

TECHNOLOGY AND THE ENVIRONMENTAL MARKET : IS SUSTAINABILITY BOUND TO THE OLD WORLD ORDER?

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Keywords: Sustainable development, environmental market, globalization, science and technology policy, public policy, environmental diplomacy, environmental technologies, competitiveness, developing nations, global enterprises, green economy, Kyoto protocol, innovation, Research and Development, foreign investment, competitive advantages.

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Summary

The environmental market is a collective response to the ecological crisis, but while the idea of cooperation remains frozen, the market of technological innovations—which has thus become an area of globalization dominated by the oligopolies—has transformed the ecological crisis in a new source of profit.

Climate change is particularly paradigmatic in the construction of an environmental market. It emerged in the nineties as the most pressing environmental issue for the international community: the target of Kyoto Protocol (1997) set emission reduction goals vis-à-vis 1999 levels of eight percent for the European Union, seven percent for the United States and six percent for Japan for 2008-2012.

The most significant development to emerge from Kyoto has been the consensus regarding the need to put into place a commercial system for negotiating conflicts regarding emission restrictions.

What we can call as the «Kyoto model» becomes the paradigm of interdependence between sustainability and foreign investment, in this sense, the power exerted by free-flowing international investments could challenge the endogenous capabilities of developing countries to construct their own environmental institutions and markets in keeping with collective national interests.

1. Introduction

Sustainability is the key word of the efforts of governments, enterprises and communities, faced to the environmental crisis, but it does not mean the same for everyone, specially when it becomes green business under the leadership of global oligopolies and geoeconomical interests of the Triad governments.

This is a pathway to a new global order that seems the old one, specially for developing countries. The environmental S&T can be an instrument for those countries if the national capabilities in this field are integrated in a social construction and not on pure economical basis.

2. Technology and the Environment: From sustainability to the global market

When public awareness of the environmental crisis first began to emerge early in the 1970s, the polluter industry initially tended to respond by seeking the least costly solutions that posed the fewest hurdles to economic growth.

This focus led them to develop end-of-pipe technologies, the most dangerous industrial processes were shifted to the Third World, and governments established incipient regulatory agencies with very limited agendas.

With the «polluters pay principle» as the common premise underlying these responses, economic agents were encouraged to apply technological remedies to their most polluting production processes.

During the '80s, the environmental crisis assumed global proportions, the concept of sustainability emerged, and corporations were restructured into more flexible operations. These developments gave way in the following decade, the 90 s, to the concept of environmental management: control and reduce emissions, waste disposal, spatial downscaling of plants, more efficient use of energy, recycling, and management policies geared toward assuring environmental quality.

These developments gave way to the concept of environmental management which includes a wider range of activities not limited to the sole control of pollution: control and reduce emissions, waste disposal, spatial downscaling of plants, more efficient use of energy, recycling, and management policies geared toward assuring environmental quality.

The simplistic vision of the '70s was replaced by an interdisciplinary approach combining scientific and technological means for understanding and dealing with the environment. By then, it seemed that the only thing everyone agreed on was just how complex ecological issues were. This process, however, was part of a broader social construct, because ultimately the innovations born of the principle of sustainability (are delineated by the ways in which the environmental market takes shape, involving not only economic, but also social and political agents. This process is characteristic of the globalization phase of the past three decades. (see Table 1).

Period	Ideas	Conflicts	International Institutional Framework	Governmental Responses	Corporate Actions	Businesses
70s	Technological determinism	Growth constraints	Non that are relevant	Environmental protection agencies. Defining norms.	«Polluters pay principle». Internationalization for environmental reasons.	Traditional services (water, solid waste). Local ecological businesses.
80s	Global ecological crisis	Global vs. National. Trans-border contamination. Environmental policies vs. Ecological modernization.	Brundtland Report. Environmental sciences as a political protagonist.	Public policy.	Reconversion Based on flexible organizations and technologies.	Environmental companies assume nationwide dimensions.
90s	Sustainability. Globalization. Competitiveness.	The environment vs. the free market. Contradictions among triad nations.	New protagonists: World Bank, NGOs, standardization bodies.	Geopolitical, environmental. Third World countries create environmental policies.	Environmental management. Ecological norms. Environment becomes a competitiveness factor.	Global expansion of environmental companies. Emerging market competition.

Taken from: Micheli, Jordy, «Fin de siglo: construcción del mercado ambiental global», en *Comercio Exterior*, Vol. 50, Núm. 3, Mexico, March 2000, p. 188.

Table 1: The Stages of Environmental Market Formation

The environmental market is a collective response to the ecological crisis, and serves as a platform from which the idea of a «global society» begins to take shape. This market is the point of encounter of globalization forces and local interests. Fundamentally, the market is founded on the emergence of a new field of industry which serves as the heart of this new trend, but from a socio-economic perspective, we can see that it has been promoted by a large variety of interests: public policy, and an often contradictory managerial discourse have taken active part in the design of this new market. As a product of international negotiations on the environment, a constellation of international institutions have been defined by a large and new array of forces that comprise the world of environmental diplomacy. This market also extends to the new knowledge and techniques applied to nature as well as the relation between these factors and industry.

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Biographical Sketch

Jordy Micheli is professor and researcher at the Department of Economics, Universidad Autónoma Metropolitana (UAM- A), in Mexico City. He is an Industrial Engineer and Master of Economics, from the Universidad Nacional Autónoma de México. Before moving to that university, in 1997, he was under-director of Technological Modernization at the Consejo Nacional de Ciencia y Tecnología (CONACYT), during 1990-1996, and researcher at Centro de Investigación y Docencia Económicas (CIDE) during 1980-1990. He is also journalist and consultant. His research and consulting has focused on technological innovation and competences , management and organization , and construction of the environmental market. Professor Micheli is author of three books and numerous articles about those topics.