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CONCEPTION OF QUALITY MANAGEMENT OF CITY ENVIRONMENT OF CITY

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The basic concepts of quality of city environment are considered, going near the management of quality of city environment, state of city environment for today, lacks of management, raising of task of quality management of city environment. The system of aims of quality management of city environment, choice of indexes of quality on the basis of this system and conceptual model of quality management, is offered. Technology of quality management of city environment is developed, the ball system of estimation of indexes of quality is offered, the example of expert estimation of indexes is considered, it is rotined, how to extend the range of estimations of indexes of quality, the ways of development of control the system by quality city environment are set.

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Entry

Quality of city environment is determined by quality of his constituents: anthropogenic, natural and social environment. Under quality of city environment it follows to count a level pleasures physiology material and spiritual necessities of city population due to organization and functioning of this environment. An environment of city must be such, by the best appearance to satisfy the necessities of inhabitant of city. However for today a management a city is carried out not as a socially production, but as cleanly by a production complex. The System Control by a city takes interest little, as far as the environment of city satisfies the necessities of inhabitant. It takes interest anymore, as all of spheres of activity of city make products or give services and it is measured in square meters, tones, things, by the amount of the served inhabitants, amount of planted trees, kilometres of the repaired roads et cetera Less for everything interests control the system by a city, as far as this products satisfy the necessities of inhabitants of city. That, control the system by a city, mainly, is interested in an amount, but not quality of products or services.

In the conditions of market economy, total competition of products and services, in the conditions when an user becomes more demanding to the terms of dwelling, such position, when quality of these terms does not find the proper estimation from the side of control the system, can not be considered normal. Therefore all anymore and more scientific developments in relation to a city environment are dedicated quality of this environment.

In this work conception of construction of quality management of city environment is examined from applaing systems methods and expert estimations of indexes of quality of city environment.

Analysis the existent state of the management quality city environment.

The control system by a city mainly works on of a particular branch principle: management a communal economy, by a health protection, building, education, by a transport et cetera[1]. Control the system by a city plans and controls activity of city in the indicated directions that estimates management results. The population of city does not accept in the estimation of results of activity of city of participation, although all, that is done in town, is done for his inhabitants. Results of activity of control the system by a city mostly estimated on principle is «a plan – a fact» About what quality of work here can be talked? Control the system by a city controls itself, not because of opinion of population of city which this work is executed for. Such method of work of control system by a city is unacceptable for lodgers. The inhabitants of city take part in a management a city only then, when write complaints about this system. It is at first.

Secondly. The lack of work of control the system by a city is unvision of integral picture of existent situation. It controls the separate fragments of система and operates uncomplex. As a result, control the system can not define, what microregion of city is better from other and due to what.

Thirdly. Control the system by a city is enough opaque for the inhabitants of city. It does not inform a population about the results of the activity say nothings about the misses. Poorly in the activity utilizes the internet.

Fourthly. Absent whole managements are expressly formulated a city, and that is why difficultly, and it is sometimes impossible to define whether control the system by a city owns a problem in a complete measure. Plenitude of functions of control the system by a city is not certain.

Fifthly. The indexes of quality of city environment are not certain. It is a not simple task. Before this work must be the specialists of different directions are attracted. It must be information is consolidated on all of levels of management cities and all adjoining subsections of control the system by a city [2].

Raising the task of creation the system control quality city environment.

For creation of the control system by quality city environment it is necessary to develop an informative case frame, define system aims of quality management of city environment, indexes of quality of city environment, conceptual model of quality management, directions of development of control the system by quality city environment.

Analysis the system aims of management quality city environment

On fig. 1. the system of aims of quality management of citys environment is resulted. The Primary objective quality management of city environment is conditioning for satisfaction of physiology, financial and spiritual necessities of inhabitants of city. In other words is achievement of the set level of quality of citys environment. As evidently from figure a primary objective will be attained, if the aims of 1th level will be attained: to attain quality of anthropogenic, natural and social environment and purpose of 2th level: 1.1. – 1.4., 2.1. – 2.6., 3.1.- 3.8..For that at the level of city, district or microregion, to exploit offered control the system, these indexes of quality, to our opinion, fully sufficiently.[3] . At a necessity the subsequent working out in detail of indexes of quality it is possible to enter the 3th level of «tree of aims». The system of indexes is offered engulfs the indexes of organization of objects of financial environment and indexes which characterize personality. It sufficiently, properly to estimate a city environment and utilize these estimations in the wide range of necessities of quality management of city environment.

As evidently from the tree of aims, a city environment must form the high-spiritual inhabitant of city with civil position, socially active with the proper level life.

The conception of management quality city environment

City environment of must to be so organized and so to function. instrumental in not only satisfaction of necessities physiology and material but also to satisfy the spiritual necessities of inhabitants of city.

Amount and quality of such services today is mostly determined the normative documents. However, a city environment which is created on the basis of norms can not take into account the change of requirements of inhabitants city to those or other elements of city environment. It is therefore needed to develop such control the system by quality of city environment, which will be except for normative requirements to lean against the requirements of inhabitants of city in relation to the terms of life and terms of spiritual development of person.[4].

Except for it, it is expedient to plug the management of population of city in the system, as an information generator is important. The very valuable would be regular public opinion poll for the purpose what content with and what is dissatisfy the inhabitants of city and that they suggest to improve in organization and functioning of city environment [5]. The wide acquaintance of population of city is needed with job of control the system performances and results of discussion of those or other suggestions of citys society..

The control system by quality of city environment, which is offered in this work, will enable to analyse the state of city environment on different indexes not only at the level of city on the whole but

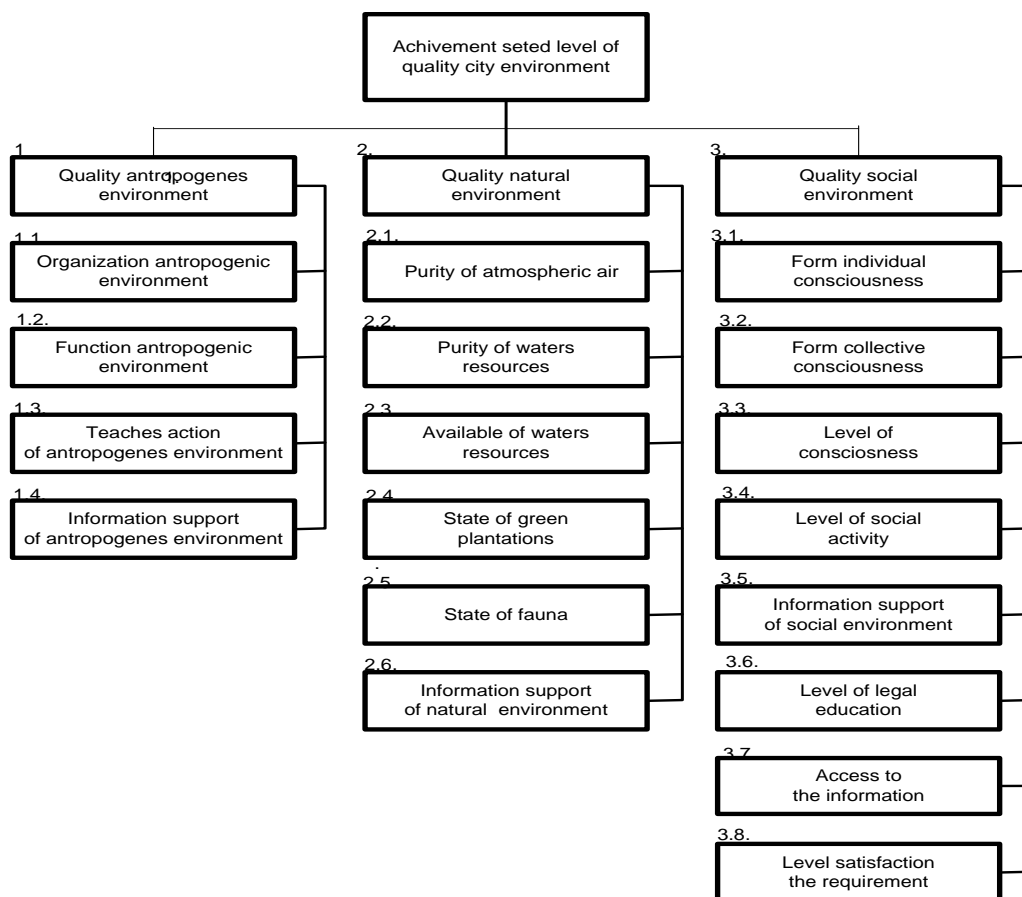


Fig.1. System aims management of quality city environment.

also at the level of districts and microregions of city. And it will become possible if information will be tied to the spatial co-ordinates of city [6]. Such attachment is in-process foreseen. For this purpose territory of city is broken up on conditional squares – microregions. In squares, buildings, dwelling-houses, enterprises, schools, preschool, grounds, shops, hospitals, objects of natural environment, population, get with the demographic structure.

The indexes of city environment, which characterize separate objects which belong to the microregion, are farther developed. On the basis of these indexes the proper databases are created, the informative system is created «Quality of environment»[7. 8], which:

- accumulates information of control of indexes of quality of city environment;
- actual date bases;
- carries out the analysis of quality of city environment;
- gives out the results of analysis the organs of management a city.

For providing of functioning of the informative system it is necessary to create the proper structure which will carry out collection and expert estimation of indexes of quality. This would be the appropriate department of city executive committee.

To determine the indexes of quality of city environment on the first pores offered expertly in a 100 ball scale [9, 10, 11]. Will choose the indexes of quality of city environment using the «tree of aims» on fig. 1. Achieve of primary objective estimate in boundary 100 marks. Estimate the indexes of quality environment as follows.

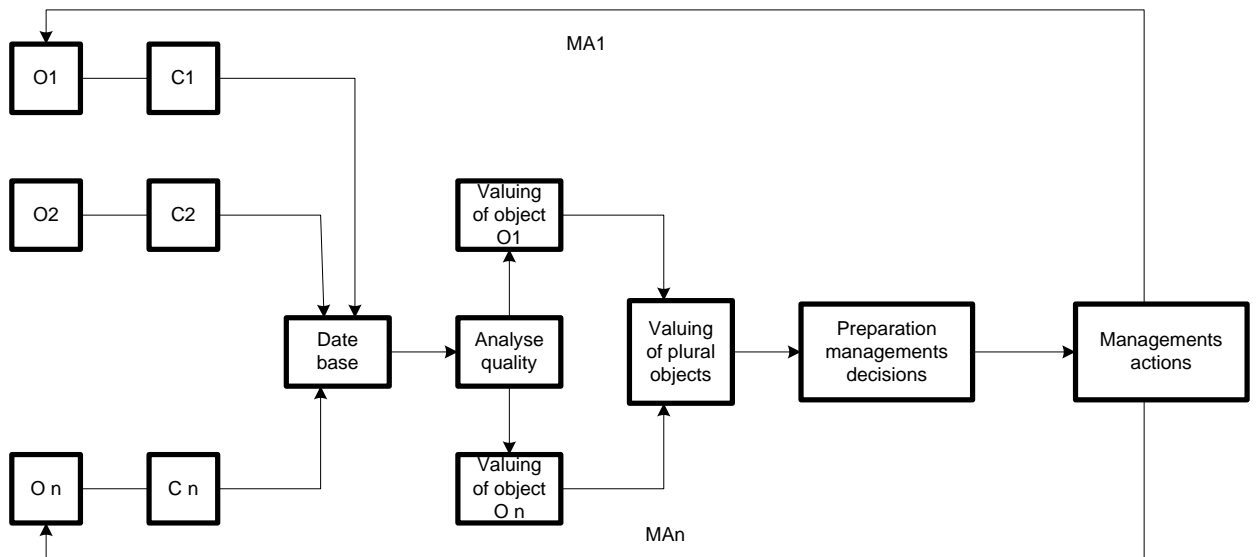


Fig. 2. Conception scheme management of quality city environment

Quality of anthropogenic environment which answers the aims of 1th level, estimate in 40 marks
 Quality of natural environment which answers the aims of 1th level, estimate in 25 marks.
 Quality of social environment which answers the aims of 1th level, estimate in 35 marks.
 Accept this division, as normative. At second level carry out an analogical division. Get the expert estimations of actual indexes qualities which are erected in a table.
 On fig. 2 the conceptual chart of management quality city environment is resulted.

Will consider this chart more in detail. Objects of city environment – O1...On controlled by control system, control results are brought in a base of information (DB) and properly form a group and analysed. Unite objects in plurals, which answer more large objects or systems. The average values of the proper indexes are found and added to the table. This procedure repeats oneself for three constituents of city environment. Expertly determine the relative weight of normative value of computer-integrated index quality of city environment. It makes in our case: 40, 25, 35 marks for every constituent accordingly. In a sum it make 100 marks. The result control actual values indexes of quality is added to the database as it is represented in a table. Equate the name of indexes with the name of aims and subaims. It is justified, as an index of quality must mean the degree of achievement of aims.i subaims. And this a degree is determined by a expert group. As a result of analysis and estimation of indexes get a table which is resulted below. On the basis of table accept the proper decisions and actions, directed on the improvement of indexes of city environment. Thus the actual expert estimation the quality of city environment make 29 +21 +25 = 75 marks, against normative, what is evened 100 marks.

As see from a table, the actual values of row of indexes of quality below from normative means. It means that these indexes are needed to increase that certain directions of activity of control the system by a city appear in relation to the improvement of the state of city environment.

The control system of quality city environment is offered allows to abbreviate or extend the list of indexes of quality, depending on possibility or management necessities. On one indexes control can be more frequent, after other – more liquid. The informative system allows to accumulate the results of control for certain period of time and carry out the retrospective analysis of quality city environment. The results of planning and control of quality city environment can be designed as passports quality and to analyse the state of city environment after different criteria.

On fig 3. an information model management of quality city environment is resulted. This model is all reflect of informative copulas between all constituents of city environment and them connections with the control system.

On this chart marks mean:

- interaction - informative interaction which result in an unbalance;
- C – control;
- MA - management actions.

Results of evaluation of indexes of quality

Purpose	Norm	Fact	Purpose	Norm	Fact	Purpose	Norm	Fact
1	40 marks	29	2	25 marks	21	3	35 marks	25
1.1.	15	10	2.1	05	04	3.1	04	04
1.2	15	12	2.2	05	04	3.2	04	03
1.3	05	03	2.3	04	03	3.3	05	03
1.4	05	04	2.4	04	3,5	3.4	05	04
			2.5	03	2,5	3.5	05	03
			2.6	04	04	3.6	04	03
						3.7	05	02
						3.8	03	03

The control system by quality city environment controls all of the components of this environment, and also controls and influences a certain measure on an external environment. The outside environment also influences both on all of constituents of city environment and on control the system. It all control the system must investigation and to take into account at preparation of administrative decisions

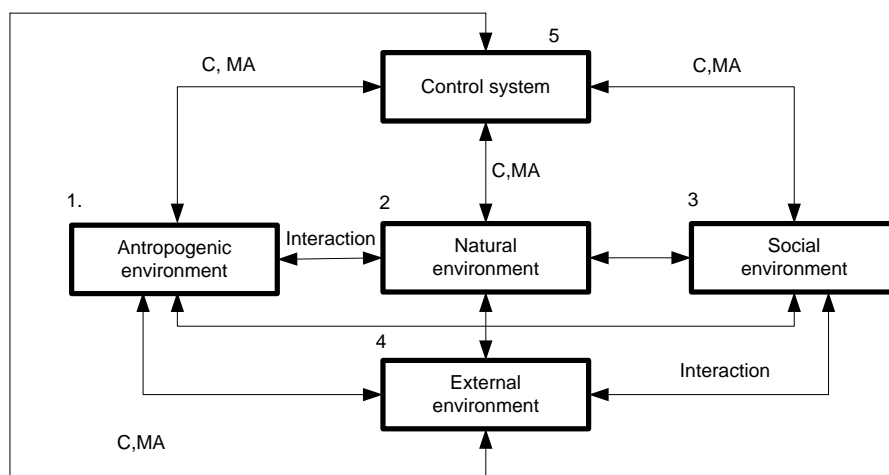


Fig.3. Information model of the control system quality city environment

Thus, the informative system and the control system by quality city environment is offered on its base will enable to carry out systematic control of the state of city environment, estimate his quality, that quality of control the system by a city and regularly to take information to society of city, will do control the system by a city more transparent and effective.

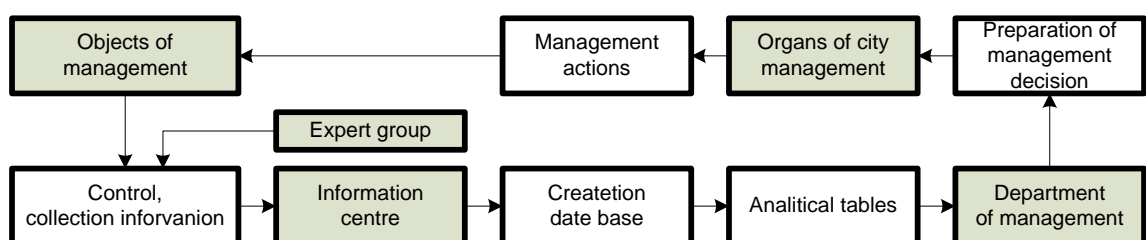


Fig. 4. Technological scheme of control quality city environment

On fig.4. the flowsheet of quality management of city environment is resulted. The management objects here come forward how objects of city environment. Control and collection of information from objects is carried out an expert group, whereupon it acts on treatment in an informative center. The

proper databases and analytical tables are here created. Tables are passed in the department of quality management of city environment, where preparation of variants of administrative decisions and passing to their organs of management a city is carried out. Management organs choose from a set of administrative decisions the best for this situation and form proper administrative actions on objects of management. The technological process of management repeats oneself farther.

The ways development of the control system quality city environment

Offered approach to the construction of control the system quality of city environment will enable in number to estimate quality of organization and functioning of citys environment, as well some managements by him. It is necessary to create for the construction of such system:

- bases of these indexes of quality of city environment ;
- group of experts, which will carry out systematic control of the state of citys environment, develop a structure and method of work of expert group;
- department of quality management of city environment and proper organizational as well methodical documents for this department;
- dynamic site of citys executive committee which will allow to organize bringing in of inhabitants of city to the management and informing of population about motion of development and introduction of control the system by quality city environment a city;
- informative center for collection, treatment and storage of information, about a city environment and providing this information organs of management a city.

For the successful functioning of control system by quality city environment is needed much heterogeneous information considerable part of which is absents today. It must be find out this information and bring into action, that it is possible it was to decide the tasks of management, which do not decide today. It is needed to do information about the results of activity accessible for all of organs of management by the city and for all inhabitants of city.

It is very important to carry out attachment of information about a city environment to the spatial co-ordinates of city. Necessary control the system by a city not general information, but concrete: that is done or what consisting of citys environment on concrete place. Problems which arise up is distributed on territory of city unevenly and concentrate in the certain places of city. The informative system is exactly offered able quickly to determine these problem locations.

Conclusions

1. The analysis the literary sources and existent consisting of development and use the informative systems for support of management quality the city environment is carried out .
2. Conception of management quality of city environment is developed with use the system engineering methods of planning. Found out aims creation of control system quality city environment. The system analysis of the problem is carried out.
3. An informative model and flowsheet of quality city management of environment is developed
4. The example process of estimation the indexes of quality city environment is examined.
5. For the choice the indexes of quality city environment use of «tree of aims» the control system is offered.

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