

Development models, sustainability and occupational and environmental health in the Americas: neoliberalism versus sustainable theories of development

Modelos de desenvolvimento, sustentabilidade e saúde ocupacional e ambiental nas Américas: neoliberalismo *versus* teorias sobre desenvolvimento sustentável

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Abstract *This article describes the inherent contradiction between competitive capitalism and the pursuing of the “three bottom lines”: 1) economic prosperity, 2) environmental quality (including the workplace) and 3) social justice. An alternative, genuine, sustainable approach to development; the Integrated Human Ecosystem Approach will be described and contrasted with neoliberal development. The IHE approach was developed by The International Development Research Center of Canada in 2001. In this approach, the triple bottom line is not a simple tool for neoliberal development, but the focus of allocation and management of resources for sustainable development. The acquisition of only state power by governments opposed to neoliberalism is necessary but not sufficient condition to successfully find a human alternative to the market ideology. A road map needs to be developed in which a clear definition of technologies that permit the acquisition and implementation of an alternative ideology to achieve “social power.” The IHE model provides developing countries with the basis for that ideology.*

Key words *Sustainable development, Neoliberal development model, Integrated human ecosystem model, State power, Social power*

Resumo *Este artigo descreve as contradições inerentes ao capitalismo competitivo e a busca do que foi chamado “as três formas de lucro”: 1) a prosperidade econômica, 2) a qualidade ambiental (incluindo-se a saúde ocupacional), 3) e a justiça social. Uma alternativa a esta visão é a que propugna um tipo de desenvolvimento sustentável genuíno, conhecido como “sistema integrado do ecossistema humano” (IHE). Este modelo será descrito e contrastado com o modelo neoliberal. O sistema IHE foi elaborado pelo Centro Canadense de Investigações em Desenvolvimento (IDRC) em 2001. Neste modelo, “as três formas de lucro” não são simplesmente uma ferramenta do modelo neoliberal de desenvolvimento, tendo como foco a distribuição e a administração de recursos para o desenvolvimento sustentável. A assunção ao poder de governos latino-americanos opostos ao neoliberalismo é uma condição necessária, mas não suficiente para encontrar uma alternativa humana ao sistema do mercado livre. É preciso se formar uma nova ideologia que coloque sua centralidade na questão social e o “poder social”. O modelo de desenvolvimento IHE poderia ser utilizado pelos países em desenvolvimento como a base de uma nova ideologia de centralidade do social.*

Palavras-chave *Desenvolvimento sustentável, Modelo de desenvolvimento neoliberal, Modelo integrado do ecossistema humano, Poder político, Poder social*

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Introduction

Economic development in our century continues in the Western hemisphere with increasing pressures from the World Bank and the United States to Latin American countries to adopt the neoliberal model of development under expanding free-market treaties. Economic development in Latin America is taking place under pressures to conciliate not only pure economic ends but also sustainable social and environmental goals. The process occurs in an environment of incessant political, social, and ecological changes in the hemisphere and in the globe. Pessimistic global projections based on ecological science seem to underline the economic development process.

Scientific examination of the world in the 21st century is providing us with an increasingly accurate description of previously vague and isolated episodes of global deterioration. Science (natural and social) also has shown the systematic character of these problems and conveyed to us the urgent necessity for their resolution. Three of the most climactic questions come to mind (Elkington, 2001). First, the intensification of environmental decay. Every year humans consume 40% of the earth's vegetable materials while the capacity of earth to regenerate vegetation and all other essential resources has been exceeded (Wackernagel, 2002). We are witnessing: deforestation, collapse of fisheries, and global warming growing at increased rates. Second, the scandalous disparity on the consumption of earth resources, where twenty percent (20%) of the richest nations consume eighty percent (80%) of all resources available. This unbalanced use of resources takes place while humans (mostly poor) have quadrupled from 2 to 8 billion in 100 years. The poorest sectors of the world population have also the greatest share of poor health caused by their environmental and occupational stresses. Third, the collapse of countries with collective economies and their move towards a market economy. This has strengthened the ideology of the proponents of the market economy, consolidated the power of global corporations and weakened governments and public collective institutions. It also has created an unprecedented triumphalist attitude by the individualistic market economy proponents. They, the modern neoliberal economists, tout the global corporations as the only social institutions able to resolve the problems of the 21st century (Elkington, 2001).

Market and non-market economy analysts in world fora are developing a consensus that the earth's long term survival will depend on society's ability to deliver longer term sustainability not only to wealthy western nations, i.e., the U.S. and EU, but also to developing and poor nations. Sustainability is defined as the characteristic of development that allows for the fulfillment of society needs of the present generation without compromising the needs of future generations (Brundtland, 1987).

Elkington, an author and consultant to European global corporations has anointed the global corporation as the deliverer of sustainable development. He recognizes that corporations need the help of governments and non-governmental organizations (NGOs), but the protagonist of any change, in his view, is ultimately the global corporation. He says, however, that in order to accomplish this feat, the corporation must transform itself from a simple profit generator (one bottom line) to an integrated "triple bottom line" institution, where: 1) economic prosperity, 2) environmental quality (including the workplace), and 3) social justice are considered simultaneously (Elkington, 1999).

This author characterizes this new "sustainable capitalist" as a "cannibal with a fork." The accurate designation of "cannibalism," describes the predatory and no-holds-barred competitive approach of global corporations. The "fork," according to Elkington, is this integrated "triple bottom line" that he urges corporations to adopt by pursuing the triple bottom line as the tool of choice to achieve sustainability. This tool, we are assured, would permit corporations to devour its competitors, obliterate industries and jobs, while at the same time achieving general prosperity and doing the right thing for Mother Earth.

It is at least disingenuous to pretend that the cannibal will be acceptable simply because it is using a fork or that it will deliver environmental, social, and economic prosperity by improving his/her manners. We need then to find an alternative more humane model of development that is an improvement over primitive economic models.

The objective of this article is to refute this image of the "sustainable capitalist" as a myth of neoliberalism. There is an inherent contradiction between competitive capitalism and the pursuing of the "three bottom lines," as defined by Elkington. We will also explore a gen-

uine sustainable approach to development, where the integrated approach to the triple bottom line is not a simple tool for neoliberal development, but the focus of allocation and management of resources for sustainable development.

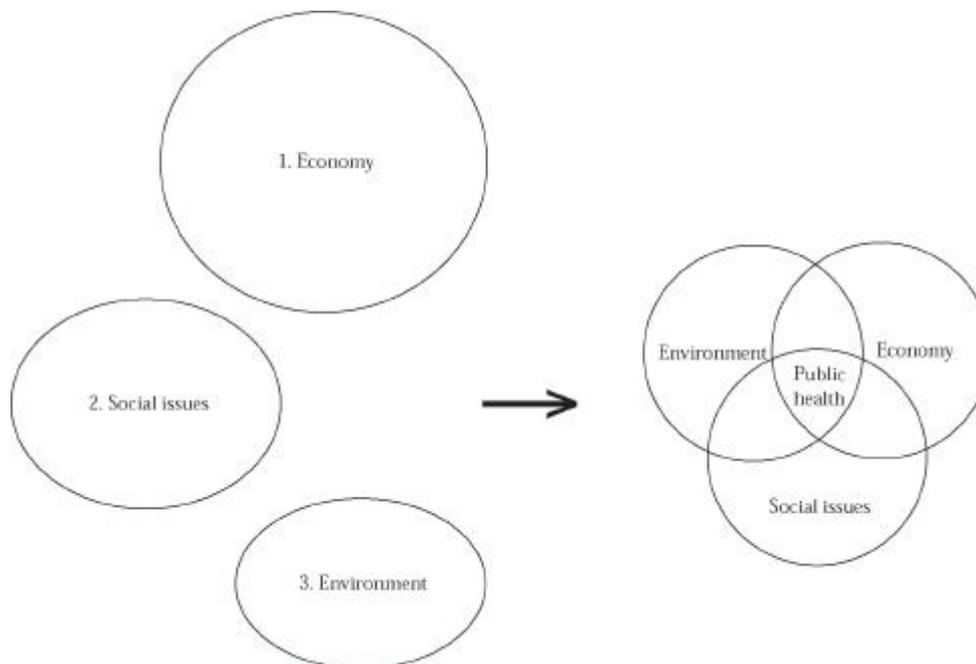
Sustainability and development

Neoliberalism is trying to subordinate the concept of sustainability – expressed as the “triple bottom line” – as simply another tool that would allow the unregulated, continuous growth of world economies under the ideology of what is called “free markets.” However, the very predatory character of this ideology does not lend any credibility or confidence to the notion of simultaneous triple bottom lines. What historically has been really a primary concern under corporate capitalism is the first bottom line, i.e., pure profit generation, while the environment and social issues must be subordinated to the “economic well-being,” defined mostly as short-term profit generation.

The contention here is that pursuing the enhancement of the economic bottom line as a basic ethical value precludes the attaining of the social and environmental development aims.

If we look at proposals on development in emerging economies, we have to look at two different approaches of management of resources for development. The first is the classical neoliberal approach to resource allocation presented above. It consists of a hierarchical sequence of discrete units where economic factors are primary, followed by community aspirations (social factors) and occupational/environmental impact issues, in that order of importance (Figure 1). The second development approach is defined as the Integrated Human Ecosystem Approach (IHE). It was originally developed by the Canadian/USA International Joint Commission for the Great Lakes (Commission Mixte Internationale, 1988) and further elaborated by the International Development Research Center (IDRC) of Canada in 2001 (Forget and Lebel, 2001). In this approach the concepts of human health and develop-

Figure 1
Transition from Neo-Liberalism to Integrated Human Ecosystem Models of Development.



ment are intimately related as the United Nations urged in its Action Plan Agenda 21 (UNEP, 1992).

The IHE integrated development approach differs from the conventional approach on the fact that all the three development factors are considered jointly and simultaneously. There is no hierarchy of importance and there is a common area of intersection (more details below). These three components are merged in a Venn diagram, a geometrical representation used in mathematics to show relationships of intersecting sets. The intersection zone is labeled “public health “ and represents the health of the inhabitants of the human ecosystem (Forget and Lebel, 2001).

The human ecosystem is an ensemble of air, soil, water, and living organisms (including biota, animals, and humans) that interact with each other in an interdependent mode. The concept of healthy human ecosystem highlights clearly the association that humans make on issues of health, i.e. public health – and applies to the human ecosystem that includes economic and social components of equivalent importance. The healthy ecosystem has become part of the language of science, policy makers, and the public when discussing issues of environmental degradation. But more than that, the healthy ecosystem has come to represent a global approach to resource management and thus development that can be understood by reference to a very intimate human experience: public health (Ross, 1997; Forget and Lebel, 2001). An ecosystem is healthy as long as it is sustainable; in other words, as long as it remains active and can maintain its organization and autonomy over time, and rebound from stress (Constanza, 1998).

The IDRC proposes the ecosystem approach to development as a systems approach to public health. It sets out the high priority areas for an integrated management of ecosystem resources: the economy, the environment, and social issues. This focus allows for three simultaneous actions: 1) to explore the relationship between the different components of an ecosystem, 2) to identify the most important determinants of public health, and 3) to estimate the impact of human activity on the sustainability of the ecosystem. In this way, human needs are placed front and center among development concerns (Forget and Lebel, 2001).

The Canadian Institute (IDRC) has developed the ecosystem methodology to conduct

development research interventions in Third World countries. It points out that the research study group must be transdisciplinary and that participatory methods should be used to examine the different roles and strategies used by social groups to manage their ecosystem (Forget and Lebel, 2001). The IRDC and its partners in developing countries are committed to the ecosystem approach and have published examples of its application. They recommend its adoption *by all those who seek to promote sustainable and equitable development that will ensure, as suggested by the Brundtland Commission, a rich and healthy environment for generations to come* (Forget and Lebel, 2001). The IRDC has applied this development approach in various projects in Africa and Asia with remarkable success.

Characteristics of resource management in neoliberal and sustainable (human ecosystem) development models

A more detailed comparison of the two models appears in table 1. The characteristics of the models are separated in the three factors of development described as the “three bottom lines” above. The classical neoliberal model of development has been the default method of economic and social growth in developing countries, especially development sponsored by the World Bank in Latin America.

- **Economic factors** – This model prioritizes economic factors, i.e., maximization of short-term return on investment and promotes continuous growth preferably in unregulated settings. Social and environmental factors are subordinated to economic factors, meaning that the relentless search for substantial short-term profit might justify ignoring social or environmental consequences of the development enterprise, or simply made, they are secondary considerations (Figure 1). The model tries to attain maximum profits by ignoring real costs (Daly, 1993). Applications of science and technology for development are concentrated on issues related to the production process with little allotment for social or environmental considerations. Continuous growth is taunted as the solver of all economic, social, and environmental problems (Daly, 1993).

On the other hand, in the sustainable (human ecosystem) model of development eco-

Table 1

Comparison of Neo-Liberal and Sustainable (Human Ecosystem) Models of Development.

Classic Neo-Liberal Development Model	Sustainable Development Model (Human Ecosystem)
Economic Factors	
I. Economics is the primary factor to be considered for development	Economics is considered concurrently and non-hierarchically with Social and Environmental factors
"Free market" based on maximization of short-term return on investment	Regulated market based in long term return on investment
Short term planning	Planning for at least one generation
Maximize production for continuous and linear growth	Production modulated by social and environmental concerns with emphasis on public health
Unregulated foreign investment. "Free" trade	Fair protection of local investment. Fair trade
Social/Community Factors	
II. Social factors are secondary to economics	Social factors are considered concurrently and non-hierarchically with Economic and Environmental factors
Dominance of the private sector. Top-down authoritarian organizations. Limited human rights. Non participatory	Balance between public and private sectors. Fully participatory of stakeholders on development. Full human rights (unionization)
Weakening of the public sector. Deregulation & voluntarism	Public sector with clear and fair regulatory functions on business, public health and environment
Science and technology focus mostly at the service of material values	Science and technology also applied to social and environmental concerns. Emphasis on public health
Occupational and Environmental Factors	
III. Environmental factors are tertiary to economics and social factors	Environmental factors are considered concurrently and non-hierarchically with Economic and Social Factors
Limitless use of natural resources	Use of natural resources limited by sustainability
Emphasis on non-renewable energy sources	Emphasis on renewable energy sources
Pollution control at end-of-pipe. Risk shifting between media (pollution shifted from: worksites to community, air to water)	Pollution prevention through toxics use reduction at source. Avoid risk shifting between worksite and community. Reduce/eliminate sources
Compliance with minimal occupational and environmental regulations	Actions beyond compliance. Implement alternatives to improve worksite and community environments
Waste control	Cleaner production. Design for environment. Focus on public health

nomics is not the primary factor of development, but is considered concurrently with social and environmental factors. Market forces are modulated to conceive long term planning, for at least one generation. Local investments are protected to permit its survival in fair competition with foreign investment (Daly, 1993). Growth is subordinated to social and environmental concerns. The impact of economics on public health is also considered.

- **Social factors** – Social concerns in a neoliberal model are mostly based in voluntarism since there is a constant effort to de-regulate and privatize development initiatives and the ownership of resources. The model requires and promotes a weak public sector where business, social, and environmental regulations are restricted. Enterprises are managed from the top down in authoritarian non-participatory systems. Human rights are not a priority and

are not universally applied. For example, unionization is discouraged. The sustainable model maintains a balance between the public and private sectors with a fair regulatory system that allows for strong and effective enforcement of laws. Universal human rights are also a priority. In this model, application of science and technology are brought to resolve social and environmental problems with the same intensity applied in the neoliberal model to productivity issues. Public health is also a central concern and an important social value.

- **Environmental and occupational factors** – The sharpest differences between the two models are found in their different approaches to the work and community environments. The neoliberal model advocates for the limitless use of natural resources with emphasis in the use of non-renewable energy sources. The sustainable (human ecosystem) model limits the use of resources emphasizing regenerated and renewable sources.

The approach to pollution in the neoliberal model is towards “control,” where risks from different sources (air, water, soil, worksites) are transferred from one medium to another, sometimes from workers to the community and vice-versa (Moire-Eraso, 1999). The methods are described as end-of-pipe methods (filtering, dilution, disposal). Firms also comply with the minimal requirements of regulations and shop from venue to venue to find the least stringent enforcement.

The approach of the sustainable model relies in pollution prevention (source reduction) with credible efforts to avoid risk shifting between media. It searches for alternatives to toxic use with the ultimate aim of cleaner production. All the efforts for improvements on the work and community environments have as the ultimate aim the improvement of human health (public health), which is the unifying theme on the three bottom lines of development: economic prosperity, community/social concerns, and environmental concerns (including occupational health).

At the 1999 Davos, Switzerland, meeting of the World Economic Forum, a gathering of big business and multinational corporations, The United Nations offered the world businessmen an irresistible offer. Koffi Annan, the UN Secretary General, proposed that the UN would support an international trade and investment regime “free” of any social and environmental obligatory clauses. In return, he

called the multinational corporations to “uphold human rights and labour and environmental standards” (Annan, 1999). The UN was basically proposing the privatization of human rights, environmental and occupational standards at a global scale, making them a private, voluntary endeavor.

The global corporations have since obliged. They have adopted the language of social and environmental concerns of the basic UN documents – even sustainable development – but only in a voluntary basis and avoiding to be called to comply even with the mild and unenforceable UN recommendations (UNEP, 1992). They were only required to “uphold human rights, etc...” in a corporate dominated unregulated world. These vague requirements are easily handled by the public relations offices of global corporations. Those same public relations offices have since mastered the language of sustainability. They learned to “talk the talk,” but they don’t seem very much committed to “walking the walk.”

Needs for implementation of a new development model in industrialized and semi-industrialized countries

In order to operationalize the application of the sustainable (human ecology) development model, three conditions need to be satisfied: acquiring state power, acquiring social power and having a concrete roadmap for action.

- **Acquiring state power** – No sustainable (human ecosystem) model of development could be implemented in a nation if the political groups proposing alternatives to neoliberalism are not holding political power. That is one of the reasons why non-industrial and semi-industrial nations vying for a new model of development are having a difficult time choosing and implementing alternatives. Another reason is that industrialized nations maintain an incessant pressure to continue the neoliberal model, because it permits them an unlimited capital investment policy and the unloading of their subsidized surplus products into poorer nations. All in the guise of “free” markets. So the institutional engineering required for the conquest and management of state power have to be in place to control the development process (Boggs, 1984). This is occurring with more frequency in Latin American countries, such as Brazil, Argentina, Venezuela, and Ecua-

dor, where newly elected governments are convinced of the destructive effects of neoliberalism in their economies. However, the holding of state power is only a necessary but not a sufficient condition for success. In addition to holding state power, it is necessary to obtain "social power."

- **Acquiring social power** – To advance a model of development centered in human rights (public health) where social community and environmental factors are considered simultaneously and with the same priority of economic factors, cultural transformation and a redefinition of values are required. Gramsci believed that a generation of "organic intellectuals" is needed to oppose the multifaceted consensus underlying the institutions that define "free" market economy and globalization as the only economic and social alternatives (Boggs, 1984). A new order should be defined that challenges the intellectual and cultural hegemony of the "free" market/globalization ideology. The process of building an alternative social and political theory and its application to a new order is what is defined as the acquisition of "social power." The "organic intellectuals" performing this task will conduct the ideological and cultural preparation for a new type of society. They would provide the principles and values to gain the necessary "social power." That, in combination with state power, will be necessary for the transformation of society values. However, the gaining of power, state and social, is not sufficient to effect change. The "organic intellectuals" have to develop and apply successfully a concrete roadmap for actions necessary for the transformation.

- **Roadmap for action** – The premium that all societies place in living in a clean environment is indeed global. Poor and rich countries consider it an imperative. The United Nations has understood this human desire and has been able to articulate through documents and declarations this universal desire (Brundtland, 1987, UNEP, 1992).

That is the political basis of the sustainable development theory and could be the key for movements to change society. In fact, environ-

mental organizations, unions, other NGOs, and its allies are indeed global political movements. The avenue for "social power" seems to be marked by the implementation of the sustainable (human ecosystem) model of development. What is needed is a clear definition of technologies that permit the implementation of such a model. The IDRC has prepared a detailed blueprint for development projects, following the sustainability (human ecosystem model) and tested his implementation on real life development projects in developing nations. Also, the United Nations (UN), the European community and some US firms follow the human centered model of sustainable industrial production that needs to be applied in industrially developed and developing countries.

New technologies and policies that are environmentally benign and promote primary prevention are going through a second and third generation of application. The principal aim is primary prevention of human disease. The specific policies and technologies are: pollution prevention, toxic use reduction, sustainable production, green chemistry, green engineering, Natural step, life cycle analysis, design for the environment, and others. Those are known as Next Generation Environmental Technologies (NGETs) (Rand, 2003): all have as their ultimate aim Cleaner Production and eventually Clean Production. The methods and systems of application of NGETs require multidisciplinary and participatory approaches. "Organic intellectuals" a la Gramsci should become familiar with these technologies to achieve the "social power" necessary to change society. These new production approaches need to be systematically implemented in developed and developing societies. A few altruistic "responsible" corporations that through compromise and cooption volunteer the application of these approaches will not change the hegemonic neoliberal style of development. They might have hijacked the language of sustainability, or even apply some of the methodologies, but they cannot pretend to have the initiative to change the world.

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