

DEVELOPMENT OF MECHANISM FOR CARTOGRAPHIC SUPPORT OF REGIONAL DEVELOPMENT

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Abstract: The purpose of the work is to, based on the analysis and generalization of the theoretical, methodological and empirical material of thematic cartography, involving general scientific approaches - to develop a modern theoretical concept, principles and methods of cartographic support solving urgent problems of regional development on the example of creating specific maps for the Fergana region.

Keywords: . geoinformation, geosystem, geosituations, cartography, map, Cartographic informatics, cartographic design

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Introduction.

Cartography is a field of science, technology and production, the main the direction of which is the study, creation and use various cartographic works, or is the science of geographical maps, methods of their creation and use. Modern cartography is a branched system scientific disciplines and technical branches, all of them are closely connected between itself and with many other branches of science and technology. Main cartographic disciplines are as follows:

1. General theory of cartography (cartology) - studies the subject and method of cartography as a science, issues of methodology of creation and use of cards. Mapping is the general study of cartographic works.

2. History of cartography - studies the history of ideas, ideas, methods of cartography, the development of cartographic production, as well as old cartographic works.

3. Mathematical cartography is a discipline that studies the mathematical basis of the cards. It develops the theory and methods map projections, the distribution of distortions in them is analyzed, construction of cartographic grids with specified conditions.

4. Designing and mapping - studies and develops methods and technology of laboratory (office) production and map editing [1-4].

5. Cartographic semiotics - develops the language of the map, the theory and methods for constructing systems of cartographic signs, their rules use.

6. Map making or cartographic design – studies theory and methods of artistic design of cartographic works of their stroke and colorful design, including means of computer graphics.

7. Economics and organization of cartographic production - studies the problems of optimal organization and planning of production.

8. Map publishing is a technical discipline that develops technology for printing maps, atlases and other cartographic products.

9. Use of maps - develops the theory and methods of application cartographic works (maps, atlases, globes, etc.) in various spheres of practical, scientific, cultural, educational activities.

10. Cartographic source study - studies and develops methods for evaluating and systematizing cartographic sources (maps, photographs, statistical data and other documents) used for mapping.

11. Cartographic informatics - studies and develops methods for collecting, storing and providing information about cartographic works and sources. Section dealing with systematization published maps and atlases, compiling indexes, lists, reviews, called bibliography.

12. Cartographic card - studies geographical names, their semantic meaning in terms of correct transmission to maps. The system of cartographic disciplines is developing, new cartography industry. For example, the emergence of global positioning systems (GPS) led to the emergence in mathematical cartography of a new directions - satellite positioning. In the system of cartography, many industries have developed, different in subject: general geographical, geological, soil, ethnographic mapping, etc. With the advent of new branches of knowledge, all

new sections of thematic cartography. Examples are recently formed geocological, ecogeochemical and radioecological mapping. In addition, quite clearly such sectors as educational, scientific, tourism, navigation mapping [5-10]. Types of mapping can be divided into:

- by object - astronomical, planetary and terrestrial mapping. In turn, the earthly can be divided into land and ocean mapping;
- according to the method - ground, aerospace, underwater;
- by scale - large-, medium- and small-scale;
- according to the level of generalization - analytical, complex and synthetic;
- according to the degree of automation - manual, automated and automatic;
- in terms of efficiency - basic and operational.

Study title.

Region fergana – Uzbekistan republic in the composition of the region. 1938-15-year-in January, was founded. Of the republic to the east, is located in the south of the fergana valley. From the north, Namangan, andijan region from the south

and east the kyrgyz republic from the west, the republic of tajikistan and shares borders with. By area-6.8 thousand km². Of the population in 2020 3,817,000 man. The structure in district 15, 9 city Besharik, Margilan, Rishtan Rishtan, Ferghana, Yaypan, Kuva, Kuvasay, Kokand, Hamza, settlement 10, our rural citizens 164 (2004). Center of Fergana city.

Cartographic display and analysis of regional reproductive systems. The reproductive aspect is comparatively young direction in the theory of regional development. Its essence is that the functioning and development of the region's economy is considered as a process of expanded reproduction (including production, distribution, exchange and consumption of material goods and services), regularities and whose parameters determine all proportions and relationships development of the region, i.e. reproduction and productive forces and economic relationships (Schniper, 1996). To display the spatial boundaries of the reproductive system region, different types of economic maps are used (sectoral and complex factual, typological, synthetic and systemic, in including those created on the basis of the theory of energy production cycles by N.N.Kolosovsky). Modern methods of geoinformation mapping reproductive system of the region create a spatial basis for making managerial decisions and are relevant to all of the above card types. These methods can significantly improve accuracy and capacity. Content of fact cards by creating and maintaining accurate and extensive databases, improve the mathematical apparatus of modeling thematic content of maps through the introduction of computer intellectual systems and create typological, synthetic and systemic high level cards [11-14].

Methods.

The developed maps should show the role of inter-regional, regional, subregional and local formations in the territorial division of labor, display regional and local reproductive cycles, identify the territorial formations of the region, located as in the stage of active growth, and in the stage of stagnation and stagnation, as problematic territories that need some economic "attention" and a system recovery.

Maps should show forecasts of changes in development productive forces (demographic forecasts, forecasts for the development and use natural resources, economic forecasts, etc.). Forecast maps allow you to establish the spatial dynamics of change structure of needs for means of labor and consumer goods, to determine and show the growth drivers and uses of various regional resources, display various development scenarios, allowing get a spatial cut of the main concepts of the region's development. It becomes possible to create secondary forecast maps that display spatial patterns of potentially possible "abnormal" situations of territories with various options for structural, investment, environmental intra- and

inter-regional policy. The totality of economic maps makes it possible to identify in the spatial aspect of "pain points" of the regional reproduction process. They help in identifying opportunities for economic maneuver leading to to neutralize the negative trends of economic, social and ecological development. It is necessary to create maps showing both incentives and restrictions on regional development [15-20]. The card system should display social and economic benchmarks and management regulators, which reflect the internal and external conditions of functioning regional reproductive system (location of production, conditions information of commodity resources, the capacity of the regional market and the local producers to meet the needs of the population, etc.).

The created maps should collectively determine the parameters of the economic and social coherence, as well as financial and material balance, effectiveness and quality of the regional reproductive process, determine the degree of reliability and elasticity of the reproductive system as a territorial system reproduction of the quality of the economy.

Theoretical concept of system cartographic support regional development is based on subject study and mapping the main factors that influence the achievement of the main goal development - to increase the level and quality of life of the population of the region. Information- cartographic actualization of the study of factors depends from updating strategic goals, tactical and operational tasks regional development. Development factors are closely interrelated with each other. friend. A change in one of the factors leads to a change in the others, which speaks of the systemic integrity of regional development. Asynchronous the frequency of manifestation of development factors in time and the discrepancy between their areas in space indicates their relative autonomy. Interaction factors of development in a certain territory forms territorial development systems. Territorial systems development are objects of study and mapping. For each Territorial systems development and for each universal function of their management can was. corresponding groups of special cards have been created. This is a requirement is not strict, but helps in setting goals and objectives cartographic support of regional development management.

The level and quality of cartographic support for regional development depends mainly on the quality of the underlying complex products in the form of a series of maps and atlases, which are the result of a generalization knowledge of fundamental sciences about the region. Cards in such a work not only reflect the achievements of these sciences in the study of problems territorial development, but generate on the basis of analysis and synthesis the information embedded in them, new ideas in the study of territorial development systems at the regional level. System principle of creation basic cartographic products is based on a two-

row content-functional principle of classification of thematic maps and block-modular organization of the structure of the base map phatic work, as well as on geosystem principles of development base map content [21-24].

Results.

In operational mapping for the purposes of regional development effective is the use of a situational approach. For a comprehensive analysis of geosituations, the methodology of multi-stage mapping is applicable using the procedures of differentiation, integration, zoning and zoning of the territory depending on operational regional development goals. When monitoring geosituations is justified the compilation of a special group of maps of continuous statistics, displaying continuous space-time changes a generalizing quantitative sign of developing situations, processes and events.

Electronic versions of fundamental cartographic works become an essential tool for managing regional development. They are particularly effective in multi-level, multi-factorial and operational cartographic support of territories, serve as the basis for the formation of a regional geographic information system designed to ensure the adoption of optimal decisions in the field of sustainable regional development.

The fundamental cartographic security of the region allows create effective applied cartographic developments in the operational mode:

- to identify territorial zones of growth and development in the region, preservation and conservation, improvement and sanitation;
- form a cartographic image of the region, prepare territory for investment (investment marketing);
- promptly create integrated application maps for municipal entities, firms and enterprises;
- create effective and visual cartographic works educational purpose.

The results of the work in the form of a theoretical concept of the system cartographic support of regional development, methodology and methods for creating cartographic works for the regional development have been tested in the practice of creating and applying specific cartographic works. Research results and further development relevant problems, issues and tasks of cartographic support regional development will strengthen the role of thematic cartography in solving urgent problems of sustainable development of regions [25-28].

Situational approach in regional studies. Region state can be represented as a complex dynamic in space and time a set of emerging situations of different levels and content, which reflect the historical situation, a set of conditions environment that determines the interaction of its components. Situational approach allows us to capture the initial phases of urgent changes in the region and, therefore, to make

the management of its development more accessible and efficient. In an undesirable situation, it is easier to make the necessary correction than to influence to the changed territorial system in which irreversible quality changes. At the center of interests of modern geography are such key concepts such as "environmental situation" and "environmental problem". Under "environmental situations" the author understands the presence of real or potentially possible violation of the functions of the biosphere, habitat and life a person, a change in the state of geosystems or their individual components under the influence of natural and anthropogenic factors, leading to negative environmental consequences.

The situation has information value and, as a rule, is associated with value judgments (favorable, neutral, critical, etc.). The interaction of different in nature, but relatively the same in orientation of situations creates a certain situation in the region, characterizing his condition. For a comprehensive description of the environmental situation, reflecting the state of the geographical environment in a particular region, proposed to introduce the concept of "ecological and geographical situation" (Shestakov, 1992). The concept of geosituation is close to this interpretation (Trofimov, Demakov, 1987). B.I. Kochurov (1992) defines the ecological situation as spatio-temporal combination of environmental problems. Other researchers adhere to a somewhat broader understanding of the EGS (Sdasjuk, Shestakov, 1994). The ecological and geographical situation is such a spatial temporary combination of interrelated natural, social and economic, demographic-ethnic and political conditions, which characterizes changes in the geographical environment, causing a relatively stable environment in time of life support systems on the territory person and affecting the level of development and the degree of satisfaction the needs of society [1-4].

Discussion and Conclusion

Mapping the factors of regional development. Goals and objectives territorial development systems require a reflection of the development factors. The work to some extent reflects the problems mapping economic, environmental, socio-cultural and other factors. Particular attention is paid to the cartographic display resource and environmental factors of development. Mapping of regional development resources. The concept of "resources" in combination with the concept of "development", one of the most fundamental concepts denoting the essence of irreversible, directed and regular changes in matter and consciousness, their universal properties, acquires an unusually broad form of its interpretation and a special fan of its functional significance. The development of human society has always been associated with the use of a variety of resources. According to their genesis, resources are divided: into material (accumulations of the past in the form of fixed assets and working capital), labor (taking into account his qualifications);

natural (set raw materials, indirect natural resources and resources environment); relationship resources (financial, political, social, etc.), arising in the process of development and affecting its form, character and intensity.

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