

GUEST EDITORIAL PREFACE

Special Section on Sustainability and the Green Economy

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1. INTRODUCTION

In the last two decades, the global economy has experienced substantial improvements in economic and social welfare, and poverty reduction. These developments, however, have resulted in increased pressure on natural resources and contributed to environmental degradation. As a result, a sense of urgency has been raised at the global level, proposing the implementation of sustainability practices and policies to better guide humanity's future and to better assess how this planet's natural capital is being managed and impacted by policy makers, companies and the civil society. Along these lines, the 2012 Rio de Janeiro Global Summit reaffirmed the need for a global transition from a brown economy to a low-carbon Green economy that places a premium on a sustainable and balanced economic growth, social inclusiveness and environmental integrity and security.

This special issue, through the compilation of six papers, covers a wide spectrum of research

in the area of sustainability. This special is based on selected papers presented at the 2011 LIGE (Legal & Institutional Implications of the Green Economy) Conference held in Manaus, Brazil. Several areas of sustainability are discussed in these papers promoting the further discussion of factors driving sustainability efforts across the globe. The six papers cover topics such as: the sustainable use of biodiversity as a driving force for regional development, climate change and its impact on Brazil's Amazon forest, green innovations & patents, the role of payments for environmental services in the promotion of sustainable development, the impact of the Kyoto Protocol on Brazil's sustainability policies and efforts, and the role of institutional and markets failures in promoting biodiversity losses. We thank the reviewers for their comments and efforts in making this special issue possible. We also give our special thanks to the IJSEDS staff for their help in making this special issue possible.

2. SUMMARY OF THIS VOLUME'S CONTRIBUTIONS

In the first paper, Philip M. Fearnside presents the implications of global climate change to Brazil's Amazon region forests and ecosystems. The author outlines that the Amazon region is under threat of seeing some of its ecosystems disappear as a result of more frequent and prolonged droughts. As a result of more fires, the region would face a reduction in its biodiversity. In addition, the forest would give way to savannas and lower biomass woody vegetation, leading to losses in the value of Brazil's environmental services. The author argues for a more active role for Brazilian policy makers in global forums in addressing global warming and to also place a premium in efforts to reduce its own carbon emissions.

In the second paper, Alexandre Rivas, James Kahn, Carlos Freitas, Lawrence Hurd and Gregory Cooper stress the importance of payments for environmental services as a way to secure the establishment of sustainable strategies in Brazil's Amazon region. The authors assess the implementation of a payment program for environmental services in the community of Barcelos in the state of Amazonas, Brazil. The authors' main findings stress that payment for environmental services has the potential to become an important tool for environmental preservation in the Amazon region, and a powerful tool for the socio-economic development of communities in Brazil's Amazon region.

In the third paper, Mauricio Serra, Jose Vergolino and Artur Coelho address the role of biotechnology developments and innovations in promoting economic development in Brazil's Amazon region. The region's enormous potential in the global biotechnology industry is highlighted in the paper and presents their rationale for this biotechnology potential to become an important driver to induce the economic growth and development of Brazil's Amazon's region. The authors address the main challenges and opportunities permeating biotechnology developments in the Amazon region. The authors also mention the low emphasis on R&D and innovation, patents and intellectual

property protection as hindrances to the further development of a dynamic biotech industry in the Amazon region.

In the fourth paper, Renato Bonadiman stresses the importance of introducing measures such as REDD+ (Reducing Emission from Deforestation and Forest Degradation) to promote the conservation and the sustainable management of Amazon's region forest resources as well the recognition of the financial value of carbon stocks. The authors digress over the promises and challenges in introducing and implementing REDD+ strategies in the Brazilian market.

In the fifth paper, Araken Lima, Patricia dos Reis, Julio Castelo Branco, Rodrigo Danieli, Cybele Osawa, Eduardo Winter and Douglas Santos discuss the development of green patents and their impact on the transition from a brown to a green economy. The authors analyze how countries such as South Korea and the U.S. are handling the examination process of green patent filing, and how these countries have implemented procedures to accelerate the "green patents" application process. They suggest that Brazil needs to follow a similar strategy.

In the sixth paper, Dan Biller and Ernesto Sanchez-Triana address the role of institutions and market failures, particularly the failure to recognize the value of biodiversity, as key drivers of biodiversity losses. The authors showcase the example of the Sundarbans region of India using an integrative development model to propose policy suggestions to assist in enabling biodiversity conservation and the sustainable use in the Sundarbans region.

The papers cover different topics but point out that multiple strategies are needed to help our future by considering multiple strategies to encourage sustainability in many of our endeavors.

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