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**ENVIRONMENTAL-ECONOMIC CONFLICT: CONCEPTUAL  
COMPLEXITY AND MANAGEMENT ISSUES<sup>1</sup>**

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*The paper explores the conceptual features of environmental-economic conflict's analysis in aspects of its complexity and the need for management. The concept of eco-economic conflict as a complex multidimensional phenomenon is formulated. Most controversial issues of environmental-economic conflict management are investigated.*

**Keywords:** *environmental-economic conflict, comprehensiveness, national economy, conception, management.*

**Introduction.** Today Ukraine's socio-economic crisis is continued and compounded by the intensification of conflict situations, related to the uncertainty and contradictory influence of multiple environmental issues on the development of national economy and environment. The experience of countries, in which due to extensive growth of national economies the environment is permanently polluted and the social exacerbation periodically arise caused by the state of using natural resources, shows that environmentally caused conflicts are not self-regulating and given the magnitude of their destructive effects they require well thought preventive policy and scientifically based measures of state regulation. The ungovernability of these conflicts leads to economic and social damage, to causes a disturbance of the mechanism of natural resources reproduction, increasing the risk of technogenic

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potential accumulated in the country and increasing threats to the national security.

**Analysis of recent researches and publications.** Methodological bases of eco-economical contradictions' research in the development of the national economy are considered in the works of *Alexandrov* (2010) [10], *Amosha* (2002) [1], *Balatskiy* (1979) [2], *Burkynskiy, Stepanov, Kharichkov* (1999) [3], *Veklich* (1991) [4], *Vernadsky* (1988) [5], *Hoffmann, Lemyeshev, Reimers* (1974) [6], *Hryniv* (2001) [7], *Fedorenko* (1973) [12] and other Ukrainian and foreign authors. Theoretic-methodological principles of environmentally sustainable development, environmental management, economics of environmental conflicts in their relationship to issues of environmental and economic security and risk are covered in the works of *Gleditsch* (1998) [13], *Homer-Dixon* (1999) [14], *Mason, Spillman* (2003) [15], *Popova* (2010) [8], *Prokopenko* (2012) [9], *Humarova* (2011) [11] and other scientists.

**Previously unsettled problem constituent.** At the same time one of the least researched is the issue of environmental-economic conflicts as a narrow economic category, as well as management of it at different levels of the national economy. These conflicts as a significant factor in the functioning of the national economy influence the processes of use and reproduction of natural resources potential of economical territories and sectors and at the same time become the object of state regulation to create effective conditions for overcoming the crisis in the country and ensure sustainable development of national economy.

**Main purpose of the article** is the scientific substantiation and analysis of the conceptual complexity of environmental-economic conflict and disclosure of the most controversial issues of their management at the level of the national economy.

**Results and discussions.** According to the results of scientific views' systematization of the category 'contradiction', based on the conceptual principles of dialectics, formal and dialectical logic and synergy, as well as the latest achievements of transdisciplinary sphere of knowledge concerning the relationship between economic and ecological scientific fields (*Balatskiy* (1979) [2], *Vernadsky* (1988) [5], *Hryniv* (2001) [7], *Mason* (2003) [15] etc.) we propose the own definition of eco-economic contradictions, which focuses on its pro-conflictual nature and consistency in the context of the national economy.

From our point of view, the eco-economic contradiction in the broadest sense is a system interaction of opposed and interconnected environmental and economic factors which are considered within the territory of a country, determine its development and cause environmental-economic conflicts that may have antagonistic character and therefore threaten safety of the State. In a narrow sense investigational contradictions arise in the form of potential eco-economic conflicts that carry a potential of destructive consequences and accordingly ecological, economic and social damage, and the constructive component of the national economy

development. According to environmental view at the evolution and current state of economic activity, we propose to carry out the typology of ecological and economic contradictions on the criteria: epistemological, complexity, sensitivity to management influence.

In the narrow sense eco-economic contradictions are related to the environmental pollution and use of natural resources. In this case, the classification criteria which determine the types of ecological and economic contradictions of the national economy development are defined as follows:

- on the scale of the action: national, inter-regional, regional, local;
- on the nature of the appearance: natural, anthropogenic, natural-anthropogenic;
- on the potential hazards to the environment and individual recipients: extremely dangerous, dangerous, safe;
- on relation to the natural components: within one component, within entire ecosystems; in the field of cross-border of natural ingredients;
- on distress / eustress communications with socio-economic systems: those that form with the socio-economic system of the country the synergistic complex system; embedded in a socio-economic system; weakly related to socio-economic systems.

In a broad sense to the conflict forms of environmental and economic interactions we include any deterioration in eco-economic systems. Herewith the element of ‘fight’ identifies conflicts from the total volume of contradictory situations: from minor violations of environmental legislation – to natural and technogenic disasters or a collapse.

In turn, the eco-economic conflict we define as the situational dynamic combination of environmental, social, political and other conditions that mediate the relationship between economic agents, in which each of the parties trying to take a position incompatible or opposite in relation to the eco-economic interests of the other side. The moment of the transition of the potential conflict in its active form shall be considered a fact of an environmental stress or environmentally caused systematic social collisions an extreme form of which is antagonistic opposition between economic agents. As a variety the natural-resource conflict is considered, the subject of which is natural resources (their deficit or surplus, deterioration of quality, etc.) that can act as both a cause and effect of environmentally induced conflict situations.

Note that in some sense we should distinguish the concept of environmental conflict and the concept of environmental crisis. In a broad sense a form of environmental conflicts is an ecological crisis, particularly a severe crisis, and its extreme form – a collapse. Other important concepts in the research are the following: the environmental stress like an extreme situation in the environment, the risk of environmental-economic conflict that reflects lost opportunity of obtaining

maximum effect for participants of the conflict.

As a result generalization of theoretical economic approaches to the research of environmentally relevant contradictions in terms of economic relations in the works of Amosha (2002) [1], Veklich (1991) [4], Gleditsch (1998) [13], Homer-Dixon (1999) [14], we argue firstly the expediency of attracting the provisions of game theory to substantiation of optimal rules for conflict resolution, formed as a result of forecasting and management of environmental and economic activities; and secondly the need to form the concept of eco-economic conflict management, the main components of which include:

- the system of forecasting and management of environmental-economic contradictions, main elements of which are relevant organizational and economic mechanism and management structure (at the territory, industry, infrastructure);
- approaches (formal-logical, dialectical, synergistic, socio-natural, game-theoretical, etc.), principles, methods and tools of research, forecasting and management of eco-economic conflicts;
- methodological and practical aspects of managerial solutions to environmental-economic conflicts at the level of territorial-economic systems.

Stages of the proposed concept are the follows:

*Stage 1:* the importance of eco-economical contradictions proves the necessity of their forecasting and economic regulation on scientific principles;

*Stage 2:* detailed analysis of the nature and content of these contradictions directs attention to their consequences and the form of potential conflicts;

*Stage 3:* environmental contents of eco-economic conflicts cause the need for generalization and deepening of relevant approaches to address them in the context of the national economy development's potential;

*Stage 4:* eco-economical conflicts as objects of regulation require the modeling and implementation of predictive assessment of their impact on the national economy;

*Stage 5:* it's the formation of organizational-economic mechanism and its separate components on the basis of environmental-economical conflicts' assessment.

In the evolution of an conflict, the involvement in the sphere of its influence various objects, processes and events, changing forms it becomes possible of its management, particularly in cases where the subjective side that can 'feel' the managerial influence dominates over the conflict's objective side. This approach in our opinion allows classifying eco-economic conflicts in the degree of sensitivity to management influences as follows:

- eco-economic conflicts insensitive to management influences: it comes to objective interactions of contradictions, one of which relates to the environment, another – to the society or separate processes of its life primarily to economic processes;

– eco-economic conflicts quasi-insensitive to management influences: it comes to interactions of contradictions that can accept managerial impulses generated intuitively on the theoretical level of forecasting and management of the national economy;

– eco-economic conflicts sensitive to management influences: it comes to conflicts that take the form of potential environmental conflicts of the national economy development, which can be controlled at the prognostic level.

In Ukraine, the open form of conflicts related to eco-economic issues, is a small proportion of the total number, most of these conflicts are hidden and potentially more dangerous than the proportion that is observed. Today we talk about the situation where conflictness of eco-economic problems has reached the critical level at which there is a real threat of an ecological crisis on certain territories of the country. This activation stage, i.e. social ‘disclosure’ of hidden conflicts in which it would be possible to avoid these crisis conditions, may not take place.

As a result of conflict issues’ assessment related to renewable and non-renewable resources in Ukraine, we can say that the highest conflictness of eco-economic conflicts is related to land and fuel resources. In turn, on the basis of assessment of the natural resource conflicts’ influence on the field of the national economy, on the grounds of ‘immediacy – mediation’, ‘temporality – permanence’, ‘cumulativeness – emergence’, we can be said about the need to apply comprehensive national actions combined with the prevention of environmental-economic conflicts’ destructive consequences.

It is also appropriate to combine environmental and synergistic approaches in the diagnosis of eco-economical conflicts to obtain the object of study’s picture and therefore to receive an opportunity of incorporation of hidden effects arising from the complication of relationships between the conflicting parties. The synergetic approach, under which the nonlinear (so-called fractal) dependences are considered, is a special component of the methodological tools of eco-economic conflicts’ investigation.

In managing eco-economic conflicts a combined approach should be applied, in which the organization-structural adaptation of ecological state regulation methods to conflicting environmental-economic situations and the synthesis of its instruments with conflict management tools take place. We offer to integrate into one system administrative and legal, economic and sent directly to conflict resolution tools as a compromise, and coercive regulation that optimizes management decisions in the environmental-economic conflict situations, taking into account requirements of the state environmental policy and growing influence of standards in environmental management, production quality and social responsibility.

The separate proposals in this paper also relate to conceptual positions of budgeting result-oriented in regulating of eco-economic conflicts, which provide a

combination of planning, analysis, management and control of budget execution with the aim of comprehensive ensuring of budget resources distribution for the goals, objectives and functions of the State, taking into account priorities of sustainable development and social significance of the expected results of budget funds towards overcoming environmental-economic conflicts with ensuring the flexibility, perspective, and legitimacy of environmental budgeting methods.

**Conclusions and further researches directions.** So, as a result of the research we can make the following conclusions: first, the concept of environmental-economic conflict as a result of appropriate forms and contradictions is theoretically grounded, which on a practical level of national economic suggested to determine as a situational dynamic combination of economic, environmental, social, political and other conditions, and relationships between enterprises – polluters of ecological components and users of natural resources, regulatory and judicial public authorities and all other stakeholders, in which each of conflicting sides trying to take a position incompatible or opposite in relation to the eco-economic interests of other conflicting sides. Second, it is proposed the classification of the eco-economic contradictions and conflicts in their broadest sense on the criteria: epistemological, complexity, sensitivity to managerial influence; in the narrow sense – on the criteria: scale, nature of occurrence, potential of hazards, relevant to natural components, distress due to socio-economic systems, as well as the typology of relevant conflicts by the nature of eco-economic relationships between their participants. This approach allows taking into account the complex of theoretical and practically oriented factors of forecasting and management of eco-economic conflicts at the level of the national economy. Thirdly, it is disclosed and summarized the theoretical approaches, which reflect the most significant and simultaneously controversial issues of managing the eco-economical conflicts.

Further research will be devoted to investigating the antagonistic conflict in Donetsk and Luhansk oblasts of Eastern Ukraine as a complex political, economic and socio-ecological phenomenon. To understand the underlying causes of the Ukrainian tragedy, it is given its historical, cross-cultural and geographical context. To understand its scope and the magnitude of its destructive potential, its projection is investigated on the plane of the environmental science.

It is shown that the conflict escalating is environmentally risky for Ukraine and the European Union, as indicated by the results of the social and ecological damage estimation for seven-month period of the armed conflict duration.

Thus, the paper summarizes multidimensional factors of the conflict escalation in Eastern Ukraine, according to their complex impact on the ecological and socio-economical development. Understanding of the relationship between these factors and in particular their violation that caused the one of the biggest since the Second World War antagonistic conflict in Europe, is beyond the traditional concept of

sustainable development and requires a detailed analysis within the synergetic paradigm and the environmental conflict conceptualization.

Both objective (above all natural resources policy) and subjective (especially role of individuals who make decisions) factors are investigated from an environmental point of view.

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**ЕКОЛОГО-ЕКОНОМІЧНИЙ КОНФЛІКТ:  
КОНЦЕПТУАЛЬНА СКЛАДНІСТЬ І ПИТАННЯ УПРАВЛІННЯ**

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*У статті досліджено концептуальні особливості аналізу еколого-економічного конфлікту в аспектах його комплексності та необхідності управління ним. Сформульовано поняття еколого-економічного конфлікту як складного багатоаспектного явища. Висвітлено найбільш суперечливі питання управління еколого-економічними конфліктами.*

**Ключові слова:** *еколого-економічний конфлікт; комплексність; національна економіка; концепція; управління.*

**ЭКОЛОГО-ЭКОНОМИЧЕСКИЙ КОНФЛИКТ:  
КОНЦЕПТУАЛЬНАЯ СЛОЖНОСТЬ И ВОПРОСЫ УПРАВЛЕНИЯ**

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*В статье исследованы концептуальные особенности анализа эколого-экономического конфликта в аспектах его комплексности и необходимости управления им. Сформулировано понятие эколого-экономического конфликта как сложного многоаспектного явления. Освещены наиболее противоречивые вопросы управления эколого-экономическими конфликтами.*

**Ключевые слова:** *эколого-экономический конфликт; комплексность; национальная экономика; концепция; управление.*