



Modeling Effective Interaction Between Society and Public Administration for Sustainable Development Policy

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<https://doi.org/10.18280/ijstdp.180827>

ABSTRACT

Received: 1 May 2023

Revised: 25 July 2023

Accepted: 3 August 2023

Available online: 29 August 2023

Keywords:

sustainable development, society, policy, public administration, model

The main purpose of the article is to determine the ways of interaction between society and the system of public administration on sustainable development policy. For this, the main scientific task is to model the process of interaction between society and the public administration system regarding sustainable development policy. The object of the study is the policy of sustainable development of a particular region. To achieve the goal, the methodology of the article involves the use of a modern modeling method through the technology of graphical structural analysis. As a result, we have obtained a hierarchical data model with the corresponding processes for achieving effective interaction between society and the public administration system for sustainable development policy. The novelty of the results obtained in the article is manifested through the proposed methodology of graphical structural analysis in the context of increasing the policy of sustainable development. The study has a limitation in the form of a narrowed view of modeling the interaction of society with the public administration system regarding sustainable development policy, namely, only for the selected region. Prospects for further research are aimed at expanding the methodology through modeling more elements of the interaction of society with the public administration system regarding sustainable development policy. We have chosen the Cotswolds (England) region, which is chosen due to its strong system of public administration and the focus on cooperation in the framework of sustainable development. The limitations presented in the article influence the findings by the fact that the results are targeted at individualism.

1. INTRODUCTION

World socio-economic development in the 21st century could be characterized by the desire of states to constantly increase the growth of gross domestic product. It was believed that it was this approach that would cause the standard of living and the level of well-being to grow. However, humanity is faced with the fact that it turned out to be on the verge of a complex of crises - economic, financial, demographic, environmental. This necessitated the transition to a new paradigm of the development of society, namely the paradigm of sustainable development. Such a concept should simultaneously ensure the satisfaction of the material and spiritual needs of the population, rational management and efficient use of natural resources, maintaining favorable conditions for the life of the population, improving the state of the environment and restoring the natural resource potential of social production.

It is supposed to achieve sustainable development by deliberately limiting the satisfaction of human needs, minimizing (to a threshold level) the impact on the biosphere,

using the biosphere's ability to self-organize and based on modern achievements in science, technology and technology. This path is not the only one, and the achievement of sustainable development is possible with the effective interaction of society and public authorities. Sustainable development requires the formation of new public administration mechanisms both at the global and regional levels. In order to make the transition to the path of sustainable development, its priorities, goals, and universal values must change. As a result, cardinal demographic, socio-economic, cultural, political and other transformations will follow.

To date, there are many contradictions in the field of formation of a conflict-free productive environment and a platform of motivational conditions for establishing effective interaction between public administration bodies and civil society institutions, due to a number of objective and subjective factors, which requires increased attention from both scientists and managers. -practitioners to the designated problem. It is the establishment of interaction between society and the state as a transformation into action of the main purpose of civil society institutions to ensure the priority of the

interests and needs of citizens on the basis of the rule of law is a means of finding compromises and developing common visions, which will ensure the effectiveness of sustainable development policies. The above actualizes the problems of the article, namely the problems of the interaction of society with the public administration system regarding the policy of sustainable development.

The main purpose of the article is to determine the ways of interaction between society and the system of public administration on sustainable development policy. The object of the study is the policy of sustainable development of a particular region.

The structure of the article implies a review of the literature, a description of research methods, a presentation of the main results of the study, their discussion and conclusions.

It should be noted that there are already examples of successful or unsuccessful interactions between society and public administration in the context of sustainable development policies. For example, unsuccessful models of interaction can be found in the examples of Kyiv or Rzeszow. When London and Warsaw were successful. The choice of our region is due to the fact that, as such, the model of interaction has not yet been presented. We have chosen the Cotswolds (England) region, which is chosen due to its strong system of public administration and the focus on cooperation in the framework of sustainable development.

2. LITERATURE REVIEW

It has been repeatedly noted in the literature that the main aspects, characteristics and features of the public administration system in the field of public relations, it is necessary to evaluate the significant achievements of the predecessors, their contribution to the study of the implementation of European standards in the field of interaction between government and society, as well as their impact on sustainable development [1, 2].

Literary sources [3, 4] considered that the issue of relations between the authorities and the public is an integral part of the discourse of the public administration system, civil society, and public policy of sustainable development.

Most of the scientific and practical literature [5, 6] focuses on the study of such components of the study as civil society institutions, public administration, public policy to create effective mechanisms for the functioning of an optimal system of direct and feedback links between society and public authorities at different levels of government.

Literary sources [7, 8] describe public administration as creating conditions for the activities of subjects and objects of this type of activity in the direction that is desirable for the state and which will lead to sustainable development in general. Moreover, public administration involves several options for the future activities of managed objects, creating the opportunity to act most efficiently. That is why public administration is sometimes identified with the use of indirect (economic, incentive, stimulating) methods of managerial influence. Public management cannot be used without the use of methods of direct influence on the objects of management. At the same time, public relations in the management system should be viewed not as a reduction in the role of the state in the management process, but as a simplification of bureaucratic procedures for the interaction of state bodies with civil society in order to increase management efficiency and

eliminate bureaucratic layers in relations between the state and the public.

Scientific and practical literature [9, 10] characterizes civil society as covering a wide range of different entities - from public organizations to creative unions, the main tasks of which are constructive influence on decision-making in a particular area, direct active participation in the implementation and implementation of specific tasks. Based on the analysis of the concepts of "public", "citizenship", the principles for the development of civil society institutions are outlined, it is determined that citizenship is formed in the process of different stages of human socialization.

The literature [11, 12] characterizes the principles of public administration, such as consistency, legality, complexity, and also concludes that there is a transition from public administration to public administration, in which civil society institutions play an active role.

As described in the works of scientists [13, 14], there are cases of successful interaction within the framework of public administration and unsuccessful ones (the same Kyiv, London, and so on).

However, despite the important achievements of many scientists in the literature, the problems of interaction between society and the public administration system regarding sustainable development policies require further in-depth research. After all, to this day there is an unawareness on both sides of their equality and responsibility in the management of public and state affairs; there are no clear, accessible and well-developed channels of interaction between public authorities and civil society institutions; insufficiently developed methods of interaction that ensure a real representation of the interests of communities; the basis for the formation of a culture of such interaction has not been fully constructed. The above proves the need to model the process of interaction between society and the public administration system regarding the policy of sustainable development.

Key gaps already in the existing scientific work suggest the lack of effective approaches and models to interact with the public in the framework of sustainable development.

3. METHODOLOGY

To model the interaction of society with the public administration system to improve the effectiveness of sustainable development policy, we used the DFD graphical structural analysis methodology. Data Flow Diagrams (DFD) is a graphical structural analysis methodology that describes information, data, logical functions, data flows external to the selected system (in our case, sustainable development systems) that are accessed. The need to use DFD diagrams lies in the need to describe the information existing in the structure of the system about the interaction of society with the public administration system to improve the effectiveness of sustainable development policies.

In general, DFDs describe: a) information processing functions (work); b) documents (arrows), facilities, personnel or departments involved in information processing; c) external links that provide an interface to external entities outside the system being modeled; d) tables, processes, steps.

DFD differs from the description of information flows in that DFD contains information about real processes both at the level of the public administration unit and at the level of the region.

DFD can contain two new types of objects: objects that collect and store information and external entities (objects that model interaction with those parts of the system or other systems that go beyond modeling).

It should be noted that arrows in DFD show how objects (blocks) actually move from one action to another. This flow representation provides a representation in DFD models of such physical characteristics of the system as the movement of objects, storage of objects, sources and consumers of objects (external entities). That is, modeling reproduces the very process of interaction between society and the public administration system to improve the effectiveness of sustainable development policies.

Using DFD diagrams, we can determine the necessary resources when performing operations, determine the movement of information and resource flows. The use of DFD diagrams allows you to more accurately determine the process parameters, find bottlenecks that depend both on the availability of free resources, and, among other things, on the qualifications of the performers.

Each process (block) should be assigned an individual number. The number of each DFD function block can include a prefix, a parent diagram number and an object number (in our case it is 1A,2A,3A,4A). The object number uniquely identifies the diagram's functional block.

The chosen research methodology has an individual character and requires specification for the object. In general, it is impossible to model an abstract society and an abstract system of public administration. In this case, you should select a specific region - Cotswolds (England).

In addition, the SWOT analysis method should be applied at the beginning of the region we have chosen. This will allow you to preview the main problems in the region to take them into account in further modeling.

Using the SWOT analysis method is the first step to identify the specifics of sustainable development for the selected region. Its results will influence and be taken into account when determining the stages in the model (A).

A potential problem with using DFD diagrams to model the complex interaction between society and public administration in the context of sustainable development policy may be the incomprehensibility of the methodological approach or the difficulty in use by top management.

4. RESULTS OF RESEARCH

First, let's identify problem areas in the region for better modeling. The matrix of the result of the SWOT analysis is presented in Table 1.

Thus, there is a weakness in the form of ineffective interaction with the public society and ineffective policy of sustainable development of the region.

So, let's start modeling by defining the purpose of modeling. Namely, information support for the interaction of society with the public administration system regarding the policy of sustainable development. To do this, a number of processes are performed in the form of blocks with their own identification numbers (Figure 1).

Table 1. The matrix of the result of the SWOT analysis (Formed by the authors)

S	W	O	T
Geographic location	Low public engagement	Implementation of new development programs	Limited resources
Stock availability	Ineffective sustainable development policy	Development of the processed industry	Development of inflation
Developed transport links	The challenge of maintaining food security	Creation of infrastructure for sustainable development	Ineffective environmental control
Active public	Insufficient business growth dynamics	Streamlining land relations	Low system of public administration

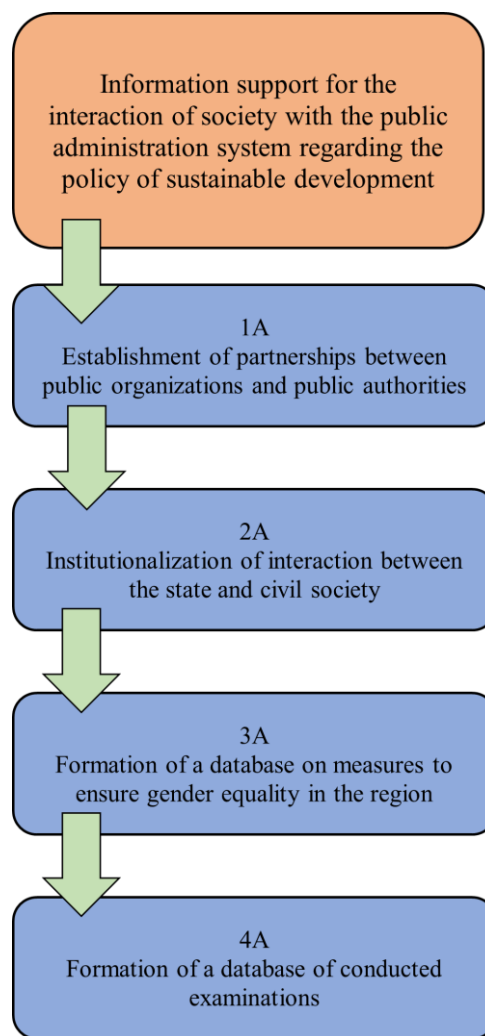


Figure 1. Data blocks for modeling (Formed by the authors)

Let us characterize each of the processes (blocks) of interaction between society and the public administration system in the framework of increasing the efficiency of sustainable development:

1A. Establishment of partnerships between public organizations and public authorities. It should be emphasized that an important stage in the preparation and implementation of public policies is the establishment of partnerships between public organizations and public authorities, as well as the preparation of financial and human resources for strategic activities. This need is due to the complexity, complexity of modern problems, so the cooperation of various subjects is expedient. In addition, there has been a process of broad decentralization in the functioning of public administration bodies. The central government delegated a significant part of its functions to the localities. Accordingly, local governments make independent decisions on the implementation of local public sustainable development policies. Attention should be paid to the level (index) of satisfaction of citizens with the implementation of certain public policies. An instrument for monitoring public opinion would be useful here. The criteria for assessing the level of satisfaction may vary depending on the sector (sphere) of the implementation of the public policy of sustainable development.

2A. Institutionalization of interaction between the state and civil society. The study of the institutional basis for the interaction of public authorities with the public is due to the fact that in modern socio-political and economic conditions, the effective implementation of state policy in various areas is impossible without the active participation of civil society, which becomes an effective factor in the creation of the state, subject to dialogue with the state. The institutionalization of the national system of public administration is a complex multidimensional and multidisciplinary category that provides for the process of defining and consolidating social norms,

foundations, streamlining and formalizing permanent relations between the constituent elements of public authorities, building them into a system focused on meeting the most important public needs through laws, social norms or established procedures, which increases its effectiveness and efficiency.

3A. Formation of a database on measures to ensure gender equality in the region. The low level of gender development in society leads to an increase in the socio-economic differentiation of the population depending on gender, the discrepancy between the actual opportunities of women and men, declared by law, gender equality and the principles of a democratic society. Moreover, the existence of gender inequality slows down sustainable development opportunities, weakens the public administration system and reduces the effectiveness of sustainable development strategies.

4A. Formation of a database of conducted examinations. Public expertise is a tool for influencing executive authorities in order to improve public policy. It provides for civil society institutions to evaluate the activities of executive authorities, the effectiveness of the adoption and implementation of decisions by such bodies, the preparation of proposals for solving socially significant problems for their consideration by executive authorities in their work. The goal of public expertise is always to improve the sustainable development policy in a certain area or the quality of administrative services provided to citizens.

The results of modeling the interaction of society with the public administration system within the framework of the sustainable development policy of the region are presented in Figure 2.

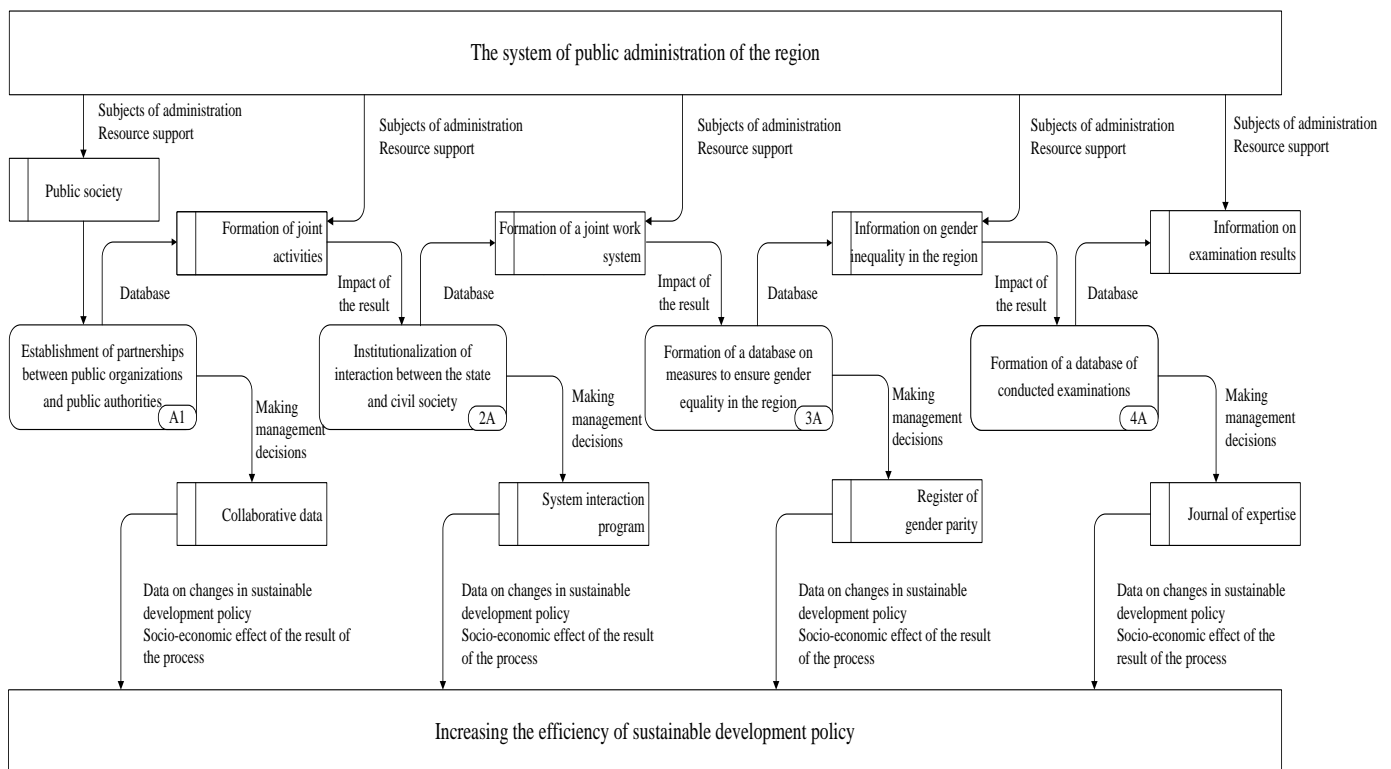


Figure 2. The result of modeling a graphical structural analysis to improve the effectiveness of sustainable development policy (Formed by the authors)

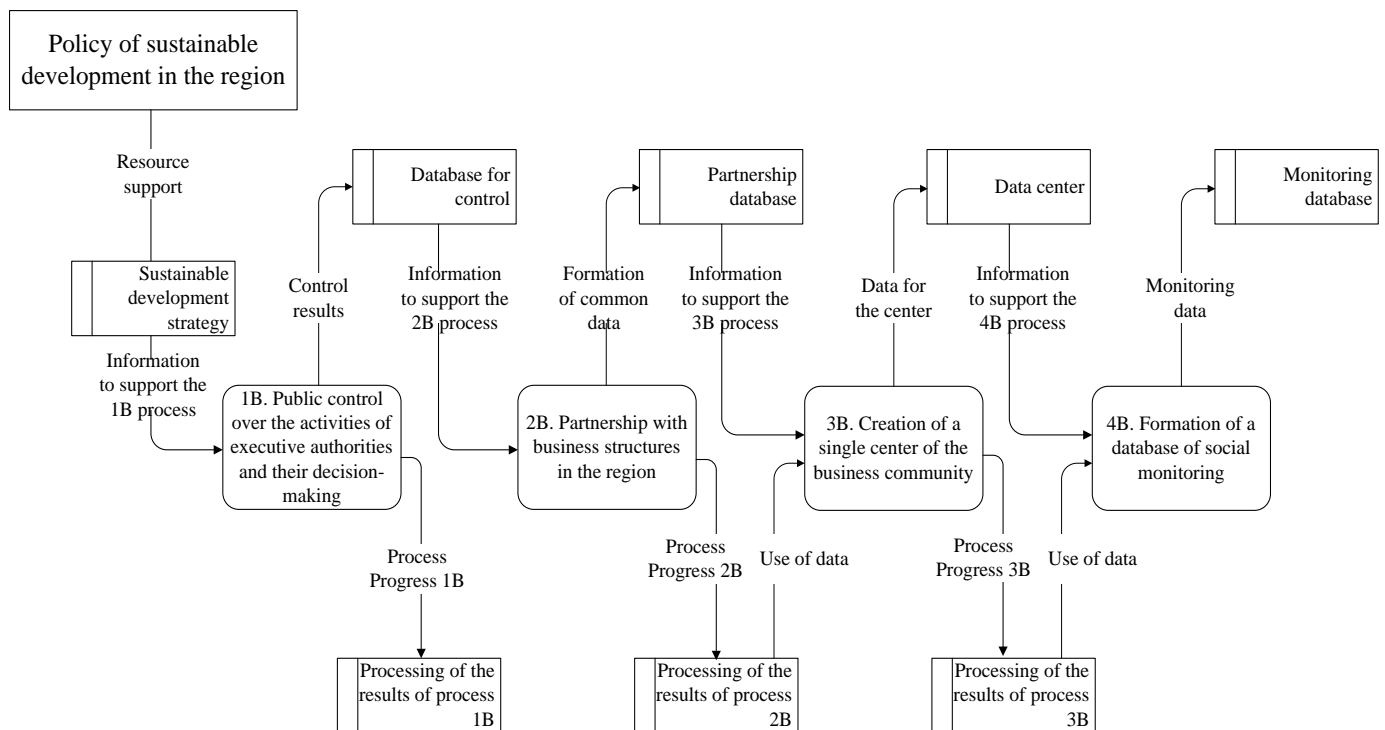


Figure 3. A secondary model of establishing a connection with the society of the region within the framework of sustainable development policy (Formed by the authors)

In addition, additional processes were presented to ensure the sustainable development of the region through the public administration system (Figure 3).

1B. Public control over the activities of executive authorities and their decision-making. The development of such a tool as public control over the activities of executive authorities and their decision-making, with respect for the rights and freedoms of citizens, is based on openness, transparency, accountability of government institutions to the public in a public form on the basis of information openness, which provides for: transparency, publicity and access of the media and civil society institutions to official information in order to fight corruption and provide open and reliable information for effective interaction between the parties; active communication with public organizations regarding the tasks and responsibilities of public authorities, as well as the decisions they make; identification of mutual, transparent and accessible channels of communication and informing interested groups and the public about these channels.

2B. Partnership with business structures in the region. It is advisable for public authorities to build partnerships with business structures and encourage the latest social investments in culture, education, science, sports to ensure sustainable development. It should also be that the authorities support business initiatives to finance medical institutions, rehabilitation centers, orphanages. The social responsibility of business is defined as the interdependence of various social groups and business, since business demonstrates its corporate responsibility, and on the other hand, positive conditions for business are created.

3B. Creation of a single center of the business community. Such an association should receive objective information - who and what really needs to be supported, because, as already mentioned, there are enough people who have the opportunity to provide support. Given that the resources of companies are

always limited, and the management does not have sufficient experience in the field of social responsibility, then cooperation and the development of a unified strategy for the interaction of the business community in this matter is a mutually beneficial model. Activities in the context of social responsibility will expand the range of relationships with other business representatives, improve the culture and ethics of entrepreneurship, gain state recognition, and gain a positive reputation in society.

4B. Formation of a database of social monitoring. It consists in the complex use of all available information about the object under study (phenomenon or process), including: firstly, information actually circulating in society (for example, current statistics, reporting, one-time forms of registration, population census, socio-demographic surveys), and in secondly, specially organized scientific research and sociological surveys of the population with the aim of making and implementing strategic and tactical management decisions at different levels of the social organization of the social system.

When forming a model through DFD technology, each of its blocks A-B is designated by a corresponding number, since this establishes a clear sequence of actions. Also, through the arrows, accompanying processes are shown and should have a certain effect, for example, the effect of information about the progress of the block, etc.

The simulation results can be used to improve the interaction between society and public administration regarding sustainable development policies in the region. A key issue that remains even with the effective use of the model is the availability of technology to decision makers.

Thus, we have presented a different number of ways for society to interact with the public administration system to improve the effectiveness of sustainable development policies.

5. DISCUSSIONS

Discussing the results of our study, we should compare similar ones. Thus, scientists [13-15] in this field of research have come to the conclusion that the search for effective forms of governance in the context of a frequently changing political process is an urgent need for the practice of modern societies and is directly related to the study of the activities of public authorities, the political situation and social conditions in the country. The availability of objective and complete information about the object of management or influence is the key to effective management. To obtain valuable information in the management plan, modern digital innovations and databases are used. Political analytics is one of the advanced technologies for collecting, processing and interpreting information necessary for making political decisions. The use of this public policy tool implies interaction with the public as a necessary element of a modern public administration system.

Comparing our study, it should be noted that most scientists [16, 17] rely on the fact that as a management tool developed and implemented not only by public authorities, public policy has “vertical” and “horizontal dimensions” in the political process. The vertical component of public policy implementation reflects its characteristics such as coherence, instrumentality and hierarchy. Complementing the vertical horizontal component focuses on the links between political actors on which the set of possible policy options depends. The definition of the subject and the implementation of political decisions is fundamentally influenced by the horizontal component.

Other scientists [18, 19] take into account not modeling methods, but methods of sustainable development technologies. With the help of technology, theoretical knowledge about society is translated into the plane of practical public activity, allowing the use of all existing patterns, principles, norms, factors to determine goals, tools, methods and means of exercising influence. This is the main content of the process of technologization of modern management, based on the implementation of electronic technologies. A striking example of this is e-governance, which allows you to quickly and effectively solve a number of problems of both a specific individual and a wide range of stakeholders [20, 21].

Discussing the results of our study, we should clarify the difference and innovativeness. In general, innovativeness lies in the very approach to modeling the interaction of society with the public administration system for sustainable development policy. We tried with our model to present information in the form of databases to ensure sustainable development.

The novelty of the results obtained in the article is manifested through the proposed methodology of graphical structural analysis in the context of increasing the policy of sustainable development.

It should be emphasized that the difference between our approach in the article is that yes, we also give certain recommendations and ways to improve interaction like others, however, we do this in a graphical language and not abstractly, but with a specific region. The proposed methodology of graphical structural analysis is innovative in comparison with other methods, in that it is convenient in a visual understanding of how to act and interact correctly when performing each of the stages.

6. CONCLUSIONS

Summing up, it should be noted that the stability and sustainable development of a state based on the foundations of democracy is impossible without the organization of an effective dialogue between public bodies and civil society institutions or individual citizens. Today, the involvement of citizens in the process of discussion, development, examination, adoption and implementation of political and public management decisions is fully implemented by the authorities, which is evidence of the weakness of democratic processes.

Recently, the idea of civil society has been gradually developing, changing the views of citizens and authorities on its role and additional value in society. Effective interaction of civil society with the government on the basis of implemented standards helps to quickly solve urgent problems in the state, act proactively and prevent risks that appear at the state, regional and local levels.

Relations with the public in the public administration system should not be seen as a reduction in the role of the state in the management process, but as a simplification of bureaucratic procedures for interaction between state bodies and civil society in order to increase the effectiveness of sustainable development policies and eliminate bureaucratic layers in relations between the state and the public.

As a result, we have obtained a hierarchical data model with the corresponding processes for achieving effective interaction between society and the public administration system for sustainable development policy. The study has a limitation in the form of a narrowed view of modeling the interaction of society with the public administration system regarding sustainable development policy, namely, only for the selected region. Prospects for further research are aimed at expanding the methodology through modeling more elements of the interaction of society with the public administration system regarding sustainable development policy.

The consequences of our study can be characterized as an attempt to consider the issues of sustainable development in a new way with a new methodological approach.

As part of the consideration of limitations, it should be noted that potential errors due to human error are possible. For example, an error in structuring blocks, processes, etc. Alternative possibilities open up due to the use of other models and modeling technologies.

With regard to recommendations on how the proposed methodology can be used to improve policy and decision-making in the context of sustainable development, including potential application in other regions, this is possible and requires further attention. The model can find its use among the state and public administration apparatus and organizations.

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