

ECOLOGICAL IMPERATIVES FOR EXTENSION OF GLOBALIZATION PROCESSES: PROBLEM OF ECONOMIC SECURITY

Анотація. В статті розглядаються наслідки екстенсивного використання природного середовища. Досліджено трансформацію людського фактору впливу на навколишнє середовище за трьома напрямками. Виокремлено місце екологічної складової економічної безпеки країн. Незалежність, стійкість, спроможність до розвитку, невизначеність, цілеспрямованість, суперечливість та керованість визначено детермінантами економічної безпеки як системного поняття. Розглянуто глобальний характер екологічних проблем, що дозволило виокремити екологічні ризики двох типів. Запропоновано формування ефективної доктрини природокористування в умовах глобалізації світової економіки задля забезпечення економічної безпеки.

Ключові слова. Економічна безпека, екологічна безпека, екологічні імперативи, екологічні ризики, екологічні проблеми.

Annotation. The effects of extensive use of the environment are analyzed. Three ways of transformation of the environmental impact of human factor are studied. The significance of ecological component of economic security at country level is highlighted. Independence, stability, capacity for development, uncertainty, purposefulness, contradictoriness and controllability are identified as the determinants of economic security as a system concept. Ecological problems are considered as the ones of global nature, with identifying ecological risks of two

¹ Doctor of Economics, associate professor, professor of department of world economy and international economic relations at Taras Shevchenko National University of Kyiv.

types. The effective doctrine of nature use in the context of economic globalization is proposed, to assure economic security.

Key words. *The economic security, environmental security, environmental imperatives, environmental risks, environmental problems.*

Аннотация. *В статье рассматриваются последствия экстенсивного использования природной среды. Исследована трансформация антропогенного воздействия на окружающую среду по трем направлениям. Выделены место экологической составляющей экономической безопасности стран. Независимость, устойчивость, способность к развитию, неопределенность, целеустремленность, противоречивость и управляемость определены детерминанты экономической безопасности как системного понятия. Рассмотрен глобальный характер экологических проблем, что позволило выделить экологические риски двух типов. Предложено формирование эффективной доктрины природопользования в условиях глобализации мировой экономики для обеспечения экономической безопасности.*

Ключевые слова. *Экономическая безопасность, экологическая безопасность, экологические императивы, экологические риски, экологические проблемы.*

The problem. It's obvious that apart from facing ecological change and the increasing shortage of important resources, humans themselves change ecological foundations of their life on this planet. The environment has been changed by the humans since they appeared on the Earth. But both the power and the scales of humans' intrusion in the cyclic processes of nature in our time have no precedents in history.

Review of publications. While the humans' propensity to extensive use of the environment, to the scales threatening the existence of species, is not

something singular, **environmental impact of the human factor in our time has transformed in several ways:**

- first, demographic change rapidly increasing the number of people who tend to exploit their environments only to meet individual or community needs, without consideration for the consequences of their activities [1; 3; 5; 9];

- second, more powerful and accessible means (at macro- and micro-level) by use of which humans are capable to change the environment [2; 4; 7; 11];

- third, higher significance of energy sources in the increasing pressures on the environment [6; 9; 11; 12].

The purpose of the present article. Therefore, by interacting with the environment at global or local level, we manipulate with selected components of ecosystem, but also influence global ecological processes. Apart from environmental effects, transformations have effects for social and political systems, raising the importance of environmental security problem.

The main results of the research. Economic security is interpreted by most part of researchers as “process” or “condition”. The narrow approach to interpretation of the essential meaning of economic security is believed to be purely mechanistic and too simplistic. The concept of “economic security” should obviously be broadened to cover economic relations (horizontal or vertical) between central government, regions, business enterprises and individuals, aiming to achieve the macroeconomic performance enabling to effectively satisfy the needs and assure protection of interests of all the economic entities, even in the unfavorable internal or external conditions. Once economic security refers to the set of economic relations, it will have system parameters, i. e. it can be considered as a system. The latter implies that economic security should rather be interpreted as an integrated whole, with its structure, internal relations, contradictions, and self-regulation capacities.

The practicality of system approach to interpretation of economic security can be confirmed by its characteristics:

1. **Independence.** It is not absolute, because international division of labor makes national economies dependent from each other. It follows that economic independence is the capability of a country to control national resources, growth of the national output and the national economy performance to the extent allowing it to be competitive and participate in global trade, global networks and science & technology cooperation on parity basis [5]. Economic independence of a country is conditional on its resource and production capacities.

2. **Stability.** This characteristic covers all forms of property protection, guarantees for intensive business operation, control of destructive factors (fighting criminal groups in the economy, measures to prevent serious gaps in income distribution or weakening of labor motivation). Economic security needs to be conditional on economic performance: along with protective measures taken by the government, it has to rely upon high labor productivity of labor, high quality of products, high competitiveness, macroeconomic and social stability. Strong external influences or accumulated internal contradictions may trigger crisis, i. e. transformation of the system from secure condition into insecure one [7]. When it occurs, the system can be preserved by mobilizing its internal resources and reserves, including ones intended for future development. The system will lose the stability, when all the system have been rapidly falling.

3. **Self-development capacity.** When an economy does not develop, its capacity to survive, its resistance and adaptability to internal and external threats will be rapidly shrinking. Investment and innovation friendly climate, non-stop modernization of production facilities, enhancement of professional, educational and cultural level of the population are of critical importance in the contemporary rapidly developing world [11]. Development of a system tends to be interpreted by economic theory from the perspective of rather smooth and stable economic processes measured by correlations close to linear ones (an example is the equilibrium-based approach used by adherents of positivist economy.)

4. **Uncertainty.** It is known that unpredictable factors have critical role for operation and development of a system and its constituent subsystems. In practice

it means that data about past or current performance of a system are incapable to predict its future development. It must be stressed that the occurring uncertainty is not the only effect of our incomplete or imperfect knowledge; it is implicit in the analyzed system, because, as emphasized at the beginning of the study, the performance of an economic system is conditional on great numbers of risks most of which are of unpredictable or stochastic nature [4]. Occurrence of these risks is caused by instability of internal and external environments.

5. **Purposefulness.** It means recognition of specific political interests of a country, i. e. its central goal. This central goal implies the existence of local goals of an economic system, which need to be closely linked to the national idea, the national moral code, and the system of national priorities. It is obvious that the goals of economic security are determined by the need to sustain the national sovereignty and the territorial integrity of a country, and its decent position on the global arena.

6. **Contradictoriness.** It implies collisions of objectives or interests and a compromise between the stability and the self-development capacity. Economic security is not a status quo condition requiring only support. The constantly changing world and new challenges faced at each of the new phases of the social development make one refer to economic security, but at radically new level and in radically new conditions. A compromise is involved given the cohered contradictory interests of all the system actors.

7. **Controllability.** In a broader sense, it refers to the capacity of a system to react, in timely and adequate way, on change in its operative conditions. However, we cannot share the common opinion that economic security is a purely political matter (i. e. only the political power needs to care about it). Each of the abovementioned actors has its own interest, and each needs to care about its own economic security along with economic security of the other actors. The specific is that the economic security actors (subjects) are the economic security objects at the same time, thus demonstrating that economic security is a subject-object concept based on pursuance of interests by various economic actors [9].

The most advanced conceptual approach to interpretation and analysis of economic security is the functional approach; applied to economic security, it studies it by its functional components:

1. **Economic component** is the key functional component of economic security. It implies the existence of security institutes operating to achieve positive macroeconomic trends, preserve or renovate production facilities, stabilize operation of budget, financial, credit and banking sectors. Economic factors of risk have wide coverage: from individual enterprises to macroeconomic situation in a country.

2. **Political component of economic security** is the political system implicit in an economic system (the body of legal acts protecting territorial integrity and political independence). Factors of risk involved in the component are: regulatory framework, the body of legal acts and draft laws on economic development and business regulation.

3. **Social component of economic security** is the body of legal and moral norms guaranteeing protection of human rights and freedoms, sanctity of moral values and material assets.

4. **Demographic component of economic security** refers to human capacities in a country, measured in absolute figures and trends of its population. Its impact is supposedly dependent on the available workforce and the effectiveness of workforce employment.

5. **Ecological component of economic security** refers to the body of regulatory acts on environmental protection. The factor of risk caused by the ecological component depends on implementation of ecological standards in order to protect the environment and prevent natural calamities, on the optimal use of natural resources, and on climatic conditions as factors of economic growth.

6. **Science and technology component of economic security** refers to the measures aimed at introduction of competitive technologies and keeping up with the optimal balance between global gains in innovation field and domestic

technological capacities. The functional purpose of this component is to prevent destructive effects caused by defective technologies used by business entities.

7. Power component of economic security refers to economic management of military sector in a country, focused on the needs of military industrial complex (MIC) in order to rationalize the defense capacity; to keep and gradually reduce the level of military threat and risks of military attacks by a potential enemy, by pursuing security policy; to effectively repel the aggression in case of military conflict; to eliminate or contain, as maximally as possible, the destructive use of military force inside a country. Regarding this component, emphasis should be made on monitoring of unfair competition in MIC.

8. Information component of economic security refers to the relations to assure legal framework and guarantees of accessibility and reliability of various categories of data used in strategic planning across the economy, and protection of the existing information resources.

Review of this approach shows that its strong side is comprehensiveness, enabling to analyze factors with the strongest impact on the economic security components, processes underlying economic security, allocation and use of economic resources, economic indicators of economic security, and to elaborate methods for maximization of the economic security components [7].

However, the strong side is the weak side at the same time, because economic security is interpreted in very broad terms: adaptation to external environment, cost-effectiveness of economic resources, effectiveness of management, quality of analysis, reporting, planning and forecasting. This complicates the process of its quantitative analysis, not to mention the process of elaborating strategies for economically secure development.

When issues of implementing sustainable development in the globalization context are studied, the ecological determinant of this process should be emphasized. Ecological problems have had global scales due to the growing antropogenous and technogenous pressures on the environment. Therefore, ecological policies at country level need to gradually integrate into mainstream

directions of integration processes, to consolidate country efforts in transition of national economies to the sustained development model.

It is highly probable that if ecological risks are ignored, negative effects will occur, including economic ones, and trigger social damage or the so called damage of opportunities.

Ecological risks are divided into two groups:

- risks caused by potential environmental change (including unpredicted one);
- risks caused by uncertain impacts of environmental factors.

Ecological risks of the first type can be assessed more or less accurately. When they are assessed, it needs to be born in mind that the assessment criteria will be adequate once the environmental damage is equal to zero or minimized.) Examples of assessment of ecological risks of the first type can be various measures of environmental quality (water, air). It follows that although parameters of the environment where a company operates can remain unchanged, factors affecting environment, nature resources, human health or assets can eventually occur.

Ecological risks of the second type represent invisible threat and can hardly be assessed. Most part of risks resulting from economic or social activities are likened with invisible treats to civilization of our time, which consequences are overlapping by-side effects that vary by country or region and depend on the latter's economic patterns and the extent of their integration in the global economy.

When the concept of ecological risks is applied to the economy, it needs to be born in mind that once a new product is introduced at the market, it will be too difficult to assess its risks for human health or environment because of the great significance of “uncertainty” [4]. Uncertainty refers to the situation when the occurrences of an event are unlimited or the probability of its occurrence cannot be found. It follows that *the concept of risk* can be defined in a broader sense: *as a probability of benefit or loss, insecurity or security.*

The scopes of environmental pollution determine the types of its effects:

1. *Economic damage* (decreasing rates of growth and quality of economic wealth; increasing rates of ruining of assets; increasing costs of medical treatment and lost working days).

2. *Social damage* (ill health, reducing life expectancy, decreasing quality of the environment).

3. *Lost opportunities* (ruining of what is not exploited today but considered as future economic assets).

“Phenomenon of gap between potential effects” refers to the situation when economic benefits or economic losses grow in parallel with the constantly increasing risk.

Given the extending globalization processes, ecological risk is no longer a result of business operation on the territory of a country; it reflects structural, technological and regulatory asymmetries that are becoming a cause and an effect of international cooperation. There are several components of ecological risk:

- a probability of environmental impact from dangerous technogenous factors;
- environmental loss resulting from a negative impact;
- costs or unused benefits of the business companies affected by polluted environmental objects.

Loss of opportunities is, by far and large, associated with incomplete or erroneous recording of ecological components exploited for business purposes across the planet. Most of them are related with:

- considerable exceedance of marginal permissible technogenous load on a territory;
- improper location of production facilities, business entities, with economic feasibility exceeding ecological permissibility;
- erroneous assessment of ecological effects from antropogenous transformation of natural landscapes.

Conclusions. The need to revise algorithms for global use of nature calls for new format of international interactions. Studies of its advanced forms and

mechanisms will allow key global actors and other participants of economic globalization to avoid a great deal of collisions in ecological policy making. The following steps are required for formulating the effective doctrine of nature use in the economic globalization and economic security context: to assess the current environmental performance of the socio-economic system; to decide on the feasibility of integrative country unions, to address problems related with effective use of natural resources for social and economic development; to justify the need for and the essence of secure ecological and economic development to be implemented by means of environmental policy.

References

1. Marshall R.S. Introducing A New Business Course: Global Business and Sustainability [Electronic resource] / R.S.Marshall, S.P. Harry // International Business of Sustainability in Higher Education. – 2005. – Vol. 6 (2). – Mode of access: <http://www.emeraldinsight.com/doi/abs/10.1108/14676370510589882>
2. Mazurkiewicz P. Corporate Environmental Responsibility: Is a common CSR framework possible? [Electronic resource] / P.Mazurkiewicz. – 2004. – Mode of access: <http://siteresources.worldbank.org/EXTDEVCOMMENG/Resources/csrframework.pdf>
3. Moffat A. The 21st Century Corporation: The Ceres Roadmap For Sustainability [Electronic resource] / A. Moffat. – 2010. – Mode of access: <http://www.ceres.org/resources/reports/ceres-roadmap-to-sustainability-2010/view>
4. Porritt J. The Role of Business in Society: Delivering Sustainable Development [Electronic resource] / J. Porritt. – 2006. – Mode of access: <https://www.pwc.com/id/en/energy-utilities-mining/assets/delivering-sustainable-development.pdf>
5. Selvanathan P.J. Identifying The Key Determinants of Effective Corporate Sustainability [Electronic resource] / J.P.Selvanathan. 2011. – Mode of access: <http://epubs.scu.edu.au/cgi/viewcontent.cgi?article=1251&context=theses>
6. Katsaulakos T. Integrating Corporate Responsibility Principles and Stakeholders Approaches into Mainstream Strategies: A stakeholder oriented and integrative strategic management framework [Electronic resource] / T. Katsaulakos, Y. [Katsoulacos](#) // Corporate Governance: The international journal of business in

society. – 2011. – Mode of access:
<http://www.emeraldinsight.com/doi/abs/10.1108/14720700710820443>

7. Krehmeyer D. Sustainability Strategy As Corporate Strategy [Electronic resource] / D. Krehmeyer, M. Lenox, B. Moriarty. – Mode of access: <http://ethicsphere.com/sustainabilitystrategy-as-a-corporate-strategy>)

8. Quinlivan G. Sustainable Development And Multinational Business [Electronic resource] / G. Quinlivan. – Mode of access: <http://iosrjournals.org/iosr-jbm/papers/vol1-issue3/H0135056.pdf>

9. Cavalcanti H.B. Being a good citizen and an active participant in society [Electronic resource] / H.B. Cavalcanti. – Mode of access: [http://www.henkel-](http://www.henkel-adhesives.com/com/content_data/Detailed_Statement_Brazil_Cavalcanti.pdf)

[adhesives.com/com/content_data/Detailed_Statement_Brazil_Cavalcanti.pdf](http://www.henkel-adhesives.com/com/content_data/Detailed_Statement_Brazil_Cavalcanti.pdf)

10. Mirvis P.H. Environmentalism in progressive businesses [Electronic resource] / P.H. Mirvis // Journal of Organizational Change Management. – 1994. – Vol. 7 (4). – Mode of access: <http://www.emeraldinsight.com/doi/abs/10.1108/09534819410061397>

11. Rugman A.M. Corporate strategy and international environmental policy [Electronic resource] / A.M. Rugman, A. Verbeke // Journal of International Studies. – 1998. – Vol. 29 (4). – Mode of access: [http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.476.4925&rep=r](http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.476.4925&rep=rep1&type=pdf)
[ep1&type=pdf](http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.476.4925&rep=rep1&type=pdf)

12. Sharma S. Proactive corporate environmental strategy and the development of competitively valuable organizational capabilities [Electronic resource] / S. Sharma, H. Vredenburg // Strategic Management Journal. – 1998. – Vol. 19. – Mode of access: <http://www.icesi.edu.co/blogs/estrategiamb19/files/2013/05/PROACTIVE-CORPORATE-ENVIRONMENTAL.pdf>