

**CONCEPTION OF THE ATLAS OF THE
AGRO - INDUSTRIAL COMPLEX OF UKRAINE.**

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The report contains the theoretical - methodological bases of the cartographic modelling of the agro - industrial complexes (AIC) (the notion of the maps of AIC, the essence of the system methodology of working out of the AIC maps, the main principles of the cartographic modelling); the general principles of making maps of the specialized AIC; theoretical and methodological bases of working out of the maps of the integral AIC.

Cartographic research of the problems of the formation and functioning of the agro - industrial complexes (AIC) has been carried out in the cartographic department of the Institute of Geography of the National Academy of Sciences of Ukraine for more than 25 years. Theoretical methodologic and methodic bases of making maps of AIC of the different levels of hierarchy, for management are worked out, the series of maps of AIC of extensive themes, of various contents, purpose and territorial inclusion is worked out; the structure and contents of the atlas of AIC of Ukraine are worked out [1,2].

1 The theoretic and methodologic bases of the cartographic modelling of AIC.

1.1 The notion of the maps of AIC.

Inter - disciplinary researches constitute the most characteristic feature of modern science; the thematic cartography reflects this tendency exactly, working out more and more new frontier sections. The maps of AIC can be classified as the maps of "frontier" themes.

Proceeding from the ideas about AIC as the integrated production sphere the maps of AIC can be easily defined as spatial - temporal, figurative - symbolic models of structures, interconnections, functioning of the complex production - territorial system of technologically, economically and organizationally connected enterprises and services of different branches fulfilling the most significant economic function of production of food products and other output out of the agricultural stuff and delivering them to the consumer.

1.2 The essence of the system methodology of working out of the maps of AIC.

Methodological basis of making maps of AIC is the system approach

which allows to realize the conception of the integrity of AIC; to point out and to reflect the types of AIC of different hierarchical levels on the maps.

The integral AIC and its components are the objects of system mapping. The integral AIC of different territorial levels; spheres, branches, subbranches and kinds of activities regarded as the elements of the branch structure of AIC; specialized complexes as the elements of the functional structure of the integral AIC; bodies and sections of management as the elements of the organizational - managing structure of AIC; various kinds of resources, products and services; conditions and factors of functioning - all of them are subjected to mapping.

The main point of the system mapping is in the dismemberment (by systems and elements) of the agro - industrial systems in the process of their cartographic modelling. At the same time the methodologic principle of the dual regarding of systems: both as subsystems and as isolated systems, is used. Large system of production and processing agricultural produce (an integral AIC) is split into a number of closed subsystems (specialised AIC) which in their turn split into elementary AIC. In this case the study is carried out by means of making a cartographic model (as an analogue of a given system) which sufficiently accurately reflects the structure and links of AIC, the typology of agro - industrial systems, at the same time taking into account the principles of formation, the hierarchy of systems and their boundaries.

The main principle of cartographic modelling is the reflection of the correlated chain of productions from getting agricultural stuff to the final output. Mapping of AIC is realized in 3 methodic ways: 1) the successive extending of analysis and therefore the separate modelling of elements composing the complex, its structures, functioning of the most important sections, industrial - economic connections; 2) the integral reflection (on one complex map) of the correlated kinds of activities concerning the definite branches of agriculture, processing industry and maintaining sphere (specialized AIC); 3) synthetic mapping (integral AIC).

Proceeding from the analysis of the structure and peculiarities of functioning of AIC of Ukraine and its most significant sections, the system structural model of AIC is worked out. It is taken as the principle of cartographic research and reflects natural conditions and resources, social - economic conditions and factors of functioning of AIC, its division into specialized complexes (as the elements of its functional structure), branch structure of its most important sections, territorial structure and its integral elements. This general theoretical model provides the cartographic research strategy. Nevertheless, both general and special models of the connections of different branches in specialized complexes have been worked out for substantiation and elaboration of the separate blocks

of maps.

2 The structure of the atlas of AIC of Ukraine.

It is presented by the correlated sections which characterize AIC of Ukraine in detail considering all their main types and their hierarchical level. The themes of maps reflect the structure and organization, intercommunications between components, functioning of the complex industrial territorial system of technologically, economically and organizationally correlated enterprises and managements of different branches which fulfill the most important national economic function - food and other agricultural production and its realization.

The succession of the arrangement of sections, subsections and groups of maps is based on the inner interaction and interconditionality of the most important sections of AIC, conditions and factors which cause their territorial differentiation.

2.1 The introductory Section.

The introductory Section includes maps which characterized the place of AIC in the general system of the national economy of Ukraine, in the inter - district exchange of output, in the territorial division of labour, the administrative division, physical and geographical economic zoning, landscapes, typology of industrial complexes, junctions and districts in AIC, the course of privatization within AIC.

2.2 Natural Conditions of the Development of AIC.

While working out the structure of this section we made the system analysis of the different combinations of natural conditions influencing the level of labour productivity in agriculture (geomorphologic, hydrologic, climatic conditions and agroclimatic resources, soil and soil resources).

2.3 Social - Economic Conditions and Factors of the Development of AIC.

(Land resources, national economic necessity in the production of AIC, population, regional peculiarities of its settlements, labour resources, the material and technical basis, scientific technical progress, the industrial infrastructure constitute social - economic conditions and factors of the development of AIC). Special attention is paid to the reflection of the AIC potential: land and labour resources, basic industrial funds, capital investments and expenditures of material resources in the branches of AIC.

2.4 The Maps of Specialized AIC.

This block of maps includes 2 sections: the maps of plant growing industrial complexes and cattle - breeding industrial complexes. The first section is presented by the maps of grain - farming AIC, sugar beet AIC, fruit and vegetables growing AIC, butter and fat AIC, potato starch AIC, viticultural and wine making AIC, tobaccocultivation AIC. The second section is presented by the maps of dairy industrial complex, meat - packing industrial complex and poultry breeding industrial complex.

Each specialized complex is considered as a subsystem and depending on its economic importance is reflected with the different degree of detailing.

The system of cartographic models of specialized AICs of different types reflects the structure of the complex, specificity of its functioning, the character of relations of different branches of industry, economic proportions resulting from the industrial technological correlations of branches, subbranches, types of activities.

As to their contents the maps of separate specialized complexes are at the same time individual reflecting the specificity of the functioning of the most important sections of complexes and are unified for the purpose of comparability. The basis of the unification of the contents of maps is the application of the common principles of modelling for the reflection of the logic model of the complex (the intercommunicated chain of productions beginning with the production of agricultural products up to their final processing) in working out comparable legends, principles, showings and rules of generalization. Working out the generalized graphic model of the relations between different branches within the complex allows to regulate the information about the structure and functions of the separate specialized AICs. It is the basis for projecting the unified system of maps of the totality of specialized complexes.

Working out of the generalized graphic model of connections of different branches of industry in complex allows to regulate the information about the structure and functions of the separate specialized AIC. It serves the basis of projecting of the unified system of maps of the totality of specialized complexes.

The methodic principle of the integral reflection of the correlated kinds of activities concerning the definite branches of agriculture which correspond to the branches of processing industry and maintaining sphere on one complex map, may be used while making maps of specialized complexes. At the same time three main links forming AIC, namely: agricultural, processing and maintaining are pointed out on the map. The above - mentioned principle corresponds more completely to the comprehension of AIC as a single industrial territorial whole. The legend of the map has 3 parts which are

formed as colourful graphic independent informational blocks of its 3 most significant sections. The legend of the map is oriented to the industrial technological connections.

2.5 The integral AIC.

Mapping of the structure of the integral AIC is directed to the study of the integral formation and its elements, principles of their organization into the integral system. The structure of the integral AIC may be revealed by means of the system of maps of their functional sections as well as by means of the complex and synthetic maps of AIC. It means that there is place for both analytic and complex and synthetic maps in the system mapping of the integral AIC. All the aspects of the structure of the integral AIC may be simultaneously reflected mainly on typological and regionalizational synthetic maps.

The territorial structure of the integral AIC may be shown on the complex map by means of reflecting its main elements: areas and points of the concentration of productions, lines of bonds moving, transport, enterprises maintaining the main productions. The following succession and directions of map - making of connections in the integral AIC are the most expedient: 1) the reflection (on the maps) of connections between specialized complexes (connections in stuff, accessory and final output); 2) connections in supplying of agriculture and processing industry with means of production; 3) connections in deliveries and usage of the most significant types of material resources; 4) in the usage of the production infra-structure; 5) in the usage of manpower.

The maps of agricultural regionalization make the qualitative and quantitative analysis of the main forms of the territorial organization of AIC (agro - industrial zones, regions, subregions, microregions). The stable industrial territorial combination of the totality of the different closely interacting specialized AIC is to form the basis for the definition of the agro - industrial region.

For the maps of agro - industrial regionalization two kinds of synthetic characteristics should be used: points and centres of the processing of agricultural stuff, and territories according to the types of the combination of specialized complexes. The total reflection of these characteristics allows to reveal the territorial structure of AIC of the investigated region. On the basis of analysis of the functions which are carried out the types of centres and points are defined. These are the centres and points of stocking, storing and processing agricultural stuff: points of the reception and storing of stuff; points of the reception, storing and primary processing of stuff; centres of the concluding processing of stuff.

While classifying centres of processing agricultural stuff, the

amount of the produced output, specialization of the industrial enterprises and the significance of centres in the territorial division of labour are taken into account.

2.6 Economic communications over exchange of products of AIC.

At present conditions of the territorial division of labour economic relations of AIC are realized by means of exchange of produce processing industry rather than agricultural products. The section characterises the share of export and import of different types of agricultural processed and non - processed products in the total volume of the output and consumption in different regions. The special weight of the export in the gross output of AICs is reflected in different branches separately.

References:

- [1] T. I. Kozachenko. Cartographic Supply of the Research of AIC. - Kiev: Naukova Dumka, 1984. - 172 p (RUS).
- [2] A. P. Zolovsky, T. I. Kozachenko. Mapping of the Food Products Complexes. - Kiev: Naukova Dumka, 1987. - 130 p (RUS).