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## **IMPROVEMENT OF FUNCTIONAL PLANNING ORGANIZATION OF RURAL SETTLEMENTS OF SUBURBAN ZONES ВДОСКОНАЛЕННЯ ФУНКЦІОНАЛЬНО-ПЛАНУВАЛЬНОЇ ОРГАНІЗАЦІЇ СІЛЬСЬКИХ ПОСЕЛЕНЬ ПРИМІСЬКОЇ ЗОНИ**

### **Abstract**

The principles of functional and planning organization of suburban rural settlements (SRS) are defined: unity with central city, functional specialization, alternativeness and systematics of town-planning documentation's updating. These principles are interconnected among themselves. Also the methods and techniques of their implementation are determined. One or two techniques may be applied to realization of two-three principles simultaneously.

**Key words:** suburban zone, functional and planning organization, suburban rural settlements (SRS), principles of functional and planning organization

### **Анотація**

Визначено основні принципи функціонально-планувальної організації приміських сільських поселень (ПСП): єдності з містом-центром, функціональної спеціалізації, альтернативності та системності оновлення містобудівної документації. Ці принципи взаємопов'язані між собою. Також визначено методи і прийоми їх реалізації. Один або два прийоми можуть застосовуватися одночасно для реалізації кількох принципів.

**Ключові слова:** приміська зона, функціонально-планувальна організація, приміські сільські поселення, принципи функціонально-планувальної організації

Changes in society and social and economic transformations, which nowadays occur in rural areas of our country, cause a number of problems: interrelation of planning and land management issues, low density of construction of rural settlements, absence of employment places and conditions for the reproduction of human capital. This is often detected in expansion of the territory of villages with reduction of the population of settlements and accordingly density of building up and settlement of villages. These processes also exist in suburban villages. Therefore it is important to research the processes which occur in suburban

villages and also development of principles and techniques concerning improvement of their functional planning organization.

These are the following principles: **unity with central city, functional specialization, alternativeness and systematics of updating of town-planning documentation** which supplement each other and are interconnected. The following methods guarantee their implementation: organic integration of objects of small business and services in the production-residential formations and production serving formations as new design objects; formation of new town-forming functions of settlements: business, services, recreations; formation of different functional types of SRS, taking into account dependence of plan structure on external transport corridors and natural features; forming SRS with number of functions: monofunctional, bifunctional, multifunctional; identification of an optimum way of development of SRS according to the defining factors of development and its gradual formation as certain type, choice of the defining factors of development and mark assessment for possible functional and planning scenarios: production, satellite and recreational settlement, comparison of these scenarios and choosing one of them as a strategy for the development of the SRS; transformation of structural parts of the settlement and their re-profiling into other function.

The principle of renovation of town planning documentation is implemented with the following techniques: monitoring of changes in the planning and functional organization of villages and their borders for the purpose of timely updating, identification of problem zones between the central city and territorial community of SRS, monitoring of the transfer of types of land use to a different status, prevention of allocation of green zones, especially of natural reserve fund for residential and industrial building.

One or two techniques may be applied to realization of two or three principles simultaneously. Well, the principle of alternativeness is closely connected with the three: with the principle of functional specialization and the last is connected with the principle of unity with the central city. Thereby the alternativeness of town-building solutions, choice of which is the most appropriate for specific natural and town-building conditions, is provided. The following methods are proposed for its providing: implementation of the production and residential and production serving formations, organization of direct and shortest connections with the environment, land management and the network of engineering communications.

Methods of formation of various functional types of SRS, formation of new city-forming functions of settlement, taking into account dependence of planning structure on external transport corridors and natural features provide the principle of functional specialization. The formation of a functional type depends on the zonal and recreational zoning of the suburban zone and on availability of transport corridors. At the same time, the planning scheme of the village with the location of the public center is designed depending on the external transport corridors (the term was introduced by Zakovorotnaya T. A. [1]), which determine the formation of the following planning schemes of villages: transit, deadlock and nodal. Forming of predominantly linear planning structure, nodal – compact or branchy, deadlock-compact, free, rectangular-quarterly occurs at the transit scheme.

These methods of formation of SRS depend on number of functions: monofunctional, bifunctional, multifunctional; identification of an optimum way of development of the SRS in accordance with the defining (priority) development parameters and the gradual formation of it as a certain type: satellite, recreational or industrial and its subtypes, which is confirmed by mark assessment of the defining parameters of development of settlements. These methods provide both the principle of alternativeness and the principle of functional specialization. The defining parameters of development of the SRS territory as priority are determined as a result of the research of their social and demographic situation and features of the territory and are estimated on the basis of quantitative and qualitative indicators according to a

conditional scale of points (1 – 7), for Kuzmenko T. Yu. [2, 3]. These are the following parameters: natural features of the territory, availability of the reserved protected objects, social and demographic: population, number of employees in the central city, labor supply: able-bodied employees and able-bodied unemployed of working age; number of production facilities within the village; town-planning: distance to the central city, transport infrastructure, free land resources, housing stock (free and used seasonally), etc.

The principle of functional specialization is also provided with the following methods: the choice of defining parameters of development of SRS and their score for a certain scale for the three possible scenarios of development: satellite settlement, recreational or production functional types, comparison of these scenarios and the choice of the most favorable on bigger sum of points.

The principle of alternativeness is shown with following methods: the transformation of structural parts of the settlement, their re-profiling into a different function, the formation of SRS considering a number of functions, for example: recreational settlement with the production base, satellite settlement with a recreational function, recreation settlement with the farm, etc. It is also possible to find alternative options for specialization and functional planning organization in order to choose the best one, as an opportunity to provide sustainable development of the settlement. The principle of systematic updating of town-planning documentation provides compliance of modern changes of planning structure and functional organization of SRS with regulatory requirements and current legislation.

**Conclusions.** The above-mentioned methods, which ensure the implementation of the principles are determined by the research: unity with the central city, functional specialization, alternativeness and systematic updating of town planning documentation. The principles and techniques corresponding to them complete each other and are interconnected. One or two techniques can be applied simultaneously to implement two or three principles. So the principle of alternativeness is closely linked with the principle of functional specialization and unity with the central city. Thus alternativeness of town-planning solutions and the choice of those that correspond the most closely to specific natural and town-planning conditions are provided. The principle of systematic updating of town-planning documentation also connects and supplements the previous which normatively causes essential transformations of functional and planning organization SRS.

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