



“Strategic view on the rental policy in the field of environmental management”

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STRATEGIC VIEW ON THE RENTAL POLICY IN THE FIELD OF ENVIRONMENTAL MANAGEMENT

Abstract

The article proposes to consider a "new view" on the necessary changes in the rental policy in the field of environmental management. The main stages of the rental policy have been identified and analyzed, such as transformation of socio-economic relations; role of state regulation of the rental policy. Nowadays, in a context of transformation of rental policy and socio-economic relations, state administration should form social values through the environmental use and consumption of resources and implement a saving policy on the natural resource extraction. With the help of the implementation of the collaboration mechanism, the interests of the parties to the collaborative alliance regarding the redistribution of rental income received from the natural resource extraction may be taken into account.

In addition, attention was focused on the necessity of optimal distribution of rental income from the extraction of natural resources in the conditions of the collaborative alliance. The research showed that the convergence of interests in the system "state – society – fuel production enterprise" is today the priority form of cooperation in order to form the socio-environmental responsibility in the extraction and use of natural resources, to motivate behavior of the local community with the support of the scientific and expert group on the redistribution of part of the rental income on restoration and development of the territories, as well as to implement a saving policy on the use and consumption of resources in order to preserve them for future generations.

Keywords

rental policy, environmental management, state
regulation, optimal distribution of rental income

JEL Classification

M21, M38, Q56

INTRODUCTION

There is a pressing issue of preservation and optimal use of natural resources in Ukraine nowadays. The exhaustive natural resources such as oil, coal, gas have long been the foundation of the economic system and the keys to managing the political and business processes in different countries of the world. The countries that are out of "luck" to have the resources of national importance, such as gas, oil, coal and others, are forced either to invent the alternative sources of energy or to depend on other "lucky" countries, which have these resources in sufficient quantities. However, as the experience of different countries shows, it is not enough to have natural resources in the territory of one's country, it is very important to build a system where the effective management and rational use of these resources will be carried out.

The analysis of scientific literature and statistical data has shown that at the moment there are several problems that impede the implementation of economy policy in Ukraine on the extraction and use of natural resources, namely:

- firstly, it is the scientific and technological progress, which is aimed at overuse of natural resources and contradicts the very concept of “conservation of natural resources”;
- secondly, the lobbying of rent seeking by the transnational companies does not enable the third-world countries, such as Moldova, Ukraine, Belarus, Azerbaijan and others, to receive adequate income from their resources and direct the natural resource rent to enrich their own economies;
- thirdly, there is no clearly defined legislative framework that would regulate the natural resource extraction in the country and their consumption, as well as the regulation norms for the socio-economic relations regarding the restoration of territories after the natural resource extraction and development of infrastructure on the extraction territory;
- fourthly, the existing mechanism of the natural resource rent distribution from the natural resource extraction (of national importance) does not fulfill the function of “compensation of expenses” connected both with restoration of territories and with the restoration of health of the population living on the territory of the natural resource extraction.

The experience of developed countries testifies that while the domestic policy of the country contributes to a situation where the resource extraction is unlimited, and the excess profit in the form of rental income is received by all but the owner (this is people in Ukraine), the implementation of the policy of preservation and rational use of resources is almost impossible.

The article's purpose is to define and analyze the main stages of the strategic development of the rental policy of Ukraine in the field of environmental management.

In this paper, we offer to consider a “new view” on rental policy of Ukraine in the face of global pressure from the world market of natural resources and difficult conditions of the economic and political situation within the country.

Strategic view of the rental policy transformation in Ukraine involves the following stages:

- 1) transformation of the socio-economic relations in the field of environmental management through the formation of collaborative alliances with the participation of the state – local communities – extractive enterprises;
- 2) the role of state regulation of the rental policy of the fuel production industry of Ukraine in the context of transformation of the socio-economic relations;
- 3) the optimal distribution of rental income from the extraction of natural resources in the conditions of the collaborative alliance.

To implement these stages of the transformation of rental policy in the field of environmental management, it is necessary to carry out a “preparatory work” in the country and develop strategies that would combine the interests of all participants in the extraction and consumption of natural resources. Only the internal confidence of a country in preserving and rational production and use of its natural resources will be able to form respect for it from other countries and implement the opportunity to independently use their excess profit in the form of rental income on the economic, ecological and social development of the country. However, the view of new opportunities for changing the socio-economic relations in the environmental management is always a transformation of the old system. Sometimes this is almost impossible, and sometimes the foundation of the old system may be used as a basis for new relationships in society and the country as a whole.

1. THE NEED TO CREATE THE COLLABORATIVE ALLIANCES IN THE FIELD OF ENVIRONMENTAL MANAGEMENT

The rental policy transformation that has been implemented over the past few years is very significant. We cannot but notice that rental policy has become more politicized and is not always rationally justified regarding the use of natural resources and the restoration of regions where the natural resources have been extracted. Today, the rental payments are directed to the state budget to cover its shortage, and not for the fair distribution, as stated in the Constitution of Ukraine. The heritage of post-Soviet times, in the form of a transitive economy, has led to the implementation of economic and political reforms and the adaptation of existing forms of cooperation of business entities to the specific conditions. The reforms of Ukrainian economy were aimed at creating a new mechanism for coordinating the economic activity. Their result was the formation of the main formal institutions of the market system. But the reform practice weakly took into account the fact that the change of formal institutions could form only the external conditions for changing the behavior of economic agents in accordance with the criteria of market efficiency (Dominguez, 2011). As a result, the main formal institutions of the market system are practically formed today, but they largely do not correspond to the informal norms of relations established between the enterprises. For example, the enterprises engaged in the natural resource extraction cannot respond quickly enough to new relationships with other economic agents and to introduce new coordination mechanisms. This is due both to political and socio-economic factors. Firstly, a natural resource rent is formed in the process of natural resource extraction, which may be the main barrier to the introduction of new forms of cooperation. Secondly, the rental income should be reallocated in accordance with the expenses invested for the natural resource extraction in a specific territory (restoration of public health, restoration of territories after extraction).

Therefore, in our opinion, one of the main issues of the “new view” on rental policy is the development

of a socially-oriented direction in the regions of Ukraine. Of course, part of the natural resource rent should belong to the state; it is an important source of the state budget replenishment. But the transition to the principles of sustainable development of the country is associated with a fair rent distribution for the benefit of society as a whole. Therefore, the regulatory functions of the state on extraction and sustainable use of natural resources should be strengthened and enshrined in the legislation (Halynska, 2017). This thesis is supported by the tendencies of the modern economy. An inherent feature of the modern world is the growing internationalization of the production of goods and services. The modern firms and corporations are becoming more and more acquainted with the features of global networking organizations with a pronounced corporate culture and corporate social responsibility. Without a proper image of a socially responsible behavior, it is difficult to obtain mutually beneficial investments and build a long-term policy of cooperation both at the regional and state levels.

In the conditions of a modern market economy, the efficiency of interaction of the triad “state – society – business in different spheres” is increasingly considered as an effective mechanism of interaction of different structures. Business is one of the main factors of the country’s development. Its effective functioning depends on many conditions, which include the main forms and methods of interaction with the state. The state establishes the rules for the functioning of the market economy, defines the level of freedom and independence of the business process participants, as well as the forms and methods of state participation in resolving possible conflicts. However, an excessive state interference in the affairs of business structures negatively affects the interests of society. As a rule, the business response to unlawful state interference in the sphere of economic activity is a decline in business activity, an increase in the shadow business, and a withdrawal of capital abroad, which leads to a drop in economic development.

In this regard, the modern business rules are increasingly forced to seek new forms of cooperation, in which the unification of efforts to achieve a certain goal becomes not only productive, competitive, profitable, fashionable, but also an effective

tive form of cooperation. Thus, the coordination of interests and the unification of efforts of all alliance participants (state – society – enterprise, enterprise – enterprise, state – enterprise, etc.) are necessary for the achievement of common goals: to benefit from the comprehensive use of the mechanisms of public goods redistribution, risk redistribution, to form loyal pricing policy for the resources, goods and to increase the welfare of citizens of the country.

Martiatkova (2011) distinguishes the main economic models of the interaction of power, business and society – the strategic alliances, partnerships, social partnerships, social entrepreneurship. However, the modern forms and methods of doing business are increasingly oriented to such interaction forms as cooperation and collaboration in the conditions of globalization of the economic system.

It should be noted that we distinguish the notion of “collaboration” and “cooperation” in this paper. In some foreign countries, these concepts are synonymous and are used in accordance with the stylistic decisions of scientific works. However, after analyzing the studies of foreign and domestic authors, such as Yami, Castaldo, Dagnino, F. Le Roy, Czakon (2010), Etzkowitz, Ranga (2010), Leite and Weidmann (1999), Schottle, Haghsheno, Gehbauer (2014), Inshakov (2013), as well as based on the results of the survey conducted among respondents of Ukraine in the period 2015–2017 (top management of production enterprises, university professors and representatives of legislative power), we have concluded that such concepts as “collaboration” and “cooperation” have the same essence, but are radically different in terms of the relationship prospects of the alliance members. To reflect the socio-ecological and economic relations between the state, local communities and extractive enterprises in the field of environmental management, we find that “collaboration” is the most acceptable form.

The “collaborative alliance in environmental management” shall mean the coordination of interests and the interaction of alliance participants at the vertical (state – territorial community – enterprise) and at the horizontal (enterprise – enterprise) levels in the processes of creating added value and its

component – the natural resource rent, which ensures the implementation of the principles of social responsibility of extractive enterprises in the conditions of transparency of their activities and mutual trust.

The studies have shown that the main advantages of the collaborative alliances are:

- solving the problems of shortage of the creative ideas and effective decisions in the government, attracting new intellectual resources and introducing effective ways of their innovative mobilization to support state bodies by the civil society in search for the perspective trajectories of the development of countries and regions, strategies of economic evolution;
- the convergence of interests of the most advanced subjects of the global economic system, seeking for the innovative solutions for the modernization or transformation of the composition and structure of the manufactured goods, is introduced, or a transition to the fundamentally new products produced with the help of new technologies is created at the micro level in the collaboration (Inshakov, 2013);
- the products of new generations (mega-, macro-, meso-, micro-levels), which are created on the achievements of the previous methods, which determine the dominant benefits of the product through the creation of additional value and competitiveness, are formed (Dominguez, 2011);
- collaboration allows achieving common goals, where there is a mutually beneficial exchange of knowledge, the collaboration participant training to enhance competencies, production of innovative products with a significant intellectual component for promotion to the market and achievement of significant cumulative effects on the principles of consent and trust (Himmelman, 2002);
- the collaborative alliance interaction gives new opportunities for the development of policy aimed at the formation and increase of

the competitiveness of a business entity operating on a different scale (firm, region, country, international level) by overcoming the restrictions imposed by competition and the emergence of strategic advantages, arising as a result of the association (growth of labor productivity, reduction of production costs), since the effect of joint actions is higher than the simple sum of individual efforts (Kozlovskaya & Akerman, 2010).

2. STATE REGULATION OF THE RENTAL POLICY OF THE FUEL PRODUCTION INDUSTRY OF UKRAINE IN THE CONTEXT OF TRANSFORMATION OF THE SOCIO-ECONOMIC RELATIONS

The state administration in the modern world is characterized by the regulation of complex processes of economic, ecological and technical and technological nature. Their complex combination is conditioned by the need to reconcile the heterogeneous social requirements and needs through the qualitative reorientation of management priorities into the innovative development. The modern trends in the socio-economic development are characterized by certain peculiarities of the Ukrainian economy, which is a complex open system corrected for the effects of various parameters of the macro-, meso- and micro-levels. Therefore, the issue of state regulation of the formation and distribution of natural resource rent from the natural resource extraction is relevant and related to the effects of actions at all levels of the economic system.

Today, the state regulation of rental policy is reduced to regulatory and control functions, not taking into account some changes in the global environmental system. The natural resources have seemed to be inexhaustible for a very long time. The society has understood only in retrospect that the negative effects have long been accompanied by too intense economic activity of people.

The modern scientists are paying more attention to the fact that the essential feature of our era has been the gradual deepening of the environmental crisis. The natural resource extraction is not unlimited. Due to the intensive extraction, the inexhaustible resources do not have time to recover, and the quantity of exhaustive ones is decreasing all over the world (gas, oil, coal, etc.). Most of the environmental, social and economic problems are the consequences of deepening the scientific and technological development, as well as a whole range of other reasons – political, demographic, and sociocultural. Of course, not all of them have a resource-ecological nature (for example, the problems of war and peace or the struggle with world terrorism), but they are all connected with one single node of global problems of our time.

Therefore, in our opinion, the state regulation, in addition to these functions, should serve as a stimulus to ecologize all production and consumer processes in the country in the modern realities. It is also necessary to introduce the function of saving natural resources for future generations in order to motivate extractive enterprises and local communities through the transformation of rental relations.

In the current conditions, the extraction and distribution of rental income from the natural resource extraction is of great importance.

Modern authors define the concept of “rent” (“rental income”) as an economic category that characterizes any income received on a regular basis (from capital, land, property, etc.) and does not depend directly on the results of economic activity (Danylyshyn & Mischenko, 2004; Kvasniuk, 2004; Geiets, 2000).

The natural resource rent is a category of rental income that results from the economic activity associated with the use of natural resources as a means of production in the social production (the number of resources is limited, they can be characterized by the exhaustiveness or recoverability) (Danylyshyn & Mischenko, 2006).

Today, according to the legislation, the natural resource rent is deducted to the state budget in the

amount of 100%. But the changes in the rental policy that should begin since 2018 have already started.

An analysis of the retrospective of rental relations in Ukraine shows that the rental income distribution between the owner of a natural resource – the state (its bodies) or any entity, the ownership of which is a natural resource in the form of ownership, and the user of this resource – the economic entity, which, according to the legislation, is the owner of products produced during the process of using natural resources, does not take into account the current trends in the development of the global resource market and the development of socio-ecological relations in the regions. The Law, according to which 5% of the rental income will come to the local and district budgets, will come into force from 2018 (Law of Ukraine “On Amendments to the Budget Code of Ukraine for the Inclusion of Rent Payment for Subsoil Utilization for the Extraction of Oil, Natural Gas and Gas Condensate”, 2016).

Thus, the state directs part of the rental income to the regional development. In our opinion, this is a very positive trend, which will promote the implementation of laws on decentralization. However, as noted by modern scientists, the uncontrolled decentralization can turn into “feudalism” in some regions. Therefore, in our opinion, it is necessary, first of all, to make the following steps:

- to determine the organizational form of cooperation between the natural resource companies and local communities, through which the state will carry out the regulatory and supervisory functions of new socio-economic relations regarding the natural resource rent distribution;
- to create the scientific and expert groups that would help local communities to direct the financial resources from part of the rental income to address the most problematic issues of the regions, as well as to monitor the implementation of these directions;
- to create the institutional and financial institutions through which the redistribution of

financial resources from the rental income at the regional level will be carried out;

- to develop the strategies for the development and renovation of the infrastructure of the regions through the targeted direction of funds from the rental income.

It should also be noted that the process of rental income distribution does not play such an important role as the transformation of socio-economic relations, which are formed in the process of rental income distribution, and the goals to which these financial resources will be directed. In our opinion, the state will be able to effectively carry out its functions (regulatory, controlling, stimulating the production processes to ecologization), if the relationships between the parties involved in the extraction and distribution of rental income in the field of natural resources are formalized. At the same time, it is necessary to take into account the peculiarities of the extractive industry in Ukraine and the degree of trust and openness of society when creating the forms of interaction of the state – society – business.

Firstly, due to the stimulus function, the state should get the participants interested in new socio-economic links (state – local community – extractive enterprises) to create an organizational form that unites all participants in the creation of natural resource rent and contributes to the harmonization of their interests. Each party should see the benefit of combining its own and others goals through a single organizational form for the redistribution of part of the rental income from the natural resource extraction.

Secondly, the transformation of socio-economic relations between the state – local community – extractive enterprises should adhere to the established norms and principles specified in the World Ecological Constitution of the Earth (WECE), which has been launched in 1992 on the initiative of the Academician of the National Academy of Sciences of Ukraine Yuriy Tunets and a team of co-authors – foreign and domestic scientists (Gryniv, 2011). This is the generalizing uniform principles and norms of ecological extraction, use and consumption of land resources for all countries of the world.

3. THE OPTIMAL DISTRIBUTION OF RENTAL INCOME FROM THE EXTRACTION OF NATURAL RESOURCES IN THE CONDITIONS OF THE COLLABORATIVE ALLIANCE

At the legislative level, the decisions and projects that create favorable conditions for the development of local communities have been made, and the Decree on the need for reforms at the regional level has been signed over the past five years (Strategy, 2020). The Law, according to which 5% of the rental income will come to the local and district budgets, will come into force from 2018. But at the same time, there is no clear scheme of the rental income redistribution, wherefore this money should be used. An analysis of literary sources has shown that the financing system of some natural resource extraction regions is not sufficiently developed in Ukraine. The regions in whose territory the natural resources of national importance are extracted take on all the burdens of this extraction, but they do not receive any additional financing for the restoration of these territories and for the compensation of losses. There is also no mechanism for hedging the risks of future generations that will help mitigate the future crisis situations. From 2018, 95% of rental income is planned to be transferred to the State Budget of Ukraine, and 5% of it – to the local budgets.

However, the identified problems with the health of the population in the territories where the natural resources of national importance are extracted are very significant. The problem of reclamation of ruined lands after the natural resource extraction is also very acute, namely:

1. According to the statistical data and studies carried out by the scientists in recent years there is a steady tendency to increase the incidence and prevalence of diseases among the population of Ukraine and among residents of the Sumy region in particular. High indexes of respiratory diseases that exceed the general index are recorded in

Krolevets (22,048.97 per 100 thousand people), Bilopillia (22,296.75), Krasnopillia (24,846.23) and Trostianets (25,203.08) districts and the city of Sumy (31,869.03 per 100 thousand people). The lowest incidence level is in Yampil (11,182.54 per 100 thousand people), Lebedyn (13,099.91) and Lipova Dolyna (13,594.31) districts.

The basis of the incidence structure is traditionally formed by the diseases associated with the socio-economic factors: state of the environment, way of life, development of the health care system (the volume and quality of medical services); the uncontrolled factors – climate, other natural conditions. The experts note that this situation has occurred due to the lack of funds (Handziuk, 2014).

2. Along with this, the land reclamation experts attest that 25% of fertile land plots are not suitable for crops today. This is due to the natural resource extraction, the abnormal use of land resources, and the deforestation.

There are over 1.1 million hectares of degraded, unproductive and techno-contaminated lands that can be preserved, 143.4 thousand hectares of recovered land plots requiring reclamation, and 315.6 thousand hectares of unproductive lands that need to be improved in Ukraine.

Gupta, Segura-Ubiergo, and Flores (2014) write in their work “Direct Distribution of Resource Revenues: Worth Considering?” that these socio-economic problems can be solved with the proper allocation of the natural resource rent from the natural resource extraction. If a country has the natural resources that are an unconditional source of income for the territorial communities, then the natural resource rent should be a source of additional income and social protection for the population. Therefore, one of the main tasks of the socially-oriented policy of the state is the fair distribution of rental income from the natural resource extraction among all members of society as social security or additional income.

Having studied the experience of foreign countries, we will summarize that the natural resource rent distribution is a mechanism that can increase the efficiency of using the human, industrial and natural potential, increase the competitiveness of

the national economy, achieve sustainable development and increase the well-being of Ukrainian citizens. The main examples include such countries as: Norway, Alaska, OAU, United Kingdom, France, USA and others. The experience of these countries has shown that flexible mechanisms for the removal of rental income allow extending the profitability and exploitation periods of the deposits and, at the same time, obtaining additional volumes of energy resources. The properly selected set of tools allows to reduce the risks of subsoil users at the initial and final stages of the deposit development, as well as to minimize the risks associated with the increase or decrease in prices in the world markets for raw materials. The environmental and social aspects have also a priority in implementing the mechanism of rental income distribution from the natural resource extraction. At the same time, the extractive enterprises constantly interact in the conditions of competition and cooperation with their state.

4. METHOD

The conducted studies have shown that it is difficult to calculate the optimal distribution of natural resource rent. There are always questions about the costs of the socio-economic sphere, which should be the basis at the model development. However, summarizing the experience of leading scientists who have studied the problem of rental income redistribution such as Gupta, Segura-Ubiergo, and Flores (2014), Frankel (2010), Sandbu (2006), Saez (2000), Rodríguez, Morales, and Monaldi (2012), Penfold (2006) showed that it is necessary to, firstly, develop a mechanism for the rental income redistribution, focusing on the most acute socio-economic problems of society.

Thus, taking into account all of the abovementioned in the paper, we offer the methodological principles for the formation of a mechanism for optimal distribution of rental income of the enterprises of the fuel production industry in the system “state – region – economic entity”, taking into account the “dynamic rent”, which allows to coordinate the interests of present and future generations and create financial reserves for the implementation of resource-saving new technologies for the natural resource extraction.

In this method, the main problem has been represented by the combination of interests of the enterprises that use the already developed deposits, and the enterprises developing new ones. When developing new deposits and extracting hydrocarbons, lying at shallow depth, there is a “dynamic rent”, as the value of the resource used today in anticipation of its exhaustion will further increase in the future. Therefore, firstly, we have set the task of finding optimal asset management and rent distribution in the time interval of $[t_0 = 2018, T = 2022]$ through differential equations and an auxiliary function satisfying the system of differential equations and conditions of transversality. Then we compared the fixed parameters of the system studied (assets of the enterprise are replenished with means in the form of 40 and 30% of income), rent distribution between the region and the state and calculated the economic effect from the management problem solution.

We took the ecological-economic and technical and technological indicators of the extractive enterprises, which form the basic level of expenses, as the basic indicators. The paper proposes to consider the options of calculations of optimal rental income

Table 1. The optimal distribution of rental income from the extraction of natural resources (constant values)

t	Year	A , billion UAH	K , billion UAH	G , billion UAH	Part of rental income remaining at the enterprise, %	Part of rental income transferred to the local budget, %	Part of rental income transferred to the state budget, %
1	2018	36.402	44.023	502.574	30	14	56
2	2019	37.21	44.787	544.107	30	14	56
3	2020	38.167	45.666	593.232	30	14	56
4	2021	39.301	46.682	651.353	30	14	56
5	2022	40.646	47.858	720.131	30	14	56

Note: $A(t)$ – assets (enterprise) (billion UAH), $K(t)$ – health care expenditures in the general fund of local budgets (billion UAH), $G(t)$ – state budget, tax revenues (billion UAH).

Table 2. The optimal distribution of rental income from the extraction of natural resources (values changing over time)

t	Year	A , billion UAH	K , billion UAH	G , billion UAH	Part of rental income remaining at the enterprise, %	Part of rental income transferred to the local budget, %	Part of rental income transferred to the state budget, %
1	2018	36.402	44.023	502.574	44.0	17.5	38.5
2	2019	37.21	44.98	541.832	36.5	16.5	47.0
3	2020	38.167	45.929	590.127	27.4	14.2	58.4
4	2021	39.301	46.85	649.343	21.5	11.5	67.0
5	2022	40.646	47.709	721.838	20.5	10.2	69.3

redistribution in the system “state – region – fuel production enterprises”. The conditions of component calculations are shown in Table 1.

In Table 2, we propose to consider the options of calculations of optimal rental income redistribution in the system “state – region – fuel production enterprises”, where the conditions of component calculations are changing over time.

In this paper, we calculated the options for the distribution of rental income received from the natural resource extraction between the three parties (state, enterprise, local communities). The analysis showed that:

- the optimal rental income distribution implies a fairly high percentage of rental income, which should be left for the extractive enterprise. We can explain this by the fact that the modern state of extractive enterprises needs to be modernized in accordance with the international norms. Also, the enterprises should have a motivation for the ecological and rational extraction of natural resources and for the development of social benefits for the population of the extraction region;
- the calculations have shown that the rent payment should be dynamic, in accordance with the conditions of extraction and development of deposits, because in the case of development of a new deposit there is a

dynamic rent, which will partially compensate for the costs of subsequent years;

- our approximate calculation has shown that the natural resource rent, which should be left at the enterprise, is 18%. However, some part of the rental income that we offer to leave at the extractive enterprise includes the differential rent of the 1st and 2nd kind and the dynamic rent. It is almost impossible to separate the differential rent of the 1st and 2nd kind. The dynamic rent arises only when developing new deposits and is not subject to removal. That is, it is almost impossible to remove the differential rent of the 1st kind in the pure form. We believe that we do not need to do this. It is so because, leaving a part of rental income at the extractive enterprise, we motivate the enterprise to ecologize production and develop the socio-economic relations in the region where the natural resources are extracted.

Questions for discussion

1. Is it necessary to leave part of the rental income from the natural resource extraction at the enterprise?
2. Is it necessary to divide the natural resource rent, the dynamic rent and the differential rent of the II- kind remaining in the enterprise as a share of the rental income of the fuel production enterprises?

CONCLUSION

Analysis of the globalization processes has clearly identified the trend of changing the traditional distribution in the managerial relations between the state and business. The extractive business is gradually becoming a subject from the state-controlled object that begins to affect the inter-state

relations, socio-economic processes, international and regional policies, etc., using their advantages for these purposes. Therefore, in view of the growing difficulties of the relationship between society, state and business, it is necessary to look for approaches to building a mechanism for their interaction, based on the creation of a system of convergence of interests of all its participants. Also, it is necessary to implement the mechanisms that will facilitate the replenishment of local and state budgets, as well as carry out functions of compensation and savings.

The process of collaboration between the state, extractive enterprises and local communities will contribute to the implementation of the system of personal and social responsibility of the region for the quality of life of the population and preservation and protection of the environment. We understand the social and personal responsibility as a concept that encourages enterprises and local governments to take into account the interests of society, assuming responsibility for the impact of enterprises in the environmental, economic and social spheres. Thus, we can conclude that the cooperation of the state and extractive enterprises and local communities is not only possible, but also necessary for the effective functioning of the ecological and economic system of the state. At the same time, the extractive enterprises can operate in a coopetition, creating additional incentives for the enterprise development, minimizing risks and generating innovative ideas. Therefore, the combination of interests of the extractive enterprises and the state will eliminate a number of issues of political confrontation, as well as increase the responsibility of local and regional communities for the development of their own territories and increase the efficiency of the use of local resources, which may ultimately increase the internal economic integration and economic integrity of Ukraine.

The paper proposed a mechanism for the optimal distribution of rental income from the extraction of natural resources between the three participants in the collaborative alliance (state, region, enterprise). In the course of the distribute, the costs of land reclamation after the extraction of natural resources and the costs of health care were taken into account. In addition, this mechanism involves reconciling the interests of all participants in the collaborative alliance regarding the distribution of rental income received from the natural resource extraction, as well as the implementation of new modern forms of interaction both on the vertical (state – region – enterprise) and on the horizontal (enterprise – enterprise) levels, taking into account the conditions of the coopetition.

REFERENCES

1. Danylyshyn, B. M., Mischenko, V. S. (2004). *Rental Policy in Ukraine* (67 p.). Kyiv: Council for the Study of Productive Forces of Ukraine of the National Academy of Sciences of Ukraine.
2. Danylyshyn, B. M., Mischenko, V. S. (2006). Rent and Development of Rental Relations in Ukraine. *Science and Innovations*, 2(5), 81-92.
3. Dominguez, C. (2011). Comments Collaboration: What Does it really mean? Retrieved from <http://blogs.cisco.com/news/collaboration-what-does-it-really-mean>
4. Etzkowitz, H., Ranga, M. A. (2010). Triple Helix System for Knowledge – based Regional Development: From “Spheres” to “Spaces”. Retrieved from <http://www.triplehelixconference.org/th/8/downloads/Theme-Paper.pdf>
5. Frankel, J. A. (2010). *The Natural Resource Curse: A Survey* (NBER Working Paper 15836). Cambridge, Massachusetts: National Bureau of Economic Research.
6. Geiets, V. (2000). *Instability and Environmental Growth* (344 p.). Kyiv: Institute of Economic Forecasting of NAS of Ukraine.
7. Gryniv, L. P. (2011). New Functions and Models of Ecological Economy in the System of Forming the Ecological Constitution of the Earth. In Yu. Tynytsia (Ed.), *Ecological Constitution of the Earth. Methodological Principles* (pp. 232-233). Lviv: HDD YKNE of Ukraine.
8. Gupta, S., Segura-Ubiergo, A., & Flores, E. (2014). Distribution of Resource Revenues: Worth Considering? Retrieved from <https://www.imf.org/external/pubs/ft/sdn/2014/sdn1405.pdf>
9. Halynska, Yu. V. (2017). Formation of Budgets of Territorial Communities through the Distribution of Natural Resource Rent of the Fuel Production Enterprises. *Scientific Bulletin of Uzhgorod University. Series “Economics”*, 2(50), 253-261.
10. Handziuk, V. A. (2014). Dynamics of Incidence and Prevalence of

- Circulatory System Diseases among the Population of Ukraine at the Present Stage: National and Regional Aspects. *Bulletin of Social Hygiene and Health Care Organizations of Ukraine*, 2(60), 74-78 [in Ukrainian].
11. Himmelman, A. T. (2002). Working Together: Coordinating, Cooperating, Or Collaborating. Retrieved from <https://leadingdifferently.com/2015/01/14/working-together-coordinating-cooperating-or-collaborating/>
 12. Inshakov, O. V. (2013). Collaboration as a form of knowledge – based economy organization. *Economy of the region*, 3, 38-45.
 13. Kola O. Odeku (2017). Effective implementation of Environmental Management Plan for sustainable mining. *Environmental Economics*, 8(1), 26-35. [http://dx.doi.org/10.21511/ee.08\(1\).2017.03](http://dx.doi.org/10.21511/ee.08(1).2017.03)
 14. Kozlovskaya, O. V., Akerman, Ye. N. (2010). Features of the Formation of Innovative Competition in the Conditions of globalization. *Series "Economics"*, 2(10).
 15. Kurylo, V., Pantalienenko, P., Bogdanets, V., Ovcharuk, S. (2017). Land fragmentation in Ukraine: agricultural land-use management and jurisprudence issues. *Problems and Perspectives in Management*, 15(2), 102-109. [http://dx.doi.org/10.21511/ppm.15\(2\).2017.10](http://dx.doi.org/10.21511/ppm.15(2).2017.10)
 16. Kvasniuk, B. Ye. (2004). Rent and Rental Relations in Ukraine. *Economic Theory*, 1, 9-23.
 17. Law of Ukraine "On Amendments to the Budget Code of Ukraine for the Inclusion of Rent Payment for Subsoil Utilization for the Extraction of Oil, Natural Gas and Gas Condensate", 2016, No. 1793-VIII.
 18. Leite, C., & Weidmann, J. (1999). *Does Mother Nature Corrupt? Natural Resources, Corruption, and Economic Growth* (IMF Working Paper 99/85). Washington: International Monetary Fund.
 19. Leonov, S. V., Isaieva, O. V. (2014). Determinants of government bond spreads in Ukraine and new EU members. *Actual Problems of Economics*, 155(5), 416-425. Retrieved from <https://www.scopus.com/authid/detail.uri?origin=resultslist&authorId=56974516800&zone=>
 20. Martiakova, O. V. (2011). Development of the Interaction of the State, Business and Society. Retrieved from http://www.nbuv.gov.ua/portal/soc_gum/pips/2011_2/tom2/458.pdf
 21. Penfold, M. (2006). Clientelism and Social Funds: Empirical Evidence from Chavez's 'Misiones' Programs in Venezuela. Instituto de Estudios Superiores de Administracion (IESA), Caracas.
 22. Rodríguez, P. L., Morales, J. R., & Monaldi, F. J. (2012). *Direct Distribution of Oil Revenues in Venezuela: A Viable Alternative?* (Center for Global Development Working Paper 306). Washington: Center for Global Development.
 23. Saez, E. (2000). *Optimal Income Transfer Programs: Intensive versus Extensive Labor Supply Responses* (NBER Working Paper No. 7708). Cambridge, Massachusetts: National Bureau of Economic Research.
 24. Sandbu, M. E. (2006). Natural Wealth Accounts: A Proposal for Alleviating the Natural Resource Curse. *World Development*, 34(7), 1153-170.
 25. Schottle, A., Haghsheno, S., Sanjeev Gupta, Alex Segura-Ubiergo, and Enrique Flores Direct. (2014). Distribution of Resource Revenues: Worth Considering? Retrieved from <https://www.imf.org/external/pubs/ft/sdn/2014/sdn1405.pdf>
 26. Gehbauer, F. (2014). Defining cooperation and collaboration in the context of lean construction. *Proceedings of Teaching Lean Construction, IGLC-22, Oslo, Norway, June 2014*, 1269-1280.
 27. Vasylyeva, T. A., Pryymenko, S. A. (2014). Environmental economic assessment of energy resources in the context of Ukraine's energy security. *Actual Problems of Economics*, 160(1), 252-260.
 28. Yami, S., Castaldo, S., Dagnino, G. B., Le Roy, F., & Czakon, W. (2010). Introduction – Coopetition strategies: Towards a New Form of Interorganizational Dynamics? In S. Yami, S. Castaldo, G. B. Dagnino & F. Le Roy (Eds.), *Coopetition: winning strategies for the 21st century* (pp. 1-16). Edward Elgar, Cheltenham, UK, Northampton, MA, USA.