

# Spatial Planning and Sustainable Development

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## Opinion

For almost thirty years the world has been living with an idea of sustainable development. The goal at the global level is seen to be achieved by setting quotas, establishment of various limitations on the consumption of natural resources and technological reduction of greenhouse gas emissions, water and air pollution as well as the legislative preservation of flora and fauna. It means that sustainable development is determined through the way of reducing the mankind energy impacts on the biosphere by technological support of natural processes, directions and volumes of mass-energy exchange in natural landscape complexes. Resource restrictions objectively presented all around the world determine potential for the development of any administrative-territorial entity, and form the living conditions and population prosperity degree, economy state, opportunities, directions and limits of technological and production transformations of the environment at the local, regional and continental levels. The combination of types and volumes of technologically justified and effective economic nature-transforming activity specifies the real conditions and opportunities for sustainable development of administrative-territorial (state and municipal) entities within the framework of the predicted types of nature management.

The types of economic nature-transforming activities and volumes of used natural resources, as well as resources necessary to compensate for various negative impacts on the environment, require the organization of spatial planning for natural-geographic, landscape basis of biosphere natural complexes due to difference between administrative boundaries and boundaries of landscapes

and other natural communities. Thus, spatial planning at the continental, regional and municipal levels require the consideration of information about natural landscape and socio-economic properties of specific types of organization of nature management. Analysis of natural and economic structure of the territory carried out within the framework of strategic territorial planning is the best way to ensure the conditions for sustainable and balanced development of administrative-territorial entities of any level, which are considered as part of the corresponding biosphere complexes and characterized by the actual distribution of economic activities which in turn affect the content and volumes of mass-energy exchange processes in the biosphere. The analysis is advisable to carry out within the boundaries of drainage basins of the surface and subterranean waters of small, medium and large rivers in terms of the processes of mass-energy exchange to determine the natural resources of the socio-economic development of territories.

At the same time, the conditions for ensuring sustainable and balanced socio-economic development can be achieved in the field of spatial planning with the help of territory functional zoning where each zone differs in the main type of nature management and the degree of participation in the processes of biospheric mass-energy exchange. The main types of economic use of territories are presented by zones of water and forest resources, agricultural lands and settlements. Changes in the distribution of these zones have a significant impact on the quality of the environment of the air basin and drinking water, volume of local food resources, and are responsible for the general health of the

population and its demographic structure at all. Thus, spatial planning of socio-economic development in terms of an expected scientific and technological progress at the present stage of the formation of natural-anthropogenic complexes of different levels

of organization and biosphere coverage, becomes a real tool for ensuring comfortable, favorable and healthy living conditions for the population for nowadays and future.

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