

CARTOGRAPHY AND GIS APPROACH TO THE ENVIRONMENTAL ASSESSMENT IN THE REGION OF THE OIL INDUSTRY

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The given paper considers the methodological aspects of the Atlas mapping for the purposes of Sustainable Development in the regions of Russia. The Republic of Tatarstan viewed as a model territory where a large-scale oil-gas complex "Tatneft" PLC works. Methods for to the structure and requirements for the Atlas's content were outlined. The approaches to mapping of "an ecological dominant" of Sustainable Development (SD) nconceptually substantiated following the pattern of a large region of Russia. The Atlas proposed to be developed, can be considered by its spatial scope as the regional one and by the content as the fundamental complex science-reference mapping guide which characterizes the environment situation in the east of Tatarstan, the conditions and factors that determine it, the tendencies to the change of the ecological state in the territory and in the centers, the measures to reach an ecological equilibrium.

The methods of mathematical-mapping and computer modeling presume to compute spatial correlations and mutual conformity of phenomena and to estimate the homogeneity of the ecological conditions, to reveal the leading factors of distribution and phenomena and processes development using the means of multidimensional statistical analysis.

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INTRODUCTION

During the first half of the XXth century, the negative effect on economic activity on biosphere was smooth out by the natural process of homeostasis occurring in it. In the next ten-year period, a large-scale society's activity has led biosphere on the brink of the pre-crisis state of the environment. At present, the ecological capacity of the environmental in many regions of the earth exceeds the standards, especially where the ecological growth is determines by involving into the economic activity of a human the influx of natural raw resources and their profound processing. All these processes bring nearer to a possible damage of regenerative probabilities of the regional parts of the biosphere. In accordance with this law, the anthropogenic flows formed in the bounds of nature-technical geosystems can interact, so that their summation produced the cumulative effect stipulating the increase (in time and space) of a range of spreading of the anthropogenic changes in nature environs. Thereby, the purpose to assure an ecologically safe SD of the world's community favoring to meet the essential needs of people in conjunction with the environment protection and its reproduction, assumes ever-greater importance. In accordance with the principles of SD as far back as 1996 in