THE POLITICS AND ETHICS OF "SUSTAINABILITY" AS A NEW PARADIGM FOR PUBLIC POLICY FORMATION AND DEVELOPMENT PLANNING (I)

Roberto P. Guimarães
United Nations Economic Commission
for Latin America and the Caribbean
Environment and Human Settlements Division

Abstract

International environmental regimes represent one of the most important developments of the global agenda in recent years, bringing to the forefront of international relations different dimensions to the traditional concepts of governance and sovereignty. Likewise, environmental regimes have enshrined important and unprecedented principles for international cooperation, such as the "polluter pays" and the "precautionary" principles. This essay represents an attempt to analyze the evolution of "sustainability as" a result of the environmental global debate since the UN Conference held in Stockholm in 1972. First, it will be introduced what could be taken as the roots of environmental regimes and their reference to the emergence of a new development paradigm, that of "sustainability". The meaning of sustainability for public policy formation, as well as for distinct social actors involved in development policies will be then scrutinized against this backdrop, particularly the ethical implications of it. Finally, the paper suggests possible threats and opportunities posed to emerging actors by globalization and environmental regimes in the political realities of the Latin American region.

INTRODUCTION: INTERNATIONAL ENVIRONMENTAL REGIMES AND SUSTAINABLE DEVELOPMENT

International regimes can be studied from different and

International Journal of Economic Development
3, 3, 2001, pp.

complementary perspectives. Broadly speaking, these may be approached from the viewpoint of a system of rules and regulations between State and non-State actors governing a specific subject area (Krasner, 1983). They may also be perceived as a system of rights and (substantive) duties and obligations, with corresponding (objective) procedures and mechanisms to guarantee the enforcement of internationally adopted decisions concerning determined aspects of the global agenda (List and Ritterberg, 1992). Finally, one may study international regimes as a group of social institutions that govern explicit actions of collective actors with respect to the behavior of sovereign States (Young, 1989).

Insofar as ***environmental*** regimes are concerned (see, among others, Hurrell and Kingsbury, 1992), these have brought to the forefront of international relations radically different meanings to the traditional precepts of governance and sovereignty. Among other aspects, environmental regimes have unfolded new concepts of shared, yet differentiated, responsibilities with respect to the global commons. This facet implies that what is required of nation States in terms relinquishing portions of their sovereignty in favor of internationally adopted environmental decisions may be manifested in different ways, whether the nation in question is considered to be developed or less developed according to economic criteria, technological prowess or perceived responsibility in bringing about the environmental impact being addressed by the regime. On the other hand, environmental regimes have enshrined also important and unprecedented principles for international cooperation. The oldest, dating back to the early seventies, refer to the "polluter pays" principle, which means that nationally and internationally those actors responsible for actions hampering the environment should also bear the financial burden to redress their impacts.

Most likely, the truly revolutionary aspect of environmental regimes relate to the "precautionary" principle strengthened through the Climate Convention. Briefly stated, it postulates that scientific uncertainty about an environmental problem cannot be an excuse preventing effective action when the consequences of said problem may be irreversible or even catastrophic for humankind once scientific precision can be established. We may indeed consider the precautionary principle revolutionary both for international and national politics alike once we acknowledge its implications for other areas of public policy, particularly as they relate to risk assessment and prevention, as well as

to consumer protection. It may suffice to imagine what will happen once consumer groups or governments decide to apply the precautionary principle to areas such as smoking or genetic engineering of agricultural and food products.

An additional characteristic of international environmental regimes pertains to the unforeseen and unprecedented weight of non-State and Civil Society actors, among these, environmental NGOs in general and the scientific community in the specific instance of climate change (see, for instance, Born, 1999). The emergence of these actors appears to respond to three related dynamics. First of all, the end of bi-polarization and the consequent decomposition of automatic alignments and ideological and power blocks dominating international relations. Secondly, the relative loss of significance of bi-lateral agreements and the strengthening of multilateral institutions, instruments and mechanisms to resolve international disputes. Thirdly, because environmental problems reveal the truly central and defining aspect of the term "globalization".

This last facet of environmental regimes deserves further comments. Globalization is often used, sometimes inadequately, to refer solely to the increasing interdependence of financial and commercial relations throughout the planet. As it will be mentioned later, we must be careful to differentiate the various *dimensions* of globalization, both as *vectors* and as *processes*. At this point, however, it is apt to stress that it is precisely in the environmental arena, more than in any other area, that the truly global character of international relations manifests itself.

In effect, environmental problems become matters of international concern mostly because they reveal global processes. Even though one may correctly state that local processes such as the burning of fossil fuels cause the greenhouse effect, climate change affects the entire planet, including the vast majority of countries that produce a small proportion of greenhouse gases. As a matter of fact, this explains why the best way to sum up environmental challenges is the popular "think globally, act locally".

However, more to the point advocated here, if no country is immune to the consequences of disturbing vital life support cycles, environmental problems can only be solved if all countries implement joint and coordinated actions. A perfect illustration was the intense

cloud of smoke that in 1996 covered the territory of Bolivia from Santa Cruz de la Sierra all the way to La Paz. One should keep in mind that this was a particularly successful year for the efforts of Bolivian authorities to prevent slash and burn agricultural practices. However, since forest clearing in the Brazilian State of Mato Grosso was very intense, the cloud of smoke did not recognize international borders.

In other words, even if a country decides to abolish the use of fossil fuels altogether, it will still suffer the consequences of climate change until all countries decide to take action. This distinctive global feature of environmental problems has been best synthesized in the words of former French Prime Minister Michel Rocard at the end of Rio-92. When asked to explain the reluctance of President Bush to fly to Rio because of his country's opposition to the Biodiversity Convention, only to change his heart at the last minute, Rocard remarked that "condemned to live together, from now on we are also condemned to come together even to disagree" (Guimarães, 1992:98).

The purpose of this essay is to analyze the evolution of sustainability as a result of the environmental global agenda since the UN Conference held in Stockholm in 1972. First, it will be introduced what could be taken as the roots of environmental regimes and their reference to the emergence of a new development paradigm, that of "sustainability". The meaning of sustainability for public policy formation, as well as for distinct social actors involved in development policies will be then scrutinized against this backdrop. The third section of the paper attempts to suggest threats and opportunities posed to emerging actors by globalization and environmental regimes in the political realities of the Latin American region.

ENVIRONMENTAL REGIMES AND SUSTAINABLE DEVELOPMENT

Modernity, environment and ethics, *tensions* of a new development paradigm

> *"There are individuals who the only thing they aspire in life is to own an imported car. Speaking for myself, it fits me a simple Volkswagen Beetle, because cars are machines used to allow people to move from a place to another. This is precisely why I wish to have the* ***power*** *to be able to buy an imported car, solely to enjoy the* ***pleasure*** *of not buying it…*
>
> *--Rui Lopes Viana Filho, 16 years old, Gold Medallist, International*

Mathematics Olympics, 1998 [emphasis added].

The concept of *modernity* may be adequately understood as a social project –oftentimes combining distinctive aspects of a national project of society— one that attempts to answer and to render intelligible processes of profound social change. Its is for no other reason that many societies have gone through different and successive modernities along their historical design as humanity. Yet, and contrarily to what many trustees of the so-called "post-modernity" try to convince us, to approach the complexities and the underlying values of the Twenty-First Century does not require specific knowledge and sophisticated analytical skills. Actually, the wisdom of knowing how to confront oneself with current contradictory social options without loosing the proper human and ethical perspective may even surprise us for its sensible insight. This might explain why for this young Brazilian mathematician there was no need to go into the depths of philosophy to sum up today's crisis of a specific style of development and, at the same time, position himself unequivocally.

Hence, its is apt to assume that the relationship between modernity and environment constitute the real tensions of the climax of Western civilization at the turn of the millennium. Tensions in a sense obviously much broader than the one used by Thomas Khun (1977) to characterize the need for convergent knowledge precisely to revolutionize the predominant scientific rationale and transcend prevailing paradigms. Contemporary modernity and environmental concerns result then from the same historical dynamics, i.e., the progressive protagonist role of human beings vis-a-vis the so-called "super-structures", as well as the increasing centrality that has assumed, to realize such "protagonism", the redefinition of relations between human beings and Nature. This convergence notwithstanding the reality that modern concerns for the environment compel human beings to call into question current modernity to such an extent that this same questioning has lead to the emergence of the very foundations of a new development paradigm, that of sustainable development.

Expressed in somewhat different terms, one may state that modernity and environment have nurtured themselves from the same epistemological matrix, one in which human beings occupy the central stage. To such an extent that have lead both social processes to make up the real "dilemmas" or "challenges" of civilization at the turn of the century. It is undoubtedly, one must add, their respective value and

ethical contents which operates as the underlying amalgam providing significance and direction to the tensions of current modernity.

As Peter Taylor (1997) has correctly put, whereas socialism represented the anti-systemic resistance to the industrial modernity hegemonic in mid-nineteenth century England, environmentalism represents the social resistance to the modernity of "market" consumption one hundred years later, now under the hegemony of the United States. Another way to express that would be to emphasize that the earlier modernity referred to the distribution of work, whereas contemporary modernity relates to the distribution of risks. In any case, both dynamics could have transcended themselves as knowledge and action paradigms inasmuch as they have been able to empower the ethical options entailed therein. Ruy Lopes, by placing the real meaning of an automobile in society (irrespective of its additional status as an "imported" one), reveals extreme sanity. However, by exercising his judgment to opt for a different alternative to satisfy his transportation needs, Ruy Lopes, in addition to exercising his social *power* (exchange currency in the modernity of consumption), empowers his "individuality" with the *pleasure* of being human (welfare yardstick of a sustainable society).

Confronted with the increasing "economicist" thought and jargon that, hand in hand with the globalization of markets, homogenizes distinct cultural identities and values, one should bear in mind the teachings of Don Juan to Anthropologist Carlos Castañeda. According to Don Juan, a way of knowledge is simply that, one in a million alternative paths, and it does not constitute any offense to oneself or to others to abandon it "if that is what your heart tells you". He goes on to suggest that one should "examine each path closely and very carefully... then ask yourself whether this path has a heart. If you find a positive answer, it is a good way of knowledge, otherwise, it is not of much use to you" (Castañeda, 1968: 106-7). Needless to say, the position advocated here assumes that the way of neoclassical economics, as well as that of the ideology of globalization, are in great need of a heart.

The preceding comments imply the recognition that the ethical and social justice components which characterize these alternatives of resistance to modernity imprints also a certain kinship to both of them: the "cousinhood" of contra-systemic resistance to capitalist accumulation. If one can suggest that the founding purpose of a socialist project had been to set a social limit to the economic rationality

of eighteen century modernity, environmentalism adds nowadays the biosphere as a limit to the economic and mercantile logic of the market.

This last remark calls also for a brief yet inevitable digression from the main thrust of the analysis. Reference should be made to the fact that even though socialism has been overcome at least in its concrete manifestations, this does not imply an identical fate to environmentalism. The so-called "real" socialism, built against the social conditions of the current century, responded in fact to the demands of a reality of one hundred years before --that of the citizen— through specific organizational forms (i.e., workers' parties). This aged "citizen" modernity has been now supposedly superseded by a "modern" modernity –that of the consumer. Contrarily, environmentalism does not aspire to become a political party movement, or to become the only and exclusive path of resistance to the new modernity –which, incidentally, explain to a greater extent the often failure of green parties all over the world (with few and counted exceptions). Portraying themselves as civil society organizational forms, which address themselves to human beings rather than to citizens or consumers, the multiple forms of environmentalism (both government-sponsored and non-governmental alike) struggle to much more than power. Environmentalism aspires to simply transform politics itself! As the German Green Party motto indicated unmistakably, "We are neither left or right; we are simply in front…"

Environmental non-governmental organizations have been able also to muster for themselves a political space dominated hitherto by corporations, party and governmental structures. In sharp contrast with party projections of socialism, NGOs address issues *supra*national in character, and their behavior is characterized by being global as well. To put in very straightforward and simple terms, the "Green International" (if there was one!) would ***not*** be made up by national parties that operate within the confines of national politics, but rather by the most varied forms of NGOs, with different programs, distinct political orientations and equally different clienteles coming from different social strata. Lastly, reality tends to indicate that these organizations, whose membership in some places are even greater than those of political parties, have also a greater influence in shaping public policy agenda. These organizations have been able to introduce new dimensions in national and international legal systems, have been able to change the form and substance of international negotiations, have been able to strengthen new fields of knowledge --ecological economics,

for instance-- and, in fact, have succeeded in placing human-nature relations in the forefront of the national and international agenda.

The foregoing remarks offer the rationale under which the next sections attempt, on one hand, to suggest specific issues to highlight the relationships between market and globalization --stage and script in which the current hegemonic "modernity" manifests itself-- and, on the other, to propose an approach from the standpoint of "sustainable development" to analyze the modernity of the environment in this context.

From emerging paradigm to international regime

Sergio Boisier (1997) is correct when he indicates that we live today a curious paradox, one in which the acceleration of the *tempo* of economic growth goes hand in hand with the "deceleration" of development. Whereas most macro-economic indices improve, social and environmental indicators that measure the qualitative evolution between sectors, individuals, classes and territories deteriorate even faster. Although many of us would have qualms with Boisier's assertion that "any situation that supposes social improvement without economic growth is basically autofagic" (see, for instance, Daly, 1996 and Douthwaite, 1992), what must be understood is the fact that the world is under some sort of development "schizophrenia", a condition (to put it politely…) in which the intermediary role of economic growth qua monetary accumulation, as a means to realize development, has little by little become an end in itself.

Wealth accumulation in monetary from has burst so strongly to the forefront of the public agenda that most regional and sub-national actors strive to create favorable conditions to attract more and more foreign investments, no matter under what conditions and irrespective of its productive or speculative character. In short, the often thought to be outdated debate on whether development rests upon exogenous or endogenous variables has sprung up from its grave.

Current economic wisdom preaches that the few cases of successful *endogenous* development occur mostly in primitive or isolated territories and societies. As the new sustainability paradigm seems to suggest, however, in flagrant contradiction with the neoliberal gospel, it is precisely the opposite that more often than not takes place in the "real" world outside the academe or international institutions.

Beyond strictly economic variables, development rests upon *ecological* and *environmental* factors which are intrinsic (i.e., endogenous) to a determined historical pattern of incorporation of nature by human societies. As a matter of fact, it has been this often forgotten reality that has led many of us to be misled by an apparent fading out of the "endogenous" character of growth throughout centuries and in fact, millennia. The key to understand the dialectical relationship between endogenous and exogenous dimensions of growth and development lies in the reality that globalization may actually bring about a unique and unified ("exogenous", transnational) economic *space*, but it does so via multiple (sub-national, "endogenous") *territories*.

Those who advocate that development is characteristically an endogenous process, dependent upon the availability of physical capital, human capital and technical process, are partially correct (see, among others, de Mattos, 1996). However, for this description to accurately reflect reality, one would have to assume that those actors who determine growth, i.e., capital accumulation (including external demand and expenses by non-residents), in addition to determining the national economic policy, are also residents in such territory. Furthermore, one would have to assume as well that technical progress is generated from the scientific and technological system of the same territory. Unfortunately, these assumptions can seldom be empirically verified. Contradictory as it may seem at this point, the fact that growth is increasingly dependent upon exogenous variables does not condemn to oblivion the special prevalence of endogenous factors.

In order to better grasp this apparent contradiction, it might be useful to rescue the so-called *Dependency Theory* (Cardoso and Faletto, 1969), a genuinely Latin American "endogenously" generated sociology of development. Making use of the specific case of how *technical progress* takes place, one may say that it does not occur not even at the national level of development, considering that our societies are notably dependent and peripheral precisely because this process happens contrarily to the "normal" pattern (i.e., that historically followed in "central" economies).

According to the still valid interpretation of Celso Furtado (1972), what characterizes the situation of dependency is the "deformation of the demand". Whereas in central countries it is endogenous technical progress that sets in motion capital accumulation and "determine" the final supply of goods and services, in those

countries located at the periphery of the capitalist system it is the change in the composition of the demand which "requires" technical progress and allow for capital accumulation. As an illustration of the former, someone "invents" the internal combustion engine, is able to muster the interest of willing investors and, as a result, "creates" a market for, say, automobiles. In the periphery, the equivalent process has had an entirely different character and orientation. There, higher income strata import consumption patterns that include, for example, automobiles, which in turn require that machines and equipment (mostly "closed" technological packages) be imported, and set in motion capital accumulation (founded mostly on equally exogenous national savings from abroad, often in the form of external debt).

Irrespective of the oversimplification of the argument, the truth is that this description explains, among other dimensions, the scant penetration of technical progress in peripheral economies, the scarce diffusion of productivity increments as well as the highly skewed distribution of the benefits of growth. In short, in purely economic terms, especially within the context of capital accumulation in the periphery, growth occurs mostly dependent on exogenous than on endogenous variables.

Surprisingly enough for some "newcomers", it is the emergence of this new environmental dimension to development that rescues the contradiction alluded to previously. From the standpoint of ecological (i.e., natural resources and cycles) and environmental (i.e., natural services) variables, it is the natural endowment of a territory –by definition, endogenous— that sets constraints and possibilities for autonomous development. If it is true that it is not natural wealth that guarantees endogenous development –as the many politically and economically poor countries, yet wealthy in natural resources, can attest— it is indeed this endowment which may put the commands of the development process in endogenous gears.

These same "newcomers" may find it rather pretentious this last assertion. Yet, the history of relations between human beings and Nature tends to indicate that humankind has gradually become independent of its immediate surroundings (among others, through the incorporation of remote and foreign environments). Taking into account that it has been precisely this facet of the evolution of humankind that has undermined the ecopolitical (i.e., ecological and institutional) foundations of contemporary civilizations, the transition to a

sustainable development entails the establishment of international environmental regimes that will inexorably lead to bring once again to the forefront of human affairs the crucial role played by the natural wealth of nations in setting the possibilities of attaining development, all of which… voilá! renders the former statement a most legitimate assertion (warning?), pretentious or not.

The Ecological Transition and crisis of sustainability

In order to understand adequately the foundations of the new paradigm of development, one must start from recognizing that humankind is facing a crisis which is, at once, *ecoenvironmental* (i.e., ecological, referred to resource scarcity, and environmental, i.e., referred to the scarcity of environmental services and pollution reservoirs) and *ecopolitical*, related to the institutional and power systems that regulate access, ownership, distribution and use of natural resources and of waste reservoirs (Guimarães, 1991a). Both dimensions question prevailing patterns of production and consumption. To incorporate then an ecological yardstick to current decision making processes may represent indeed more than an aspiration, an ecological imperative. It may be about time to reckon with the fact that the ecological implications of how humans use the resources of nature are closely related, and conditioned, by the pattern of relationships between humans themselves (cf. Lewis, 1947).

The transition to sustainability, that it to say, the transition from paradigm to international regime on the environment, implies a profound change in the prevailing pattern of civilization, particularly in what it refers to its eco-cultural pattern of articulating humans and Nature. It does not make any sense to separate problems of the environment from the insufficiencies of development, for the former is the net result of the failures of the later. Therefore, an adequate understanding for the emergence of environmental regimes imposes the recognition that humankind is facing the *exhaustion of an style of development ecologically wasteful (depletes the natural resource base), socially perverse (generates poverty and inequality), politically unjust (freezes absolute and relative scarcity of access to resources), ethically repulsive (disrespects human and non-human life forms) and culturally alienated (estranges and subjugates Nature).*

One way to estimate how this challenge could be met is to explore the uniqueness of our times, a uniqueness that could not have

been foreseen by early and, to some extent, even by modern political theorists. This refers to what John Bennett (1976) has defined as the *Ecological Transition*, the development of an anthropocentric orientation toward the natural world that emerged in the Western Renaissance, one that has since characterized every civilization and nation. Bennett's assumption is that the history of human-environment relationships has featured a growing absorption of the physical environment into the cognitively defined world of human events and actions, to such an extent that even the concept of "human ecology" may be already a myth. There may be now only Human Society: people, their wants, and the means to satisfy those wants.

Briefly stated, the transition involves, in *technological* terms, the tendency to seek ever-larger quantities of energy in order to satisfy the demands of human existence, comfort, and wealth. *Ecologically* speaking, the transition is expressed in the growing incorporation of nature into culture, and by the breakdown of local self-sufficiency, which implies to say not only the accumulation of goods and services for social purposes unrelated to biological survival, but also the ability to achieve this through the incorporation of remote environments. *Sociologically*, it means the increasing size and complexity of social organization and the networks of communications associated with it. *Philosophically*, it entails the replacement of certain images of humanity by others, such as the worship and contemplation of nature versus the instrumentalization of nature. And *politically*, it means that to achieve a given level of output human beings will have to use political resources to adjust technology and social organization accordingly, and that once output increases, it may alter relationships in the social-behavioral systems, requiring further adjustments.

It may be justified, at this point, to move back for brief moment in order to grasp the most fundamental roots of contemporary environmental regimes, and of the sustainability crisis of development. No cause for alarm! It should suffice to move back nine thousand years… We refer to the fact that the greatest strictly ecological aggression of humans to Nature came into being through the Agricultural Revolution. In effect, the advent of agricultural and pastoral practices, by promoting the gradual yet extreme specialization of flora and fauna, contravened the most fundamental laws governing ecosystems such as resiliency, diversity, adaptive capacity, carrying capacity and overall equilibrium.

If that had not been enough, other "revolutions" followed suit, deepening all sorts of anthropocentric aggressions, to climax through the Industrial Revolution of the eighteenth century as well as the Information Revolution of recent decades. Despite that, nobody would be politically willing (or sufficiently insane, whatever the case maybe) to suggest that the processes inaugurated from the Agricultural Revolution onwards could (or should!) be reversed, for the simple reason that civilized life could not have been even dreamt if it were not for that precise evolution in the occupation of the planet. Yet, we must confront the consequences of this historical path. As Margaret Mead (1970) has quite correctly noted, one component of that change is the kind of knowledge and the kind of understanding we have about earlier humans, for "we can recognize that the ways of our forebears are ways to which we can never return, but that the more we can recapture of this earlier wisdom, in a form we can understand, the better we can understand what is happening today, when a generation almost innocent of a sense of history has to learn how to cope with an unknown future, one for which they were not reared."

At least *two* related aspects of the historical roots of environmental regimes must still be brought to fore. On the one hand, one must take note of the *speed* and *magnitude* of the transformations during the ecological transition. Between the Agricultural and the Industrial Revolutions hundreds of centuries lapsed and the proportion of products of natural and modified nature has dramatically changed (from 80 and 20 percent, respectively, to almost the opposite nowadays). Likewise, between the later and the current Cyber Age not even one century has gone by, while the predominant inputs became informational and knowledge-related ones. Among the many consequences of these combined dimensions of the transition it should be reminded that natural cycles respond to change and themselves evolve at a much slower pace, and undergo only incremental changes.

On the other hand, the *direction* and *contents* of these transformations have also been revolutionary. To make a long argument short, it is enough to mention the ecological and technological characteristics of the transition reveal the most contemporary expressions of the technological "long cycle". In other words, despite the increasing technical sophistication of successive civilizations, this long cycle has entailed the use of increasing quantities of energy with equally formidable levels of inefficiency (i.e., with increasing entropy).

It could be argued that given the above description one could hardly expect a detailed treatment of ecological issues in traditional political and economic thought. Certainly, the present environmental crisis is a specific concern of the twentieth century, and not of the seventeenth (Thomas Hobbes, John Locke), eighteenth (Jean-Jacques Rousseau, Adam Smith, David Ricardo), or the nineteenth (John Stuart Mill, Karl Marx, Friedrich Engels) centuries. But it is equally true that despite their profound differences, the common assumptions of major Western philosophers have actually forestalled a more fruitful understanding of the roots of our current situation. They all shared a certain disdain for everything that did not come from the hands or soul of humans. They all portrayed evolution as an unlimited road toward progress. And they all revealed an unlimited trust in technology. These assumptions were, of course, apparently justified by the discovery of the New World in the sixteenth century, and they were later enhanced by the Industrial Revolution. Yet, they all fall within the narrow illusion of unlimited frontiers to economic growth.

It should be no surprise, by now, why many of today's institutions, nurtured in a world of growth and abundance, are so ill-suited to the present challenges of the ecological transition that environmental regimes try to address, namely, the ever-increasing scarcity of resources and of places to dispose of our wastes. Technological innovations were once assumed to represent the answer to all problems derived from scarcity and pollution. Nowadays, however, technology can be shown to have ecological limits, for, as indicated by William Ophuls (1977:145), "it is merely a means of manipulating what is already there, rather than a way of creating genuinely new resources." The same applies to many forms of pollution because available techniques ultimately cannot do more than transport a harmful substance from one medium to another, or substitute it for another less (sometimes more) harmful substance.

It thus constitutes a most sober behavior if we adequately and responsibly assign the adequate status to current international environmental regimes. The strictly ecological component of the transition should provide us with a safe and dependable lighthouse to venture into new and uncharted seas. Let us recall, first, that the Agricultural Revolution, the first truly "land zoning" scheme experienced by human societies, allowed populations to depend less and less on their immediate environment for their survival. This led to the inauguration of *patterns of consumption* favoring, among others,

human agglomerations, then villages, then cities, and today's megalopolis. Secondly, as a result of the generation of productive surplus for the first time, and ever since, humans were able to deepen their consumption and accumulation patterns to include goods and services ever remotely related to their biological survival. Thirdly, as a result of the previous dynamics, society as a whole has been able to become increasingly independent and unconstrained by the limitations of its immediate habitat. This has effectively perpetuated consumption patterns that, notwithstanding their eventual unsustainability in the long run, could indeed be sustained in the short run through the incorporation of foreign or remote environments –via waging war, commerce or technology prowess.

The evolution of humankind unveiled by ecological transition suggests that what determines the quality of life of any given community, hence its sustainability, is not only its natural environment but the synergy of the relationships between five distinguished components of a certain model of occupation of the territory.

Consequently, let us revise briefly the POET of sustainability. Making use of an image suggested initially by Otis Duncan (1961), one may indeed propose that the sustainability of a community depends on the interrelations among its

P opulation (size, composition, density, demographic dynamics)

O rganization (social organization, aspirations, values, culture, production and consumption patterns, social stratification, pattern of conflict resolution)

E nvironment (physical and built environment, environmental processes and services, natural resources)

T echnology (innovation, technical progress, energy use)

The network embedded in the POET's equation allows to understand, for example, why a country such as Japan should be ranked as one of the poorest in the world, from the strictly environmental and demographic perspective. Indeed, it has a high demographic density for its territory, and this is an extremely poor country in natural resources and in traditional sources of energy. Despite all of this, Japan is among the most developed countries in the world, as a result of her social organization and technological fabric. One may indeed speculate that Japanese social organization, with high levels of social homogeneity, as well as the social aspirations of

Japanese, with high levels of equality, explain in good measure the historical "need" of the Japanese society of attaining high levels of energy efficiency and of technological prowess in patterns of production in order to be able to satisfy the population's consumption patterns.

In other words, the pattern of Japanese consumption responds and at the same time it determines the existence of a production pattern coherent with the social aspirations of the Japanese, and it adapts to (rather, it overcomes) environmental and territorial limitations. It is the perfect convergence between production and consumption what grants sustainability to Japan. And it is the possibility of incorporating in its economic "space" foreign and even very remote territories what confers a strong sustainability character to Japan's development style. A style of development that, giving its ecological foundations, should reveal instead an extremely weak and fragile sustainability (for more on "weak" and "strong" sustainability, see Pearce and Atkinson, 1993; for a critic of this position, see Martinez-Allier, 1995)

As pointed out earlier, the historical mode of incorporation of peripheral economies in the capitalist system poses an extra difficulty for sustainability in the developing world. In those situations of endogenous growth, as that of central countries, technical progress impels capital accumulation and, both, the composition of supply that somewhat determines the demand of goods and services. That is to say, it is the process of technological innovation, intimately related with the production pattern, that sets the process of capital accumulation into motion, and ends up conditioning the pattern of consumption of society.

Conversely, in the situation of late, dependent industrialization, the productive process behaves as a dog that is moved by its tail. In these countries the first to take place is the structure of the demand. Historically, these countries have been inserted in the world economy as exporters of primary products and of natural resources. Strongly dependent of imports of industrialized products, the demand, or rather, the consumption pattern is a simple reflection of the consumption of the elite of the industrialized countries. Founded on this *(de)formation of the demand*, imitative of the elite and without any relationship with the basic needs of the community, the economic system proceeds then to *capital formation*, in most instances, revenues for exports or external indebtedness (national savings is obviously insufficient). *Technical progress*, the true driving force of autonomous growth, is also

"imported" by the dependent economy as a closed package, without giving place to a genuine, national process of technological innovation.

Brazil offers a most accurate illustration of Furtado's analysis. As it well known, Brazil is one of the world champions of economic growth, with annual rates surpassed in the last century only by Japan. It should not surprise that the socioeconomic indicators of Brazil, which outranked only those of Haiti in the fifties, allowed the country to dispute nowadays a position among the top 10 economies of the world. However, under closer scrutiny, the Brazilian "miracle" of the seventies reveals its intrinsic unsustainability. There were practically no endogenous technological innovation or capital accumulation to justify this impressive economic performance. What persists since colonial times is the importation of a closed style of development that ranges from production to consumption patterns, a style that generates de need for increasing exports at any cost and, when these are not enough, for the external indebtedness in substitution to internal savings. It goes without mention here the social and environmental implications of this style (see among others, Guimarães, 1991a).

In short, the need for as well as the strengthening of environmental regimes should respond to the challenges of the ecological transition that is coming to a close at the outset of the Third Millennium. A transition which has changed completely human production and consumption patterns. As a result, humankind has become less attuned to the rhythms of our biological needs, more alienated from our spiritual needs, from ourselves and from our partners in Nature, as well as more compelled to use increased power resources to guarantee the incorporation (and destruction) of extra-national environments to satisfy greedier consumption patterns, thereby proceeding along the course of unsustainability.

A best indicator of the effectiveness of environmental regimes is whether it reduces the dependency of individual countries, particularly emergent ones, with respect to foreign habitats and natural resources. Socio-environmentally, whether these regimes set the stage for the reduction of the gap between the satisfaction of the basic needs of the population and the conspicuous consumption of the elite, thereby equitably reducing demands upon the natural resource base. As a general conclusion, one could suggest that the basic foundation of environmental regimes should be the sustainability of production and consumption patterns, which determine how society should "stewardly"

incorporate nature into the economic system and assign sustainability to its socioeconomic system (see, for instance, Guimarães and Maia, 1997).

SUSTAINABILITY IN DEVELOPMENT POLICY FORMATION

Basic dimensions of sustainable development policies

Despite the fact that the true ecological transition began more than nine thousand years ago, and that ecopolitics has been with us since the beginnings of time –after all, if "before it was chaos" (not to be confused with a biblical reference to the existence of economists before the creation…we simply point out to the extreme entropy of the Big Bang), it is also a fact that Adam and Eve were expelled from Eden ostensibly due to an ecological act…-- only recently have we awakened to the need to reckon with sustainability. It is true that the concern with the deterioration of natural systems is almost so old as modern human being presence in the planet. Plato (1945), for example, already warned his contemporaries for the serious consequences of the deforestation and of overgrazing more than 2300 years ago.

The "modern" notion of sustainability, however, has its origin in the international debate which begun in 1972 in Stockholm and consolidated twenty years later in Rio de Janeiro. Notwithstanding the variety of interpretations found in the literature and in political speech, the great majority of conceptions represent variations on the definition suggested by the World Commission on Environment and Development, presided by then Prime Minister of Norway, Gro Brundtland (1987). *Sustainable development is that which meets the needs of the present generation without compromising the possibilities of future generations to satisfy their own needs.*

The often repeated statement that human beings constitute the center and the raison d'etre of development calls for a new development style that is *environmentally* sustainable in the access and use of natural resources and in the preservation of biodiversity; that is *socially* sustainable in the reduction of poverty and inequality and in promoting social justice; that is *culturally* sustainable in the conservation of the system of values, practices and symbols of identity that, in spite of their permanent evolution, determine national integration through time; and that it is *politically* sustainable by deepening democracy and

guaranteeing access and participation of all sectors of society in public decision-making. This new development style must be guided by a new development *ethics*, one in which the economic objectives of growth are subordinated to the laws governing the operation of natural systems, subordinated as well to the criteria of human dignity and of improvement in the quality of people's life.

Let us briefly specify this definition in order to unveil the basic components of the new development paradigm, and to glimpse at their implications for the formulation of public policies. Certainly, the interpretation introduced here refers to a ***development*** paradigm and not of growth. This seems justified for two key reasons. First of all, to allow for a clear intergenerational and ecological limit to the process of economic growth. Contradicting the commonly accepted notion that sustainable development cannot be attained without growth –a conceptual trap that not even the Brundtland Report itself was able to avoid (see for example, Goodland et al., 1992)-- the paradigm of sustainability assumes that growth, defined mostly as monetary increments of the product, and as we have been experiencing it, constitutes an intrinsic component of the insustainability of the current style. In the words of Roefie Hueting, "the less we need is an increment in national income" (Hueting, 1990).

This new paradigm emphasizes that development must produce qualitative changes in the quality of life of human beings. More than the mercantile goods and services exchanged in the market, these aspects include the social, cultural and aesthetic dimensions of meeting material and spiritual needs. It seems warranted to reproduce here the wise observations of Herman Daly (1991) with respect to the displacement of growth as the ultimate goal of development by a process of qualitative changes:

> *"The recognition of the impossible is the foundation of science. It is impossible to travel at more speed than that of light, to create or to destroy matter-energy, to build a machine of perpetual movement, etc. Respecting the theorems of the impossible avoids wasting resources in projects doomed to fail. This is the reason why economists should have a great interest in the theorems of the impossible, particularly the one that demonstrates that its is impossible for the world to grow free of poverty and environmental degradation. In other words, sustainable growth is impossible.*
>
> *In its physical dimensions, the economy is not an open subsystem of the Earth's ecosystem, which is finite, not expanding and*

> *materially closed. When the economic subsystem grows, it incorporates a greater proportion of the total ecosystem, having as its limits one hundred percent, if not before. Therefore, growth is not sustainable. The term sustainable growth, applied to the economy, is a bad oxymoron; self contradictory in prose and not evocative at all as poetry" (cited, in Spanish, in Elizalde, 1996).*

Secondly, in addition to what has just been said, the sustainability of development will be assured inasmuch as this process is able to preserve the integrity of the natural processes that guarantee energy and material flows in the biosphere, while at the same time preserving the biodiversity of the planet. This last aspect is of utmost importance because it means that, to be sustainable, development has to move from the current anthropocentrism to biopluralism, granting other species the same onthologic right to life. In short, the ***environmental*** sustainability of development refers as much to the physical basis of growth, i.e., the conservation of natural resources incorporated into the production, as it refers to the carrying capacity of ecosystems --the ability of nature to absorb waste and to recover from the human interventions.

Thirdly, it is clearly not enough for development to promote qualitative changes in human well being and to guarantee ecosystemic integrity of the planet to be sustainable. One should keep in mind that "in situations of extreme poverty, the impoverished individual, marginalized or excluded from society and from the national economy, does not have any commitment to avoid environmental degradation if society is not able to thwart his or her own deterioration as a human being" (Guimarães, 1991b:24). Particularly in developing countries, with serious problems of poverty, inequality and exclusion, the ***social*** foundations of sustainability suppose as basic approaches for public policies those of *distributive justice*, for production of goods and of services, and those of *universalization*, for policies in education, health, housing and social security. The same applies to gender equality, recognized as a value in itself and thus above economic considerations, which means to promote women's full incorporation in the economic (market), political (vote) and social (well being) citizenship.

In fourth place, the new paradigm also calls for the preservation of diversity in its wider sense –*socio*diversity as well as *bio*diversity-- that is to say, the maintenance of the system of values, practices and symbols of identity that reproduces the social fabric and, therefore, guarantee national integration (see for instance, Durston, 1997). This

includes promotion of the constitutional rights of minorities and the incorporation of these in concrete policies of bilingual education, demarcation and territorial autonomy, religiosity, community health, etc. Points in the same direction, that of the ***cultural*** component of sustainability, several proposals for the introduction of agricultural rights of conservation equivalent to the already recognized rights for the conservation and rational use of the biogenetic endowment of the planet. Reference is made here to the establishment of economic criteria of intellectual property so that "users" and "owners" of biodiversity share their benefits, transforming themselves in co-responsible for its conservation.

In fact, a world increasingly globalized economically and commercially leads to increased agricultural specialization based on more productive species or varieties, with the consequent loss of diversity. Thus, for the cultural sustainability of agricultural systems, one should apply extra-market criteria in order to incorporate the externalities of systems of production that display low productivity from an economic, short term viewpoint, but that guarantee the diversity of species and agricultural varieties. Externalities that guarantee also the everlasting culture that sustains specific forms of economic organization for production.

In fifth place, the ***political*** foundation of sustainability is closely linked to the process of deepening of democracy and citizenship, and it strives for the full incorporation of people into the development process. This refers, at the micro level, to the democratization of society and, in the macro level, to the democratization of the State. The first objective presumes the strengthening of social and community organizations, redistribution of resources and information to subordinated social sectors, boosting the analytical capacity of their organizations, and training for decision-making; while the second it is achieved through the opening of State apparatuses to civic control, the reactualization of political parties and of electoral processes, and the incorporation of the concept of accountability in public activities. Both processes constitute politically charged challenges. These can be faced only through the construction of alliances among different social groups, a sure way of providing support and legitimization for revamping the prevailing style of development.

Lastly, what bonds and upholds this specific understanding of sustainability is the urgent need for a new ***ethics*** of development.

Further to important moral, aesthetic and spiritual elements, this conception closely relates to at least two foundations of social justice already mentioned: *productive* and *distributive* justice. The first addresses the conditions that allow for the equality of opportunities that guarantee individuals to fully participate in the economic system, also the concrete possibility for these to satisfy their basic needs, and the existence of a widespread perception of fairness and of being treated according to their dignity and their rights as human beings. The ethics as materialization of distributive justice is oriented to assure that each individual receives the benefits of development according to his of her own merits, needs and means, and those of other individuals (Wilson, 1992).

Specifying more accurately the meaning of the new paradigm, although it may have contributed to overcome the ambiguities of the discourse on sustainable development, still opens new queries. Among others, one must distinguish the actors of sustainability and the actors whose action orientation or concrete behaviors contribute to deepen the unsustainability of the current style of development. Important inquiries emerge also on how to incorporate the logic of sustainability in public policies or, conversely, on how, within the current logic of the sectoral policies, to render these policies more sustainable.

Actors and public policy criteria for sustainable development

Notwithstanding the important evolution of world thought about the crisis of development that manifests itself in the environmental crisis, a general assessment of the alternatives proposed so far reveals that these fail to stand as significant inroads in the search for definitive or novel solutions. Most recipes still follow neoliberal pharmacopoeia and still emphasize structural adjustment programs, reduction of public expenditures, deregulation of economies, unrestrained trade and openness to foreign investments. The truth of the matter is that with more or less sophistication, alternative solutions for the crisis still suppose marginal changes in the institutions and rules of the international economic and financial system (see, for example, Rich, 1994, and Guimarães, 1992). Public debate indicates, however, the need to promote deep changes in our form of social organization and of interaction with the cycles of the nature. In one word, the very power and strength of the discourse on sustainability derives from multiple *paradoxes*.

At the outset, sustainable development assumes importance at the very same moment that the centers of world power declare the collapse of the State as a driving force for development, proposing its replacement by market mechanisms and instruments, while declaring the failure also of government planning. However, a careful review of the basic components of sustainability --i.e., maintaining the stock of resources and the environmental quality for the satisfaction of the basic needs of current and future generations-- in fact requires the existence of a regulated market and a long term horizon for public decisions. Among other reasons, because actors and variables such as "future generations" or "long term" are foreign to the market, whose signs respond to the "optimal" use of resources in the short term.

The same applies, even more so, to the specific type of current scarcity. We no longer live in the world portrayed at the times of the Club of Rome (Meadows et al., 1972), when the main concern referred almost exclusively to natural resources depletion. The shortage of natural resources can, although imperfectly, be confronted in the market place, via substitution of natural by physical capital, either through the emergence of new products to substitute for exhausted resources (e.g., petroleum by hydrogen to fuel transport systems) or by new technologies that extend natural reserves (e.g. more fuel efficient engines). What society confronts nowadays is a radically different predicament. We are faced with the deterioration of crucial environmental processes that cannot be simply replaced by others. Elements like climatic balance, the ozone layer, biodiversity or the carrying capacity of ecosystems transcend the realms of the market. These cannot be substituted, short of accepting as a viable solution relocating humankind to other planets once the environmental cycles that support life on Earth are exhausted.

On the other hand, it is truly impressive, if not contradictory from a sociological viewpoint, the current unanimity in favor of sustainability. It is impossible to find a relevant social actor against sustainable development. If this were not sufficient indication of the common sense about the void that usually accompanies absolute social consensus, development thinking itself, as well as the history of the social struggle that sets it in motion, evolve based on conflict among actors whose interests swings from disparity to antagonism.

Industrialization, for example, has often opposed the interests of agriculture, displacing the axis of accumulation from the countryside to

the city; in the same way that the advancement of urban workers affected the rural masses negatively. It is not being suggested here a vision of history in which antagonisms between classes or social strata inevitably crystallize through time. In fact, agricultural capital has become linked more and more strongly to the industrial capital, while peasants gradually turned into rural workers, with behaviors and aspirations similar to those of its urban counterpart. In any case, one need to pose the question of who are the actors promoting sustainable development. One would hardly expect to be the ones who constitute the social basis of the current style, who have a lot to lose and stand very little to win with the change towards sustainability.

It is unavoidable to suggest, mainly from the reality of the developing countries of the South, that the paradigm of the sustainable development will only become reality once we specify its real components, its sectoral, economic, environmental and social contents. There is no doubt, for instance, that one of the pillars of the current style is the auto industry, with its sequels of urban congestion, burning of fossil fuels, etc. However, what could be considered sustainable for business (e.g., more fuel efficient, catalytic vehicles) would not necessarily be from the point of view of society (e.g., efficient public transportation). The same reasoning applies to natural resources. For the furniture industry or exporters of wood products, it could be considered sustainable forest activities that promotes substitution of natural forest for homogeneous species, since the market responds and promotes competitiveness based exclusively on the economic profitability of the resources. Meanwhile, for the country as a whole sustainability may in fact require the preservation of these same forest resources, guaranteeing their diversity for genetic research, for cultural integrity of indigenous populations, etc., thereby assigning smaller rates of return to timber extraction or furniture exports.

A rather formal approach to the question of "actors" behind a strategy of sustainable development would be to make use of the economic foundations of production: Capital, Labor and Natural Resources. Historically, two of these, Capital and Labor, have enjoyed a social base directly linked to their evolution, in many ways as "holders" or guardians of the specific interests of these factors. So much so that the accumulation of capital, financial, commercial or industrial, can be nurtured and, in turn, sustain the invigoration of a capitalist class, while the incorporation of the nature through relations of production may be strengthened and, in turn, favor the consolidation of a labor

class. To render a long argument short, it is apt to recall the historical clash between socialism and capitalism, even when some authors confuse the exhaustion of the authoritarian State and the victory of the democracy with the end of the history of social struggles.

Consequently, the current dilemma of sustainability may be summed up to the nonexistence of an actor whose social identity lies on natural resources and environmental services, the foundations at least of the ecological and environmental sustainability of development. This becomes even more complex when considering that, with regards to Capital and Labor, specific actors hold the property of the respective factors, while the property of some of the natural resources and of most of the ecological processes is, at least in theory, public.

We definitely still live in two opposite realities. First, all actors seem to agree that the current style of development has been exhausted and it is definitely unsustainable, not from an economic and environmental point of view but mainly in what refers to social justice. Despite that, changes are not adopted for the transformation of the economic, social and political institutions that upheld the current style. At most, sustainability is used as a restriction to the process of accumulation, without confronting the institutional and political processes that regulate the property, control, access and use of natural resources and of environmental services. Never materialize either the indispensable decision to change consumption patterns in the industrialized countries, those, which, as it is known, determine the internationalization of the style.

Until now, what one can see are only cosmetic changes to "green" current growth, without in fact enforcing those changes that governments committed themselves to in Rio. A phenomenon well known for sociologists and political scientists, alluded to as *dynamic conservatism* (Schon, 1973). Before being a conspiratory theory of groups or social strata, it represents the inertial tendency of the social system to resist change, in fact promoting the acceptance of a revolutionary or innovative discourse precisely to guarantee that nothing changes, in postmodern "gatopardism" of sorts.

It is also true that sustainable development is suffering from a pathology common to any formula to change society too loaded with meaning and symbolism. In other words, behind all that unanimity there are real actors that hold very particular visions of sustainability,

Let us take an illustration very close to the hearts of the proponents of sustainability: the Amazon (Guimarães, 1997b). What is just suggested here would enable us to understand that a *timber businessman* can decide on the need for "sustainable management" of the forest and be referring to the replacement of the forest cover for homogeneous species in order to guarantee the "sustainability" of returns in wood extraction activities. Meanwhile a leader of a *preservationist entity* would ardently defend the means to ban any type of economic exploitation and even human presence in extensive primary forest areas, so as guarantee the sustainability of natural biodiversity.

All of the above could be happening while a *union leader* is arguing, just as emphatically and sincerely as the businessman and the preservationist, in favor of extractive activities in the Amazon as a means to guaranteeing the "socioeconomic sustainability" of his community (such as in the so called "extractivist reserves" that were made famous by the struggle of Chico Mendes in Brazil). Finally, in some place close by we can also find an *indigenist* talking about the importance of the Amazon for the cultural sustainability of practices, values and rituals that give a sense of identity to all the diversity of indigenous population groups.

In short, businessmen may promote sustainable development in the Amazon founded on images of the forest as a *warehouse*, the preservationist may see the Amazon as a *laboratory*, the union leader as a *supermarket*, and the indigenist as a *museum*. To make matters worse, ***all*** of these images reveal approaches and interests which are absolutely legitimate with respect to sustainability! The main challenge both for government and society, for decision makers and actors who define public agenda, is precisely to make sure there is a transparent, informed and participatory process for the debate and decision making process in pursuit of sustainability. This in order to be able to foster development policies which, ideally, should promote a *socially, culturally, politically, ethically* and *environmentally* sound model of natural resource use, both to meet basic needs and to improve quality of life of the current population, as well as to increase opportunities of future generations to improve their own quality of life. At the very least, and taking into account that social interests are, by definition, differentiated and many times contradictory, to allow for development policies that project a future for society and, based on this vision of the future, establish priorities and criteria to justify the selection of an alternative that meets certain needs of specific actors and not of others.

Consequently, it seems apt to outline operational approaches for public policy formation in accordance to the definition of sustainability suggested beforehand. Such a procedure would bring the paradigm of sustainability to the concrete kingdom of politicians and policy makers which, in turn, allows for the differentiation of actors and interests more accurately. Due to space limitations, the presentation will be limited to the non-exhaustive enunciation of criteria applicable exclusively to the ecological and environmental dimensions of the sustainability (for other dimensions sees Guimarães, 1997a).

The ***ecological*** sustainability of development refers to the physical base of the process of growth and aims at the conservation of natural resources incorporated in productive activities. Making use of the initial proposals made by Herman Daly (1990, see also Daly and Towsend, 1993), it can be identified at least two approaches for their operationalization through the public policies. For the case of renewable natural resources, the use rate should be equivalent to the rate of recomposition of the resource. For non-renewable natural resources, the use rate should be equivalent to the rate of substitution of the resource in the productive process, for the period of time foreseen for its exhaustion (measured by current stock and use rate). Taking into account that their non-renewable character prevents an indefinitely sustainable use, it is necessary to limit the pace of use to the estimated period for the appearance of new substitutes. This requires, among other aspects, that the investments carried out for the exploitation of renewable natural resources renewable should be proportional to the investments assigned for the search of substitutes, particularly investments in science and technology, in research and development.

The ***environmental*** sustainability relates to the maintenance of the ecosystems carrying capacity, nature's ability to absorb and recover from anthropic aggressions. There are two obvious criteria that illustrate the concept operationally. First, waste emission rates as a result of economic activities should be equivalent to regeneration rates, which are defined by the ecosystem's capacity to recover. For example, the domestic sewerage of a two hundred thousand inhabitant city produces dramatically different effects if its is discharged and dispersed into a water body such as the Amazon or if it were deviated to a lagoon or estuary. If in one case waste water could be submitted only to primary treatment, and may well represent additional nutrients for the aquatic life, in the other scenario waste discharges would cause serious

disturbances, and it would have to undergo more complex, more burdensome and costlier treatment systems. The second environmental sustainability criterion would be industrial restructuring emphasizing the reduction on entropy, i.e., and giving priority to the conservation of energy and the use of renewable sources.

It must be stressed, still referring to the environmental sustainability, the importance of using market mechanisms such as taxes and tariffs that incorporate into private expenditures the costs of environmental preservation as a key mode of putting into practice the "precautionary" and "polluter-pays" principles. Among many mechanisms, it is worth mentioning "waste markets" where industries of an specific area trade the wastes of their activities, most of the time converting these as inputs for other industries. Falls in this same category of market instruments for environmental management the "negotiable rights of pollution". Although there are important constraints in many of these instruments --among which the uncertain character of future externalities and the difficulty of determining property rights on many environmental resources and services- "emission tradable permits" have the advantage of allowing, through intra-industry transfer, for the State to reduce regulation via emission limits per production unit, and to regulate instead regional limits based on ecosystem’s recovery rates.

Thus, a significant part of the preservation of the environmental quality is thereby transferred to the market, to the extent that the trading of such rights stimulate technological modernization and stop penalizing industries that at the present technological level do not have the required conditions to reduce levels of emissions. In the current system, where the inspection per productive unit and the application of fines are privileged, in addition to making the costs degradation of the environment difficult to enforce, enterprises are penalized if, even when using state of the art technology, still exceed the established limits, while those still operating within these, but yet refrain from improving their productive processes, are rewarded.

The above means that both "recomposition rates" (for natural resources), and "regeneration rates" (for ecosystems) should be treated as *natural capital*. The inability to sustain these in time should thus be treated as capital consumption, as non-sustainable. The fact remains that one of the major pitfalls of neoclassic economy derives from the assumption that *natural capital* (natural resources and environmental

services) can be easily replaced by *man-mad, physical or "productive" capital* --technology, machinery and equipment (Guimarães, 2000). It is mistakenly assumed, for example, that if a community can refurbish its ships or buy more vessels, they will catch more fish. However, this is only a half-truth because once the limit of fish available is reached, the enlargement of a fishing fleet or the incorporation of new technologies will only deteriorate the maritime ecosystem faster, until it is finally exhausted. Therefore, the alleged "substitution" is useless for it would have led in fact to the economic ruin of the community. This is why a sustainable policy for exploring natural resources must limit extraction rates to the ecosystem's recovery rates. It will be more effective and efficient from an ecological viewpoint to strengthen, for instance, the so-called *economic clusters* in order to limit the extraction of resources by promoting industrial and service activities that add value to the resource and promote inter-sector and personal distribution of wealth.

If the criteria just mentioned can be easily understood insofar as *renewable* resources (forests, marine resources, water, soil, etc.), an even more specific priority taking those into consideration is required with respect to *non-renewable* resources. Using Chile as a case in point, it would not be advisable to take the extraction of copper (accounting for roughly 40 percent of Chile's exports) to its limit, if perfectly suitable substitutes for all the uses of copper were available. In this instance, the country's sustainability would be partly measured by the ability to make copper production more efficient and make available reserves last longer. More important, however, what will eventually ensure the sustainability of an economy like Chile's, in this particular aspect, will be the ability to "*sow copper*". In other words, Chile will be sustainable in copper to the exact extent in which, for example, it is able to invest in research and development of copper substitutes (e.g., fiber optics), amounts equivalent to the investments made to improve and make the current extraction of copper more efficient and profitable. Thus, by "sowing copper", Chile will continue to develop its economy even when, in the worse scenario, the resource is exhausted.

INTERNATIONAL INSTITUTIONS AND EMERGING ACTORS IN A GLOBALIZED WORLD

Different dimensions of globalization and environmental regimes

The process of globalization includes different phenomena that

are often misunderstood and leading to contradictory interpretations. Some authors define it exclusively in *economic* terms (increasing homogenization an internationalization of consumption and production patterns), in its *financial* expressions (the magnitude and growing interdependence of capital flows internationally), or also in its *commercial* aspects (increased external "exposure" and openness of national economies). Others prefer to emphasize the character of globalization in its *political* (widespread predominance of liberal democracies and of civil liberties worldwide, as well as new forms of social participation and empowerment) and *institutional* dimensions (prominence of market forces, increased convergence of regulatory mechanisms and instruments, increased flexibility of labor markets). Still others choose to highlight the speed of *technological change* (its impacts in the productive apparatus, in labor markets as well as in structures and relations of power) and the impressive revolution experienced by *mass media* ("massification" in access, transmission and dissemination of information, greater prospects for decentralization, possible erosion of national cultural identities).

However, making use of a somewhat different approach to analyze these clearly multifaceted phenomena –looking at globalization as a *process* more than as a group of specific *vectors* –some still prefer to study these from the viewpoint of *international relations* and of the emergence of new economic, commercial and political alliances and blocs. Not few, including myself, consider it more revealing to unveil globalization from a *sustainable development* perspective. These question, for instance, the economic rationality of globalization in its many dimensions vis-a-vis the logic and the pace of natural processes. In other words, capital (flows) may have become "globalized", yet the same has not taken place with respect to labor or natural resources. Moreover, the prospects of a process of globalization founded upon an upward, unlimited and unchecked economic growth model are also seriously disputed, particularly in view of the reality of exhaustion of many natural resources (e.g., fauna, flora, non-renewable sources of energy) as well as of deterioration of natural processes which are crucial for the ecosystemic viability of life on the planet (ozone layer, climate, etc.). Finally, those of us who subscribe to these and other serious reservations point also to the growing consensus about the social unsustainability of the current style of development, a reality of globalization in the midst of increasing social inequality and exclusion, a reality which certainly precedes but has been exacerbated by the very process of globalization.

One may deepen a *socio-environmental* standpoint by asserting that the character of globalization, or at least of the neoconservative ideology underlying and legitimating the hegemonic modernity of today's world, appear to leave but only two alternatives to emerging countries. Either these integrate themselves fully –albeit subordinated and dependent-- in the globalization bandwagon of the world market, or it will not remain nothing more to those countries than the reality of backwardness masked behind the illusion of autonomous development.

The position advocated here supposes that the foregoing standpoint in fact begs the real question. At the heart of today's challenges lies, not the inevitable tendency of insertion into a world increasingly globalized, but what mode of insertion is convenient to emerging economies, whether prevailing patterns of insertion allow these countries to retain the national control of growth, and what sort of alternatives allow these societies to maintain and foster social cohesion, cultural identity and environmental integrity. As Alfredo Calcagno, father and son, have appropriately pointed out in a brilliant book debunking neoliberalism (Calcagno and Calcagno, 1995:265):

> *"We are told that we must all board the modernity train (as if there was only one), even though we do not know where it will take us, we do not know whether we will be allowed to board it as full-fare passengers or service personnel who are sent back to their origin once the journey is over, or whether we will turn ourselves immigrant labor at the final destination. In short, we are being counseled, as sovereign countries, to adopt a behavior that no liberal (as a matter of fact, not even a sane person) would embrace at a railroad station…"*

The expansion of globalization has also intensified latent tendencies to establish quantifiable, measurable parameters to all and every single phenomena of an socio-environmental nature. At the very outset, one must realize that quantification or "parameterization" cannot aspire to a higher logic than human values. Moreover, we should heed to the words of no other than Einstein himself, a hard scientist par excellence, who warned that "[mathematical laws]… insofar as they refer to reality, they are far from being true; inasmuch as they constitute something accurate, they do not reflect reality" (cited in Capra, 1974:39). Far from attempting to disqualify the mathematical, quantified base of economics, these comments point to deficiencies of economic theory, including environmental economics –not to be confused with ecological economics— to adequately grasp the

complexities of socio-environmental phenomena. The later require interpretations that incorporate as well qualitative, institutional and historical aspects not easily or directly measured via quantitative parameters.

Much criticism has been levied also against recent attempts at valuation of the environment, for these (mistakenly) suppose that ecological cycles respond to the same tempo and processes that characterize economic, social and cultural processes (see, among others, Guimarães, 1998). Quite to the contrary, what is reprehensible is the neoconservative fundamentalism of trying to put the market as an absolute, flawless deity, thereby reducing the entire challenge of sustainability to a simple question of "getting the prices right".

It is undoubtedly far better to have at least some notion of the economic value of environmental goods and services, even if an arbitrary one, than to do not count on analytical tools to assist decision taking embedded in environmental regimes. It thus represent a step in the right direction the research efforts under way by a multi-disciplinary group of North-American scholars (Constanza et al, 1997), who have endeavored to estimate the economic contribution of seventeen categories of environmental services provided by different ecosystems (pollination, erosion control, nutrients cycles, etc.) and distributed along sixteen biomes (forests, coral reefs, marshlands, etc.). Preliminary results have indicated that the average economic value of the total services offered by the biosphere amounted in 1997 to US$33 trillion, as compared to a world GDP of US$18 trillion that year. If these services were to be traded in the market, the "price tag" of each of the seventeen services would have cost annually to the world economy from $16 trillion to $54 trillion.

No one would dispute the fact that studies such as the one just mentioned still suffer from several flaws, ranging from methodological to measurement ones, deficiencies that are intrinsic to pioneering efforts anyway. Confronted with this sort of criticism, the words of Paul Hawken come to mind: "while there may be no "right" way to value a forest or a river, there is a wrong way, which is to give it no value at all" (Prugh et al., 1995:XV). Notwithstanding that, it must be underlined the arbitrary nature of any attempt at environmental economic valuation. This means that the degree of "arbitrariness" will be less socially and environmentally pernicious insofar as one is able to make these exercises, their methodologies and measurements absolutely

transparent, as well as the decision making process derived from them. In this sense, valuation ceases to be an exclusively economic or technocratic endeavor and turns into a social one.

On the other hand, economic valuation itself must realize its limits, specially those imposed by a development ethic without which society looses sight that the ultimate objective of valuation is not the market of transactions between consumers, but rather the improvement of the quality of life of human beings. In fact, it would be morally reprehensible to pose the question that underlies valuation exercises of how much one would be willing to pay for breathable air or climate stability. No one would be willing to admit economic arguments of any order to justify that human lives can be justifiably taken away in exchange for some economic or commercial benefit.

By the same token, assuming the "ontological" right to life as a moral value applicable also to non-human species and ecosystems, aspects such as time horizons of discount rates –foundations of valuation exercises—become crucially important. The question turns to be, for future generations of course, that what they may receive greater shares of "physical" economic capital in exchange for lower shares of natural capital, without being able to express their own preferences (it seem understandable that they cannot participate in today's market…). Furthermore, let us not forget that central to globalization is the growing tendency to homogenize cultural values and practices which are intrinsically dissimilar. The "value" of destroying the Amazon or the Argentine and Chilean Patagonia is obviously quite different for Brazilians, Chileans and Argentines than for Japanese, Europeans or North-American citizens, whereas the "benefits" –assuming a most optimistic globalization scenario—may indeed be globally "equivalent".

New power configurations, threats and opportunities for emerging actors

It seems a natural step forward to add to the foregoing, strictly environmental remarks about the several faces of globalization and their respective implications for extant environmental regimes, a brief attempt to rescue some sociopolitical aspects of the conceptual quandary embedded in much of the debate surrounding the new configurations of power brought about by globalization and the "new" international order (see, among others, Guimarães, 1990a and 1996). In fact, considering that the process of consolidation of the "new"

hegemony has gained momentum after the fall of the Berlin Wall, not few scholars were fast to declare "the end of History" (e.g., Fukuyama, 1990), putting in the same level democracy and the liberalization of markets. Unfortunately, those interpretations that postulate that these aspects conform indissoluble traits of the triumphant and globalized model of market economy are in fact simplistic and falsify the historical truth of liberalism, which has always differentiated economic from political liberalism (cf. Touraine, 1994).

The historical development of social struggles indicates also that the destruction of one type of power configuration materialized through a determined State cannot be confused with the building of a new State. The fact that the world economic crisis, particularly of the centrally-planned economies of Eastern Europe, has been responsible for the downfall of the authoritarian State cannot and should not lead to the naïve (or politically interested) conclusion that this specific type of functioning of the international economy, i.e., a free market one, will provide the foundations for a new society and a new political organization of the State. The "end" of the "mobilizing" State as a model of political organization nationally and internationally, combining both economic (growth) and social (income distribution) goals are frankly passing away into history. With the exhaustion of this particular model, the world has now entering into a phase dominated by the market, unilaterally geared towards economic goals, despite neoliberal hopes that it would become a new model of social organization which would supposedly articulate political, economic and social goals previously integrated through State actions and structures (Guimarães, 1996). History thus seems to suggest with enough clarity that the market has never been a foundational principle of *social organization*, even though it may condition the *economic* behavior of social actors as producers and consumers.

One should not loose sight as well that even the perception of what the market represents has also undergone dramatic changes. As Fernando Henrique Cardoso (1995) has accurately pointed out, during the XVII and XVIII centuries markets had expanded via the expansion of commerce, becoming in the process a "civilizing" factor to counter the arbitrary nature of the aristocracy. As a result, in the past century, the market was not viewed as a model in opposition to the State, but rather as an instrument of change of social relations towards higher levels of sociability. In the present century, however, is has been precisely the State which began to be taken as "a noble and kind" countervailing

force to contain the blind forces of the market "which, left alone, had proven to be incapable of bringing about human happiness" (ibid:86) – instead, they produced two World Wars…

In Cardoso's words, "everything that had been built as a necessary step to guarantee democracy, to set in motion regulations to redress distortions of the market has now moved one step back… in the seesaw of history, the market first starts sweet and then turns sour; we move from the sweet State to the fierce bestial State; later, the market is rescued as the 'Open Sesame' of universal happiness… The soft, kind and sweet market is thus reborn" (ibid:89-90). The worse, concludes Cardoso, is that to entrench oneself in defense of the market is sign of modernity, and nobody asks the price paid by the peoples of "reducing" the State.

In spite of these wise remarks by Cardoso, is easier said than done or, as the popular saying goes, "it's a completely different cattle of fish" when one is in power. This may explains why the former postures adopted by many Latin American "progressives" of the past (as Cardoso himself) have turned now into "realistic pragmatism". Faced with the choice of entrenching in a defense of the market or in defending public choices, many end up advocating for a State that should not be neoliberal but, by the very same token, should not be interventionist either… This is bound to produce the paradox manifested in a widely marketed seminar that brought together world-renowned scholars to celebrate the inauguration of Fernando Hernique Cardoso as President of Brazil. The paradox of advocating for "a type of State that is able of doing what must be done, but that is not capable of doing what it should not do" (Przeworski, 1995:23). A State fully capable to intervene but sufficiently isolated form pressures emanating form private interests so as to be able to decide when to intervene. As Przeworski correctly states, this reveals to be a most inadequate proposition, particularly in view of the fact that "the motor of growth are precisely the externalities that the market is not capable of producing efficiently; except when the State decides to intervene, event though with extreme selectivity, growth will simply not take place" (ibid.:24).

In short, the market economy, which has been ever present in modern world, with different colors in different countries, is an excellent generator of wealth but it is also a most sure generator of profound social asymmetries (see, among others, Guimarães, 1990b). This is precisely the reason why State actors, or whatever name one

wishes to name actors of public, extra-market regulation, cannot transfer to the market and relinquish their responsibilities in key areas of public life, such as science and technology (the DNA of every society), education (the future of every society), as well as the stewardship of the biogenetic and environmental endowment of a given territory (the sustainability of every society). This does not contradicts the historical tendency of expansion and consolidation of economic liberalism, which also respond to a historical logic rather than to ideological whims, but it does assumes that environmental regimes must take into account the distinct realities of developed and developing worlds, central and peripheral economies, hegemonic and dependent countries.

If it is true that the sanctification of the State in previous modernities has produced important disarrays in the recent past, it should also be avoided the sanctification of the market underlying the "new" modernity. The results may be even more unfortunate, as attested by the crisis of the thirties –with the “side” effects of fascism and war. No would question the reality that the State, specially the Latin American State, is still over-dimensioned, over-sized, over-weighted and over-outdated technologically. Yet, before representing the result of "irresponsible" populist governments, as nostalgic of authoritarianism and the evangelists of neoliberalism would like us to believe, such predicament has resulted from the historical consolidation of national societies and of the "take off" of industrialization and economic growth that cannot be disqualified so lightheartedly. As a matter of fact, this debate, what Anibal Pinto called "the false dilemma between State and market" should have been buried long ago:

> *"On the one hand, it is clear the indispensable role of the State in establishing the most important social objectives and in fostering the adjustment of market forces to the attainment of such goals; on the other hand, no one can ignore the historical existence of market forces in a society presided by scarcity, which means that whatever is accomplished to modify their foundations and redirect their impulses cannot reach the extreme of provoking what could well be classified – in light of a variety of historical experiences—as the 'revenge of the market'"(Pinto, 1978:33).*

In view of the new power configurations emerging and trying to consolidate themselves hegemonically in the post-Cold War, globalized world system, the advent of international environmental regimes founded on the paradigm of sustainability poses difficult challenges for emerging countries like Brazil, who aspire to play a key role in the

reform of international institutions that regulate world affairs. In this context, an equilibrium must be fostered between thee manichean, "black-and-white-straight-jacket" approaches opposing market forces and public actors. This equilibrium can be mustered only through politics (see, for instance, Vega, 1995).

To muddle matters still further, the previously noticed sanctification of the market rooted in globalization tends to intensify and generalize all sorts of criticisms towards politics, politicians and civic organizations. In effect, the perception revealed by public opinion polls tend to indicate that political society (parties, Parliament and electoral processes) has become outdated with respect to the complexities of today's reality. Traditional circles of decision-making have been either surpassed by new forms of interest articulation, calling into question traditional parliamentary activities, or seriously challenged by renewed social demands for greater transparency and participation in public decision making.

Political elites have been discredited so much that it has contributed to weaken democratic institutions, which should, among other functions, enforce nationally the decisions, obligations and objectives enshrined in environmental regimes. In many Latin American countries, and Brazil is no exception, political activity is questioned both in its potential to offer certain "givens" of objective behavior for individual and social life, as well as in its potential to orient the "affairs of State" as well. One study undertaken by the National Democratic Institute for International Affairs of Venezuela reveals, for example, that over fifty percent Latin American do not trust their Congress, and over seventy-five percent of Argentines, Peruvians, Colombians and Mexicans do not trust their political organizations in general. Likewise, one of the most comprehensive studies carried out by the Vox Populi Institute of Brazil warns that politicians are placed last among the categories which inspire greater trust for the population, with a meager eleven percent of support from Brazilians. Even though eight of every ten Brazilians "feel proud to be Brazilians", the two most mentioned reasons to feel "national shame" are "hunger, poverty and misery" and "politicians" (Guimarães and Vega, 1996).

It is precisely in the political "void" of politics that economic groups, the mass media and the remainings of the oligarchy of recent past still entrenched in the clientelist niches of the State, all dully transvestite as agents of modernity, have become privileged actors

defining public agenda, nationally and internationally, including that of international institutions and regimes. As an illustration of that, one should bear in mind the extreme power of mass media in determining the public agenda whereby the artful use of marketing mechanisms do not replace but, yes, substantially change public perception and decisions. This becomes clear when one notices that the prevailing neoconservative discourse for limiting State actions and expanding private solutions to many challenges, including environmental ones, do not carry with it an equivalent plea for strengthening civil society but instead empower private economic interests. Cunill (1995) is right when she indicates that this discourse is clearly, more than anti-State, anti-politics and anti-public choice in general.

Yet, from a democratic perspective and irrespective of the legitimate reservations against politics and politicians in general, it would be hard to find in Political Theory propositions that can authoritatively defend that public life can be adequately and better managed without political activity. The question may be one of the quality of the dominant mode of politics resulting from new power configurations nationally and internationally. As Juan Enrique Vega (1995) correctly suggests, this "quality of politics" can be measured by its ability to assume and confront the many challenges facing the current path of development. Politicians, political parties and parliamentary activities can find no substitutes for democracy to consolidate and respond to social demands, for forging national consensus with respect to a specific national project of society, as well as for the agreed upon need to transform and transcend our unsustainable style of development. Otherwise, no expansion and deepening of environmental regimes will amount to more than cosmetics to assure that nothing actually changes.

Sustainable development, understood as the maintenance of the stock of natural resources and the environmental viability of societies to satisfy the basic needs and improve the quality of life of current and future generations, we must reiterate it, require the democratization of the State, not its abolishment, as well as the empowerment of civil society. As a matter of fact, there is a growing recognition that despite the ideological seesaw of the past decade, the State still holds a distinctive role in fostering development. This has included even a deep change of heart by some stalwart's opponents of the State. The World Bank, for one, advocates for the State the unique responsibilities of regulating the economy and promoting the articulation of different

productive, community and social sectors, especially in the areas of education, public health, safety and environmental protection (BIRD, 1997).

First of all, the State still provides a contribution to development, which is *unique*, *necessary* and *indispensable*. ***Unique*** because its logic transcend the logic of market forces, particularly in dimensions such as equity and social justice, which are foreign to market mechanisms and institutions. ***Necessary*** because the very logic of capital accumulation requires the production of "public goods" that cannot be produced by competitive actors in the marketplace, particularly in imperfect markets as the ones of emerging countries – "the market externalities" that Adam Przeworski alluded to. ***Indispensable*** because it addresses issues such as climate change, biodiversity depletion and many other "variables" not amenable to the micro-economic calculus of discount rates and rates of return, especially when future generations (who, by definition, cannot participate in today's market) are brought into the forefront of environmental regimes.

Moreover, it must be reminded that the challenges posed by social inequality or environmental degradation cannot be defined as *individual* problems, embodying instead social, *collective* problems. It is definitely not the case of guaranteeing access, via the marketplace, to education, housing, and health or to an environment free of pollution. Instead, these encompass the duty of recovering collective (solidarity driven) practices of fulfilling material and spiritual needs of human well being. The new foundations of civilized life which will provide governability to political systems worldwide require, therefore, the emergence of a new development paradigm. A sustainable development paradigm that puts human beings at the center of the process of development, one that considers economic growth as a means and not as an end in itself, one that protects the opportunities of life for current and future generations, one, in short, that respects human dignity as well as the integrity of the life support systems of the planet.

Against the backdrop of this reality, the internationalization of markets poses the greatest threat to the ability of State and public actors to maintain social cohesion and national identity, producing the fragmentation of power and strengthening the transnational articulation of partialized and private segments of national societies. If this situation is not reversed, be in the arena of environmental regimes

or of human rights and trade regimes, our societies will be confronted with public policies that, albeit their best intentions, will amount to ambulances that run around collecting the wounded and discarded people of a globalization riding the horsemen of neoliberal economics.

CONCLUDING REMARKS: MODERNITY, ETHICS, SUSTAINABILITY AND *"THE ABOLITION OF MAN"*

The observations introduced throughout this essay require further comments about the *ethical* foundations of sustainable development. In fact, this new development ethics requires that economics rescue its roots, identity and initial purposes as *oikonomy*, or the material supply of the *oikos*, the human home. In a most fortunate coincidence, the same semantic root of ecology, the study of the laws that govern this home. Unfortunately, with the acceleration of modern times, economics has ceased to study ways and means to achieve well being for people. It has turned into and end in itself, a science in which anything that does not have monetary value, anything that cannot have a price attached to it, is not worthy or valuable. This is turning into one of the most pernicious fetishes of modern times, despite the warnings of economists of the stature of 1999 Nobel Price Winner Amartya Sen (1986: 202, see also Sen, 1989):

> *"Economics assigns an order of preferences to a man and when it is needed it assumes that this utility function reflects his own interests, represents his well being, summarizes his idea of what should be done and describes his choices... In effect, the purely economic man is almost mentally retarded from a social point of view. Economic theory has dedicated much attention to this rational fool comfortably relaxed behind his unique order of preferences for all purposes."*

Empirical reality indicates also that wealth accumulation or economic growth does not constitute and has never been a requirement or precondition for development. Human welfare options are projected well beyond economic welfare. Wealth in itself is not the decisive factor, rather it is the use a community gives to its wealth. Just as a person can spend all of his or her income on drugs or on his/her children's education, so countries may spend their assets on weapons or invest in improving the quality of life of its populations. Numbers clearly indicate that countries with equivalent levels of economic riches have radically different welfare levels.

Likewise, successive Reports on Human Development published by the United Nations Development program (UNDP, 1990, 1999) clearly indicate that wealth has concentrated in the past fifty years in a way never been seen before. If in 1960 the 20 percent wealthiest people held 70 percent of the world's product, this percentage increased to 82.7 and 86 percent in 1990 and 1998 respectively. Meanwhile, the 20 percent poorest have seen their income fall from 2.3 percent to 1.3 and one percent of the world's products during the same period. Put it differently, in 1960 the gap between rich and poor was 30 times, and increased to 63 times when the eighties began. By the end of the decade (1998), the gap was 86 times already. If in the sixties 358 individuals amassed material wealth equivalent to that of 45 percent of the world population, in 1998 VIP group was reduced to merely 283 people. More striking, the 3 richest persons of the world today enjoy a wealth equivalent to the GNP of the 43 poorest countries.

Expressing these figures in more *human* terms, they indicate that if we could picture each one of 100 inhabitants of a "global" village, 57 would be from Asia, 21 Europeans, 14 of the Western Hemisphere and 8 Africans. Seventy-five percent would be ethnically non-white. Six villagers would concentrate two-thirds of the entire wealth of the community, and all would be North Americans. Eighty of each 100 would live in precarious housing, 70 would be illiterate, 50 suffer from malnutrition and only one would have achieved university education. Living in the Cyber Age, almost 40 would have never received or placed a telephone call.

Finally, if we add the product of all developing countries, these would barely reach the assets of the 300 largest transnational companies. Actually, a recent study reveals, in addition to the growing equity gap between humans, the unprecedented power amassed by transnational corporations in recent decades. The 51 largest economies of the world today are actually corporations, which assets greater than the combined GDP of the economies of the developing world. General Motors' assets tops the wealth of Denmark, IBM is equivalent to Singapore, and Sony to Pakistan. The 200 largest corporations, while employing only 0.78 percent of the labor force, respond to 27 percent of the world's product (Anderson and Cavanagh, 1999). This combined reality of wealth inequalities and power concentration has led the UNDP (1999) to state that "*the new globalization rules – and the actors that write them – are aimed at integrating global markets, neglecting the needs of the people that the markets cannot satisfy. This process is*

concentrating power and is marginalizing poor countries and people."

As a matter of fact, one should not need the recourse of an empirical argument to justify the foregoing remarks. The very approach to these issues adopted by some of the founding pioneers of neoclassical economics could not be more straightforward. It seems revealing in this respect to reproduce the thoughts of no other than John Stuart Mill himself, curiously published in the same year Marx and Engels' Communist Manifesto came to light from the opposite end of ideological spectrum, and cited in an excellent article by José Manuel Naredo (1998);

> *"I cannot consider the steady state of capital and of wealth with the same disdain displayed by economists of the old school. I am inclined to believe that, on the whole, this would represent a considerable progress of our current situation. I confirm that I do not share the ideal of life supported by those who believe that the normal state of affairs of human beings is a permanent struggle to move forward, trample over, crush and step on the toes of those ahead, characteristic behaviors of contemporary society, and even embodying the most desirable lifestyle for human species….*
>
> *…I do not see any reason to praise ourselves that people who are already wealthier than anybody needs to be have managed to double their means of consuming goods which produce none or little pleasure, except as symbols of affluence…*
>
> *…Only in the backward countries of the world it is still important to increase production; in those more advanced societies, what is needed from an economic standpoint is to achieve a better distribution. It is no doubt more desirable to employ humanity's energy in a struggle for wealth than in waging wars, at least until superior minds are able to educate the others to better pursuits. Insofar as minds remain primitive, they continue to need uncivilized stimuli.*
>
> *In the meantime, those of us who do not accept this most primitive stage of human improvement as our ultimate destiny must be forgiven, for we are skeptical of the type of economic progress which excite the self congratulations of ordinary politicians: the pure and simple increase of production and accumulation."*

It should be abundantly clear, from an *ethics of sustainability*, that it does not make any sense to reinvent a new society based on a movement of expansion of markets, even more so once it is acknowledged that technological progress remains the driving force of

globalization. If this could be somewhat correct in terms of production, the evolution of humankind indicates that technology must be oriented by a value system. Without these, without an ethic of development, the human being is simply an artifact, devoid of humanity.

The yearning for unlimited and unrestricted growth, based on the belief of an equally unbounded technological progress, the only and unfortunate situation it produces is the alienation of human beings, transforming them into robots that crave for the satisfaction of his or her immediate needs. Robots accumulating possessions that bear no relation with the needs for survival and spiritual growth. In spite of the fact that we have been taken to believe blindly that the more we become consumers instead of citizens, the more we will come closer to freedom and happiness, the truth is that we become less humans in this process. By means of a subtle indoctrination process, recompenses, punishments and an appropriate ideology, this task is generally carried without much effort. Truly, this is carried out so well that most of us believe that it is obeying his or her own will, without noticing that this "will" has been conditioned and manipulated in favor of a new modernity embedded in the globalization of the markets.

It is curious to notice, in this respect, the words of Marx written more than one century ago, from an opposing ideological standpoint of scholars such as the already quoted Stuart Mill, and when the internationalization of capitalism was still crawling and nobody could imagine the point it will arrive at. Commenting on private property and the distinction between "being" and "having", Marx (1975) said:

> *"Private property has turned us so stupid and partial that an object is only ours when we have it, when it exists for us as capital or when we directly eat it, drink it, use it, inhabit it, etc.; in short, when we use it somehow... In this way, all our physical and intellectual senses have been replaced by the simple alienation of all of these. The less you are and the less you express your life, the more you have and more alienated your life is... All of what economists takes from your life and from your humanity is returned to you in the form of money and wealth".*

The contrast of being or having was also prominent in the thought of Erich Fromm (1978), who warned one hundred years later that "love [and solidarity] it *not* something that one can have, but a process... I can love, I can be in love, but I don't have... anything; in fact, the less I have, the more I am able to love." Contrary to the maximum

precepts of the neoliberalism --I consume, ergo I am-- with its corollary of "if I am consumer I am a free citizen", Fromm pointed out almost three decades ago: "to *have* freedom doesn't mean to be liberated of all the principles that guide life, but the freedom to grow in agreement with the laws of the structure of the human existence; on the other hand, the freedom in the sense of not having impediments, of being free of the yearning to have things and the own ego, it is the precise condition to love and to be productive".

Reiterating the basic argument behind the present study, current affairs reveal that sustainable development has become such an indispensable reference in political, corporate and civil society discourse that ends up running the risk of losing much of its meaning for social change, and of being reduced in strategic importance to a simple rhetoric resource (see for example, Lele, 1991, and Guimarães, 1992). It is in fact impressive the unanimity in favor of sustainability, as it is equally impressive the impossibility of finding any social actor of importance that is not committed with the proposals for sustainable development. Being that as it may, sustainability faces the prospect of transforming itself from being a strong "candidate to paradigm" to becoming a convenient "politically correct slogan."

An important requirement to avoid this fate has been the suggested development of operational mechanisms to incorporate sustainability in public policies, as well as the construction of "territorial indicators of sustainability" (see on this last aspect, Guimarães, 1998). As a matter of fact, what the present analysis has attempted can be expressed in very simple terms. In one of his best achieved films, *The Serpent´s Egg*, Ingmar Bergman demonstrates masterfully that an appropriate reading of social and political tendencies can reveal what is in store for the future of society.

Playing in a brilliant way with the solitude, the astonishment, the drama, the terror and the emotional breakup of his characters, revealing them against the backdrop of the debacle of the Republic of Weimar, and putting them in movement in the same scenario for the rise of an equally dark character, the then political aspirant Adolf Hitler, Bergman is able to reveal something that the world, particularly Germans, were unable to see at the time. That Nazism was subtly bewitching an entire nation until amassing absolute power in 1933, while almost destroying Western civilization with its arsenal of charms. Although it is even trivially obvious to state that the origins of the

German national-socialism dates back to long before the end of the Weimer Republic, it was not so obvious at the time, as Bergman points out, that the "egg" of the new order had already been incubated many years before. Quietly, deviously, insidiously hatching like a snake… and nobody or very few ever noticed it! Likewise, one of the most important challenges of modern times is to determine the "genetic" characteristics of the sort of ecopolitical creature that current styles of development are engendering (Guimarães, 1991a).

It is for no other reason that it has been suggested that sustainable development addresses precisely the two basic components of the "dilemma" that has summoned these reflections --modernity and environment-- jointly with the ethics that grants them social significance. Towards this end it becomes urgent the democratization of the State, and not its abandonment and total substitution by the market. Taking into account the economic and social distances between sectors of the society, with their known results of polarization, distrust and resentment, the State still represents, although with serious problems of legitimacy, a key actor to regulate conflict of interests and to guide the development process.

It must be recalled once again that the difficulties caused by extreme situations of social inequality and of environmental degradation cannot be defined as individual problems, constituting instead social, collective challenges. It is definitely ***not*** an issue of guaranteeing access, via market mechanisms, to education, to housing, to health or to an atmosphere free of contaminants, but of recuperating collective means for satisfying of these needs.

Having being subjected to intense attack and having barely survived its "extinction" in the hands of the apostles of neoliberal economics and politics, the State is undoubtedly wounded and weaker nowadays (see Guimarães, 1990a and 1996, respectively). Its main threat comes from abroad. The internationalization of the markets, of production itself, and of cultural models, questions the capacity of the States to maintain national identity and unity, fragmenting its monopoly of power to handle international relations, strengthening in its place the transnational bonds of dominant segments of society nationally and internationally.

If it were to persist the tendency verified in previous decades, when the State assumed many of these relationships (e.g., the

negotiation and subsequent "statization" of private foreign debt), the future does not hold much promise indeed. In this *Brave New world* (Huxley, 1972) policies carried out by the State run the risk of becoming nothing more than the ambulances noted in previous pages, simply running around and always behind schedule, picking up the wounded and disposable of a globalization framed by the neoconservative ideology. All in a context in which greater portions of the decisions that are crucial for a nations' future, and for social cohesion as well, are arrived at outside of its territory and implemented by actors completely foreign to the social, political and economic realities of the country.

Hence, the future of environmental regimes --and of sustainable development, for all it matters-- is intimately associated with the future of politics. Again it comes to mind Fernando Henrique Cardoso's warnings that "if no symbiosis can be found between politics and public interest it will be rather troublesome to maintain democracy". Without it, Cardoso goes on cautioning, "we will move back to a world of markets, not in its good sense –of a market that educates, of a market that softens, of a market that civilizes—but a market almost as war; and market as war –this Hobbes knew quite well— gives rise to a State to impose order over affairs, which would not be the democratic State, the rule of law, but its very opposite."(Cardoso, 1995:94).

It must be underlined as well important tendencies, although in a different dimension to the one just mentioned, referred now the reality of the relationships between human beings and nature, as these are expressed in contemporary modernity. Clive Lewis could not have been more accurate when he stated that "what we call the power Man over Nature is in fact the power of some men over other men, using nature as their instrument" (Lewis, 1947:69). This implies that situations of environmental degradation reveal nothing else than inequalities of social and political power (patterns of relations among human beings and the form society is organized), as well as structural distortions of the economy (patterns of consumption of society and patterns of production organized to satisfy those). If this represents indeed an accurate description of environmental problems, it becomes rather evident that possible solutions to the current crisis of civilization via sustainable development will have to be found within the social system itself and not on some technological magic or market gimmick.

Projecting the realities of power between human beings in the long run, with the consequent implications about how these will bring about

the incorporation of nature, the scenario turns even more delicate and somber. Indeed, just as the relationships of power are synchronically determined, there is also diachronic, inter-generational asymmetry of power among humans. In other words, each generation exercises power (making use of nature) on subsequent generations; while these, when modifying the inherited natural endowment, resist and attempt to limit the power of their predecessors. This process, repeated indefinitely, ends up not representing more power over the natural world, just the opposite, rendering human society more fragile in nature's hands. The later in time a generation lives, and, by definition, the more it lives closer and closer to the extinction of species, less power it will have at its disposal the adapt nature to its needs and wants and to dominate other humans.

As Lewis concludes poignantly albeit so appropriately (in a period when sustainability was not yet fashionable) "*Human* nature will be the last part of Nature to surrender to Man"...and those subjugated will not be "men at all; they will become artifacts". Man's final conquest will prove to be in fact "the abolition of Man" (pp. 72-77). So much for contemporary *modernity*, I believe.

Note

(I) An earlier version has been presented at the **International Studies Association RC24 Mini-Conference "Reflections on Sustainability"**, Rio de Janeiro, 03-05 August 2000. The opinions expressed herein, which have not been subjected to editorial revision, are of the sole responsibility of the author and do not necessarily reflect those of the United Nations or of ECLAC.

References

Anderson, Sandra, and Cavanagh, John, 1999. Top 200: The Rise of Corporate Global Power. Washington, DC: Institute for Policy Studies.

Benett, John W. 1976. The Ecological Transition: Cultural Anthropology and Human Adaptation. New York: Pergamon Press.

Boisier, Sergio, 1997. El Vuelo de Una Cometa. Una Metáfora para Una Teoría del Desarrollo Regional. Santiago, Chile: ILPES, LC/IP/G.103,

Serie Ensayos, Documento 97/37, 31 January.

Brundtland, Gro Harlem, 1987. Our Common future: From One Earth to One World. New York: Oxford University Press.

Calcagno, Alfredo E. and Calcagno, Alfredo F. 1995. El Uni***verso*** Neoliberal: Recuento de sus Lugares Comunes, Buenos Aires: Alianza Editorial.

Capra, Fritjof, 1974. The Tao of Physics: An Exploration of the Paralels Between Modern Physics and Eastern Misticism. Berkeley: Shambhala Publishers.

Cardoso, Fernando Henrique, 1995. "Estado, Mercado, Democracia: ¿Existe una Perspectiva Latinoamericana?" Socialismo y Participación, No. 71, September: pp. 85-94.

Cardoso, Fernando Henrique and Faletto, Enzo, 1969. Dependencia y Desarrollo en América Latina: Ensayo de Interpretación Sociológica. Mexico: Siglo Veintiuno Editores.

Castañeda, Carlos, 1968. The Teachings of Don Juan: A Yaqui Way of Knowledge. Berkeley: University of California Press.

Constanza, Robert et al. 1997. "The Value of the World's Ecosystem Services and Natural Capital." Nature, Vol. 387, No. 6230, 15 May: pp. 253-55.

Cunill, Nuria, 1995. "La Rearticulación de las Relaciones Estado-Sociedad: En Búsqueda de Nuevos Desafíos." Reforma y Democracia, No. 4, July: pp. 27-58.

Daly, Herman E. 1990. "Operational Principles for Sustainable Development." Ecological Economics, Vol. 2, Nº 1, April: pp. 1-6.

_____. 1991. "Crecimiento Sostenible: Un Teorema de la Imposibilidad." Desarrollo, Madrid, Nº 20, p. 47.

_____. 1996. Beyond Growth. Boston, Mass.: Beacon Press.

Daly, Herman E. and Towsend, Kenneth N. 1993. *Valuing the Earth: Economics, Ecology, Ethics*. Cambridge, Mass.: MIT Press.

De Mattos, Carlos, 1996. *M*odelos de Crecimiento Endógeno y Divergencia Interregional, ¿Nuevos Caminos para la Gestión Regional? Santiago, Chile: Instituto de Estudios Urbanos, Universidad Católica de Chile.

Douthwaite, Richard, 1992. The Growth Illusion: How Economic Growth Has Enriched the Few, Impoverished the Many, and Endangered the Planet. Tulsa: Council Oaks Books.

Duncan, Otis D. 1961. "From Social System to Ecosystem." Sociological Inquiry, No. 31, Winter: pp. 140-149.

Durston, John, 1997. Sustentabilidad Cultural y Autodesarrollo Indígena, Santiago, Chile, CEPAL, LC/R.1707, 26 February.

Elizalde, Antonio, 1996. "¿Es Sustentable Ambientalmente el Crecimiento Capitalista?" Persona y Sociedad. Santiago, Chile, 10(2), August: pp. 57-66.

Fromm, Erich, 1978. ¿Tener o Ser? Mexico: Fondo de Cultura Económica.

Fukuyama, Francis, 1990. "¿El Fin de la Historia?" Estudios Públicos, Nº. 37, Summer: pp. 5-31.

Furtado, Celso, 1972. Formação Econômica do Brasil. São Paulo: Editora Nacional.

Goodland, Robert et al. 1992.- Desarrollo Económico Sostenible: Avances sobre el Informe Brundtland. Santafé de Bogotá: Tercer Mundo Editores.

Guimarães, Roberto P., 1990a. "El Leviatán Acorralado: Continuidad y Cambio en el Papel del Estado en América Latina." Estudios Internacionales, Santiago de Chile, No. 63, April-May: pp. 45-81.

_____. 1990b. "Desarrollo con Equidad ¿Un Nuevo Cuento de Hadas para los Años Noventa?" SINTESIS: Revista Documental de Ciencias Sociales Iberoamericanas, Madrid, No. 10, January-April: pp. 15-68.

_____. 1991a. The Ecopolitics of Development in the Third World: Politics and Environment in Brazil. Boulder, CO and London: Lynne Rienner Publishers.

_____. 1991b. "O Brasil e o Desafio do Desenvolvimento Sustentável." In O Desafio do Desenvolvimento Sustentável: Relatório Nacional do Brasil para a Conferência das Nações Unidas sobre Meio Ambiente e Desenvolvimento. Coord. Roberto P. Guimarães. Brasília: Secretaria de Imprensa da Presidência da República, pp. 13-24.

_____. 1992. "El Discreto Encanto de la Cumbre de la Tierra: Una Evaluación Impresionista de la Conferencia de Rio." Nueva Sociedad, No. 122, November-December: pp. 86-103.

_____. 1996. "¿El Leviatán en Extinción? Notas sobre la Reforma del Estado en América Latina," Pretextos, Nº 9, November: pp. 115-43,

_____. 1997a. "Desenvolvimento Sustentável: Da Retórica à Formulação de Políticas Públicas". In A Geografia Política do Desenvolvimento Sustentável. Eds. Bertha K. Becker and Mariana Miranda. Rio de Janeiro; Editora da Universidade Federal do Rio de Janeiro, pp. 13-44.

_____. 1997b. "Cooperativismo e Desenvolvimento Sustentável." Paper presented as the opening conference at the International Congress of Cooperative Sustainable Development in the Countries of the Amazon Basin. Manaus, 10 to 12 December.

_____. 1998. "Aterrizando una Cometa: Indicadores Territoriales de Sustentabilidad." Revista Interamericana de Planificación, Nº 119-120, July-December: pp. 7-58.

_____. 2000. "Perspectivas de Futuro". In Desarrollo Humano en Chile, 2000: Más Sociedad para Gobernar el Futuro, Ed. United Nations Development Program. Santiago de Chile: UNDP, pp. 227-29.

Guimarães, Roberto P. and Maia, Kátia D. 1997. "Padrões de Produção e Padrões de Consumo: Dimensões e Critérios de Formulação de Políticas Públicas para o Desenvolvimento Sustentável". In Brasil Século XXI: Os Caminhos da Sustentabilidade Cinco Anos Depois da Rio-92. Eds. Jean-Pierre Leroy, Kátia D. Maia and Roberto P. Guimarães. Rio de Janeiro; FASE, pp. 385-97.

Guimarães, Roberto P. and Vega, Juan Enrique, 1996. Partidos Políticos y Gestión Estratégica del Estado. Santiago de Chile: Instituto Latinoamericano y del Caribe de Planificación Económica y Social, doc.

mimeo.

Hueting, Roefie, 1990. "The Brundtland Report: A Matter of Conflicting Goals." Ecological Economics, Amsterdam, 2(2), February.

Hurrell, Andrew and Kingsbury, Benedict, 1992. "The International Politics of the Environment: An Introduction." In The International Politics of the Environment. Eds. Andrew Hurrell and Benedict Kingsbury. New York: Oxford University Press, pp. 1-47.

Huxley, Aldous, 1972. Brave New World and Brave New World Revisited. New York: Harper.

Krasner, Stephen D. 1983. "Structural Causes and Regime Consequences: Regimes as Intervening Variables. In International Regimes. Ed. Stephen D. Krasner. Ithaca, NY: Cornell University Press.

Kuhn, Thomas, 1977. The Essential Tension: Selected Studies in Scientific Tradition and Change. Chicago: The University of Chicago Press, esp. pp. 225-39.

Lele, Sharachchandra M. 1991. "Sustainable Develpoment: A Critical Review". World Development, 19:6, pp.607-21.

Lewis, Clive S. 1947. The Abolition of Man: How Education Develops Man's Sense of Morality. New York: Macmillan Publishing Company.

List, Martin and Ritterberger, Volker, 1992. "Regime Theory and International Environmental Management." In The International Politics of the Environment. Eds. Andrew Hurrell and Benedict Kingsbury. New York: Oxford University Press, pp. 85-109.

Martinez-Allier, Joan, 1995. "The Environment as a Luxury Good or Too Poor to Be Green?" Ecological Economics, 13(1), pp. 1-10.

Marx, Karl, 1975. Marx y Su Concepto del Hombre. México: Fondo de Cultura Económica, 6ª reprint.

Mead, Margaret, 1970. Culture and Commitment. New York: Doubleday.

Meadows, Donnella et al. 1972. The Limits to Growth: A Report to the

Club of Rome's Project on the Predicaments of Mankind. New York: Universe Books.

Naredo, José Miguel s.d. "Sobre el Origen, el Uso y el Contenido del Término Sostenible." http://www.habitat.aq.upm.es.

Ophuls, William, 1977. Ecology and the Politics of Scarcity: A Prologue to a Political Theory of the Steady State. San Francisco: W. H. Freeman.

Pearce, David and Atkinson, Gordon, 1993. "Capital Theory and the Measurement of Sustainability." Ecological Economics, 8(2), pp. 103-108.

Pinto, Anibal, 1978. "Falsos Dilemas y Opciones Reales en la Discusión Latinoamericana." ECLAC Review, No. 6, Second Semester; pp. 27-45.

Plato, 1945. The Republic of Plato. Ed. Francis M. Conford. New York: Oxford University Press.

Prugh, T. et al. 1995. Natural Capital and Human Economic Survival. Solomons, MD: International Ecological Economics Society Press.

Przeworski, Adam, 1995. "Comentários." In O Brasil e as Tendências Econômicas e Políticas Contemporâneas (Seminário de Brasília). Ed. Fundação Alexandre de Gusmão. Brasília: Ministerio de Relações Exteriores, pp. 23-24.

Rich, Bruce, 1994. Mortgaging the Earth: the World Bank, Environmental Impoverishment and the Crisis of Development. Boston, Mass.: Beacon Press.

Schon, Donald, 1973. Beyond the Stable State. New York: W. W. Norton.

Sen, Amartya, 1986. "Los Tontos Racionales", In Filosofía y Teoría Económica. Eds. Frank Han and Holis Martin. Mexico: Fondo de Cultura Económica.

———. 1989. Sobre Etica y Economía. Mexico: Alianza Editorial.

Taylor, Peter J. 1997. "Modernities and Movements: Antisytemic Reactions to World Hegemony." REVIEW: A Journal of the Fernand Braudel Center, No. 1, Winter: pp. 1-17.

Touraine, Alain, 1994. "From the Mobilising State to Democratic Politics". In Redefining the State in Latin America. Ed. Colin I. Bradford, Jr. Paris: Organization for Economic Co-Operation and Development, pp. 44-65.

UNDP-United Nations Development Program 1990. Informe sobre el Desarrollo Humano - 1990. Santafé de Bogotá: Tercer Mundo Editores.

_____. 1994. Informe sobre Desarrollo Humano. Mexico: Fondo de Cultura Económica.

Vega, Juan E. 1995. Política y Calidad de la Política: Reflexiones sobre la "Crisis de la Política." Santiago de Chile: Corporación Paz y Justicia, doc. mimeo.

Wilson, John O. 1992. "Socio-Economic Justice." In Real-Life Economics: Understanding Wealth Creation. Eds. Paul Ekins y Manfred Max-Neef. London and New York: Routledge, pp. 54-59.

Young, Oran R. 1989. International Cooperation: Building Regimes for Natural Resources and the Environment. Ithaca, NY: Cornell University Press.

Biographical Sketch

B.A. in Public Administration, M.A. and Ph.D. in Political Science. Permanent staff member of the U.N. Economic Commission for Latin America and the Caribbean (ECLAC), currently at its Environment and Human Settlements Division in Santiago, Chile. Author of several publications on political development and the formulation of social and environmental policies in Latin America, including *The Ecopolitics of Development in The Third World: Politics and Environment in Brazil (Boulder and London: Lynne Rienner Publishers, 1991, 1994).* In 1991, was seconded from ECLAC to the Brazilian Government as Technical Coordinator of the Brazilian National Report for the United Nations Conference on Environment and Development (UNCED-92). In 1997, was seconded to the Forum of Brazilian NGOs and Social Movements as member of the technical coordinating team responsible for the preparation of the National Report to the Rio+5 Conference from Agenda to Action. Currently assigned to drafting the Regional

Assessment on Progress since UNCED that will be reviewed in Rio de Janeiro on October 2002, during the Regional Conference of Latin America and the Caribbean Preparatory to the World Summit on Sustainable Development (Johannesburg, September 2002). Postal Address: Naciones Unidas, CEPAL, Casilla 179-D, Santiago, Chile, Phone (56-2) 210-2000, Fax (56-2) 208-0252, E-mail: rguimaraes@eclac.cl.