THE MANAGEMENT OF ENVIRONMENTAL RISKS OR LEARNING HOW TO CONSERVE THE NATURAL CAPITAL

CRISTINA RALUCA POPESCU¹, VERONICA ADRIANA POPESCU², GHEORGHE N. POPESCU²

¹ UNIVERSITY OF BUCHAREST, BD. M. KOGĂLNICEANU 36-46, 5 DISTRICT, 050107, BUCHAREST, ²ACADEMY OF ECONOMIC STUDIES BUCHAREST, PIATA ROMANA 6, 1 DISTRICT, BUCHAREST,

popescu_cr@yahoo.com, popescu_va@yahoo.com, popescu_gh_cafr@yahoo.com

Abstract:

Nowadays, there is a growing consensus across all the international business communities of the need to better understand and integrate the management of environmental risks and opportunities into all aspects of business operations. It can be easily remarked that from insurers to banks, the financial industry is becoming increasingly conscious of the risks and opportunities related to biodiversity and ecosystem services (BES) and due to all these facts, the new challenges affect the business prospects of bank clients both directly and indirectly, especially where clients are involved in agriculture, resource – intensive sectors, natural resource – dependent industries, or ecologically valuable and sensitive areas. The present paper "The Management of Environmental Risks or Learning How to Conserve Our Natural Capital" starts by presenting the risks and opportunities that our world in continuous motion confronts itself with. The research starts with the new recommendations that have been elaborated in the Briefing called "Demystifying Materiality: Hardwiring Biodiversity and Ecosystem Services into Finance' launched by the United Nations Environment Programme Finance Initiative (UNEP FI), which was launched at the tenth meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP 10) in Nagoya, Japan, in October 2010. Our study also concentrates upon the forms of emerging concerns and rising perception of risks that include the changes in the way some financial institutions – alongside natural resource dependent companies – are now starting to understand and to preserve the economic importance of biodiversity and ecosystems. Taking into account that, in essence, biodiversity and ecosystem services jointly underpin all life on Earth, our research comes to give a new perspective upon the strong connection that has always existed and that will always exist between human development by the aid of economic growth and prosperity and nature.

Key words: environmental risks, natural capital, international business communities, human development, economic growth and prosperity, good management

JEL classification: 016

INTRODUCTION

Conserving our natural capital has always been a great concern for all the countries officials though time, but even though the fear that all the natural habitats will one day disappear has existed people have ignored these signals, showing each year less and less respect to nature and its needs. That is why, in the opinion of the authors why today the management of environmental risks represents the key method that will help people all around the world to learn how to conserve the natural capital.

In this matter we are at the beginning trying to present what biodiversity and the ecosystem services are and what are their main implications to nowadays society. "Biological diversity" is defined in Article 2 of the UN Convention on Biological

Density as "the variability among living organisms" and "diversity within species, between species and of ecosystems". Ecosystem services are the goods and services that biodiversity provides, such as supporting services (e.g., soil formation), provisioning services (e.g., food and water), and regulating services (e.g., flood and climate control). In essence, biodiversity and ecosystem services jointly underpin all life on Earth.

The paper starts by presenting the risks and opportunities that our world in continuous motion confronts itself with, making, at the beginning, recommendations that have been elaborated in the Briefing called "Demystifying Materiality: Hardwiring Biodiversity and Ecosystem Services into Finance" that was launched by the United Nations Environment Programme Finance Initiative (UNEP FI), at the tenth meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP 10) in Nagoya, Japan, in October 2010. The kinds of emerging concerns and rising perception of risks that include the changes in the way some financial institutions are now starting to understand and to preserve the economic importance of biodiversity and ecosystems, which is also a great concern in the paper.

Biodiversity and ecosystem services together represent all life on Earth, and that is the reason why giving a new perspective upon the strong connection shows that there have always existed and will always exist between human developments threw economic growth and prosperity and nature.

After all, there is a growing consensus across the international business community of the need to better understand and integrate the management of environmental risks and opportunities into all aspects of business operations.

1. BIODIVERSITY AND ECOSYSTEM SERVICES AND THE CONNECTION TO FINANCE

From insurers to banks, the financial industry is becoming increasingly conscious of the risks and opportunities related to biodiversity and ecosystem services (BES). These affect the business prospects of bank clients both directly and indirectly – especially if the clients are involved in agriculture, resource - intensive sectors, natural resource - dependent industries (see Barbier, E. 2007), or ecologically valuable and sensitive areas (Ayong Le Kama, 2001). In this particular matter, with the support of a number of financial institutions, these risks and opportunities have been elaborated in a new CEO Briefing launched by the United Nations Environment Programme Finance Initiative. Of course, it is already known that it refers to the report by the World Economic Forum (WEF) on global risks in 2010, and emphasizes that the loss of biodiversity is increasingly perceived as a risk that could have a USD 10 to 50 billion impact on business over the next decade (see [12] and [13]).

Taking into account recent recommendations, we can sums up the situation as follows: nature is not just about fluffy animals or brightly colored frogs – it is central to the health of businesses that need to incorporate environmental impacts into their risk management (Endress, L., J. Roumasset, and T. Zhou, 2005). It is fact that emerging concerns and rising perception of risks represent a fundamental sea change in the way some financial institutions (http://www.un.org/en/events/iyof2011/), which is, in fact, starting to glimpse and to factor in the economic importance of biodiversity and ecosystems.

2. EMERGING CONCERNS AND RISING PERCEPTION OF RISK IN REGARD TO NATURAL CAPITAL

In regard to the emerging concerns and rising perception of risk concerning the natural capital it must be stated that at a side event of the CBD COP 10 were presented

specialists views on the subject of biodiversity and ecosystem services (Popescu Veronica Adriana, Popescu N. Gheorghe, Popescu Gh. Cristina Raluca, 2010a). At this event attended representatives of financial institutions, as well.

At this event there were also discussed and taken into future consideration crucial problems, such as the inclusion of "sustainability" as one of global research's megatrends, which implicated the "Forestry and Forest Products" (https://emagazine.credit-suisse.com) policy and the identification and conservation of ecologically valuable habitats. It has to be also emphasized that the focus on the latter is particularly relevant as we transition from 2010 as the UN International Year of Biodiversity into 2011, which will be the UN International Year of Forests (Forests 2011) (Popescu N. Gheorghe, Popescu Veronica Adriana, Popescu Gh. Cristina Raluca, 2010b)

In the year 2010, following the CBD COP 10, there were also held workshops all over the world. In particular, in Hong Kong it was also held a workshop on the theme of conserving the natural capital, with a view to initiating a regional dialogue on improving understanding of environmental risks and opportunities (Popescu, Veronica, Popescu, N. Gheorghe, Popescu Gh. Cristina Raluca, 2010c). Workshop participants in Hong Kong included representatives of financial institutions, leading corporations, and NGOs. Here, the arguments for the formulation of a Natural Capital Statement were also discussed, and that was the reason why UNEP FI hoped that this workshop will compel financial institutions to incorporate BES into their internal processes, products, and services. The roadmap for the development of this Natural Capital Statement will involve consultations at other events and in other regions, such as at the upcoming World Economic Forum in Davos. Ahead of the United Nations Earth Summit in Rio de Janeiro in 2012 ("Rio+20"), which will take place 20 years after the original Earth Summit in Rio at which the CBD was launched, financial institutions have the opportunity to stress that the management of natural capital is being taken seriously by the sector.

3. THE PLACE OF INDUSTRY VERSUS THE PLACE OF NATURAL CAPITAL

In terms of biodiversity and ecosystem services, the research gives a new perspective upon the strong connection that that exists between human developments threw economic growth and prosperity and nature.

For example, the recent CEO Briefing addressed various business sectors that presents future risks for business operations: mining, for example, can swallow up huge quantities of water (Popescu, N. Gheorghe, Popescu, Veronica, Popescu Gh. Cristina Raluca, 2010d); in the case of the production of copper in Chile, water consumption could increase by over 40 percent by 2020 – and that occurs in the dry and semi-arid regions of the country; many long - term investments are also concentrated in the production of hydroelectricity. It is not known how much water will be available in the future, however; the fisheries sector also presents risks: fish stocks have been decimated by an estimated 90 percent compared with the pre-industrialization era and the resulting annual losses amount to USD 50 billion. In addition, around 85 percent of the land area used for the agriculture industry is of low value due to soil erosion, lack of nutrients, biological degradation, and pollution ([9]).

The conclusion that can be presented today, after analyzing all the existing facts, is that the global financial sector recovers and moves into the post financial crisis era where the need to understand systemic risk in a much more holistic way must be done as soon as possible (Dasgupta, P. 2007). The intention of the CEO Briefing that took place in 2010 had the aim to stress upon the critical natural capital that underpins the

economic activity and the financial capital of each country. Of course, specialists worldwide have stated that there are links between financial services, risk and the resource scarcity, loss of biodiversity and degradation of ecosystem services such as freshwater availability have, however, started to present financially material risks and opportunities for bankers, investors and insurers ([12] and [13]).

Financial institutions are strongly implicated in this process due to their large exposure or client base in industries directly dependent on BES, such as fisheries, agriculture and tourism, and industries with major BES footprints, such as the extractive sectors.

Nowadays, more than ever, leading companies are taking steps to better understand and manage their impacts and dependence on BES. All the officials of the financial institutions should recognize that biodiversity is not something to be dealt with as a peripheral issue or merely as philanthropy.

CONCLUSIONS

Nowadays, natural capital confronts itself with a large exposure to factors that tend to alter it and to create each day a more invasive system and a threatened environment.

Our conclusions section summarizes the main outcomes of the paper and undertakes the implications of such outcomes, but also lives a place for suggestions for future researches. That is the reason why, at the beginning of our research we have presented our keen interest towards the necessity of better conserving our natural capital. Officials have shown a great concern for all the countries due to the continuous fear that all the natural habitats will one day disappear but people have ignored these signals, showing each year less and less respect to nature and its needs. Today the management of environmental risks represents the key method that will help people all around the world to learn how to conserve the natural capital.

As a key part at the beginning of our study, we tried to present what biodiversity and the ecosystem services are and what are the main implications to nowadays society. Biological diversity is defined as the variability among living organisms and diversity within species, between species and of ecosystems, and the ecosystem services are the goods and services that biodiversity provides in general.

The next part of our presentation, that came to continue the ideas of the previous part, had the aim to stress the importance of sustainable development as a key factor to having healthy biodiversity and ecosystem services, and also shows some views that specialists have shown in this matter.

Even so, there exist clear emerging concerns and rising perception of risk in regard to natural capital, due even to the shortage of resources, to the limited potential of our Planet or even to the damages created and generated by the economic crisis itself.

But trying to see which is the place of industry in comparison to the place of natural capital is very important too, because those two elements must never compete between them, they have to come together and join their forces in order to generate life, a better future, economic and social growth in a competitive but still friendly environment.

After all, the study may well be continued in the next future with new ways that can implement a better method to preserve the planet, but all done in an efficient way and not as a philanthropic gesture.

REFERENCES

- 1. Ayong Le Kama, 2001, A.D. Ayong Le Kama, Sustainable growth renewable resources, and pollution, Journal of Economic Dynamics and Control, 25:1911–1918
- 2. Barbier, E. 2007 Natural Resources and Economic Development, Cambridge University Press
- 3. Dasgupta, P. 2007. The idea of sustainable development, Sustainability Science, 2(1):5-11
- 4. Endress, L., J. Roumasset, and T. Zhou, 2005, Sustainable Growth with Environmental Spillovers," Journal of Economic Behavior and Organization," 58(4):527-547,
- 5. Popescu Veronica Adriana, Popescu N. Gheorghe, Popescu Gh. Cristina Raluca, 2010a, *Global Trends How Countries Can Learn From History*, Metalurgia International VOL XV, Editura Științifică F.M.R., Special Issue N0. 5, 2010, pp. 186-193, ISSN: 1582–2214, (revistă indexată în EP Products, SCOPUS şi EBSCO aparținând lui Elsevier Bibliographic Databases, cotată ISI în clasificarea CNCSIS)
- Popescu N. Gheorghe, Popescu Veronica Adriana, Popescu Gh. Cristina Raluca, 2010b, Globalization of the business world and the importance of environment the dominants of the contemporary economy, Supliment nr. 3 al Revistei Române de Statistică a Institutului Național de Statistică, pp. 320–326, martie 2010, ISSN: 1018–046x, (revistă acreditată CNCSIS categoria B+, monitorizată de ISI Thomson Philadelphia)
- 7. Popescu, Veronica, Popescu, N. Gheorghe, Popescu Gh. Cristina Raluca, 2010c, *New Rules For Companies Due To Continuous Growing Competitiveness*, Conferința Internațională organizată de Universitatea din Bucureşti: "International Conference in Economics and Administration ICEA – FAA 2010, Secțiunea 1: "Economics", Faculty of Business and Administration, University of Bucharest, Romania", Facultatea de Administrație şi Afaceri, din 4-5 iunie 2010 indexată BDI in EBSCO, http://conference.faa.ro, link-ul http://itchannel.ro/faa-sesiune/node/47 ((proceedings on CD)
- Popescu, N. Gheorghe, Popescu, Veronica, Popescu Gh. Cristina Raluca, 2010d, A world of Challenges: the Acceleration of Financial Flows and of Foreign Direct Investments, Conferința Internațională organizată de Universitatea din București: "International Conference in Economics and Administration ICEA – FAA 2010, Secțiunea 2: "Applied Economics", Faculty of Business and Administration, University of Bucharest, Romania", Facultatea de Administrație și Afaceri, din 4-5 iunie 2010 indexată BDI in EBSCO, http://conference.faa.ro, link-ul http://itchannel.ro/faa-sesiune/node/47 ((proceedings on CD)
- http://computingforsustainability.wordpress.com/2009/03/15/visualisingsustainability/ Visualising Sustainability. Posted by Samuel Mann under Computing for Sustainability, visualisingsustainability
- 10. http://www.rdmag.com/tags/Policy-and-Industry/Alternative-Fuels/
- 11. http://www.sciencedaily.com/releases/2010/11/101121195434.htm
- 12. http://en.wikipedia.org/wiki/Alternative_fuel
- 13. http://en.wikipedia.org/wiki/Sustainable_development#cite_note-32
- 14. http://www.un.org/en/events/iyof2011/
- 15. https://emagazine.creditsuisse.com/app/article/index.cfm?fuseaction=OpenArticle&aoid=295667&coid=642 91&lang=EN#biodiversity