land use development planning are most often used in the European Union. With the development of the market economy of European society, environmental problems arose, which prompted the development of landscape planning, both landscape-ecological and socio-economic aspects of territorial development. The experience of landscape planning was introduced in Germany, which later became used in almost all European countries.

The study and direct comparison of existing landscape planning systems in different European countries, and their reduction to several basic features are not possible and impractical because these systems are very different. This is due to a number of reasons: history, features of political systems, cultural traditions, level of economic development, the nature of legal systems and property relations. Landscape planning in the European Union is going to be one of the tensest areas of activity in the future, and Ukraine must take an active part in this process.

Keywords: Landscapes, Planning, Sustainable Development, Land Management, International Standards, Authorities.

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Introduction

The study and direct comparison of existing landscape planning systems in different European countries, and their reduction to several basic features are not possible and impractical, because these systems are very different. This is due to a number of reasons: history, features of political systems, cultural traditions, level of economic development, the nature of legal systems and property relations. In addition, European countries are characterized by significant natural differences. However, all these countries with their planning systems - in response to the challenges of economic globalization, as well as increased cultural openness and the formation of the European dimension in politics - are united by the need for common decisions. Therefore, in the above-mentioned planning systems, we can find more or less clear trends that show the need to create tools that would provide opportunities to manage the established order and processes of social or economic self-organization for sustainable development. To do this, along with other actions, it is necessary to introduce environmental and aesthetic guidelines into planning systems.

Methodology

The research of foreign experience in planning of development of land use at the local (municipal) level on an example of the European countries to use in Ukraine in the creation of our own approaches in land management planning.

The methodological basis of the study was fundamental scientific provisions and principles of economic theory, the economics of land and nature management, applied research on improving ecological and economic principles of development and implementation of land management. The use of retrospective analysis made it possible to examine the effectiveness of the land management and land management system through a system of performance evaluation criteria and indicators.

The results of the calculation by groups made it possible to make assumptions about promising directions of the applied analysis of the application of economic instruments of ecological and economic processes in agricultural production.

Results and Discussion

There are many types of land development planning at the regional and local (municipal) level: spatial (territorial), strategic, program, landscape, complex (Novakovsky L.Ya.,2015, Dorosh J.M.,et al. 2011, Dorosh O.S.,2014, Martin A.G., Evsyukov T.O.,2008). These species are most often mentioned in the literature and used in practice. Contrary to various names, all types of planning have two common features that determine their similarity - the nature of the activity (planning) and the object of study and impact (territory). In addition, it is obvious that all different types of planning should be aimed at achieving a common goal - to ensure sustainable development of the territory as a whole and land use in particular. In the European countries, spatial (territorial) planning has a more independent status and covers, as a rule, the whole complex of urban planning and land management with mandatory legal justification. Finally, landscape planning, which is a part of the system of spatial (territorial) planning and its an integral part of it in almost all developed European countries.

In the 1960-the 1970s in Europe, there was an active reform of spatial (territorial) planning systems, associated mainly with reforms and changes in the powers of local governments in market economies. In addition, during these years, economic conditions of development have changed dramatically, and competition for the use of resources has increased. In some countries, such as Belgium, despite municipal reforms, formal planning procedures have remained the same for some time, in others, such as Germany, there have been very important changes in the planning system, including public participation in planning decisions.

At the same time, with the intensification of environmental problems, it has become obvious that the current general spatial (territorial) planning is not able to meet environmental requirements fully (Dorosh O.S., 2012). There is a need for a planning system that can take into account the peculiarities of the landscape organization of the territory and contribute to

the optimization of relations in the system of society and nature. With the introduction of landscape planning in general planning, it became possible to take into account both landscape-ecological and socio-economic aspects of spatial (territorial) development. In almost all European countries, landscape planning systems are based on the principles developed and used in Germany, where the concept of "landscape planning" was born and formed.

In the European Union and the Council of Europe, cooperation between their member states in the spheres fields of nature and environmental protection, as well as spatial planning, is slowly but steadily becoming increasingly important due to the following reasons:

- EU policy has an increasingly significant impact on the environmental aspects of territorial development;
- European environmental standards should be based on common principles in order to eliminate "environmental dumping" and provide long-term guarantees for investment in the economy;
- Protection of nature and the environment becomes more effective if it is carried out on a continent-wide scale and becomes trans boundary in nature;
- Landscaping regulations due to their European application, gain political weight.

National planning systems must be developed in light of these circumstances. Thus, in Spain and Portugal, almost all environmental laws are based on European standards, in Denmark - only half (Volkov S.N. et al. 2010). European legal regulations (so-called "legal lines") are already being implemented in countries intending to join the European Union. Relevant requirements are being prepared. These circumstances can also be applied to Ukraine as one of the partners of European countries. Let's consider the features of landscape planning at the European level and in different countries. Undoubtedly, both the framework characteristics and individual trends and positive results of landscape planning in Europe can be useful for the development of such planning in Ukraine.

In Germany, landscape planning has long roots. Its development comes from the notion of "Land Improvement" and "Land Decoration" - the beginning of the XIX century (Volkov S.N. et al. 2010). Another source is the movement to protect nature and the Motherland. It emerged in the late nineteenth century as a reaction to the industrialization of the country and the destruction of nature. In the federal law of 1976, landscape planning was first enshrined in law as a planning tool for landscape protection, landscape care and development.

Thus, landscape planning was first established in Germany as a planning discipline. Recently developed principles and methods have turned landscape planning into an important and recognized tool for nature protection. At the same time, the drastic social and economic changes of recent years have again provoked a heated debate in Germany about the right ways to ensure environmentally sustainable development. The main issue in this discussion was what planning tools could implement the ideas of sustainable development put forward at the

1992 UN Conference in Rio de Janeiro in the "Order of the 21st Century". Below we will consider in more detail what is landscape planning and what is its contribution to the implementation of the concept of sustainable development. The development of forms of planning and decision-making that have a significant impact on the state of nature and landscape is carried out in Germany at various levels.

Landscape planning is based on the ecological direction of the territorial features and with the great support of the population at different stages of its development, especially at the stage of implementation of proposals. At times, people tend to see the environment as the most important foundation of their lives. The foundations of human life are soil, water, air, climate, plants, animals, and in this context, the ability of the natural complex to withstand anthropogenic stress for a long period is the highest aim.

Landscape planning aims to establish and evaluate the functions of landscape features, as well as the sustainable preservation of natural components and the aesthetics of the landscape. Recommendations for the use of natural resources (Landschaftsplanung, 1997) are aimed at obtaining the main questions on creating the preconditions for the positive use of natural components and preserving their relationships. Speaking about the soils, our main ones are to preserve the regulatory and productive function, as well as the function of a viable environment for flora and fauna while preventing erosion processes and counteracting irrational land use and land pollution. This applies to soils with high natural fertility and too rare and disturbed soils.

Taking into account the above-mentioned information, landscape planning has specific goals related to land management planning for land use development in the following areas:

- To establish and fix results of research of constituent elements of nature and its ability to transfer loading;
- To study the relationships between natural components, as well as the diversity, features and grandeur of the landscape, that is its appearance and aesthetic value;
- To represent the natural-territorial complex as a single interconnected system;
- To ensure the dominance of this system of existing and planned forms of nature management, as well as the reverse impact of the system on human activities;
- That is landscape planning should be aimed at addressing the tasks of protection of natural resources and should also be "cross-cutting" and comprehensive;
- While setting up main concepts of development of territories to establish clear parameters of the level of environment aim at providing long-term preservation of people's life;
- At the same time it is necessary to provide measures to ensure the implementation of both general environmental objectives and the requirements of sectoral plans and needs of land and nature users;

- landscape planning projects should meet environmental quality criteria, which serve as guidelines for territorial development projects of land use and construction and other plans, as well as measures for the regulation of environmental impacts and environmental expertise of projects;
- landscape planning should summarize and synthesize environmental requirements, landscape care measures and ensure the determination of the balance between these requirements and the proposals of different land use plans;
- A base for decision-making on the admissibility of different intentions of nature users should be created.

Thus, in landscape planning, on the one hand, we can distinguish the working stages due to the object itself and the tasks of planning - the description of the object, its evaluation, development of goals, action programs and measures for their implementation. On the other hand, there are "steps" related to the social function of planning - it is informing the public, as well as involved in the planning all affected by this process, including industrial land managers, representatives of various institutions and individual consultants.

Land use planning policy in Sweden is determined by local authorities (municipalities, communes). They are responsible for the development of the infrastructure of the territory and the implementation of environmental measures (physical (territorial) and environmental planning).

Public authorities through their regional administration can only influence planning decisions made by local authorities:

- 1) In the event of conflicts and territorial disputes between communes;
- 2) The need to comply with national interests in the field of land use, health and safety;
- 3) In the case of placement of natural objects or infrastructure elements of regional or national importance (highways, reserves, airports, etc.).

The main law governing land use planning in Sweden is the Planning and Development Act (Boverket., 1987). According to this law, each commune (municipality) draws up a review plan for the development of the municipal territory for the entire area under its jurisdiction. According to Article 3 of Chapter 1 of the law, the municipal review plan is not mandatory for institutions or citizens. Control over land use and development within the municipality is carried out through a detailed development plan.

A detailed development plan can cover only a limited part of the municipality. For certain areas of the municipality not covered by a detailed development plan, zonal regulations may be developed if they are required to achieve the objectives of the review plan or to ensure national interests under the Law (1987: 12) on natural resource management, etc. (Boverket., 1987)

According to the Planning and Construction Act, every municipality in Sweden develops The Municipal Comprehensive Land Use Plan for the entire area under its jurisdiction. This plan is developed at the level of the scheme by the planner or the architect of the municipality with the participation of the land surveyor. It contains proposals for the development of local industry, housing and communal services, reservation of territories for the expansion of settlements, the location of protected areas and recreation areas, nature protection, the use of coastal areas.

Analogues of such a plan for rural areas in Ukraine were district planning schemes developed in rural administrative districts in the 60s and 70s of the last century, and urban master plans developed in cities. The general plan of development of the municipal territory has no form of law, namely, it is not a legal document. It contains only principled, general decisions planned for the future regarding the organization of rational use and protection.

A detailed development plan for a part of the territory has legal force. This plan is developed for a period of 5 to 15 years, and it is mandatory for both landowners and various authorities. Land use and all development of the territory is regulated by this plan. If investors want to build a district, they are obliged to coordinate the planned measures with this plan, and in its absence - to order its development. The final decision on the development of this plan is made by the municipality. It also obliges the developers to coordinate this plan with the General Development Plan.

Detailed development plans for part of the territory in the various municipalities of Sweden show:

- 1) Division of lands into different functional zones (residential zone by types of buildings, public lands: streets, squares, parks, etc., underwater areas and coastal lands, reserve zones);
- 2) Design solutions for the arrangement of functional zones (division into quarters, sections, etc.);
- 3) location of the main elements of infrastructure: roads, driveways, utilities.

As part of a detailed plan or as a stand-alone document, a Land Use Restrictions and Encumbrances Plan is developed.

This document must establish environmental requirements, protection and sanitary protection zones, easements in accordance with the planned use of land and water resources.

According to Article 1 of Chapter 2 (Boverkets, 1987), lands and bodies of water must be used for those purposes for which these areas are best suited to their natural conditions and location, as well as to actual needs. When drawing up plans and preparing construction permits and prior approval, the Law (1987: 12) on natural resources management, etc. should be applied.

According to Article 2, Chapter 2, planning, taking into account natural and cultural values, should contribute to the creation of an appropriate development structure, green areas,

transport routes and other facilities. From a social point of view, a good ecological environment and good environmental conditions, in general, provide for the promotion of good long-term management of land and water resources, as well as energy and raw materials. The environmental conditions of adjacent municipalities should also be considered (Boverket., 1987).

The development of general (review) and detailed plans for the development of the territory of municipalities in Sweden consists of many stages and is quite long. O. S. Dorosh explains the fact that various changes in the organization of the territory in the future for many years will determine land relations and the type of land use, which requires consideration of the interests (landowners, local authorities, the state). Therefore, the process of land use planning and protection has a great public resonance.

Local authorities (municipalities, communes) in Sweden are responsible for the development of the infrastructure of the territory and the implementation of environmental measures (physical (territorial) and environmental planning). Public authorities through their regional (district) government body can influence the planning decisions of local authorities only: in conflicts and territorial disputes between communes, the need to comply with national interests in the field of land use, health and safety, in the case of natural sites or infrastructure elements that have a regional or state purpose (highways, reserves, airports, etc.).

In Germany, in modern conditions, more and more importance is attached to land use planning and protection, protection of agricultural lands from unjustified withdrawal for the needs of industry, transport, growing cities (Volkov S.N. et al. 2010). At the same time, the state uses the levers of land management as the main mechanism for regulating land tenure and land use in the future. The study of land management experience in Germany is very important for land use planning, forms and methods of rational organization of land and land protection in our country, which makes the transition to new economic relations and pursues a new land policy. It is also necessary to create a system of land management in Ukraine, which could, taken into account the national characteristics of the country and the positive experience of land management of other countries, become an example of the organization of rational use and protection of land in modern conditions.

In West Germany, land management began to be carried out on the basis of the law on land management, which was updated in 1976, 1988 and 1997 (Volkov S.N et al. 2010, Volkov S.N., 2003). This law regulated land relations and determined the order of land management in the field of land use planning, construction, placement of roads, water structures and other engineering objects, nature protection.

According to the Law, land management is aimed at improving working and production conditions in agriculture and forestry, as well as promoting rural development as a result of the organization of rural land holdings. The tasks of land management in these areas are especially important, including agriculture and forestry in the field of environmental

protection, landscape conservation, village renewal through new construction. The goals of land management in all directions are equally important and necessary for farmers and their families. As a result of the rational organization of land plots, taking into account environmental protection measures, land management serves primarily the preservation and development of agriculture.

According to German experts, the law on land management is a tool that offers great opportunities for environmental protection and nature, preservation of land and soil, purification and maintenance of clean water. This creates the preconditions for improving land use, as well as for preserving and improving the cultural landscape together with the expansion of the habitat of flora and fauna. Land management also contributes to the improvement of living and working conditions. The federal law on land management is specified and supplemented in the relevant laws of the federal states of Germany. For example, the federal state of Hesse has its own land law.

When conducting land management in Germany, other laws are used: the Constitution, the Civil Code, the Building Code, the Federal Law on Spatial Planning, the laws of the federal states on real estate cadastre, geodetic surveys, etc (Volkov S.N., 2003).

In general, everyone in Germany understands that land management is a system of necessary measures, without which it is impossible to form and organize the rational use of real estate in the interests of society as a whole and in the interests of individual landowners and land users. It is believed that land management is at the service of humans, on guard of nature protection, and provides guarantees of land ownership.

The Building Code states that land use planning and development management are the responsibility of communities. So they develop a system of documents that are consistent with higher levels of planning.

The Federal Law on Spatial Planning formulates the principles that must be taken into account in the development of territories at the federal state level. Based on the following, the subjects of the federation (land) develop their own more detailed legislation. This federal law defined a policy to limit the transfer of agricultural land for other uses and enshrined an important principle of preserving family farms as the most important structural units of the national economy. Thus, the legislation of Germany has finally established a holistic system of land use planning and protection in the country as a whole, at the level of federal lands and municipalities. This system is shown in table 1.

Each of the 16 federal states that make up the territory of Germany has broad powers to create its own systems of planning and regulation of land use. However, according to federal law, all lands are obliged to develop a General Program and a General Plan for the development of land use of their territories, the provisions of which are mandatory for compliance at the municipal (commune) level.

Communes carry out a significant part of planning (zoning) and almost complete regulation of land use. Higher governing bodies can interfere in the processes of planning the development of communes and land management only when the special social goals of the Federation or federal land require deviations from the decisions made by the commune (Dorosh O.S., 2014; Tretyak A.M., 2013).

In these cases, the higher authorities compensate the commune for possible losses, damages and expenses incurred in processing or adjusting local planning documents.

The main document that determines the development of the territory in municipalities - Plan for the use of land (territories) of the commune. The land-use plan (commune territory) is made on a scale of 1: 10000 for the whole territory of the municipality. It must be in line with higher-level plans.

Table 1. Levels of land use planning and protection in Germany (on the example of the lands of Hesse) (Volkov S.N et al. 2010, Volkov S.N., 2003)

The level of power	Legislative basis	Land management document
Federation	Federal Law on Spatial Planning of Land Use	Basic rules (law) on the development of the territory
Subject of the Federation (Hesse)	The same	General program for the development of the territory of the state of Hesse General plan for land development in the lands of Hesse
Regional level	*	Regional development plan
Communes (municipalities): cities and communities, districts	Building Code (Federal law) Federal Law "On Land Management" Hessen Real Estate Cadastre and Geodetic System Act Administrative order to meet construction needs	Land use plan (territory) Land management project Building plan (project)
Developer	Regulations on construction in the lands of Hesse	The same Land title (certificate of ownership)

In this regard, the territory of the municipality is divided by a type of use and based on it, land development plans are developed. In terms of land use we need to:

- specify the total area, structure and types of land use of the community, as well as its boundaries;
- determine, based on higher-level plans, the intended location of infrastructure that is important to the state, federal state or region;
- establish the type (purpose) of use of the territory, develop prospects for urban development of the territory, determine land plots for the expansion of settlements, for industrial and other facilities, etc.;
- specify the location and area of built-up land plots, determine the area for transport communications, greenery, water bodies, areas of location and development of minerals;
- specify the area of agricultural and forest lands.

Plans for the use of lands of communes are being developed for a period of 5-15 years. They give an idea of the development of the territory in general terms and mutually agree

with neighbouring municipalities with higher authorities, which can have a significant impact on these plans (Dorosh O.S., 2012, Dorosh O.S., 2014). These bodies have the right to set certain goals, the procedure for drawing up and approving land use plans, the size of land plots; give instructions on how to build land; to determine the development of land plots; to approve the procedure for determining the built-up areas on sites of different purpose and to make a decision on the admissibility of construction on a particular territory.

Land use plans are subject to wide public discussion within one month in order to ensure "transparency" of planning goals, search for alternative solutions, observance of public and personal interests, receipt and consideration of complaints.

During the implementation of land management projects Germans are guided by the following main provisions (Volkov S.N et al. 2010, Volkov S.N., 2003):

- 1) the scope of land management is considered to only be land ownership in rural areas, in urban they create development and redevelopment projects;
- 2) management of land management processes is carried out only by special state agencies;
- 3) the land management process is implemented at the discretion of the state land management body;
- 4) each owner is guaranteed to get an equal compensation in the form of land, and at his request - in cash;
- 5) the need for land for public buildings (for example, in roads) is met by all owners in the form of a certain percentage of gratuitous alienation;
- 6) the presence of legal protection against any departmental decisions;
- 7) the owners themselves pay for land management measures, receiving significant subsidies from the state;
- 8) land management costs are distributed according to the value of the site.

When developing plans we should be guided by such principles as creating a healthy environment for life and work of the population; environmental protection, protection of historical and cultural heritage sites; economical land management, optimization of land use; creation of conditions for the progressive development of economy, transport, supply, culture and sports; removal of industrial enterprises from residential areas, prevention of housing construction near industrial areas, prevention of harmful effects of industrial and communal facilities on the environment, prevention of enclave settlements. And also, as noted by OS Dorosh, ensuring equal conditions for the formation and development of property of different segments of the population, meeting their social and cultural needs, socially-oriented development of land use for the benefit of society and individuals (Dorosh O.S.,2012, Dorosh O.S., 2013).

When carrying out land management works in rural areas we are guided by the following requirements:

- all land plots should be adjacent to the road network and be accessible at any time of the year;
- be prepared for modern mechanized cultivation (a rectangle with an aspect ratio of 6: 1 is optimal);
- have the optimal size (length 300-600 m, an area about 10 hectares when cultivated on family farms);
- land-use system should provide protection of soils from erosion, reduce the risk of floods;
- land use should be carried out taking into account the requirements of environmental protection, impact on soils, water, air, climate, man, animals, plants, landscapes.

According to scientists from the Higher School of Privatization and Entrepreneurship, who have studied the problems of agricultural land use abroad, in Germany, when planning the rational use and protection of land, the principle of protection of agricultural land from unjustified foreclosure is clearly followed.

For this purpose, firstly, in the "agricultural zones" defined in the zoning plans, non-agricultural land development is usually excluded, and the transfer to other uses is limited; secondly, the construction of non-agricultural buildings is prohibited in any "undeveloped zone" (not identical to the "agricultural zone") as part of the municipal territory, which is not allocated as a development zone (development zones and zones indicated in the plans) (Volkov S.N et al. 2010).

Levels, stages and carriers of land use planning in the Federal Republic of Germany (Volkov S.N et al. 2010, Volkov S.N., 2003) and according to research by (Tretyak, A. M. 2013) , has the form presented in table 2

Table2. Levels, stages and carriers of land use planning in the Federal Republic of Germany (Tretyak A.M.,2013)

Level / planning stage Scale	Type of plan, planning stage Professional plans	Media Scope
Planning of federal lands 1: 500,000, 1: 100,000	Land development program and land development plans with landscape program, transport routes, radio lines, etc.	Federal lands The territory of the federal states
Regional planning 1: 500,000, 1: 100,000	Regional plan with framework landscape plan	Regional planning association
Urban development planning 1:50 000 - 1:20 000	Simulation models, calculations, forecasts, texts, structural sketches	Territorial community Community area and land-carers
Construction regulation 1:25 000 – 1:10 000	Land use plan (preparatory plan) with landscape plan, general transport plan, plans for provision and utilization (sewerage)	Community or planning association The territory of the community or several neighboring communities
Construction regulation 1:1 000 – 1:500	Building plan (responsibilities plan) with landscaping plan, development plan and design plan	Community As a rule, part of the city
Construction planning 1:100, 1:50 – 1:1	Projects of houses with projects of load-bearing structures, installation works and projects of external areas (development and landscaping)	Developer Building plots

To understand the land use plan - as a carrier of public needs and the public and the development plan - as a carrier of professional urban planning in Germany. The land use plan is developed by identifying types (subtypes) of urban land use and protection of lands and other natural resources, as well as territories of historical, cultural and other heritage. Such a plan is mandatory for the authorities. The development plan is developed taking into account the legal status of land plots of their owners and is mandatory for all: authorities, citizens and legal entities (Dorosh O.S., 2013, Tretyak A.M.,2013).

The process of developing land-use plans (territories) of municipalities consists of four stages (Dorosh O.S., 2013, :

- inventory of current land use;
- analysis of the condition and use of land;
- forecasting and alternative scenarios for the development of land tenure and land use in the future;
- development of a plan for the organization of rational use and protection of community lands for the future.

Thus, the experience of European countries, and especially Germany, in planning land development in Ukraine is quite useful

Conclusion

The tasks of landscape planning in different countries are performed quite differently. Environmental requirements for spatial planning are not present in the form of holistic concepts in all countries and at all administrative levels. The tasks and stages of landscape planning in different countries are given different importance. In general, landscape planning in European countries should become one of the tense fields of activity in the future. This process also affects Ukraine. As an important political and economic partner of European countries, Ukraine needs to adopt international environmental standards and planning systems.

For Ukraine, this requires the search for their own approaches in the context of land management planning, which embodies socio-economic and environmental measures.

Conflict of interest

The authors declare no potential conflict of interest regarding the publication of this work. In addition, the ethical issues including plagiarism, informed consent, misconduct, data fabrication and, or falsification, double publication and, or submission, and redundancy have been completely witnessed by the authors.

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