

EFFECTS OF ECONOMIC GLOBALIZATION ON THE ENVIRONMENT

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Abstract: The paper aims to present the main stages for identifying and defining sources and targets financial flows needed for mitigation and if possible complete elimination of pollution generated by economic activities.

Also in the article are studied ways reconstruction mechanisms and financial instruments of environmental protection and achieve integrated financial architecture oriented institutionalization, with the participation of responsible actors in globalized economic space, to control, mitigate and eliminate the risks of pollution.

Transnational corporations, national companies operating in industry and agriculture, national authorities responsible for environmental protection can influence through their activities state environmental quality, degradation effects thereof on the evolution of ecosystems and the health of the population, the costs of externalities etc.

Keywords: globalization, pollution, environmental protection, environmental risks, sources and financial flows

Introduction

Economic activity is a distinct category of human activities through which man approaching natural resources offered by the environment in order to meet its needs. This appropriation has evolved in form and content to simply collect resources when resources needs substantially corresponded to the complicated transformation of resources, streamlined and instrumented transformation in this case substantially different needs, often total resources. In this evolution proceeds, produced by man needs, is natural resources extracted from the environment, the natural ecosystem and ecosystem transferred to human being for human consumption, regardless of its nature.

Generative economic activities and decisions is a dialogue between man and nature, constituting praxis, with the following meanings relational man and nature: depletion of natural resources,

environmental damage, human artifacts expansion (artificial environment) and distortion existential substance property.

The negative effects of globalization on total pollution found in Earth. Of course, globalization has positive effects, such as transfer of information and the latest technology that contributes to a better understanding of the processes and mechanisms pollution.

Research activity is strong globally and is directed toward clean technologies, alternatives to finite natural resources, environmental remediation technologies affected by industrial and agricultural activities.

Also, the research - development is very intense level of transnational corporations, who obtain advantages in terms of efficiency, effectiveness, competitiveness and competition.

Man lives permanently in an environment that is exposed to a wide variety of situations more or less dangerous, generated by various factors. Extreme manifestations of natural phenomena such as storms, floods, droughts, landslides, earthquakes and more powerful, plus technological accidents and the conflicts can have direct influence on the lives of every person and of society as a whole.

Only precise knowledge of these phenomena, called disasters and / or disasters (called hazards), allows to take the most appropriate measures for both mitigation and reconstruction of the affected regions. Reducing these disasters involves studying environmental risks.

Environmental risks

Environmental risks are cumulative negative effects of globalization which are included in the overall pollution of the Earth. Of course, globalization has positive effects, such as transfer of information and the latest technology that contributes to a better understanding of the processes and mechanisms of pollution, resulting in less impact on the environment.

Risk is defined as the probability of human exposure and property created by the action of a particular hazard of a certain size risk is the likely casualties, the number of casualties, damage property and economic activities of some natural phenomenon or group of phenomena in a certain place and a certain time. Values at risk are the population, properties, roads, economic activities etc., at risk in a particular area.

It is said that an action is risky if there are a number of possible outcomes that can be derived therefrom, and if these results may be attached objectively known probabilities. The probability characterize the degree of possibility of the generation, by a certain human action, a result in conditions. The risk is therefore distinct from the uncertainty in the case that there are a plurality

of results which can't be determined probability objective. The decision and action that supports human loss are at risk because there is more than one possible outcome and the odds can be calculated. In the event that the likelihood objective of obtaining a result can't be determined (not known), the decision shall be adopted in limbo, rather than a risk, even if the "form" possible outcome is known.

Environmental pollution embodied in effects and risks polluting affects natural ecosystems, destroying the natural support, human biological ecosystems.

In the process of environmental or ecological risk protection, can delineate five defining components: polluters, pollutants, decision makers, environmental policy and environmental funding.

Funding sources of insurance covers the financial resources to support environmental protection policies against risks.

Environmental hazards and their effects on the environment generates environmental costs; costs on different terms: very long, long, medium, short. Costs may be operating costs and capital costs, costs of prevention, recovery, consolidation, direct costs and indirect costs or costs associated autonomous, internal costs and external costs etc.

Achieving these costs presupposes the existence of financial resources to ensure the financing of environmental policies imposed by these costs.

In this sense can be defined five sources of financing: environmental funds that should be considered independently and be associated makers specializing in environmental issues (environmental organizations); state budget, local budget; voluntary contributions of the association at the various informal communities; financial contribution from polluting firms and polluted, for example contribution to technological conversion; philanthropic participation (sponsorship, donations etc.), private bank loans, European Funds, repayable funds.

Delimitation of funding sources is a crucial problem of funding policy, funding the construction of a matrix taking into consideration all the taxonomic can help clarify many mysteries of stray funds.

The whole strategy of environmental protection by reducing the risk materializes short term effects, distinguished by their reduction. If we consider that the total risk (R_t) is highlighted information to the decision makers in a total information volume (I_t), it can be assumed boundary:

Rt=It

It is, however, at decision makers, only some of the possible information about the extent of environmental risk, being the risk that part called perceived risk

It can be estimated monetary value of all financial sources used, which means state budget, local budgets, private funds and bank loans, reimbursable funds), other foreign donor-repayable funds, foreign loans – refundable funds and other sources (contributions, participation). Whether this indicator FRt total funding so:

$$FRt = \Sigma SF = \Sigma FRtl + \Sigma FRts = \Sigma FRE \quad \text{where:}$$

FRT = total financing indicator

SF = sources of funding

FRts = short-term funding risks

FRtl = short-term funding risks

FRt = financing risk effects

This indicator measures the level of awareness of decision makers, scale environmental risks in risk factors or sources of risk in the human ecosystem.

Financial coverage coefficient of environmental risks

Using matrix calculus will determine the coefficient of financial coverage of environmental risks detailed in risk factors and sources of funding.

The system of equations can be written in the form of restricted follows: $\Sigma A_{ij} * Y_j = \Sigma X_i$.

Where a_{ij} = coefficient source of funding and the hierarchical level j.

X_i = total financing sources at j

$$a_{ij} = x_{ij} / Y_j \quad \text{where that } x_{ij} = \cdot X_i A_{ij}$$

Writing matrix above relationship is obtained:

$$\begin{pmatrix} x_{11} & x_{12} & x_{13} & x_{14} \\ x_{21} & x_{22} & x_{23} & x_{24} \\ x_{31} & x_{32} & x_{33} & x_{34} \\ x_{41} & x_{42} & x_{43} & x_{44} \end{pmatrix} = \begin{pmatrix} a_{11} & a_{12} & a_{13} & a_{14} \\ a_{21} & a_{22} & a_{23} & a_{24} \\ a_{31} & a_{32} & a_{33} & a_{34} \\ a_{41} & a_{42} & a_{43} & a_{44} \end{pmatrix} \cdot \begin{pmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \end{pmatrix}$$

X_i = sources of risk; $i = 1, 2, 3, 4, 5$.

For $i = 1$ - risk source is industry;

$i = 2$ - risk source is agriculture;

$i = 3$ - source of risk as transport;

$i = 4$ - source of risk are utilities;

$i = 5$ - source of risk are households.

Y = needs financing sources; $j = 1, 2, 3, 4, 5$.

$j = 1$ - source of funding is the state budget;

$j = 2$ - are the source of funding local budgets;

$j = 3$ - source of funding are private funds and bank loans;

$j = 4$ - the source of funding are European funds;

$j = 5$ - source of funding are funds and external borrowings.

Dynamic matrix may allow highlighting the evolving relationships, while providing the possibility of treating econometric correlations and interdependencies between factors, sources of risk and funding sources of these risks.

Conclusions

The poor state of the environment can't be separated from economic activity of transnational corporation's globalized economy. Global economic behavior of these entities can be shaped and influenced by the following factors: environmental regulations, awareness of environmental issues, increased environmental risks from industrial activity environmental NGOs.

Located in the EU pollution control carbon dioxide market was created Emissions and future aims to integrate its financial markets by replacing spot transactions of forward transactions that take place on a regulated market.

However, environmental policy's rate can have negative effects. By ratifying the new commitment from Paris the 195 participating countries have imposed limit global average temperature increase to less than 2 degrees Celsius; a fund of 100 billion dollars to fund developing states in 2020.

Also committed to reduce by 80% the emissions of carbon dioxide by 2050 could lead to increased production costs and competitive prices for some producers in the industrial. It can thus happen to occur so-called carbon leakage process that will lead to the loss of industrial producers in Europe by moving their business elsewhere, and which may have significant social effects.

Bibliography

Brachinger, H.W., Webe, M.: "Risk as a Primitive: a Survey of Measures of Perceived Risk", *ORSpektrum*, Springer-Verlag, Berlin, 1997.

Fishburn, P.C.: „Foundations of Risk Measurement IRisk and Probable Loss”, *Management Science* 30, 1984.

- Goulder, L., Parry, I.: “Instrument Choice in Environmental Policy”, *Review of Environmental Economics and Policy*, Oxford University Press for Association of Environmental and Resource Economists, vol. 2(2), 2008, pp. 152-174.
- Harris, Jonathan M: “The Economics of Global Climate Change - A GDAE Teaching Module on Social and Environmental Issues in Economics”, Global Development And Environment Institute, Tufts University, 2009.
- Herring, Horace, Sorell, Steve : “Energy Efficiency and Sustainable Consumption- The Rebound Effect”, *Energy, Climate and the Environment Series*, Palgrave MacMillan, 2010.
- Huppel, Gjal: “Realistic Eco-Efficiency Analysis Why We Need Better Eco-Efficiency Analysis - From Technological Optimism to Realism”, *Technikfolgenabschätzung – Theorie und Praxis* Nr. 3, 16. Jg., Dezember 2007, pp. 38-45.
- Jasch, Christine: “Environmental and Material Flow Cost Accounting”, *Eco-Efficiency In Industry And Science*, Volume 25 Springer Science - Business Media B.V., 2009.
- Jehlička, Petr: “Environmental Implications of Eastern Enlargement of the EU: The End of Progressive Environmental Policy?”, Robert Schuman Centre for Advanced Studies, European University Institute: Florence, 2002.
- KOK, Wim – „Enlarging the European Union: Achievements and Challenges?”, Robert Schuman Centre for Advanced Studies, European University Institute: Florence, 2003.
- Krey, M., Weinreich, S. (2007) Internalisierung externer Klimakosten im Pkw-Verkehr in Deutschland, Dokumentation Nr 00-11.
- Markham, L.: “Ecological costs of not planning, Forest planning”, Wisconsin Ed, 2005.
- Mitulescu, S.: “Environmental Protection – a major problem of the Europe of tomorrow”, INFRA/IWW, 2004.
- Peterlini, E.: “Innovative Technologies for Intermodal transfer Points, Competitive and Sustainable Growth Programmed”, 2001, pp. 1-23.
- Piciu, G. (coordinator) :“Risk assessment financing investment projects aimed at environmental protection”, research project of Centre for Financial and Monetary Research “Victor Slăvescu”, 2011.
- Piciu, G. (coordinator):”Environmental risks and costs of environmental policies from the perspective of sustainable development” research project of Centre for Financial and Monetary Research “Victor Slăvescu”, 2012.

Piciu, Gabriela Cornelia (coordinator): “Financing costs and internalisation of negative externalities on Natural Environmental Protection”, research project of Centre for Financial and Monetary Research “Victor Slăvescu”, 2010.

Shmelev, Stanislav E.: „Ecological Economics-Sustainability in Practice”, Springer Science - Business Media B.V. 2012.