

ENVIRONMENTAL PROTECTION IN THE CONTEXT OF THE ECONOMIC DEVELOPMENT AND GROWTH

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Abstract

People have recently started to show a particular interest for the link existing between economy and ecology, including the environmental protection. This way, a new domain, called ecologic economy or eco-economy, has sprung into existence, aiming at the ensuring of the putting-into-practice of the decisions regarding productive and social capital, while taking into account the characteristics of the natural capital, by using an ecological, economic and social accounting, both on a short and on a long term.

There is a significant interest for reaching a balance between the degree of environmental deterioration the level of economic development, and also for getting over the touchy elements of the link between economy and ecology so as to achieve a peaceful relation between humanity and environment, seen as a main goal for ensuring the continuity of the human race in the geosistema planetary space.

Key words : environmental protection, economic development, environmental deterioration.

INTRODUCTION

The idea of the environmental quality (or the deterioration degree) dependence on the level of economic development was put forward thanks to the research conducted by the economist Simon Kuznets, who stated a theory according to which there is an inverse proportional relation between the environmental deterioration and the economic development, that meaning that the environmental degradation increases at the beginning of the development process only for it to decrease at the same time as a certain level of economic development (Kuznets S., 1966).

1. THE RELATION EXISTING BETWEEN THE ENVIRONMENTAL DETERIORATION AND THE ECONOMIC DEVELOPMENT LEVEL

According to the empiric studies that led to this hypothesis, the relation between the economic development level (measured by the GDP per capita level) and the degree of environmental deterioration (expressed through the deforestation degree, the level of the CFC gases, etc.) can be described through curved shape of U - reversed, known as the Kuznets curve type. The U – reversed dependence has not been noticed for the radioactive waste, for the O-zone layer deterioration or for the carbon dioxide emissions, which increase at the same time as the GDP level.

The tendency described above is not automatic, but the result of two important factors: the intervention of the public authorities through different mechanisms (legislation, regulations, juridical and economic instruments etc.) and the polluters' reactions to the stimuli and constraints that appear. Therefore, the inverse relationship between the environmental deterioration and the level of the economic development, which is mostly exaggerated, appears due to the political distortions, such as the subventions for energy and agrochemical products, the industry protection and the underestimation of the natural resources, which are all harmful for the nature, having been regarded from both an economic and an environmental point of view (Kuznets S., 1966).

Another distortion is the cause of a market failure, such as a wrong interpretation of the property rights over natural resources, or the lack of accounting and payment for the environmental externalities, which may cause a high pollution level, in relation to the unit externality. The countries which are currently developing can display a straighter, more constant E-k curve, as they anticipate such situations through: eliminating political distortions (represented by the subventions for energy and raw materials), internalising the cost of the environmental degradation and directing them towards the ones responsible for harming the nature, defining and respecting the property rights over natural resources, promoting and developing eco-industries and clean technologies (figure 1).

These are the reasons why I think that it is absolutely necessary for the economic reform to take into account the dependencies like the U – reversed ones and also take action so as to avoid the irreversible environmental degradation. Usually, the environmental deteriorations, which have just started to develop, cannot be possibly avoided in later stages. The minimization of the environmental degradation can be obtained by flattening the U – reversed curve, so as to keep it under the capacity of resilience of the environment.

An important part in the economic development is played by the assistances agencies, which can continue to help us flatten the E-k curve, approach the environmental problems, obtain a full refunding necessary to the developed countries so as to support the currently developing states by coming up with creative financial mechanisms, built around ideas similar to the following ones: the conservation of resources and of biodiversity that generate global benefits, which, under any other circumstances, would have inevitably got lost in the inferior phases of the economic development process (Ekelund R.B. et al, 1997).

Figure 1 The possibility of “flattening” the U curve – reversed during the time of transition towards the market economy

Source: Th., Panayotou, *Empirical Tests and Policy Analysis of Environmental Degradation at Different Stages of Economic Development*, International Labour Office, Geneva, 1993.

2. INFLUENCES ON THE ENVIRONMENTAL DEGRADATION LEVEL

The economic development is being directly influenced by five essential elements, which bring their different contributions to the decrease or increase of the environmental degradation level, thus including the natural resources. These are: the level of the economic activity or the economy size, the economic structure according to sectors, the existing technology level, the request concerning the regulations regarding the environmental protection, politics and environmental conservation and protection costs (Todosia M., 1985).

Regarding the level of the economic activity or the economy size, it can be stated that the more developed the economy of a country is, in a context where all the other factors remain constant, the more rapid the natural resources' exhaustion is and the higher the pollution level is (Popescu Gh., 2009).

The type and level of resources' exhaustions and of pollution also depend on the sectoral structure of economy (Pretschger L., 1999). This way, economies that mainly depend on agriculture and other types of industry, belonging to the primary sector, may be affected by a rapid natural resources' exhaustion, such as deforestation and soil erosion, but, on the

other hand, they suffer less from industrial pollution (Faure E., 1972). In all the countries whose industry is not very well developed, the problem of the natural resources' exhaustion is being gradually replaced by the urban pollution (UNE, 1996).

As far as the existing technology level is concerned, we can state that countries sharing the same industrial structure may generate different degrees (levels) of waste emission, if the fixed capital and the production technology differ in terms of shape and productivity. Technology that can be found in old factories tends to be less efficient when it comes to raw material or energy consumption and it produces larger amounts of waste than the technology used in quite recent and well-equipped factories (Khazoom J.D., 1980).

Concerning the request of regulations regarding the environment, it can be said that in situations when all the other factors remain constant, in countries with permissive regulations as far as the pollution domain is concerned, we should register a higher level of polluting emissions than in the countries which claim to have an effective control over the environmental protection or impose higher prices for using the natural environment as a waste depository (Pearce D.W., Turner R., 1990), (Pearce D.W., 1993). A way of solving this problem may be creating a market only for the commerce that holds pollution certificates (Richardson J., 2001).

The policy and costs reserved for the environmental conservation and protection are, also, one of the essential factors that could influence the rise or the fall of the level of environmental degradation, including the natural resources (Okita S., 1992; Cămașoiu C., 1994). In the first stages of the economic development, as poverty was still a common problem, not many funds were allocated for the environmental protection (Pohoață I., 2003). This is the answer to a really small request of non-polluting regulations, whose stages can be best described by a low level of public expenses, previously reserved for the environmental protection, and by the inexistence of the expenses assumed by the private sector, except for the elite.

In time, as the development process takes place, the natural resources' exhaustion is advancing fast and pollution has also started to be assimilated to a growing rate, once the assimilative capacities of the environment have become overburdened with polluters (Rojanschi V. et al, 2004), (Rojanschi V. et al, 2006). On the other hand, the costs for the environmental protection are slowly rising, because people have not yet understood the serious problem of pollution, despite the rise in income and the growth registered by the anti-pollution movement (Falque M., 1992). The request for anti-pollution measures and regulations is growing each and every time a higher level of income and wealth are economically enforced,

but it is also ecologically menaced by the impact that the natural resources' exhaustion and pollution may have on productivity, health and life quality (Program de acțiune pentru protecția mediului în Europa Centrală și de Est, 1991). Consequently, all the economic, social and political pressures want to implement and impose the obedience of some anti-pollution regulations and also sustain a rise in the budgetary allocations so as to ensure the protection and the preservation of the environment. Therefore, in the latter stages of development, the environmental quality will increase, thus reaching a superior level (Tietenberg T., 2000).

CONCLUSIONS

We can, therefore, conclude that the policy which stimulates the economic growth will, eventually, lead our planet to the exhaustion of its non-renewable natural resources. This idea leads to the fact that the environment is desperately in need of a new structure which can be obtained be it through terms of the intern policy, be it through an international aid or firm imposition. This way, resources must be preserved so as for our society to reach an economic growth that should take place as soon as possible, in order for us to go over the stage of our unfriendliness displayed towards the environment.

This is exactly why the environmental degradation may be directly dealt with through ecological policies and investments so as to ignore the obstacles that can be found right in the way of our economic development. It is expected that these ecological ideas will provide us with a brand new "generation" of benefits as far as the environment is concerned. It is important for us to mention the fact that, because of the irreversibility of the phenomena of environmental destruction, our lack of taking action may end up causing the eternal loss of some of our ecological values.

Acknowledgments

This paperwork has been co-financed by the European Social Fund, through the Sectoral Operational Programme Human Resources Development 2007 - 2013, project POSDRU/CPP107/DMI 1.5/S/77082, "Doctoral grants for complex eco-economic and bio-economic training in the safety and security of food and fodder in anthropogenic ecosystems".

REFERENCES

1. Cămășoiu, C., 1994, *Economia și sfidarea naturii*, Editura Economică, București, pp.18-24.
2. Ekelund, R.B., Robert, J., Herbert, F., 1997, *A History of Economic Theory and Method*, McGraw-Hill, pp.85-98.
3. Faure, E., 1972, *Economie et société humaine*, Ed.Denoel, Paris, pp.274-275.

4. Falque, M., 1992, Développement durable: pour un nouveau contenu, I.C.R.E.I., Paris, pp 12-13.
5. Khazoom, J.D., 1980, Economic Implications of Mandated Efficiency Standards for Household Appliances, Energy Journal, vol.1., No.6, pp 21-39.
6. Kuznets, S., 1966, Modern Economic Growth, Yale University Press, pp.1-38.
7. Kuznets, S., 1966, Economic Growth and Structural Change, New York, pp.26-33.
8. Okita, S., 1992, Cu fața spre secolul 21, A.G.E.R., Economistul - R.A.I., București, pp.152-155/
9. Pearce, D.W., Turner, R., 1990, Economics of Natural Resources and the Environment, Harvester Wheatsheaf, London, pp. 55-56.
10. Pearce D., 1993, World without end. Economics, Environment and Sustainable Development, Publish for the World Bank Oxford University Press, pp.45-48.
11. Pohoată, I., 2003, Filozofia economică și politica dezvoltării durabile, Editura Economică, București, pp.24-26, 82-91.
12. Popescu, Gh .,2009, Evolution of Economic Thought, 4th.Ed, Bucharest : C.H.Beck Press, pp. 63-97.
13. Pertschger L., 1999, Growth Theory and Sustainable Development, Cheltenham, UK; Northampton, MA, USA, pp.237-254.
14. Richardson J., 2001, European Union, Power and Policy-Making, Ed. Routledge, London , pp. 23-47.
15. Rojanschi, V., Bran, F., Grigore, F., 2004, Elemente de economia și managementul mediului, Editura Economică, București, pp.51- 57.
16. Rojanschi, V., Bran, F., Grigore, F., Ioan, I., 2006, Cuantificarea dezvoltării durabile, Editura Economică, București, pp.29-30.
17. Tietenberg, T., 2000, Environmental and Natural Resource Economics, 5th Ed, Addison Wesley: Reading, Massachusetts, pp. 15-46.
18. Todosia, M., 1985, Doctrina economice contemporane, Editura Didactică și Pedagogică, București, pp.120-124.
19. UNE, 1996, Saving Our Planet, pp.12-15.
20. *** Program de acțiune pentru protecția mediului în Europa Centrală și de Est, versiune prescurtată a documentului aprobat de Conferința Ministerială de la Lucerna, Elveția, 28-30 aprilie 1993, Publicată de Regional Environmental Center for Central and East Europa, 31 martie 1994 și The State of Food and Agriculture - 1990, F.A.O., Rome, 1991.