EDUCATION FOR SUSTAINABLE DEVELOPMENT
What we need to learn to save the planet?

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*Unless we are able to translate our words into a language that can reach the minds and hearts of people young and old, we shall not be able to undertake the extensive social changes needed to correct the course of development. (**Gro Harlem Brundtland**. In: Our Common Future preface).*

ABSTRACT - This essay is a result of decades of reflection and action on ecology and its relationship with education. The author describes this experience starting from his participation in the Eco-92 conference, in which he took part in the elaboration of the *Earth Charter* and the *Treaty on Environmental Education for Sustainable Societies and Global Responsibility.* The author is currently a member of *United Nation's Decade of Education for Sustainable Development* Reference Group. In this text, he presents and questions the theme education for sustainable development and starts by discussing about the polissemy of the concept "sustainable development" and its relationship with solidary economy, with the globalization context, sustainable lifestyle and the construction of a planetary civilization. He also presents ecopedagogy as the most appropriate pedagogy for the Decade's process of educating for another possible world. He emphasizes the Decade as a good opportunity for environmental education to give more attention to economic dimensions and to the theme development itself. He also sees it as a good opportunity for educational systems to renew their principles and policies based on the concept sustainability. Finally, he presents the main challenges faced by education for sustainable development by asking what do we really need to learn in order to save the planet.

I would like to state a few words in order to present myself and my organization. I am a member of Paulo Freire Institute (PFI), a Non-Governmental Organization, located in São Paulo, Brazil, working in the field of education, ecology, and communication, understanding that education is not separable from culture, economics and politics. It is a great honor to be a member of the United Nations' Reference Group of the Decade of Education for Sustainable Development.

As a member of PFI, during the 1992 Earth Summit held in Rio de Janeiro, I took part in the **Global Forum,** in which I worked in the elaboration of the **Earth Charter**'s first draft and also on the "Treaty on Environmental Education for Sustainable Societies and Global Responsibilities". Since then, I have been following the construction of the initiative of the Earth Charter, coordinated by the Earth Council. Paulo Freire Institute has already organized two international meetings under the theme "An educational approach to the Earth Charter", one in São Paulo (1999) and another one in Porto (Portugal), in 2000.

I became acquainted with education for sustainable development through the Earth Charter. I believe there is a strong link between the Earth Charter Initiative and the **Decade of Education for Sustainable Development**. Mikhail Gorbachev, president of Green Cross International, sees the Earth Charter as **sustainable development's** "third pillar". The first pillar is the UN's Foundation Charter; the second one is the Human Rights Declaration. He asserts that the Earth Charter has to be "universally

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adopted by the international community" (In: Corcovan, org, 2005:10). The Earth Charter has been an ethical inspiration for United Nations' "goals of the millenium". Peter Blaze Corcoran, professor of the Florida Gulf Coast University adds: the Earth Charter is an "arch of hope" (Corcoran, org, 2005:16). In the Earth Charter we find a new concept of "sustainable lifestyle".

Mirian Vilela, Executive Director of the Earth Charter Initiative, who writes about its history and significance (In: Corcovan, org, 2005:17-22), says that the consultation process impelled by Maurice Strong, General Secretary of the 1992 Earth Summit, in all continents has given global legitimacy to this document: the Earth Charter is a movement of the planetary civil society in order to "build consensus and shared values" (Idem, p. 22) while seeking for a fair and sustainable lifestyle.

The Earth Charter has a great **educational potential,** which has not yet been sufficiently explored in both formal and non-formal education. By means of its proposal of intertranscultural dialogue, the Earth Charter can contribute to overcome the current conflict in our civilization. We have been living a **civilization crisis**. Education can help us overcome this. The Earth Charter's principles and values may work as the basis for the creation of a global educational system, unique and universal, under the coordination of Unesco, which may set a common humanistic foundation for all national systems of education. This is not about creating a system that has a unique ideology, which would be a totalitarian initiative. It would be a matter of highlighting what we have in common. If we don't find anything in common, war is our only future. Above all, we need to highlight what binds us together. Before highlighting our differences, we need to highlight what we, as human beings, have in common.

It is well known to all that environmental degradation generates human conflicts. The Earth Charter is, in many cases, serving as basis for resolution of conflicts previously generated by an unsustainable way of producing and reproducing our existence in the planet, mainly on a daily basis. The Charter helps us overcome fundamentalisms that currently challenge a pacific co-habitation among nations and peoples in the planet. As affirmed by Abelardo Brenes, professor of the United Nations University for Peace, the principle of global responsibility established in the preamble of the Earth Charter "complements the Human Rights Declaration, recognizing each person as a citizen of the world (In: Corcovan, org, 2005:35). Each person is equally responsible for the Earth's community as a whole, even if, individually, we have different roles and responsibilities.

The strategy of associating the Earth Charter to other UN's documents and conventions has been widely used in order to develop its transforming potential. Among these documents, we can emphasize the Global Campaign for Education, the Decade of Alphabetization, the Decade of Education for a Sustainable World, Children's Rights Declaration, Agenda 21 and HIV/SIDA Prevention. It is evident that the values contained in the Declaration of the Millennium are in agreement with the values defended in the Earth Charter: liberty, equality, solidarity, tolerance, respect towards nature, shared responsibility,

Leonardo Boff, one of the founders of Liberation Theology and member of the Earth Charter Commission, asserts that the Earth Charter "represents an important contribution to a holistic and integrated view of humanity's social and environmental problems" (In: Corcovan, org, 2005:43). He also stresses that "human being is a sub-chapter of the chapter of life. For this reason, human beings must "take care" of the community of life as a whole and with "love", "the most powerful energy that exists within human beings and the universe" (Id., ib., p. 44).

At Paulo Freire Institute, we consider the Earth Charter an invitation from the Earth, a message, a guide for a sustainable lifestyle and a call for action. With this ethical view, we have included the Earth Charter as a *transversal generative theme* of all our projects, such as Adult Education, Alphabetization, Citizen Education, Curriculum, Popular Education, etc, as an *interdisciplinary theme*. In order to achieve this, we have created a concept and vision of an ***Ecopedagogy*** (initially *called Pedagogy of Sustainable Development*), as a suitable pedagogy for the Earth Charter. As a result of the actions presented above, Ângela Antunes, pedagogic director of PFI, and I have published a text about Ecopedagogy in the book *The Earth Charter in Action,* organized by Peter Blaze Corcoran.

Below, I would like to mention some of Paulo Freire Institute's working experiences with the Earth Charter and Education for Sustainabale Development.

1st – In our strategy, we associated the **Earth Charter** with the **Agenda 21** as an ethical framework for sustainable development. We tried not to discuss separately the ethical principles of a concrete action plan. In order to do so, PFI coordinates the "Earth Charter" Work Group in the *Brazilian Forum of NGOs and Social Movements for the Environment and Development*, and is deeply linked to the following civil society organizations *Mata Nativa*, *Sociedade do Sol* and *Sociedade da Terra.* We have been able to introduce the Earth Charter among the Brazilian Agenda 21.

2nd – Paulo Freire Institute has been trying to introduce in its training programs the Earth Charter theme, mainly in **training educational managers**, as it has been done in an advisement project for the

city of São Paulo Education Secretariat (2001-2004), which consisted in training school directors, supervisors and pedagogic coordinators.

3rd – We have been trying to keep the Earth Charter movement alive in **solidarity networks**. PFI is among NGOs that promote and organize the World Education Forum and the World Social Forum. Over 5 thousand people participated in two seminars held in a WSF event about the Earth Chater which had as speakers Leonardo Boff, Moema Viezzer, Frei Betto, Mohit Mukherjee, Peter Blaze Corcoran and Rick Clugston.

4th – **Training social educators** is another PFI's strategy. Some examples are; 1) "Projeto Jovem Paz" (Youth-Peace Project), which aims at training social leaderships for a culture of peace and sustainability; 2) "Projeto da Escola Cidadã" (Citizen School Project), which uses Paulo Freire's "reading the world" methodology and works with sociability principles based on the Earth Charter values, in order to build Eco-Political Pedagogic Project in schools and child and youth protagonism in different cities such as Nova Iguaçu (RJ), Peruíbe and Osasco (SP) and 3) "MOVA" Project (Adult education). They all have the Earth Charter as part of their training process. The Earth Charter is used as a basic document for teaching.

One of the the goals of PFI's *Projeto da Escola Cidadã* (Citizen School Project) is to create an eco-political-pedagogic project in schools based on 4 main axes: sociability principles, democratic management, curriculum and evaluation. The Earth Charter is one of the documents used as reference to discuss and elaborate sociability principles regarding relationships that we have with ourselves, with others, in student-teacher relationship, with our community, with our parents etc.

To us, sustainability is the **dream of living well**; sustainability is a dynamic balance with others and the environment, it is the harmony among differences. The first contact with a sustainable culture is odd, difficult and complex because we have a different way of seeing reality. In order to implement the Earth Charter in our projects and in our Institutional Development Plan, we have been developing in the last years, an **Earth Pedagogy** (Gadotti, 2001), which means the same as ecopedagogy, centered in the paradigm of ecological sustainability. As Paulo Freire has said in his last book, "it is urgent that we take upon ourselves the duty of fighting for fundamental ethic principles, such as respect for the life of human beings, the life of other animals, of birds, rivers and forests. I do not believe in lovingness between men and women, among human beings, if we are not capable of loving the world. Ecology gains a fundamental importance in the end of this century. It has to be present in any educational practices that are radical, critical and liberator (...). In this sense, it seems to me a distressful contradiction to have a progressive and revolutionary speech and have, at the same time, a life-denying practice. A practice that pollutes the sea, the water, fields and that devastates forests, destroys trees, threatens animals and birds" (Freire: 2000:66-67).

Ecopedagogy is a pedagogy focused in life: it takes into account people, cultures, lifestyles and the respect towards identity and diversity. It acknowledges human beings as creatures that are always in movement, as "incomplete and unfinished" beings, according to Paulo Freire (1997), which are constantly shaping itself, learning, interacting with others and with the world. The current dominant pedagogy is centered in tradition, in what is static, in what generates humiliation for the learner due to the way he/she is evaluated. In ecopedagogy, the educator should welcome the student. Sheltering, caring are the basis for education for sustainability, which is being promoted since 2002 by the United Nations through the creation of a "Decade" entirely dedicated to it.

1. The United Nations' Decade of Education for a Sustainable Development

The United Nations' Decade of Education for a Sustainable Development was established in December 2002 by the United Nations General Assembly, through the Resoluton n. 57/254. This resolution recommends Unesco to elaborate a Plan, emphasizing the role of education in the promotion of sustainability. In Mai 2003, during the Conference of Environment Ministers, which took place in Kiev (Russia), they have committed themselves to promote in their countries an international plan for implementing the Decade (2005-2014).

In 2006, Unesco has created a **Reference Group** in order to give conceptual and strategical support to the Decade's Secretariat. Unesco's Secretariat for the Decade, based on studies and researches on education for sustainable development, will produce educational materials and offer necessary training in order to facilitate the emergence of an educational reform that would include

sustainability as a principle, and a policy that would take us to a more qualified teaching and learning process. Unescos' Decade Reference Group is oriented by five basic **strategies**:

1st - To establish the principles for a *big global alliance* for sustainability, in governmental and non-governmental levels;

2nd – To concretely start working for the creation and monitoring of the work done by the Decade's National Commissions;

3rd – To create *reference centers* in different parts of the world in order to promote discussion, research and intervention on education for a sustainable development;

4th – To establish strong ties with other UN's initiatives and decades, such as: Alphabetization Decade, Education for All, HIV/SIDA and Goals of the Millennium;

5th – To establish communication and information strategies strongly based in new technologies and, specially, the Internet.

Some alliances have already been established, such as the alliance with the *Earth Charter Initiative*. In its 2003 General Conference, Unesco recognized the Earth Charter as an important reference for sustainable development and, now, for education for sustainable development.

The first Conference in which the theme education for a sustainable development was discussed took place in 1977, in Tblisi, Russia. But the theme has regained force, the same force it has today, 20 years later, during the International Conference on Environment and Society, Education and Public Awareness for Sustainability, promoted by Unesco in Thessaloniki (Greece), from December 8th to 12th, 1997. The Conference gathered over 1200 technicians from 84 countries and the most discussed topic was "responsible consumption".

It became evident in Thessaloniki, the importance of the role played by consumers, which is a great power that can act towards a more sustainable lifestyle. The **Decade of Education for a Sustainable Development** has, therefore, historical precedents that need to be considered. In Thessaloniki there were already talks about the importance of introducing the concept of sustainability in the re-orientation of formal education; of changing the production and consumption standards and of adopting a sustainable lifestyle. The current lifestyle is imposed by big corporations' publicity networks, but it does not mean we are entirely guided by them. The consumers' participation and mobilization may be decisive for the success of the Decade. In this sense, it is important to create a propaganda against unsustainability, proposing an alternative communication with all kinds of people, aiming at a **sustainable consumption**[1].

Many regions, such as Europe, Asian-Pacific region, Latin America and the Caribbean, already have their own strategy to implement the Decade[2].

Europe has defined its strategy in June, 2005, during a summit meeting between Environment and Education Ministers, the Economic Commission for Europe and the Environmental Policy Committee. Among the strategies presented by Europe, it is important to highlight the aims of "training new educators so that they can include sustainable development in their teaching practice" and "guarantee the access to tools and materials that are necessary for ESD" (Naciones Unidas, 2005:4). Education for a sustainable development is part of the four main European educational programs: Comenius, Erasmus, Leonardo da Vinci e Grundtvig (Busch, 2007).

Europe has been showing great concern, maybe even an exagerated one, with **indicators of sustainability**, which are difficult to define. An International Conference promoted by the Unesco German Commission, held in Berlin, on Mai 24th and 25th, 2007 and whose main focus was to discuss the "European Contribution" for the Decade, discussed in depth the indicators issue, emphasizing their importance, but also warning that it is important not to end up giving importance only to what can be measured[3]. This concern is being, first of all, associated to what has been demanded by UNECE (United Nations Economic Commission for Europe) towards the **competences** related to sustainability.

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[1]   In 2002, a guide published by Unesco and UNEP, in partnership with a number of NGOs, works with the concept of "sustainable consumption" and shows, mainly to youngsters, practical ways of how to have a sustainable lifestyle. One of the used strategies is to create responsible consumption groups and networks, exchanging ideas, optimizing energies and discovering the "global village" (Unesco/Unep, 2002).

[2]   Accoding to Aline Bory-Adams, the Decade "is a process and needs to take into account the specificities of each country. While it is possible to identify countries where ESD has acquired visibility and is included in the educational priorities, we have to respect the different pace chosen by each country" (Bory-Adams, 2007:42).

[3]   For further information read Scott, William, A. D. Reid, and J. Nikel, *2007. Indicator for Education for Sustainable Development: a report on perspectives, challenges, and progress.* Anglo-German Foundation for the Study of Industrial Society (www.agf.org.uk/pubs/pdfs/51515web.pdf).

Germans have developed the concept of *Gestalfungskompetenz* in order to refer to compentences and abilities linked to Education for Sustainable Development (ESD). According to Gerhard de Haan, professor of Future Studies in Education Science at the Free University of Berlin and Chairman of the German National Committee for the UN Decade of Education for Sustainable Development, the concept of *Gestaltungskompetenz,* sometimes translated as *participation skills* in English, "was formulated with ESD in mind. Gestaltungskompetenz describes the ability to apply knowledge about sustainable development and recognize the problems involved in non-sustainable development" (Haan, 2007:7). In another text, he translates *Gestaltungskompetenz* as *shaping competence,* dividing this concept into ten parts: to create knowledge in a spirit of openness to the world, integrating new perspectives; to think and act in a forward-looking manner; to acquire knowledge and act in a interdisciplinary manner; to be able to plan and act in cooperation with others; to be able to participate in decision-making processes; to be able to motivate others to become active; to be able to reflect upon one's own principles and those of others; to be able to plan and act autonomously; to be able to show empathy for and solidarity with the disadvantaged; to be able to motivate oneself to become active" (Haan, 2007a:12).

According to Alexander Leicht, head of the German Secretariat for the UN Decade, *Geltaltungskompetenz* includes: "anticipatory, future-orientated thinking; living, complex interdisciplinary knowledge; and participation in social decision-making processes. Education for sustainable development is, thus, not simply about raising environmental awareness, as it is often supposed. It is, in fact, more concerned with empowering people in general to take action, orientated towards the goal of viable, long-term development (Leicht, 2005:27).

Indicators are important, as long as they are not established according to economic income-related criteria. As it has already been emphasized in the Berlin Conference, there may be some ambiguities and dualisms among indicators and competences, due to different models of competences. Competences in ESD are not limited to its cognitive aspects, since they involve challenges, behaviours, attitudes and intentions. Apart from the cognitive component, they also involve certain emotional and motivational components. Compentences are not limited only to a matter of capacity or ability that one has to solve problems. They also involve one's ability of organizing his/her own work, of thinking critically, working in groups, of feeling bound to a human community, as it is infered within the notion of *Gestaltungskompetenz.*

Besides, when talking about **competences** and **indicators,** relevancy criteria must be established and different teaching contexts and levels must be respected. However, that does not prevent one to look for aspects in common. Governments that are engaged in including themes related to sustainability need to consider poverty levels, construction of peace, justice and democracy, security, human rights, cultural diversity, social equality and environmental protection, among other issues. This is also valid to the strategy of implementing UNECE in Europe, as Arjen E. J. Wals, professor of the University of Wageningen (Holland), has reinforced on the Berlin Conference.

Among Europe's "good practices" we can mention **Scotland's** and **Hungary's** eco-schools experience. The *Hungarian Network of Eco-Schools* are schools whose pedagogical project is based on values of sustainability, environmental education, education for a healthier lifestyle and education for democratic participation. Around 272 schools, approximately 6% of the total number of schools in the country, are already taking part in the network. In order to be part of the network, schools have to demonstrate how they monitor and evaluate their plans of action for education for sustainable development.

Supported by UNEP and the United Nations University, the **Asia-Pacific** region has developed a regional strategy (Unesco Bangkok, 2005), from which it is important to highlight the importance they give to the participation of ESD's main actors: social activists, governments, communities, private sector, formal-education institutions, civil society, means of social communication, youngsters and international agencies. For each one of these sectors and actors the Asia-Pacific region dedicates special attention. We also highlight the role Unesco's representative has been playing within the process, specially in its office in Bangkok.

Aline Bory-Adams, Chief of the Section for Education for Sustainable Development at Unesco Paris, afirms that Unesco has **two roles** to play related to the Decade: "to catalyze, coordinate and support the global processes initiated under the International Implementation Scheme, particularly in supporting the re-orientation of national educational systems" and "to facilitate an enabling environment for the achievement of the objectives and goals of the DESD" (Bory-Adams, 2007:41).

Latin America has established its regional strategy in November 2006, during a Latin-American meeting held in San Jose da Costa Rica (Unesco/Earth Cahrter Center for Education for Sustainable Development, 2007). Latin America has a long tradition in **environmental education** movements, to

which is being associated the challenge that came along with the Decade of Education for Sustainable Development. Among the region's strategic axes, it is important to highlight: articulation of convergent efforts, articulation and harmonization of each country's educational policies to the ESD, strenthegning of public policies for its improvement, communication and information on the concept of sustainability, and strenthegning cooperation and strategic association among different sectors and agents within the public, private and civil society spheres.

Apart from the above mentioned regions, many other countries already have their own national plans or strategies for education for sustainavle development, such as Finnland, Japan, Scotland, India, Sweden and Germany.

Finnland has strongly involved adult education within the DESD. Among the principles that guide their Decade's strategic plan, we can highlight: transparency, interdisciplinarity, cooperation and construction of networks, participation and research (Finnland, 2006). The Finnish Ministry of Education has published a compilation of articles focusing on the implementation of the Decade in Finland on higher education (Kaivola, 2007).

Japan was one of the first countries to create its own plan, in the beggining of 2006, in a meeting between the Ministry of Education and the Ministry of Environment. "Japan's DESD Plan of Action" attaches the ESD to the Goals of the Millenium and establishes many programmes in order to promote quality education according to the principles of sustainability, specially in teacher training: "by actively promoting ESD, we aim to help everybody to come to grips with situations in the world, future generations, our society, in order to participate in the creation of a sustainable society (...). Among the diversity of issues involving the environment, economy, and society, what advanced countries including Japan are now required to do is to incorporate environmental considerations in their socioeconomic systems. Precisely speaking, we must change our lifestyles and industrial structure based on mass production, consumption and waste, and establish sustainable consumption and production systems that ensure biodiversity" (Japan, 2006:4-5).

In **India,** the Ahmedabad Center for Environmental Education, created in 1984 and member of the Nehru Foundation for Development, has been experiencing good achievements in terms of promoting the Decade of Education for Sustainable Development with its training programme all over the country.

Germany's "National Plan of Action" reinforces the Decade as a "continuous process" with an "integrative function that promotes global responsability": "informal and lifelong learning grow in importance as traditional education institutions and formal educational sectors need to be redefined in the light of processes of rapid change" (German Comission for Unesco, 2005:8). Among the Plan of Action's aims, we can highlight the need of promoting "international cooperation". The program *Transfer-21,* which is coordinated by Gerhard de Haan, from the University of Berlin, and promoted by the Federal Ministry of Education and Research, develops education for sustainable development activities in national level, producing materials and promoting training in "gestaltungskompetenz".

For Carl Lindberg, Special Advisor to the Swedish National Commission for Unesco and Member of the High-Level Panel on the UN's Decade of Education for Sustainable Development, the Decade of Education for Sustainable Development "is the golden opportunity now offered to us all – committed teachers at all levels, schools and university heads, students, education ministers and other education politicians all around the world – to take serious matters seriously, to work with others to change all levels of our education systems" (Lindberg, 2007:38).

2. What is Sustainable Development?

Alhough having been used for the first time only in 1987, in the Brundtland Report, the concept of "sustainable development" has important **historical precedings.** It takes us back to the 1960's. In 1968, the **Club of Rome** was created. The Club is a group of economists and scientists who warned humanity about the rhythm of "growth" (Meadows, 1972), that could take us to a threshold situation that, if trespassed, would put the survival of the species at risk. This concept was also present in 1982, during the **Stockholm Conference** (Sweden), in which the "Declaration on the Environment" demonstrated its concern with the use of natural resources. Two years later (1974), the environmentalist Lester Brown created the organization *Worldwatch Institute* in order to research on the theme and whose results were

published ten years later (1984) in the *State of The World Report.* This document contained very preocupying data on the environmental impact of the dominant economic model[4].

The Stockholm Conference was also concerned with poverty and income distribution, but its main focus was on *pollution* caused by human activities, specially by insdustrial development, that were degrading the environment. Rich countries did recognize they were the ones that most polluted the Earth, but did not discuss how to avoid this. They said it was the price we had to pay in the name of "progress".

In 1982, the UN approved the *Nature* Charter, defending all kinds of life and created (1993) the *Global Commission on Environment and Development ,* headed by Norway's Prime Minister, Gro Harlem Brundtland. The commission aimed at creating proposals of how to overcome the situation and published a report four years later (1987) under the name **Our Common Future**, also called "Brundtland Report", in which the expression "sustainable development" appears for the first time.

The Brandtland Report stablishes several **conditions** for sustainable development (WCED, 1987:65):

1) a political system that secures effective citizen participation in decision making;

2) an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis;

3) a social system that provides for solutions for the tensions arising from disharmonious development;

4) a production system that respects the obligation to preserve the ecological base for development;

5) a technological system that can search continously for new solutions;

6) an international system that fosters sustainable standards of trade and finance, and

7) an administrative system that is flexible and has the capacity for self-correction.

The concept of "sustainable development" was definetely established during 1992 Earth Summit, the *United Nations Conference on Environment and Development,* whose main result was the **Agenda 21**, which contained a set of proposals and objectives in order to reverse the process of environmental deterioration. Five years later (1997), a Protocol signed by 84 countries (except the United States) in **Kyoto**, Japan, aimed at the reduction of greenhouse gas emissions. As it is known, the **greenhouse effect** is provoked by the excess of gases in the atmosphere. Carbon dioxide is one of these gases. When solar radiation reaches the earth, part of the wavelengths is absorbed by the Earth's surface and part is sent back to space. A very high amount of gases in the atmosphere, such as carbon dioxide and methane, makes the Earth absorb a higher quantity of sunlight, causing the planet's "over-warming".

One of the United Nations' bodies, the UNDP (United Nations Development Programme) has been working with the concept of "human sustainable development", broadening its initial concept and emphasizing various dimensions that are necessary for the development of a people, related not only to economical growth and environmental sustainability, but also to the elimination of poverty, promotion of equality, social inclusion, gender and ethnic equality and also political participation. All these factors are considered important for the promotion of a "sustainable living", as supported by the **Earth Charter**.

In the Rio+10 Conference, organized by the UN in Joannesburg, South Africa, in 2002, the failure of the measusres adopted years before was evident. The world started to know that the ecological awareness that followed the 1992 Earth Summit was not enough to avoid the disaster later confirmed (2006 and 2007) by the **Intergovernmental Panel on Climate Change (IPCC)**. Global warming was not a distant fact anymore. Its effects can be seen in the whole planet. We are now beyond the threshold situtation highlighted by the Club of Rome in 1968 and global warming is a reality, due to human beings' actions. We do not have a choice: we have to change our way to produce and reproduce our existente, or we die. Data given by the IPCC show that the main cause of global warming is human action. Until the end of this century, the planet's temperature may rise from 1,8 to 4 degrees, which will bring serious consequences for all Earth's ecosystems.

The UN's report has showed that the growth rate of greenhouse gases emission is due to the energy sector, which has increased its emissions in 145% in the last 15 years; the transport sector's emission has increased in 120%; the industrial sector's in 65% and the forest sector' in 40%, due to deforestation. We can all contribute to reduce the emission of greenhouse gases by changing our **lifestyle**, using less energy (turning off the lights, using less air-conditioning...), walking, using public

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[4]   Acordind to Egbert Tellegen (2006:7), "the first document that puts 'sustainable development' on the worldwide environmental agenda was the 'World Conservation Strategy', a joint publication of two international nature protection organizations: the International Union for the Conservation of Nature and the World Wildlife Fund, together with the United Nations Environmental protection Agency" (Iucn, Unep and Wwf, *1980. Wordl conservation strategy*. Amsterdam: Noord-Hollands Uitgeversmaatschappij).

transport, working more at home (using the Internet), etc. We need to look inside ourselves and to our standards of unsustainable consumption. IPCC reports warn us to the fact that we have already gone beyond the limit. Now we have to create strategies to survive, by first preparing ourselves to changes and, second, by reducing the negative effects of global warming by reafforesting the planet, for example, and not repeating what was done in the past.

Despite all the discussion that is being done, the expressions "sustainable" and "development" are still vague and controvertial[5]. That is why we need to qualify both of them. We have been trying to give to these concepts a new meaning. It is a fact that the word "sustainable", when associated to development, is worn out. While for some people it is only a lable, for others it became the expression of a logical absurd: development and sustainability would be logically incompatible. To us, "sustainable" is more than a qualifier of economic development. It goes beyond the preservation of natural resources and feasibility of a development without harming the environment. It involves human beings finding a balance between themselves and the planet, and more, with the universe itself. The **sustainability** we defend refers itself to the discussion of who we are, where we came from and where we are going to, as human beings.

This is one of the topics that should dominate educational debates in the forthcoming decades. What are we studying in schools? Aren't we building a science and a culture that are oriented towards the degradation of the planet and of humankind? The concept of sustainability should be linked to that of **planetarity**, which means, viewing the Earth as a new paradigm. Complexity, universality, and transdisciplinarity appear as categories associated to planetarity. What implications does this view upon the world has on education? The topic leads us to a *planetary citizenship*, a *planetary civilization*, a *planetary awareness*. As such, a **culture of sustainability** is also a planetarity culture, which means a culture that departs from the principle that the Earth is constituted by one single community of human beings, the earthlings, who are citizens of one single nation.

This debate began when the concept of "sustainable development" was used for the very first time by the UN in 1979, to indicate that development could well be an integral process that should include cultural, ethnic, political, social and environmental dimensions – not merely economic. Subsequently, the concept "sustainable development" was many times widely criticized due to misuse, in spite of being considered as "politically correct" and "morally noble" concept. There are other expressions with a common conceptual foundation and that complement each other, such as: "human development," "sustainable human development," and "productive transformation with equality" (Cepal, 1990). The expression "human development" has the advantage of putting human beings in the center of development. The concept of human development, whose central axes are "equity" and "participation", is still under evolution, and opposes itself to the neoliberal concept given to development. It conceives a developed society as an equitable society, to be achieved with the participation of people.

The concept of human development is as broad as the one of sustainable development and, at times, it is still vague. In the past few years, the United Nations began to use the expression "human development" as an indicator for quality of life based on indexes of health, longevity, psychological maturity, education, clean environment and creative entertainment, which are also the indicators for a **sustainable society**, which means a society that is capable of satisfying the needs of today's generations without compromising the capacity and the opportunities for future generations.

The **criticisms** made to the concept of sustainable development and to the idea of sustainability itself are due to the fact that environmentalism deals with social issues and environmental issues separately. The conservative movement has emerged as an elitist attempt made by wealthy countries, in the sense of keeping for themselves extensive natural areas to be preserved for their own entertainment and contemplation – the Amazon, for example. It wasn't a matter of caring about the planet's sustainability, but a matter of maintaining their privileges, in contrast with the needs of the majority of the world population. Without a social concern in mind, the concept of "sustainable development" loses its sense. For this reason, we need to talk more about the "social-environmental" than about the "environmental", trying not to separate the needs of the planet from human needs. Ecologists, environmentalists and ourselves, we need to convince the majority of the population, the poorest population, that this is not only about cleaning rivers, reforesting devastated fields in order to live in a better planet in a distant future. We are trying to solve **environmental problems** and **social problems** simultaneously. Problems about which Ecology is concerned are not only environmental, since they also affect humankind.

The concept of "development" is not a neutral one. It has a well-defined context within an ideology of progress that includes a concept of history, economics, society, and of human being. For many years,

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[5]   There is a tendency to apply the concept of sustainability to everything that is considered as good as an umbrella concept. The free market considers "sustainable development" as a synonym for "social responsability".

this concept was applied under a colonizing view, when countries were divided between "developed," "developing," and "undeveloped"… always subjected to a single standard of industrialization and consumption. This assumes that all societies should guide themselves according to a single mean of access to welfare and happiness, only to be achieved through the accumulation and consumption of material goods. Development goals were imposed by **neocolonialist economic policies** of the so-called "developed" countries, what, in many cases, resulted in a vast increase of poverty, violence and unemployment. Together with this economic model, ethical values and political ideals were transplanted, which led to the elimination of structures of peoples and nations. It is, therefore, not surprising at all that many people are reticent when one talks about sustainable development. Development leads the planet to a state of agony. Today, we are aware that we are facing an imminent catastrophe if we fail to translate our awareness into actions, to change this predatory view of the term development, conceiving it rather as a more anthropological, holistic and less economicist.

The **multiplicity of meanings** contained in the expression "sustainable development" has been, and is still being, widely discussed. As Gabriela Scotto says, it is "a concept with much fame and little consensus" (Scotto e outros, p. 8). Everybody recognizes the **ambiguity** of this expression, which is seen, in one hand, as a hopeful revolution and, on the other hand, as the accomplishment of the liberal North-American dream. For this reason, many refuse to recognize the United Nations Decade of Education for Sustainable Development as a new opportunity for social-environmental and economic transformation. If, in terms of concept, we may discuss expressions used by the Decade, in terms of practice, we all know what is sustainable and what is not. We know very well that unsustainable are: hunger, poverty, violence, waste, illiteracy, etc. The criteria to overcome this matter is practical. After all, many other concepts are ambiguous, such as concepts of culture, democracy, citizenship, autonomy, justice, etc. Many concepts have different meanings that vary according to the context and to the authors that support them. The great number of definitions carried by these concepts do not prevent them from being essential to our lives. For this reason, we cannot let them remain ambiguous. We need to explicit their meaning.

Ambiguity can only be overcome through practice. Theoretical debates are very important, but they are limited if not put in practice. Concrete plans will give the Decade a bigger theoretical consistency, therefore, overcoming generalist proposals. After all, sustainability and sustainable development, which propose new ways of producing and reproducing life – new sustainable lifestyles – depend, in their practice, on the correlation of political forces that exist in society. Practice should overcome the ambiguity already established due to "vacuity" of the concepts presented in it.

When we talk about sustainable life we understand it as a lifestyle that promotes well-being and well-living for everyone, in harmony (dynamic balance) with the environment: a fair, productive and sustainable lifestyle. Amartya Sen (2000), in his book *Development with freedom*, conceives the progress of humanity as a process of expansion of peoples' freedom, keeping away from the concept of a single way of producing and reproducing the existence, which is linked to industrialization and economic growth. The essential is to guarantee people's freedom to build their lives and their well-being the way they want. What governments should do is offer opportunities so that everyone is able develop their talents, by guaranteeing economic, individual, cultural, social and political rights. Freedoms are interlinked planetarily nowadays. That is why democracy also needs to be planetary and radical.

It is perfectly clear that there is a incompatibility of principles between **sustainability** and **capitalism**. This is a basic contradiction that can make not feasible the idea of a sustainable development. Attempts to reconcile two incompatible expressions are being made. They are not incompatible metaphysically. They are incompatible in the current economic context. The concept of sustainable development is impossible to be put in practice within this context. The failure of the *Agenda 21* is a good example. How would be possible an equitable growth, a sustainable growth, within an economy guided by profit, unlimited accumulation and labor exploitation? If taken to its last consequences, the sustainable development questions not only the ilimited and predatory economic growth, but the whole capitalist style of producing. Sustainabale Development makes sense in a **solidary economy** context, which is an economy guided by "compassion" and not by profit.

The theme of sustainable development is still very centered in ecology. It needs to be considered by politicians and economists as Joan Martínez Alier (2007), from the Authonomous University of Barcelona, one of the most detached ecological economists of the world, and Ignacy Sachs (2007), president of the Advisory Group of experts from the Biofuel Initiative of UNCTAD. Sachs was assessor of the Executive Secretary of the Earth Summit (Rio-92). According to Joan Martínez Alier (2007), the poor people favor more the conservation of the natural resources and those are who more suffer the impact of environmental problems of rich nations. In his opinion, "the confrontation between the economic growth,

the iniquity and environmental degradation must be considered in the landmarks of the poor people relationships" (Alier, 2007:356).

The serious social-environmental problems and the criticism to the model of development have been generating within society an expansion of ecological awareness within the last decades. Although this awareness has not yet provoked deep changes on the economic model and on government policies, some experiences point to an increasingly sustainable society, as demonstrated during the *Habitat II*, organized by the UN in Istanbul, Turkey, in 1997. During this conference, concrete experiences of fight against the "urban crisis", such as violence, unemployment, lack of housing and transport were presented. These experiences point to the birth of a **sustainable city**. Little by little, economic and social sustainability policies have been emerging, giving us hope that we might face our global challenges in time.

3. Sustainable development and solidary economy

Solidary economy has emerged as a rich ongoing process in the world, one that is guided by the principles of solidarity, sustainability, inclusion and social emancipation. In this sense, it represents a great hope: "solidary economy is a movement of global reach that was born among the oppressed and the old and new excluded, the ones whose work are not valued by capitalist market, who don't have access to capital, technology nor credit. It is from them, from activists and people who promote solidary economy that emerge the desire and aspiration of a new paradigm for organizing economy and society" (Loureiro, org., 2003:162). It is actually a **demercantilization of the economic process,** basic programme for the construction of a new socialism nowadays. This demercantilization does not mean **demonetarization** nor the end of the market, but the "elimination of profit as a category. Capitalism has been a programme that has a market-oriented view of everything. Capitalists have not put this into practice completely, but they have had improvements towards this direction, with all the negative consequences we know pretty well. Socialism must be a programme that aims at eliminating this market-oriented idea of everything" (Immanuel Wallerstein, in: Loureiro, org. 2003:36). In this programme, education plays a leading role.

Popular and solidary economy have incorporated, since their beginning, the concepts of ecology and **sustainable development**. This incorporation represents a possibility of widening the scope of solidary socioeconomy ventures, such as it had already occurred when gender, human rights and defense of local and social control approaches were incorporated. **Sustainability** and **solidarity** are emergent and convergent themes.

One of the most frequently made associations is between "sustainable development" and 'solidary economy", as it has been highlighted by the Brazilian Forum of Solidary Economy's (FBES) *Charter of Principles:* "solidary economy has constituted the foundings of a humanizing globalization, of a socially fair sustainable development, which aims at the rational needs of each person and of all citizens of the Earth, always following a path of sustainable development in life quality". However, while the field of solidary economy is becoming better defined, the concept of sustainable development is still ambiguous, as we have discussed before. As Leonardo Boff (2002:55) underlines, the concept of sustainable development originates itself in the midst of an excluding economy, and sustainability, within ecology's including paradigm. As concepts, they would be antagonistic.

The concept of sustainable development has to do with what Maurice Strong called, during the 1972 UN Summit (Stockholm), "**ecodevelopment**", a development that is able to fulfilling with human needs without destroying the environment (to grow and to preserve). According to the Brundland Report, the concept of "sustainable development" is very simple; it is the development that "fulfills present human needs without jeopardizing the possibility of future generations to fulfill their own needs" (CMMAD, 1988:46). And it seems to me that, in spite of being a broad concept, it is still valid.

During the Earth Summit, in Rio de Janeiro, 1992, the concept of sustainable development has gained more visibility in the document approved by the 173 Heads of State and Government present at the event, entitled **Agenda 21**, which set up international cooperation and the exchange of technology among rich and poor countries. However, this document was not able to overcome the ambiguity pointed out by Leonardo Boff. For example, the Agenda 21 does not mention the unsustainability that is inherent to the capitalist model of production.

David Pepper (1992:13) wrote after the Eco-92 conference: "many greens have expressed their unsatisfaction with the Summit poor results. I believe this means that, somehow, they hoped that the

world's richest countries would sacriphice a substantial part of their wealth and, even more important, the means to obtain them, in order to help the poorest nations to protect the environment, which now these nations are obliged to destroy and develop according to the global economic system. However, we should understand that, being capitalists nations, The US, the EEC, Japan and others, cannot do this seriously and permanently without giving up being what they are". David Pepper's thoughts were prophetic: after 15 years, these countries are still owing a "serious and permanent" answer.

Despite all conceptual problems, when put in practice, sustainable development has generated a a number of positive consequences in global and local societies: it has generated environmental awareness of the risk we are suffering if we continue to follow the predatory route of capitalism's development, it has generated local actions for sustainability as the Local Agenda 21, it has generated ethic codes such as the **Earth Charter** (which preferred to use the expression "sustainable living") and other movements such as the current *Decade of education for sustainable development*. In order to be sustainable, development needs to be environmentally correct, socially fair, economically practicable and culturally respectful of differences. As Luiz Razeto (2001:06) said, "fighting ecological degradation cannot be achieved by simply detaining the growth of current economy, since, even if it stopped growing, it would keep generating serious environmental unbalances in the same level as they are produces nowadays, or, maybe, even worse (...). It is evident that recovering the environment depends on creating number of new economic activities, which must be put in practice according to the logic of a ecologically appropriate economy". The correct formula would be to live happy, in harmony with the environment, without destroying it. The theme is complex and cannot be seen separately.

The confluence of the Agenda 21 and the Earth Charter occurred because they have many complementary and convergent aspects. A new model of development demands a new ethic support. The Earth Charter would be this support. but we are yet far from a true integration. Based on fundamental principles and values, which will guide peoples and States towards sustainable development, the Earth Charter will serve as an ethical foundation. Once approved by the United Nations (we are still engaged on this), the Earth Charter will be equivalent to the Human Rights Declaration, in terms of sustainability, equality and justice.

The Earth Charter project is inspired by a variety of sources, including ecology and other contemporary sciences, religious and philosophical traditions in the world, literature on global ethics, the environment and development, practices of peoples that have a sustainable lifestyle, besides relevant non-governmental and intergovernmental treaties and declarations. In this sense, the Charter is a vital complement to the Decade of Education for a Sustainable Development.

Solidary economy is currently the sixth world economy and it is a rich and still ongoing process that follows the principles of *solidarity, sustainability, social inclusion* and *emancipation*. In this sense, it is an economy that gives us good hopes. Its management system is one of its main characteritics, since it clearly differs from the capitalist private sector's. Capitalist management is linked to accumulation of capital and profit, while solidary management is linked to the improvement in its associates' quality of life, solidary ventures and its population well-living. These principles are opposing to the capitalist way of businness management, which focus only on their leaders and owners.

*S*olidary economy's practices involve cultural changes that are only possible to be established if through cultural groundwork and deep changes of values and principles that guide human behaviour towards the concept of what is sustainable and what is not. Economic efficiency is not only attached to economic values, but also to cultural values that encourage solidary practices.

We need an economy in which free-market and profit are not the center of everything. There are relationships, natural resources, public-goods, knowledge, education and, above all, human beings that should not be subject to free-market. Food is not the only human need. People also need dignity, autonomy to decide upon his/her own existence, culture, knowledges and awareness. Every human being needs self-determination.

In order to change the way human beings produce and reproduce their existence – the dominant capitalist way – it is necessary to change the logics that determines this human way of existing. It is not a matter of extinguishing wealth and the market through which it circulates. It is a matter of making wealth circulate in a different logics: from the logics of concentration and competition that rules free-market to the logics of cooperation that rules solidary market. We can only be able to revolutionize our way of existing in the planet by interfering in this logics. It can only be transformed, overcome, through the introduction of a new logics. One with viable social, economic and political alternatives. One of the alternatives mentioned in the *Solidary Economy Charter of Principles* is to associate **solidary economy** to **sustainable development**. This association will bring a posistive new meaning to sustainable development. Sustainable development is also an arena where many concepts and practices are constantly struggling.

4. What is education for a sustainable development?

The felling of being part of the universe does not begin at an adult age, nor arises from logical thinking. From the crib, we feel tied to something that is much greater than ourselves. From childhood we feel deeply linked to the universe and we face it with a mixed feeling of respect and astonishment. And during our whole lives we look for answers to who we are, where do we come from, where are we going, in short, what is the meaning of our existence. This is an unceasing and endless search. Education may play a very important role in this process, if it promotes the discussion of many fundamental philosophical issues, but if it also knows how to work well with our knowledge, this capacity we all have to be fascinated with our universe.

Nowadays, we have become aware that the **meaning of our lives** is not at all separated from the meaning of the planet itself. Confronted by the degradation of our lives in the planet, we have reached a true crossroad between the *Technozoic* path, which places all faith in the capacity of technology to pull us out of the crisis without changing of our pollutant and consumption-oriented lifestyles, and the *Ecozoic* path, which is founded on a new healthy relationship with the planet, recognizing that we are part of a natural world, living in harmony with the universe, which is characterized by the current ecological concerns. We are confronted with a **choice**. This shall define the future we will have.

However, we cannot really understand these paths as opposing ones. They can be orientated in parallel, and not opposed to one another. It was through the t*echnozoic* path that human being was able to go to the moon and see the Earth. Technology and humanism are not opposed to eachother. But, of course, there were excesses in our polluting and consumption-oriented lifestyles, impelled by technology and by an unsustainable economical paradigm. This is what is needed to be discussed. This is one of the roles played by a sustainable or ecological education.

Even being ambiguous, the concept of sustainable development has an excellent **educational component**: the preservation of the environment depends of an ecological awareness, which depends of education. And here is the contribution that can be given by the Earth Pedagogy, the ecopedagogy. Is a pedagogy that intends to **promote learning** the "sense of things, departing from our daily lives", according to Francisco Gutiérrez and Cruz Prado (1998). We discover the sense of things within the process, by living the context and opening new paths. That's why it is a democratic and solidary pedagogy.

The research of Francisco Gutiérrez and Cruz Prado on ecopedagogy originates itself in the concern about the sense of daily life. Training is linked to time/space in which relationships between human beings and the environment concretely take place. They occur, above all, within the sensitivity level, much more the within the awareness one. The relationship man/women-nature is also a relationship that occurs in a sub-conscious level. For this reason, we need a **eco-training** to make it conscientious. And ecotraining needs an **ecopedagogy.** As pointed out by Gaston Pineau (1992), a series of references associated to one another in order to achieve this: bacherladian inspiration, studies about the imaginary, the approaches given by transversality, transciplinarity and interculturality, constructivism and pedagogy of alternation.

We need an eco-pedagogy and an eco-training today; we need a **Earth Pedagogy**, because without this pedagogy, which is necessary for reeducating man/woman, specially Western man/woman, who are prisoners of a predatory Christian culture, we may no longer speak of the Earth as the "animal-man's" home, as stated by Paulo Freire. Without a **sustainable education**, Earth will continue to be considered only as a space of our technical-technological domain that provides our sustenance, the object of researches, essays, and at times, of our contemplation. But it shall not be the space of life, of shelter, of "care" (Boff, 1999).

We don't learn to love the Earth only by reading books on the subject, nor books on integral ecology. Our own experience is fundamental. To plant and follow the growth of a tree or a flower, walking in the streets of a city, or venturing into a forest, feeling the birds' singing in sunny mornings, watching how the wind sways the plants, feeling the warm sand of our beaches, gazing at the stars in a dark night. There are many ways of enchantment and emotion before the wonders that nature reserves us. There is, of course, pollution and environmental destruction to remind us that we are able to destroy this wonder, and also to create our ecological awareness and motivate us to act. To watch a small plant grow in the middle of a cemented wall. To gaze in awe at a sunset, smell the perfume of a *pitanga* (Surinam cherry) leaf, or the leaf of a guava, orange, cypress, or eucalyptus tree… there are many ways of living in

constant fusion with this generous planet and share our lives with all those who inhabit or form a part of it. Life does have a meaning, but it only exists when relating to something else. As the Brazilian poet Carlos Drummond de Andrade once said, "I am a man dissolved in nature. I am flowering in every oak tree."

Drummond could only express this here on Earth. If he was in another planet of our solar system he would not say something else. Only the Earth is nice to humankind. The rest of the planets are clearly hostile to human being, though they have been generate from the same cosmic dust. There might be other planets outside our solar system that harbor life, maybe intelligent life? If we consider that the matter from which the universe was originated is the same, probabilities are high. But for now, we only have one planet that is our friend. We have to learn to love it.

- How is the principle of sustainability translated into education?

- It translates itself in questions like theses ones: To what point is there a meaning in what we do? To what what extent do our actions contribute to the quality of life of peoples and their happiness?

It is within this context of evolution of ecology itself that the word "ecopedagogy" is born – and still crawls - which was initially called "pedagogy of sustainable development", and which has today gone beyond this meaning. Ecopedagogy is developing as a **pedagogic movement**, either as a **curricular approach**.

Just like ecology, ecopedagogy may also be understood as a *social and political movement.* As any new movement, in process, in evolution, it is complex and may take different directions. The term may be understood in different ways, such as the expressions "sustainable development" and "environment". There is a capitalist view of sustainable development and of environment which, by being anti-ecological, may be considered a "trap," as affirmed by the theologian Leonardo Boff. But there is also an emancipatory view. As any new movement, the ecology field is also one of ideological disputes.

Ecopedagogy implies a *curricular reorientation*, so that some principles may be incorporated to them. These principles should, for example, orientate on the conceiving of contents and elaboration of school material. Jan Piaget has taught us that a curriculum should include things that are meaningful to students. We know this is correct, but incomplete. The contents that are present in the curriculum have to be meaningful to the student, and they will only be meaningful to them, if these contents are also meaningful to the health of the planet.

In this sense, ecopedagogy is not another pedagogy that comes to join older ones. It only has sense as a **global alternative project**, where the concern is not only in preserving nature (Natural Ecology) or in the impact of human societies on natural environments (Social Ecology), but a new model of sustainable civilization from the ecological point of view (Integral Ecology), which involves a change in economic, social and cultural structures. It is, therefore, linked to a *utopic project*: change current human social, and environmental relationships. This is were we find ecopedagogy's, or as we say, *Pedagogy of Earth,* deep sense (Gadotti, 2001).

Ecopedagogy is not opposed to **environmental education**. On the contrary, environmental education is a basic point of departure for ecopedagogy. Ecopedagogy incorporates environmental education and offers strategies, proposals and means for concrete actions. It was exactly during the **92 Global Forum**, in which one of the main topics was environmental education, when was noticed the importance of a pedagogy of a sustainable development of an *ecopedagogy*. However, nowadays, ecopedagogy has become a movement and a perspective of education bigger than pedagogy of sustainable development. It is closer to **sustainable education** and a **eco-education**, which has a wider scope than environmental education. Sustainable education is not only concerned with a healthy relationship with the environment, but also with a deeper sense of what we do with our existence, considering our daily lives.

- In this context, what is education for a sustainable develoment?

- In order to understand what is education for a sustainable development, it is necessary to understand what is sustainable development. As we have seen, the most simple definition of sustainable development can be found in the report *Our Common Future*: "sustainable development is a transformation process in which the use of natural resources, the direction given to investments, the orientation given to technological development and institutional change get in harmony with eachother and reinforce the present and future potential, in order to fulfill human needs and aspirations". As we can see, it is a very wide concept. The report *Our Common Future* does not give details, what caused ambiguity, leaving the concept open to creativity and ideological disputes.

It is also possible to consider sustainable development an orientating concept for action, through which we would give a concrete content. In this sense, the report *Our Common Future* recommends a "transition' to sustainability, what would demand a deep change in the current developing model and also in the standards of production and consumption. **Sustainability** is wider than **sustainable development**.

While the planet's current dominant model of development leads to planetary unsustainability, the concept of sustainable development points to a planetary sustainability. And here is where we find the mobilizing strength of this concept. The challenge is to change the route and walk towards sustainability for a different globalization, for a **alterglobalization**. If we want **sustainability** to take us to this different globalization we can unfold it in two axes, the first one related to nature, and the second one related to society:

1st) **ecological, environmental and demographic sustainability** (natural resources and ecosystems), which refers to the physical basis of the development process and with the capacity of nature to tolerate human action, regarding its reproduction and the limits o population growth rates;

2nd) **cultural, social and political sustainability**, which refers to maintenance of diversity and identities, directly related to people's quality of life, to distributive justice and to the process of building citizenship and the participation of people in the development process.

On the other hand, we also need to distinguish, without separating, education *about* sustainable development from education *for* sustainable development. The first one refers to acquiring awareness, to the theoretical discussion, information and to data on sustainable development; the second refers to how to use education as a mean to build a more sustainable future. It is, therefore, a matter of going beyond theoretical discussion, to give an example of sustainable life. **Education for a sustainable development** is more than a set of knowledge related to the environment, economy and society. Education for a sustainable development should take care of how to learn new attitudes, perspectives and values that guide and impel people to live theit lives in a more sustainable way. The crisis created by human beings of the planet are showing everyday that we are irresponsible. Educate to a sustainable development is educate to be aware of this irresponsibility and overcome it.

5. To Educate for Sustainable Development within an unsustainable economy

We are consuming beyond the Earth's capacity of renewal. In order to feed with dignity the whole population of the planet, fulfilling their needs according to capitalism's consumption standards, 3 planets would be needed. Nowadays, people who are the most educated are exactly the ones who are harming the planet, due to their unsustainable lifestyle. The countries that offer greater opportunities of access to education (which is, supposingly, of good quality) are the countries that have in their history (past and present) habits and values that are deeply harmful to life in the planet[6]. It is important to understand that environmental degradation is basically the result of an economic policy conceived and put in practice by the first world. Usually, poor countries are the ones to be judged and condemned for disrespecting the environment. A false idea that degradation lives in the third world, due to lack of responsibility and competence, is widely disseminated among us. The history that led us to such reality and the part played by the richest countries in world in it, are not mentioned.

Something is going on with our **educational systems**. The education that has been developing in the world up to now can be considered more as *part of the sustainable development's problem* than *part of the solution*. Education reproduces principles and values that are part of the unsustainable economy. It is urgent to end this paradigm, the scheme of competitive proceedings in education. Our main development model is guided by an instrumental rationality that has been copied by our educational system. The education for a sustainable development needs to use contradictions that exist within current educational systems at its own favor in order to grow. It is not enough to introduce the theme sustainability without rethinking other school subjects under a different logic, a communicative and emancipatory one, and without changing the habits within these spaces. In order to make possible that educational systems incorporate the education for a sustainable development in their pedagogical process, they need, first, to be educated for and to sustainability.

The education for a sustainable development is, in its essence, inter and transdisciplinary and intersectorial. Education cannot be understood as something sectorial. A result in education can never rely only in pedagogical measures. The Decade of Education for Sustainable Development reminds us of other campaigns and initiatives, such as the fight against HIV, the Decade of Alphabetization, the

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6   "Just as statisitics are so convincingly demonstrating that people in the wealtby part have the longest and most advanced education, their lifestyles are consuming most of the world's limited resources" (Lindberg, 2007:38).

objectives of "Education for all" and the Goals of the Millennium. The synergy of education for a sustainable development as a way to fight **HIV/SIDA** is on the agenda when we talk about education for a healthy life. In this field, work need to be done very early, within the formal system and in non-formal health programmes, The access to information on the theme is vital, specially for youngsters. On the other hand, **Dakar Action Plan,** already called our attention to the urgent need of fighting HIV/SIDA if we want to meet the goals of "Education for all". One thing to be done is to try to lighten repercussion that exist over HIV-positive in schools, another important one is to avoid infection through school education itself. We all know that infection causes serious emotional and economic changes on peoples' quality of life, within families, friends and communities.

On the other hand, HIV affects the income of people and causes problems in social security and health care systems. For this reason, it will be necessary that educational systems are not isolated from other fields of society, such as economy, health, services, industry and agriculture, employment and social development, in order to be able to fight social and economic consequences of the disease. The problem of HIV/SIDA must be discussed in all teaching levels in a transdisciplinary and inter-institutional way. The Decade of Education for Sustainable Development may be another opportunity to fight this disease.

Educate for sustainable development is also educate to fight illiteracy in the world. There we find synergy with the **Decade of Alphabetization** (2003-2013). Bringing illiteracy to an end starts by putting all children in schools. Decade of Alphabetization document defends the right to a high-quality public education, giving special attention to gender issues/differences and social inclusion. It is important that coordinations of different United Nations' Decades at a national level be done by local governments in partnership with civil society. The education delay is huge among developing countries and the State won't be able to overcome this delay by itself.

The Decade of Education for Sustainable Development document supports that there is not a unique nor universal model of education for sustainable development. Here it is possible to see the importance of translating this concept into different realities and different **pedagogies**, such as Paulo Freire's pedagogy, which departs from reading the world, from respect to eachone's context, that offers an emancipatory and dialogical methodology. In Latin America, for example, its rich tradition in **environmental education** must be considered instead of simply trying to replace it. The Decade was responsible for putting the theme "development" in the world's agenda and in the environmental education practice. To us, environmental education and education for a sustainable development are both dimensions of a **civil education**, which involves moral values.

It is explicit in the Decade's document that the economy guided by profit, by the accumulation of goods and by exploitation of work, is essentially unsustainable. Poverty and hunger are also **unsustainable**. Wars and military industrial complexes that support them are unsustainable. Also unsustainable is the current armamentism, the main cause of the environmental disaster we are facing, as said by Peace Nobel Prize winner and current president of Costa Rica, Oscar Arias, in the opening ceremony of the "Latin-American meeting 'Building an Education for a Sustainable Development in Latin America'"(San Jose, October 31st, 2006). The **armamentism** does not only put in danger the world population, but it causes serious damages to the environment. Even in times of peace, **armamentism** increases the emission of carbon dioxide more than any other human activity. The world's **military industrial complex** spends billions of dollars every year buying weapons and maintaining military contingent, depriving the world's poorest populations from the possibility of fulfilling their basic needs and services. Production and maintenance of weapons and war generate catastrophic environmental effects, besides being a state of extreme violation of human rights. We all pay a very high cost to maintain this capitalist military industrial complex. The army is nowadays the most pollutant factor in the world. Our priorities are highly mistaken**.**

This unsustainable model is responsible for the biggest **current crisis**, which are all interlinked:

1st. W*orld social crisis*: cruel and pitiless poverty and exclusion of members of our own species;

2nd. *Drinking water crisis:* many children die from diseases caused by the non-treatment of water and sewage. Drinking water is becoming scarce**;**

3rd. *Food crisis*, which will come attached to water crisis;

4th. *Greenhouse effect crisis* (climate change). If this crisis is not overcome, there will be nothing else to share;

5th. *Energy crisis:* until when we will remain using non-renewable fuels? Petroleum is currently the planet's blood.

There is no doubt regarding the fact that education for a sustainable development is a great opportunity to environmental education, but in order to this taking place, we must understand this "development" from a more holistic point of view, not only as plain and simple vegetation "growth". We

need a altermundialist view of sustainable development, one that does not separate economic, political and social aspects from the search for a sustainable existence. Hence, to educate for a sustainable development is to educate for a sustainable lifestyle, in contrast with educating for a capitalist model of development.

Unesco, in the Decade's document, indicate a **group of themes** that could give more consistency to the practice of this concept, such as poverty, rural development, health, consumption, environmental conservation and protection, gender equality, human rights, cultural diversity. Both environmental education and education for a sustainable development have been dealing with these themes, however, without obtaining the expected result which is changing the quality of human development. How to intervene in real world is still the Decade of Education for Sustainable Development's main challenge. It is a matter of knowing how to implement this concept in programmes for formal and non-forma education, involving governments, communities, private sector, trade unions, civil society, meda, international agencies etc.

Education is fundamental for achieving sustainability, for creating a more sustainable future. All **subject** and **teachers** can contribute to education for sustainability: mathematics can work with data that refer to pollution, linguistics can analyze the role played by means communication and propaganda in consumption habits; history and social sciences can discuss ethnic issues and gender inequality. Unesco's role can be, besides promoting diffusion, learning and cultural changes through education for a sustainable development, one of strengthening evaluation and monitoring tools by making anual evaluations, diffusing successful experiences, etc. Civil society is a strong ally to this engagement. After two years, most governments of UN member countries have not yet seen the importance of the Decade of Education for Sustainable Development. More engagement is expected from them for the forthcoming years.

6. The Decade of Education for Sustainable Development within the context of globalization

Globalization, impelled by technology, seems to have an increasing power in determining our lives. Decisions concerning what happen to us in our daily routine seem to escape from us, since they are made far away from us, jeopardizing our role in history. But things are not quite like that. As a phenomenon, as a process, there is no doubt that globalization is irreversible. Nevertheless, this does not apply to the model of globalization we live today, the "globalism" (Ianni, 1996), the capitalist globalization. Its immediate effects are unemployment, the increase of differences between a small amount of people who have too much and a big amount of people who have too little, the loss of power and autonomy by many nations. Therefore, we need to differentiate countries that are currently in control of globalization – the globalizers (rich countries) – from globalized countries (poor countries).

Within this complex phenomenon, we can also differentiate the **economic globalization**, done by transnational companies, from **citizen globalization**. Both of them use the same technology, but with opposing logics. The first one, which is led by capitalist interests, dominates nations; the second globalization – the "other" globalization, in the words of Milton Santos (2000), is done through organizations of global civil society. The **92 Global Forum** was one of the most meaningful events in the end the 20th century: it gave a great force to citizenship globalization. Currently, the debate involving the Earth Charter and the Decade of Education for Sustainable Development is becoming an important factor for the construction of this planetary citizenship. Any pedagogy that is thought without considering this new globalization and the global ecological movement, finds serious contextualization problems.

The notion of **planetary citizenship** (global) is founded in a unifying view of the planet and of a global society. It reveals itself in many expressions: "our common humanity", "unity in diversity", "our common future", "our common nation", "planetary citizenship". Planetary citizenship is an expression that was adopted to express a group of principles, values, attitudes and habits that show a new perception of the Earth as a single community. Frequently associated to "sustainable development", it is much broader than this association with economy. It is an ethic reference point inseparable from **planetary civilization** and from ecology. The Earth is "Gaia", a living super-organism in evolution. What is done to it will affect all its children.

A culture of sustainability presumes a pedagogy of sustainability that is able to cope with the big task of preparing for planetary citizenship. This is a project already in course. The **education for a planetary citizenship** is starting through a number of experiences that, in spite of being regional, lead us

to an education that aims at making us feel not only members of the Earth, but living a **cosmic citizenship**. The challenges are huge for educators and for the people responsible for educational systems. But there are some signs in society that indicate an increasingly search for spiritual themes and for a deeper scientific knowledge of the universe. Education for a planetary citizenship involves a review of our curricula, a reorientation of our view the world and education as a space for the inclusion of an individual in a society that is local and global at the same time. So, educating would not be as said by Émile Durkheim, the transmission of a culture "from one generation to another", but a big trip of each individual to his/her inner universe and to the universe by which he/she is surrounded.

The current globalization model is much more linked to the market mundialization phenomenon. And even this market-oriented mundialization, can be structured as a **co-operative globalization** or as a **competitive globalization**, without solidarity. Between the absolute State and the market's invisible hand, it may exist (it does exist) a new market economy in which co-operation and solidarity (and not savage competition) are dominant, a solidary economy, a truly sustainable economy. For this reason, we need to build "another globalization" (Santos, 2000), one that is based on the principle of solidarity and the promotion of life in all its ways.

Globalization itself is not a problem. It represents a process of advance never seen before in human history. In the same way there is not only one possible market, there is not one possible globalization. What we see nowadays is a globalization under a capitalist perspective. But there are other possibilities. The problem is a competitive globalization in which the interests of the market are more important than human interests, and people's interests less important than corporative interests of big transnational companies. Therefore, when are able to distinguish a competitive globalization from a possible co-operative and solidary globalization, which we also call a process of **"planetarization"**. The first one follows laws of market, while the second one follows ethic values and human spirituality. It is to the second globalization that the Earth Charter and the Education for a Sustainable Development can and must give important contributions.

- Where does the **ecological movement** stand when related to this theme?

- It is important to point out, as Alicia Bárcena did in the preface of Francisco Gutiérrez and Cruz Prado's (1998) book, that the construction of an environmental citizenship is a strategical component for the process of building a democracy. In her opinion, environmental citizenship is truly a planetary one, since, within the ecological movement, local and global spheres are interlinked. The deforestation of the amazon forest or of any forest in the world is not a simply local fact. It is an act of violence against planetary citizenship. Ecologism has many, and recognized, merits when using the theme planetarity; this movement was pioneer in the extension of the concept citizenship in the context of globalization, and also, in the practice of a global citizenship in such a way that, nowadays, global citizenship and ecologism are part of the same social action field, with common aims and sensibilities.

Planetary citizenship cannot only have an environmental focus, since there are agencies that act in global level with environmental policies that support a capitalist view. Planetary citizenship goes beyond the environmental dimension, since it involves understanding that the Earth is our common home: an alive and interdependent organism. Fixing only one room of the house is not enough. We are not going to save the planet by only saving the Amazon. Keeping the Earth alive is a task that has to be done by all of us, in all "rooms of the house" in its different dimensions: economic, social, cultural, environmental, etc. Planetary citizenship cannot have only an environmental dimension because poverty, illiteracy, ethnic wars, discrimination, prejudice, greed, traffic, corruption, destroy our home and take the life of the planet away. Planetary citizenship involves understanding interdependence, interconnection, a common struggle (there is a challenge that is common to all of us, everywhere in the planet and in different dimensions) for all forms of life in our home. Planetary citizenship involves learning how to work in networks in a intersectorial and shared way.

Planetary citizenship must have focus on fighting for the end of inequalities, elimination of huge economic differences and humanity's intercultural integration, in short, a culture of *justipeace* (peace generated by justice). It is not possible to talk about a planetary or global citizenship without having an effective citizenship in local and national spheres. A planetary citizenship is an **integral citizenship**, therefore, it is an active citizenship, not only regarding social, political, cultural and institutional rights, but also regarding economic and financial rights. It also involves the existence of a planetary democracy. So, differently to what neoliberals say, we are actually far from a effective planetary citizenship. It still remains as a human project. It needs to be part of humanity's own project. It will not be a simple consequence neither a product of technology nor economic globalization.

7. A pedagogy appropriate to the education movement for sustainable development

The beginning of this millennium is known by big technological achievements and also by big lack of political maturity: while the internet puts us in the center of the Information Era, human government remains very poor, generating poverty, degradation and endless wars. 500 transnational companies control 25% of global economic activity and 80% of technological innovations. Capitalist economic globalization has weakened States by imposing limits to their autonomy, making them follow the economic logic of transnational companies. Gigantic external debts rule countries and hinder the implementation of equalizing social policies. Transnational companies work for 10% of the world population that is located in richest countries, generating a deep and inadmissible exclusion. This is the scenario of changing towards a new globalization.

Classical paradigms are running out of possibilities of responding adequately to this new context. They are not able to explain this transition nor to take part in it. There is an intelligibility crisis to which many false prophets offer magical solutions. A new spirituality emerges very well profited by market-religions. The answer given by a bureaucratic and authoritarian State is as inefficient as the neoliberalism of the god-market. Neoliberalism proposes more power to transnational companies and state-supporters propose more power to the State, reinforcing its structures.

In the midst of everything, there is the common citizen who is neither a capitalist nor state. The answer seems to be beyond these two classical models and much more beyond a "third road" that wishes to maintain capitalism, causing even bigger social exclusion. The answer, today, seems to come from strengthening the citizen's control over both state and market. This means civil society is enhancing its capacity of governing itself and of creating tools for non-state oriented public management. And here we find the important role played by education and training for a active citizenship. This is not only a ecological commitment, but a ethic-political one, supported by pedagogy, which means, by a science of education and a well-defined social practice. In this sense, ecopedagogy within these **social-historical movements,** building citizens who are capable of choosing their own future's quality indicators, have constituted in an entirely new and radically democratic pedagogy.

Ecopedagogy movement has gained strength specially after the first international *Earth Charter in the Perspective of Education*, organized by Paulo Freire Institute, with the support of Unesco and the Earth Council, from August 24th to 26th, 1999, in São Paulo and the *International Forum on Ecopedagogy*, which took place at the College of Psychology and Social Sciences of Porto University (Porto, Portugal), from March 24th to 26th, 2000. From these meetings, some of this movement's guiding **principles** emerged and were assemble at a "Ecopedagogy letter". Some of them are: the planet as a single community, the Earth as a mother, a living organism in evolution; a new awareness that knows what is appropriate and sustainable, what makes sense to our existence; social-cosmic justice: the Earth is poor, the poorest of all; a pedagogy that promotes life: involve, communicate, share, question and relate oneself; going on with our daily lives giving more sense to it; reeducate the way we look at things, our hearts, our senses, a culture of justipeace and sustainability.

Traditional pedagogies were anthropocentric. Ecopedagogy is base don a planetary awareness (genders, species, formal and non-formal education...). We have widened our point of view. From an anthropocentric view to a planetary awareness, towards a new practice of planetary citizenship and a new ethic and social reference: **planetary civilization.**

Ecopedagogy movement, emerging in the heart of the Earth Charter initiative, is supporting its process of discussion and diffusion, indicating an appropriate methodology, that is not a simple methodology of governmental "proclamation", of a formal declaration, but the translation of a process lived through the "demand" critical participation, as said by Francisco Gutiérrez and Cruz Prado (1998).

Gaia, same as life. Many people understand that is not legitimate to consider the Earth a living organism. This is a characteristic the Earth would not have. We see life only through our perception of animals, plants and our own lives. It is true that we don't have the opportunity of looking from the outside as astronauts have while in space, but we can have the same try to do the same as astronauts do, in time, which is much more dilated than our own lifetime. The "Gaia hypothesis", which conceives the Earth as a complex, living superorganism in evolution, finds support in its billionaire history. The first cell appeared 4 billion of years ago. Since then, life's evolutionary process has not ceased to being more and more complex, forming interdependent ecosystems within a macrosystem. The earth is a microsystem, if compared with the macrosystem of the Universe. We can only understand the Earth as a being if we detach from it in space and time.

In order to dimension ourselves as members of an immense cosmos, so that we can incorporate new values based on solidarity, love, transcendence and spirituality to overcome the logics of competitivity and capitalist accumulation, we must follow a difficult path. These is no such thing as a pacific change. And we wont change the world only by praying or by having the desire to do it. As Paulo Freire (1997) has taught us, changing the world is urgent, difficult and necessary. But, in order to change the world, it is necessary to know, read the world, understand the world, also scientifically and not only emotionally, and above all, intervene on it in an organized way.

Rationalism must be condemned without condemn the use of reason. The rationalist logic led us to destroy nature, has led us to death in the name of progress. Bur reason has also led us to discover **planetarity**. The astronauts' poetic and moving phrase saying "the Earth is blue", was possible after thousands of years in which rational laws of nature were dominant. When getting to the moon, for the first time, the astronaut Neil Armstrong said: "a small step for a man and a big step for humanity". By saying this, he was representing all of us.

That was possible through a great collective human effort, which considered all technical, scientifical and technological knowledge accumulated by humanity up to that moment. And this is huge. If nowadays we are able to build networks of networks within the planetary communication through the Internet, this was possible due to the use of imagination, intuition, emotion and reason for the gigantic and true human effort to discover ways of living better in this planet, how we can interact with it. It is true that we have done it the wrong way, in many times. We have considered ourselves "superior" beings, due to our rationality and we exploited nature without care nor respect for it. We have not yet truly learned how to deal with nature with respect, emotion, sensitivity. In this field we are still crawling, but also learning,

What we see today is the birth of the planetary citizen. We have not yet been able to imagine all the consequences of this unique event. We do fell, notice and are moved by this fact, but we are not able to adapt our minds to this spectacular happening in human history. We know, as Edgar Morin (1993) said, that is necessary to ecologize everything.

- What can be done right now?

- We can deeply question ourselves about the paradigms by which we are oriented nowadays and rehearse to live a new paradigm, which is the Earth as a single community. And to continue walking, toghether, in order to be "there", in time.

8. The objectives of the Decade of Education for a Sustainable Development

The "Decade of Education for a Sustainable Development" is a great opportunity to renew the curricula of formal educational systems. The appeal contained in the United Nations document is mainly addressed to "State members". The document remembers the history of fights for a sustainable culture since Stockholm (1972) to "Our Common Future" (1987), Rio-92, Dakar Education Forum (2000), up to the Goals of the Millenium (2002).

The Decade represents a way for implementing Agenda 21's 36th chapter, trying to re-orientate and give potential to existent policies and education programmes, such as environmental education and initiatives like the Earth Charter. The chapter 36 emphasizes that education is a "vital factor" in the promotion of sustainable development and, as well, in the development of people's skills when dealing with environmental and development issues.

- Which are the goals of the Decade of Education for Sustainable Development?

- The document states that (Brazilian edition, Mai 2005) "the Decade's main goal is to integrate principles, values and practices of sustainable development to all aspects of education and teaching. This education effort should encourage changes in behavior in order to create a more sustainable future in terms of the integrity of the environment, of economic viability and of a fair society for present and future generations (...). The programme Education for a Sustainable Development demands the re-examination of educational policy, in the sense of re-orientating education since kindergarten up to university and lifelong learning, so that it is clearly focused on acquiring knowledges, competences, perspectives and values that are related to sustainability" (Unesco, 2005:57).

According to Unesco, the Decade's **specific goals** are:

a) to facilitate networks and bonds among activists that defend ESD;

b) to improve ESD teaching and learning;

c) help countries to adopt the Goals of the Millenium by means of ESD;

d) offer countries new opportunities to adopt ESD in their efforts of educational renewal..

Stimulating changes in attitudes and behavior is a simple idea. A tool for mobilization, diffusion and information that strongly depends on partnerships, especially with NGOs. One of the goals of the Decade is to "facilitate bonds and networks, exchanges and interaction among social actors for Education for Sustainable Development (ESD), which means to facilitate contact, the creation of networks exchange and interaction among parties involved in ESD.

The Decade has been reaffirming that "education is a vital element in order to achieve a sustainable development" (Unesco, 2005:27), but, without changes in economic policies, it is not decisive. Economy can change if there is social mobilization against the current capitalist unsustainable model. A ESD without social mobilization against the current economic model will not reach its goals. And this is affirmed in the document itself, when it asserts that "market global economy, as it currently exists, does not protect the environment nor not is beneficial to even half of the world population" (Unesco, 2005:56).

Therefore, in order to ESD be efficient, it must be a political education. And this is also present in the document: "sustainable development does not look for maintaining the *status quo*, on the contrary, is looks for acknowledging tendencies and the implication of change" (Unesco, 2005:39). And concludes: "a transforming education is necessary; an education will give contributions to make possible the urgent and fundamental changes brought by the challenge of sustainability (...). However, a learning experience, within the ESD programme cannot limit itself to a personal sphere – learning must lead towards a active participation in the search for and adoption of new organizational standards and changes" (Unesco, 2005:42 and 45).

What seems to be problematic within the Decade's documents is the relationship between **Education for Sustainable Development** and **Environmental Education.** It is stated in the document that "education for a sustainable development should not be equated with environmental education. According to the document, environmental education is an already established school subject that emphasizes the relationship between men and natural environment, in terms of how to preserve it and how to appropriately manage its resources. Therefore, sustainable development conglomerates environmental education by putting it in a broader context that considers social and cultural factors and social-political issues, such as equality, poverty and quality of life" (Unesco, 2005:46).

A research carried out in November 2004 during the *5th Brazilian Forum on Environmental Education*, which had over 1500 participants, showed that only 18% of them knew the Decade and 68% of the interviewed people thought to be inappropriate to use the expression "Education for a Sustainable Development" instead of "Environmental Education", because "Environmental Education already contains social and economic elements" and Education for a Sustainable Development is "confuse". It was also said that substituting Environmental Education for a Education for Sustainable Development "represents the loss of a symbolic capital that had already been built in the region with great difficulty, but with a great transforming potential". I believe we need to debate further the relationship between environmental education and education for sustainable development, in order to avoid this kind of miscomprehension.

There is in the United Nations a great legal set of declarations and programmes, but little effectiveness. The impact is still small. There is no guarantee for achieving the proposed goals. It is urgently needed to improve mechanisms of evaluation and monitoring. It would be a good initiative to support "observatories" for the right to education and the "campaigns" that already exist all around the world.

The Decade recognizes the Earth Charter as "another international initiative" (Unesco, 2005:41). Strangely, the Charter appears in the "Fields of Sustainable development" (society, environment, economy), but the Decade does not recognize it as a strategy nor as a movement, a global initiative. If the Earth Charter is recognized as a movement for ethics and as a global initiative, a global cause, it should also be present in the strategies for implementation and not only as one more initiative. Due to its 12 years of existence, the Earth Charter can give great contributions to the Decade also in its implementation, monitoring and evaluation.

I agree with the United Nations' document. However, I wish he had given a bigger importance to the works that are being developed by NGOs and Social Movements. We are, essentially, a society of **networks** and **movements.** Maybe, the Earth Charter and the Decade of Education for Sustainable Development, in order to contribute more effectively with the Decade, should also be more present in social movements, such as the World Social Forum and the World Education Forum. They would have more space within social movements if it was more deeply associated to these Forums.

9. Education for a sustainable development and education for a sustainable life

It is not enough to educate for a sustainable development. We need to educate for a sustainable life. **Sustainable Development** is what we call the kind of development that fulfills our current needs without putting at risk the ability of future generations to fulfill their own. It is a concept that had a wide international consensus. Sustainable is an adjective that qualify multiple concepts and processes, that is also a reason for having become a vague concept. It is still not a clear concept, especially when it refers to putting it into practice, to translating its principles and proposals. In fact, there is not a single country in the world that says its development is sustainable. However, it is a concept that has been mobilizing many people in the fight for a better world.

We call **sustainable life** a lifestyle that harmonizes human environmental ecology by means of appropriating technologies, co-operation economies and individual effort. It is an intentional lifestyle whose characteristics are personal responsibility, commitment to other people and a spiritual life. A sustainable lifestyle is related to ethics in managing the environment and economy, trying to keep balance between fulfilling current needs and guaranteeing the fulfillment of the needs of future generations.

While sustainable development refers mainly to the ways a society produces and reproduces human existence, a sustainable lifestyle is, first of all, related to options people make to their lives. So we cannot pay attention only to educating for development, but also for individual life. Changing the development involves changing people who can change development. One thing depends directly on the other.

The concept of sustainable development is deeply linked to the globalization process. It is a seductive Idea, but still with a smaller potential than the movement of the **environmental education**. If the concept of sustainable development is not reviewed nor transformed in a social movement, it will not have the strength to change the *status quo*, which is Unesco's intention (2005).

Today, there is not a single country that considers itself sustainable. And in the context of globalization it seems harder for a country to be sustainable by itself, independently from the others. There is not yet a clear ideal of what this new, sustainable "model" of development would be. It is yet not well defined ideal. Since we do not know what it is, it becomes difficult to say "how", without rethinking the whole concept. That is why it should be a slow process. To walk towards a sustainable world should rely on and consider indicators of health, sewage, population, quality of water and air, use of energy, quality of life, education, employment, etc, because, unsustainable is, first of all, the quality of life generated by our current model of development..

Therefore, sustainability becomes a horizon, a policy-orienting principle. There is not only one way to achieve it. Since it announces a birth that is yet to be given. In the case of **education for a sustainable development,** this one needs to become a re-orientating principle for educational changes, specially regarding the educational curriculum.

The first task is still conceptual. Regarding the concept of sustainability itself as regarding what has to be introduced as sustainability's themes and practices/habits that should be introduced in the curricula. The second task is more restricted to methodology and in regards of how to act in a transdisciplinary way, with institutional projects.

Sustainability is a goal of humanity that points towards a route to a better future. If sustainability is this route, education for sustainable development is the "how", the *mean* that will conduct us to this trip to the future. It is a trip in which the social and the individual are walking side by side. The concept of sustainability refers to a concept of the world regarding different ways of living in it, which proves the importance of associating education to sustainable development and to **education for a sustainable lifestyle,** individually and socially.

In its broad sense, sustainability involves re-thinking the whole civilization. Sustainability points out to a future, for transgenerational solidarity and to a commitment with future generations. This future is a survival demand and an instinct of conservation.

This journey is starting today. Three decades of debates about "our common future" have already left some **ecological footprints** in a number of fields, such as economy, ethics, politics and education. These footprints may show us a route for facing the challenges of 21st century. Sustainability has become a major generating theme since the beginning of this millennium, which makes us think about the planet, a theme that contains a global social project and is capable of re-educating our sight and all our senses, capable of bringing back hopes for a future that will offer dignity for all people.

The **scenario** is not an optimistic one: we can destroy life in the planet within this recently-started millennium, as UN's IPCC reports have been showing. A global action is necessary, a movement as a great civilizing work of everyone is vital for us to put in practice this **other globalization**, this "planetarization", based in ethical principles different from the ones that led us to economic exploitation, political domination and social exclusion. The way by which we are going to produce our existence in this small planet will decide about its life or its death, and of its sons and daughters. The Earth is not only a geographical phenomenon anymore; it is also a historical one.

The **traditional paradigms**, based on an industrial, predatory and anthropocentric view, are weary and not coping with having to explain the moment we are living today, nor able to answer our future needs. We need another paradigm, based on a sustainable view of planet Earth. Globalism is essentially unsustainable. It fulfills first the needs of the capital to later fulfill human needs. And many human needs which are fulfilled by globalism today are needs that became "human" only because they were produced as such in order to serve the capital.

We need an Earth Pedagogy, based on a new paradigm, the Earth's paradigm, appropriate to the **culture of sustainability** and peace. It has been constituting itself slowly, profiting from various reflexions that have been made in the last decades, specially within ecological movement. It bases itself in a philosophical paradigm (Paulo Freire, Leonardo Boff, Sebastião Salgado, Boaventura de Sousa Santos, Edgar Morin, Milton Santos) which hast emerged from an education that proposes a group of interdependent knowledge and values necessary to a **sustainable life**. Among these values and principles, we can highlight:

1º) **Educate for a global thinking**. In the era of information, considering the speed in which knowledge is produced and grows old, there is no need for accumulating information. It is viral to know how to think. And think about our reality, not to think about what has already been thought. Given that, we need to reconsider what is knowledge, what is knowing how to learn, how to know, its methodologies and the organization of school work. Educate so that people learn that there is only one home. Educate to transform in local and global levels. Some struggles are planetary. Our survival in the planet is a common cause. Educate people not to be neglectful, indifferent or conniving with the destruction of life in the planet.

2º) **Educate one's feelings**. Human being is the only being who asks about what is the sense of life. Educate to feel, to care, to take care, to live every moment of our lives making sense. We are humans because we feel, not only because we think. We are part of a whole under construction.

3º) **Teach our identity in the Earth** as a vital human condition. Our common destiny in the planet is to share life in the planet with others. Our identity is at the same time, individual and cosmic. Educate to be emotionally bound to Earth.

4º) **Educate for planetary awareness**. Understanding that we are interdependent. The Earth is a single nation and we, people from Earth, we are its citizens. We don't need passports. Nowhere in the Earth we should be considered foreigners. Separate the world in first and third world means to divide the world in order to let it be ruled by the most powerful; this is the globalist division, between globalizers and globalized, which is opposite to the process of planetarization.

5º) **Educate for understanding.** Educate for human ethics and not for market's instrumental ethics. Educate for communication. Not an exploiting communication or to take advantage of others, but to better understand others. Pedagogy of the Earth is based on this new ethic paradigm and in new intelligence of the world. Intelligent is not the one who knows how to solve problems (instrumental intelligence), but the one who manifests a life project with solidarity. Because solidarity is not only a value nowadays. It is a contition of our survival.

6º) **Educate for voluntary simplicity and quietness**. Our lives need to be guided by new values: simplicity, austerity, quietness, peace, serenity, listening, living together, share discover and build together. We have to choose between a world that is more responsible against current dominant culture, a culture of war and act concretely. We need to choose a world that is more responsible in opposition to the current dominant culture; which is a culture of war and start to act concretely, sharing, putting sustainability in practice in our daily lives, in our families, at work, at school, in the street. The simplicity we defend is not synonymous to simple-mindness, and quietness is not culture of silence. Simplicity has to be voluntary, by willingly changing our consumptiom habits, reducing our demands. Quietness is a virtue, which can be conquered through inner-peace and not through imposed silence. Quietness has to do with hearing, listening, knowing, learning with the other, which is different from giving speeches, ready-made ones, right from the start, dictating rules, imposing an unique speech. Quietness has to do with creating conditions for many narratives, the ones currently silenced, to come to life.

In 2007, during a fishing, I received from my father, an agriculturalist of 93 years old, a lesson of voluntary simplicity: "son, you only must have to possess the land that your arms can cultivate", affirming

that we can live well, and for much time, as he is living, without a lot of goods, just with some meters of land to cultive our vegetables.

Robert Goodland (1997:293) points out 13 changes in **lifestyle** that promote environemental sustainability: walking, riding a bicycle and using public transport is less harmful to the environment that using the car; using more quilts and sweaters causes less harm than turning on the heat; opening the windows costs less than turning on the air-conditioning; insulation costs less than turning on the oven; recycling costs less than throwing on the garbage; durability costs less than obsolescence; big families cost more than small ones; overconsuming families from the North cost more than poor families from the South; grain-based diets are more efficient in terms of resources and more equitable than carnivorism; agroforestrial lands that sell to small communities are more productive than food sold by the agrobusiness; preventing pollution and garbage are less harmful than treating them; intensive labour growth costs less in terms of environment, than intensive capital increase; the majority of renewable resources are less harmful than coal and petroleum.

Of course, all this assumes **justice** and justice assumes that everyone has equal access to quality of life and to dignity. It would be inappropriate to talk about reducing demands of consumption, to attack excessive consumption and talk about it with people who have not yet had access to basic consumption. Peace is impossible if there is no justice.

In order to face the possible extermination of our planet, some alternatives emerge in a **culture of peace** and **culture of sustainability.** Sustainability has to do not only with biology, economy and ecology. It has to do with the relationship we keep with each other, with ourselves and with nature. Pedagogy should start by teaching, first of all, how to read the world, as Paulo Freire tells us, a world which is our own universe, because it is our first educator. This first education is an emotional one, which shows us the mystery of universe, intimately bound to it, producing an emotion of pertaining to this sacred being in constant evolution.

We do not understand the universe as something which is composed by separate parts or bodies, but as a sacred and mysterious whole that challenges us in every moment of our lives, in evolution, in expansion, in interaction. Reason, emotion and intuition are parts of this process in which the observer/him/herself is involved. The Earth paradigm is a civilizing one. And since a culture of sustainability offers a new perception of the Earth, considering it as a single community of human beings, it becomes a basis for a culture of peace. Wars and violence exist because we do not know each other (Ricoeur, 1991).

The universe is not outside. It is inside us. It is very close to us. A small **garden,** a vegetable-garden, a piece of land, are small universe within the whole natural world (De Moore, 2001). We find in it different life forms, life resources, life processes. And having this in mind we can change our **school programme**. And we will learn many things by building and taking care of it. Children see it as a place full of mysteries! It teaches emotional values towards the Earth: life, death, and survival, values of patience and persistence, creativity, adaptation, transformation, renewal... All our schools can turn into gardens and teacher-students, in gardeners. The garden teaches us ideals of democracy, connection, choice, responsibility, decision, initiative, equality, biodiversity, colors, classes, ethnicity, gender.

We are facing a restless and parallel growth between **poverty** and **technology**: we are a species of great success in the technological domain, but unsuccessful in terms of **human government.** We live in the era of information, but not of knowledge and communication. Communication technologies do not mean human communication. That is why we need a *"citizen public sphere"* (Habermas, 1984), which is a non-government decision-making public sphere; we need, as already said by Adela Cortina (1997), a *"civil public ethics"*, based on a plural society (for example, to respect different answers about life, which means to put ethical pluralism in practice), on the authentic co-habitation (living together and not only and not juxtaposed to each other), on collective construction (a task to be constantly done, since convergence points are not automatic), on mutual discovery and on dialogue (look for what we have in common).

The Earth Charter explicitly talks about "sustainable life". It has been giving a great contribution to the Decade of Education for Sustainable Development, to culture of peace and sustainability. The Earth Charter needs to be considered as a group of planetary principles and values that will lead us to a world where the values of solidarity and sustainability are dominant, a project, a movement, a process, that can turn the risk of extermination into a historical opportunity, fear into hope. To adopt and promote the practices of its values cannot be only a commitment of States and Nations, but of each human being, individual personal, as a historic person, such as **Unesco's 2000 Manifest** has been promoting. We urgently need a **culture of peace** with social justice to face barbarity. If we accept barbarity, we will get used to a violent and unsustainable daily routine.

In our book *Pedagogy of the Earth* (Gadotti, 2001), we defend the need of having an Earth Charter associated to a peace process, a culture of peace. And, since the Earth Charter is an ethical

document, it involves a **movement** of cultural change and needs education to become more well-known. But we don't need to change only people's awareness. We need structural changes in the economic field, as **Agenda 21** has proposed. The Earth Charter also needs to be associated with the Agenda 21 in order to have a bigger support from civil society. Governments can sign treaties, adopt the Earth Charter, but they won't keep their promises if civil society is not paying attention nor pressuring them to do what they have promised. Something that has been socially built can be socially transformed. Another world is possible: another globalization is possible. We need to get there together and in time.

10. Educate to another possible world

The ecological problems we face nowadays are not as much related to the sea, forests and air as they are to the problems of megalopolis, caused by the dominant model of production – called neoliberal capitalism – as a way of political dominance and economic exploitation.

Having this in mind, I would like to state a few more considerations, thinking about the Earth Charter and the Decade of Education of Sustainable development as basis to think about the education in the future, an education for another possible world. For another possible world, another education is necessary.

Education for another possible world will be, definitely, an **education for sustainability**. It is not possible to change the world without changing people: changing the world and its people are interlinked processes. In the 21st century, in a society that increasingly uses information technologies, education plays a main role in creating more possible worlds, that would be fair, more productive and sustainable for everyone.

"Educate for another possible world" (Gadotti, 2007) is an expression full of meanings. We can start by understanding better some of them. The expression assumes that the project of changing the world involves an educational point of view.

- What is, then, to educate for another possible world?

- John Holloway showed us in his book *Changing the World without Taking Power* (Holloway, 2003) that educating for a another possible world is educate to *dissolve power*. In his opinion, a social revolution today must overcome relationships of power and subordination in order to mutually recognize the dignity of each one. Change the world is to understand power as the capacity of doing, as a service, asserting that "we" are the ones who can change the world, we, "common people", have the capacity of changing the world.

That is why, to educate for another possible world is to educate for **awareness** (Paulo Freire), in order to "**unalienate**" and "**defetishize**". Fetishism of neoliberal ideology affirms that the world is immutable. Fetishism transforms human relationships in static phenomena, as if it was impossible to modify them. When fetishized, we are uncapable of acting because the fetish is to block our capacity of doing. When fetishized, we only repeat what has been already done and said, what already exists.

Educate for another possible world is to make visible what has been hidden due to oppression and to give voice to the ones who are not heard. The feminist struggle, the ecological movement, the zapatist movement (Maxico), the landless movement (Brazil), among others, have made visible things that were invisible due to centuries of oppression. Paulo Freire was an example of educator for another possible world, showing the history of the oppressed making him/her and his/her relationship with the oppressor.

Educate for another possible world must include a **pedagogy of absences.** As said by Boaventura Souza Santos (2005) it means to show what has been absented historically by dominant cultures, what started to be considered strange due to over-valuing of what is scientific over non-scientific and by non-recognition of knowledge that comes from practice. There is no social justice without **cognitive justice.** Educate for another possible world is to the rise of what does not exist yet, of utopia, of the "possible not yet seen" (Paulo Freire).

Therefore, we are understanding history as a possibility and not as a fatality. That is why, educate for another possible world is to educate for breakthroughs, for **non-conformity,** for **refusal,** for saying "no", for yelling, for dreaming with other possible worlds. Annoucing and denouncing. Neoliberalism conceives education as market good, reducing our identities to mere consumers, disregarding public spaces and the humanistic dimension of education. Opposing itself to this paradigm, education for another possible world respects and co-exists with differences, promoting "intertransculturality". (Padilha,

2004). The center of **neoliberal conception of education** is to deny dream and utopia. That is why, an education for another possible world is, first of all, education for a dream, for hope.

The **market-oriented view of education** is one of the more decisive challenges of contemporary history, because it over-value the economic and not the human. Only education can invert this logic, through education for a critical conscience e for "unalienation". Educate for another possible world is to educate for human quality "beyond the capital", as affirmed by István Mészáros (2005), in Porto Alegre, January 2005, during the opening of the World Education Forum's 3rd edition. Capitalist globalization has stolen from people their time to live well and also their space for an inner-life; it has stolen people's ability to produce our lives with dignity: more and more people are reduced to machines of production and reproduction of capital.

Educate for another possible world is to make formal and non-formal education spaces for **training critical minds** and not only for training workforce for the market; it is to invent new spaces for complementary training to educational formal systems and deny its hierarchized form in a structure of giving orders and subordination; it is educating to articulate different ways of showing non-conformity and denial of capitalists social relations today, it is educate to radically change our way of producing and reproducing our existence in the planet it is, therefore, an **education for sustainability.**

Educate for another possible world is **educating for a life in network**, being capable of communicating and acting in group, educate to create co-operatives way of production and reproduction of human existence, educate for self-determination. Diversity is humanity's main characteristics. That is why there cannot be one single way of producing and reproducing our existence in the planet. Diversity is what we have in common. Human diversity imposes the need of building a **diversity of worlds.** To a single thought, we should not be oppose another single thought. Educate for another possible world is not educating for one single possible world, but educating for other possible worlds. Modern "technicist" education has lost its humanity and the being open to the other. Educate for another possible world is educating to re-humanize education itself.

We weren't educated to have a planetary awareness, but to have a awareness of State-nation (Michael Hardt & Antonio Negri, 2001). National educational systems were born as a part of state-nation's constitution. The school we have today is a result of modern thinking (Hegel-Marx), shaped by state-nations and not according to the thoughts of a globalization/planetarization era. Educate to another possible world demands from educators a commitment with the non-mercantilization of education and a ethical-political-pedagogical approach of paying attention to the universe of which we are all part. Educators need to adress not only to students, but to inhabitants of the planet, consider all of them as citizens and sons of the same "Motherland" (O'Sullivan, 1999; Boff, 1995).

The Earth is our first educator. Educate to another possible world is also to educate one to find his/her place in history, in the universe. It is educating for peace, for human rights, social justice and cultural diversity, against sexism and racism. It is educate for **planetary awareness**. Educate for a **planetary conscience,** for pertaining to a planetary human community, to deeply feel the universe.

Educate for planetarization and not for globalization. We live in a planet and not in a globe. The globe corresponds to the planet's surface, its geographic divisions, its parallels and meridians, while the planet refers to a totality in movement. The Earth is a living super-organism in evolution. our destiny, as human beings, is linked to the destiny of this being called Earth. Educate for another possible world is to educate for having a sustainable relationship with all Earth's beings, humans or not.

Educate for living in the cosmos – cosmological education - broadening our comprehension of Earth and universe. It is educate for having a **cosmic perspective.** This is the only way we will be able to understand better problems like desertification, deforestation, global warming etc. **Classical paradigms,** arrogantly anthropocentric and industry-oriented, do not have enough reach to explain this cosmic reality. Since they do not have this holistic view, they were not able to give answers in the sense of how to take the world off of this route that leads to extermination and to cruel differences between the rich and the poor. Classical paradigms are leading the planet to a loss of natural resources. The current crisis regards civilizatory paradigms. educate for another possible world needs a new paradigm, a holistic one.

11. Challenges for the education for a sustainable development

The greatest challenge of the Decade is still its implementation, how to transform its declaration of principles in concrete demands. The discourse of proclamation is expositive, enunciative, while the

discourse of the demand is more communicative, dialogical. It is not enough to define the Decade's mission and main objectives. At this point, the most important thing to do is to create a **participatory movement,** that will show the best ways and create alternatives, in process and horizontally.

It is not enough to know the Decade's objectives and targets. The Decade needs to pertain to a movement in order to change the world, which demands more sensitivity than scientific knowledge. The meaning of the process does not come from knowledge or from the ecological discourse, but from daily-life problems. The **process** needs to make sense to the participants. This way, the Decade of Education for Sustainable Development is a true **call.** It is not a programme, but a challenge, a philosophy of life for a sustainable existence.

With the Decade, are included in the global agenda themes that are related to education in general, environmental education, and specially, the issue of quality of education as a subjective public right for all people. Education has an important, but limited role compared with the changes that are needed in the model of economical development. Education is not able to revert, by itself, pollution in the atmosphere, 150 years of gas emission that generated greenhouse effect. But it certainly can contribute by stimulating a collective awareness that is able to revert the process of destruction of the planet. The Decade represents an opportunity for educators to know better what they need in order to save the planet.

Education as a long and intersectorial process, therefore, representing a privileged space for **integrations,** one of the biggest objectives of the Decade. And she looks with hope to herself, hope for the 781 million illiterate people in the world. Overcoming illiteracy is a condition for the education for sustainable development.

The **challenges** we have to face in order to reach the Decade's goals are many, and some of them are evident, such as:

1st. Re-think **paradigms**. Knowledge dialogue and ignorance (what do I ignore, what I don't know, what I don't know and I don't need to know), dialogue of civilizations.

2nd. Reconstruction of an **ethics** not as part of philosophy nor religion, but ethics of life.

3rd. An **theleological view** of education: what do we educate for? Re-founding educational processes based on sustainability; If education does not aim at stimulating critical thinking, it will, sooner or later, become training.

4th. **Environmental education** is a social movement and a field of knowledge. Studies and researches are vital in this field in order to have an education for sustainable development.

5th. The Decade as an **opportunity.** We have a broad political and pedagogical capital and we should present it to the ESD Decade.

In order to change the dominant educational paradigm we need to recognize the knowledge crisis caused by the positivist model that reduces the environment to an object of study. This model has promoted environmental destruction. Education for a sustainable development must continue working together with environmental education, which brought a new view of the world, of men's relationship with the environment, not anymore conceived as an object, but as a living creature in evolution that shares with human beings the same destiny. That is why environmental knowledge is an ethical-political one. It isn't only a matter of giving humankind the possibility of being aware of the ecological principles in defense of nature, but also involves a new concept of reality, intimately linked to human beings.

The Decade is also an opportunity for formal education in general. Sustainability can be a fundamental category for **rebuilding educational systems** we have today, which are still based on a predatory view of the world. Environmental education and education for a sustainable development, when associated to human rights, gender rights, democratic rights, peace and sustainability, are fundamental axes to these reforms. That is why, I believe that the Decade's major objective will end up being the construction of a **new quality of education,** a social-environmental quality, and not only the improvement of the same education we have today. Improving the education we have today is to follow the educational model that has been destroying the planet since the 19th century.

This year, 2007, we celebrate the 20th anniversary of the **Brundtland Report** (1987), which is a mark in the sustainable development issue. This Report affirmed that is was possible to have dynamic balance among equality, growth and environment. But it recognizes that in order to achieve this balance, deep social and ecological changes are necessary. The Report defines three **fundamental components** for sustainable development: environmental protection, economic growth and social equality, which, in order to be achieved, there must be a change in the relationship between developed and non-developed countries. Since then, there hasn't been any radical change in this relationship: it remains a relationship of independence and not reciprocity.

Now, after almost two years since the Decade of Education for Sustainable Development was established, there have been little results. They can be found in the level of ecological awareness, which

had already been growing since 1992. After two years, there are more **questions** than answers: which educational systems have already adopted a concept of sustainability in their curricula? How many networks have been built? Which projects and programmes and other activities, besides conferences and meetings, are really being implemented? Which indicators of quality of education for sustainable development are being built? Which strategies are being used?

In order to **monitor** and **evaluate** the Decade's process, we need to consider its objectives and its conception of education for sustainable development. There is a conception that relates itself better with **formal education** and another one that relates more to **non-formal education,** which involves, in the first case, the commitment of educational bodies and, in the second, civil society. NGO's and social movements. We cannot lose ourselves in small disputes to know which sector is more important. I don't believe that formal and non-formal are contradictory paradigms. They are complementary. One strategy does not exclude the other.

It is widely insisted that we need to have a "common view" when, in fact, we need to build this view departing from **practices,** from good practices. We don't have to all agree in order to start acting. Our consensus may be built through practices, by means of common actions in order to achieve "common views". We can easily reach a common view starting by exposing what we have in common. If there is time, we can dedicate ourselves to deepen our differences. But we still have a lot to do in order to show what we have in common, which is already a lot.

Environmental problems have been revealed within the last years. Al Gore's movie about global warming, *An inconvenient truth,* has touched the whole world and even won a 2007 Oscar, by even showing how the *Kyoto Protocol* has been revealing itself completely unneficient in fighting against problems caused by greenhouse effect. Its goal is to reduce, until 2012, the emissions CO2 in 5,2% - based on 1999 numbers - will not avoid the consequences of greenhouse effect. Even if the protocol is entirely implemented, it will barely be able to stabilize the greenhouse effect during a period of time, and won't be at all able to avoid the increasing and evident global warming, specially maintaining the industrialized countries' "right to pollute" in exchange of buying carbon from poor countries. At the end, the "right to pollute" also became a good.

The future impacts of **global warming,** that were revealed by UN's Intergovernmental Panel on Climate Change (IPCC) in the beginning of 2007, show risks to public health, specially in less developed countries, such as Brazil. There should be a dramatic increase of intestines, heart and respiratory diseases among developing countries. These illnesses will increase the number of deaths among more vulnerable populations. The impacts of global warming will be even more severe among poorest regions: "in middle of this century, the rise of temperature associated to the decrease of water in the soil will cause savavannization of tropical forests (...) and desertification of rural areas. The productivity of some important growings will decrease and cattle breeding will decline. There is a big risk to biodiversity with loss of endangered species in tropical forests" (Miguel, 2007:7). The forecasts shown in the IPCC report are alarming: millions of people are being exposed to a an increasing hydric stress, droughts, floods and storms, endangered coral plants, ecosystems alteration, negative impacts about productive activities small farmers and fisherman, tendency to decrease in cereal production in low latitudes.

12. What do we need to learn to save the planet?

The journalist Antonio Martins, based on a *Greenpeace* report, answers that what we need is a "energetic revolution" (Martins, 2007). We need a **political revolution,** one that sees the future as a problem to be solved and not as something determined by "the invisible hand" of the market, as much as we need an **economic revolution** that is able to multiply alternative sources of energy (solar, windpower, biomass, hydroelectric, geothermal and tidal). Nowadays, 80% of the energy we use come from fossil fuels, 13% come from renewable fuels and 7% from nuclear fuels. We need to increase renewable sources so that we can reach at least 50% use of clean energy, as soon as possible.

The **energetic paradigm** that has contributed to modern industrial development is based on non-renewable sources of energy (petroleum, gas and coal) and on an anthropocentric and individualistic view of humanity's well-being. It is a model that can never be democratic. By means of this paradigm, only a small part of humanity will be able to have access to energy. It is not only "impossible" to make it democratic, its democratization is also "undesirable", concludes Antonio Martins. The **new energetic paradigm** is based on new values, on multiple sources of energy and on the association of small producers instead of a few gigantic energy companies.

The conclusion is simple: in order to save the planet we need another paradigm that allows everyone to have access to energy one needs. We need a more sustainable relationship with nature: instead of considering ourselves "lords" of the earth, we should consider ourselves part of it. And to create this new mentality the **education for a sustainable development** can give a great contribution.

Attached to changes in methods of production (for example, producing cars that are less pollutant) it is necessary to change our **consumption standards.** Education for a sustainable development can contribute to change energy consumption and distribution habits (saving water, non-use of plastic cups, etc). We have to change our current habits of consumption in order to reduce wastefulness and irresponsible consumption

- What can education do in order to save the planet?

- The Decade of Education for Sustainable Development's main goal is to influence on curricular change by introducing the theme sustainability. Some countries have already started. In order to promote this chance, Scotland has created a Sustainable Development Liaison Group whose responsibility is to implement the concept of sustainability in school curricula, making them more flexible, involving teachers. students, parents and communities, associating formal and non-formal education. The community in and out of the school meets in order to discuss the theme and to build **eco-political-pedagogical projects** in schools, attaching education and sustainability. The result is the construction of a "**eco-school**".

As Scotland has been showing, national responsibility is a decisive factor for promoting the Decade of Education for Sustainable Development. We need a bigger diffusion of information on the Decade in order to stimulate local and regional initiatives. We need to have clear political goals for choosing content and a appropriate pedagogy of sustainability. Finally, we need teaching-learning materials and methods whose production was based on principles and values for a sustainable life. An education for a sustainable development must be holistic, transdisciplinary, critical, constructive, participatory, in short, an education that is guided by the principle of sustainability.

We need to re-orientate existent educational programme in the sense of promoting knowledge, competences and abilities, principles, values and attitudes related to sustainability. A concrete strategy so that we can start this debate inside our schools and building an **eco-audit** in order to discover where exactly we are being unsustainable. It is very simple: we only need to trace everything we do and compare this data to the principles of sustainability. It is not hard to identify where we are and where we are not integrating in our curriculum, in a broad sense, the concepts of sustainable development, in history, in social sciences and in our daily lives.

In terms of **level of teaching,** we have to adopt different strategies: in *primary school*, for example, our children need to experience (experiences stick more than talking) and they need to know the plants' and animals' needs, their *habitat*, how to reduce, re-use and recycle materials that have been used, how to keep ecosystems attached to forests and water. In a more advanced level, we need to discuss biodiversity, environmental conservation, alternatives of energy and global warming. At *university* level, besides diffusing environmental information, we need to produce new knowledge and do research that aim at looking for a new development paradigm.

Educate for a sustainable development is to educate for the use of renewable sources of energy, to save energy and re-think our lifestyle. But it would be something fake if we insisted only on changing **people's** behavior leaving the **system** out of it. The challenge is to change Earth's life system, the capitalist system. Marx used to say that capitalism does not exhaust only the workers. It also exhausts the planet. The capitalist model is being questioned because it is making people and the planet exhausted.

It is important to know what each one of us can do to "save the planet". But it is not enough. The responsibility of each person must be attached to global struggle for transforming of capitalism. We can have a different attitudes towards food, transport, cleaning, light, family planning, reduction of the demand of energy in houses. A lot of energy is wasted. These behaviors are vital, but this change of behavior, as we have seen, has reach big-scale production. Changing the system is what matters. For this reason, we must continue to make small changes, which, if followed by millions of people, may promote big changes.

The Decade's role is to promote education as a foundation for **another possible world**, for another society, less cruel to humanity; It is, therefore, an essentially solidary education a not only an education for a certain kind of development. Sustainability demands solidarity and the search for a common well-being, an old liberal thesis that is not very often put in practice by economical liberalism. An education for sustainable development is incompatible to the current state of aggressive diffusion and planetary promotion that is done by means of communication of a unsustainable lifestyle, of a **irresponsible consumption**, promoted by unsolidary capitalism. The success of capitalist

competitiveness represent the failure of sustainable development. No individual and isolated action can be effective.

Essentially, the Decade aims at making people aware through means of their disposal. Therefore, it will work with ethical values and principles which are related to people's sustainable life and to the planet's survival itself. For this reason, the Decade is, above all, a **call for a transforming action,** a call for popular education, for an education for and to planetary citizenship, for an instertranscultural and intertransdisciplinaty dialogue, for a culture of peace and sustainability that promotes the end of poverty, of illiteracy in the world, of political domination and economical exploitation, finally, an education for digital emancipation (not only for digital inclusion), so necessary in the era of information.

BIBLIOGRAPHY

ABONG, 2002. *Desenvolvimento e direitos humanos: diálogos no Fórum Social Mundial*.(Human Rights and Development : dialogues during the World Social Forum). São Paulo: Peirópolis.

ABRAHAN, Guillen, 1988. *Economia libertaria: alternativa para un mundo en crisis.(Economy for freedom; alternative for a world in crisis).* Bilbao: Anselmo Lorenzo.

ALIER, Joan Martínez, 2007. *O ecologismo dos pobres: conflitos ambientais e linguagens de valoração*. (Ecology for poor people: environmental conflicts and language value). São Paulo: Contexto.

AMARAL, Marta Teixeira do, 2007. "A dimensão ambiental na cultura educacional brasileira" (The environmental dimension in the Brazilian educational culture). In: *Revista Brasileira de Estudos Pedagógicos*. Vol. 88, no. 218, jan/abr. 2007. Brasília: MEC/INEP, pp.107-121.

ANDRADE, Lícia, Geraldo Soares e Virgínia Pinto, 1995. *Oficinas ecológicas: uma proposta de mudanças*. (Ecological workshops: a Proposal for Change). Petrópolis: Vozes.

ANTUNES, Ângela, 2002. *Leitura do mundo no contexto da planeterização: por uma pedagogia da sustentabilidade*. (Reading the world in the planetary context: for a sustainable pedagogy). São Paulo, FE-USP, (Tese de Doutorado).

APPLE, Michael W., 2003. *Educando à direita: Mercados, Padrões, Deus e Desigualdade*. (Educating the Right Way: Markets, Patterns, God and Inequality). São Paulo: Cortez/IPF.

BAUMAN, Zygmunt, 1999. *Globalização: as conseqüências humanas*. (Globalization: the human consequences) Rio de Janeiro: Jorge Zahar.

BECK, Ulrich, 2004. *Que és la globalización? Falacias del globalismo, respeutes a la globalización*. (What's Globalization ? Lies of globalization, answer to Globalization). Buenos Aires: Paidós.

BECK. Ulrich, 2004a. *Poder y contra-poder en la era global: la nueva economía política global*. (Power and counter Power in the global era: the new global political economy). Barcelona: Paidós.

BERRY, Thomas, 1988. *The Dream of the Earth*. San Francisco: Sierra Club Books.

BERRY, Thomas, 1999. *The Great Work: our Way into the Future*. New York: Bell Tower.

BOFF, Leonardo, 1994. *Nova era: a civilização planetária*.(New era: the planetary civilization). São Paulo, Ática.

BOFF, Leonardo, 1995. *Princípio-Terra: volta à Terra como pátria comum*.(Earth-principle: turn around the World as a common homeland). São Paulo: Ática.

BOFF, Leonardo, 1996. *Ecologia, mundialização, espiritualidade: a emergência de um novo paradigma*. (ecology, worldwide, spirituality,: the emergence of a new paradigm). Petrópolis: Vozes.

BOFF, Leonardo, 1999. *Saber cuidar: ética do humano, compaixão pela terra*.(To know how to take care: human ethic, compassion for the Earth) Petrópolis, Vozes.

BORY-ADAMS, Aline, 2007. "We have to respect the different pace chosen by each country". In: *Unesco Today,* Journal of the German Comission for UNESCO, Bonn, 2007, pp. 41-46.

BOUDRILLARD, Jean, 1995. *A sociedade de consumo*. (Consumption society).Rio de Janeiro: Elfos.

BRASIL, Senado Federal do, 2000. *Agenda 21: Conferência das Nações Unidas sobre Meio Ambiente e Desenvolvimento. (Agenda 21: United Nations Conference about environment and development).* Brasília: Senado Federal.

BRASIL. Governo, 1999. *Política nacional de educação ambiental – Lei no. 9.795 de 27 de abril de 1999*. (Government. 1999 National Politics for environmental education). Brasília: Governo do Brasil.

BRASIL. Ministério da Educação e do Desporto, 1997. *Parâmetros curriculares nacionais*. (National Curriculum Parameters). Brasília: MEC.

BRASIL. Ministério do Meio Ambiente e Ministério da Educação, 2004. *Programa Nacional de Educação Ambiental – ProNEA. (National Program for environmental Education)*. 2. ed. Brasília: Governo do Brasil.

BUSCH, Anne, 2007. *Education for Sustainable Development in the EU-Education Programmes Comenius, Erasmus, Leonardo da Vinci and Grundtvig*. Lüneburg: Universität Lüneberg.

CAMARGO, Ana Luiza de Brasil, 2006. *Desenvolvimento sustentável: dimensões e desafios*. (Sustainable Development: Dimensions and Challenges). Campinas: Papirus.

CARSON, R., 1962. *Silent Spring.* Boston: Houghton-Mifflin.

CARVALHO, Isabel Cristina de Moura, 2007. *Educação ambiental: a formação do sujeito ecológico*. (Environmental education : ecology formation of ecological subject).São Paulo: Cortez.

CATTANI, Antonio David, (org.), 2003. *A outra economia*. (The other economy). Porto Alegre: Veraz.

CAVALCANTI, Clóvis (org.), 1998. *Desenvolvimento e natureza: estudos para uma sociedade sustentável.*(Nature and Development : Studies for a Sustainable Society). São Paulo, Cortez.

CEPAL, 1990. *Transformación productiva con equidad*. (Productive Transformation with equity). Santiago: CEPAL.

CMMAD (Comissão Mundial sobre Meio Ambiente e Desenvolvimento), 1988. *Nosso futuro comum*.(Our Common Future). Rio de Janeiro: Fundação Getúlio Vargas.

COMÍN, P. e FONT, B. 1999. *Consumo sostenible*.(Sustainable Consumption). Barcelona: Icaria.

CORAGGIO, José Luis, 2004. *La gente o el capital: desarrollo local y economía del trabajo.*(People or capital: local development and work economy). Buenos Aires: Espacio.

CORCORAN, Peter Blaze, Mirian Vilela e Alide Roerink, orgs. 2005. *The Earth Charter in Action: toward a sustainable world*. Amsterdam: KIT Publischers.

CORTINA, Adela, 1997. *Ciudadanos del mundo: hacia una téoria de la ciudadanía*. (Citizens of the World: Towards a Citizenship Theory). Madrid, Alianza.

CORTINA, Adelia e outros, 1998. *Educar en la justicia*. (Educate in Justice). Valencia: Generalitat Valenziana.

DAVIDSON, Eric A., 2000. *You can't eat GNP: Economics as if Ecology Mattered*. Cambridge: Perseus.

DE MOORE, Emily A. "O jardim como currículo: valores educacionais para a sustentabilidade" (The Garden as a Curriculum: educational values for sustainable). In Revista *Pátio*. Porto Alegre, Artmed, no. 13 jan/jul 2000, pp. 11-15.

DE MOORE, Emily A. *Seeds of the Future: The Garden as Primary Educator for Ecological Sustainability & Transformation* (mimeo, 5 pages). Text sent me by the author by e-mail in 2001.

DELORS, Jacques e outros, 1999. *Educação: um tesouro a descobrir; Relatório para a UNESCO da Comissão Internacional sobre Educação para o século XXI*. (Education: a treasure to be found, Report for UNESCO from the international Commission about Education for the XXIst Century) São Paulo, Cortez, (3ª ed.).

FAURE, Edgar. *Aprender a* ser (Learng to be). São Paulo, Difusão Editorial do Livro, 1977.

FINLAND, 2006. "A Nacional Strategy and Guidelines 2006-2014 for education for sustainable development" (disponível na Internet, maio de 2006: www.minedu.fi/julkaisut/koulutus/2006/tr07/tr07.pdf.

FÓRUM GLOBAL 92, 1992. *Tratados das ONGs,* aprovados no Fórum Internacional das Organizações Não Governamentais e Movimentos Sociais no âmbito do Fórum Global ECO 92. (Treaties of the NGOs, approved in the International Forum of the Non-governmental Organizations and Social Movements during the Global Forum of ECO 92 Rio de Janeiro, NGOs Forum).Rio de Janeiro, Fórum das ONGs.

FREIRE, Paulo, 1997. *Pedagogia da autonomia: saberes necessários à prática educativa*. (Pedagogy of autonomy: necessary wisdoms to the educational practices). São Paulo, Paz e Terra.

FURTADO, Celso, 1974. *O mito do desenvolvimento econômico*. (Economical development myth). Rio de Janeiro: Paz e Terra.

GADOTTI, Moacir e Francisco Gutiérrez (orgs.), 1993. *Educação comunitária e economia popular*.(Communitarian education and popular economy). São Paulo: Cortez.

GADOTTI, Moacir, 2000. *Perspectivas atuais da educação*. (Actual perspectives of education). Porto Alegre, Artmed.

GADOTTI, Moacir, 2001. *Pedagogia da Terra*. (Pedagogy of the Earth). São Paulo: Peirópolis.

GADOTTI, Moacir, 2007. *Educar para um outro mundo possível*. (To educate for another possible world). São Paulo: Publisher Brasil.

GARCIA, E., 2004. *Educación ambiental, constructivismo y complejidad*. (Environmental education, constructivism and complexity). Sevilla: Diada.

GARCIA, E., 2004a. *Medio ambiente y sociedad.*(Environment and society). Madrid: Alianza.

GERMAN COMISSION FOR UNESCO, 2005. *National Plan of Action for Germany*. German Commission for UNESCO, Bonn, Octocber 2005.

GOODLAND, Robert, 1997. "Sustentabilidade ambiental: comer melhor e matar menos". In: Clóvis Cavalcanti, org., 1997. *Meio ambiente, desenvolvimento sustentável e políticas públicas*. São Paulo: Cortez, pp. 271-298.

GUIGUE, Bruno, 2001. *L'économie solidaire: alternative ou palliatif?* Paris: L'Harmattan.

GUIMARÃES, Mauro, 2000. *Educação ambiental: no consenso, um embate?* (Environmental education: in agreement, or shock?). Campinas: Papirus.

GUIMARÃES, Mauro, org. 2006. *Caminhos da educação ambiental: da forma à ação*. (Destinies of the environmental education: from the form to action). Campinas: Papirus.

GUTIÉRREZ, Francisco e Cruz Prado, 1989. *Ecopedagogia e cidadania planetária*. (Ecopedagogy and planetarian citizenship). São Paulo, Cortez.

HAAN, Gerhard de, 2007. "Education for Sustainable Development: a new field of learning and action". In: *Unesco Today*, Journal of the German Comission for UNESCO, Bonn, 2007, pp. 6-10.

HAAN, Gerhard de, 2007a. *ESD Guide, Secondary Level: Justifications, Competences, Learning, Opportunities*. Berlin: Frie Universität.

HABERMAS, Jürgen, 1984. *Mudança estrutural da esfera pública*. (Structural Change in the Public Sphere). Rio de Janeiro, Tempo Brasileiro. (original 1961).

HARDT, Michael e Antonio Negri, 2001. *Império*. Rio de Janeiro: Record.

HOLLOWAY, John, 2003. *Mudar o mundo sem tomar o poder: o significado da revolução hoje*. (Change the world without taking power: the meaning of revolution today). Tradução de Emir Sader. São Paulo: Viramundo.

HUCKEL, J. e STERLING, S. 1996. *Education for Sustainability*. London: Earthscan

HUTCHISON, David, 1999. *Educação ecológica*. (Ecological Education). Porto Alegre, Artes Médicas.

IANNI, Octavio, 1996. *A sociedade* global (The global society). Rio de Janeiro: Paz e Terra.

ILLICH, Ivan, 1973. *Énergie et équité*. Paris: Seuil.

IUCN, UNEP And WWF, *1980. Wordl conservation strategy*. Amsterdam: Noord-Hollands Uitgeversmaatschappij.

JAPAN, 2006. *Japan's Action Plan for the UN-DEDS*. Japonese National Commission for UNESCO, March 2006.

KAIVOLA, Taina and Liisa Rohweder, eds. 2007. *Towards Sustainable Developmente in Higher Education – Reflections*. Helsinki: Ministry of Education.

KEINER, M., 2005. *History, definition(s) and models of 'sustainable development'*. Zürich: ETH.

LAVILLE, Jean-Louis, 1999. *Une troisième voie pour le travail*. Paris: Desclée de Brouwer.

LEFF, Enrique (org.), 2000. *Complexidad ambiental*. (A third path for work) México, Siglo XXI.

LEICHT, Alexander, 2005. "Learning Sustainability - the UN Decade of Education for Sustainable Development (2005-2014) in Germany: an International Education Initiative". In: *Unesco Today*, Journal of the German Comission for UNESCO, Bonn, 2005, pp. 26-31.

LEVY, Pierre, 2001. *A conexão planetária: o mercado, o ciberespaço, a consciência*. (The Planetarian Connection : market, cyberspace, and consciousness). São Paulo: Trinta e Quatro.

LINDBERG, Carl, 2007. "The need to take responsible and Long-term Decisions". In: *Unesco Today*, Journal of the German Comission for UNESCO, Bonn, 2007, pp. 37-40.

LOUREIRO, Carlos Frederico Bernardo (org.), 2006. *Pensamento complexo, dialética e Educação ambiental*. (Complex Thought, dialectics and environmental Education). São Paulo: Cortez.

LOUREIRO, Carlos Frederico Bernardo, Philippe Pomier Layrargues e Ronaldo Souza de Castro, orgs. 2005. *Educação ambiental: repensando o espaço da cidadania*. (Environmental Education: rethinking the citizenship space). São Paulo: Cortez.

LOUREIRO, Isabel Loureiro, José Corrêa Leite e Maria Elisa Cevasco (orgs.), 2003. *O espírito de Porto Alegre*. (The Porto Alegre spirit). São Paulo: Paz e Terra.

MAHESHVARANANDA, Dada, 2003. *Após o capitalismo: uma visão de Prout para um novo mundo*. (After capitalism: the vision of prout for the new world). Belo Horizonte: Proutista Universal.

MARTINS, Antonio, 2007. "A possível revolução energética". (The possible energetic revolution). In: *Revista* Fórum, Mario de 2007, pp. 30-33.

MATTELART, Armand, 2002. *História da utopia planetária*. (History of the Planetarian utopia). Porto Alegre: Sulina.

McKEOWN, R. 2002. *Education for Sustainable Development*. Toolcet (USA): University of Tennessee.

MEADOWS, D. Et al., 1974. *The limits to growth: a report for the Club of Rome's project on the predicament of mankind*. New York: Universe Books (First edition: 1972).

MEADOWS, D. H. e outros, 1972. *Os limites do crescimento*. (Limits of Growth). São Paulo: Perspectiva.

MEADOWS, D. H. et al. 1992. *Beyond the limits: confronting global colapse, envisioning a sustainable future*. . Vermont: Chelsea Green.

MÉSZÁROS, István, 2005. *A educação para além do capital*. (Education beyond capital).São Paulo: Boitempo.

MIGUEL, Sylvia, 2007. "O futuro climático da América Latina". ("The future of climate in Latin America"). In: *Jornal da USP*, São Paulo, 16 a 22 de abril de 2007, pp. 6-7.

MINC, Carlos, 1998. *Ecologia e cidadania*. (Ecology and Citizenship).São Paulo, Moderna.

MORIN, Edgar e Anne Brigitte, 1993. *Terre-Patrie*. (Homeland-Earth). Paris, Seuil.

NACIONES UNIDAS, Consejo Económico y Social, 2005. *Estrategia de la CEPE de Educación para el Desarrollo Sostenible*. (Strategy of CEPE of Education for Sustainable Development). Naciones Unidas/CES, 2005.

NICOLESCU, Basarab et al, 2000. *Educação e transdisciplinaridade*. (Transdisciplinarity and education). Brasília, UNESCO.

O'SULLIVAN, Edmund, 2004. *Aprendizagem transformadora: uma visão educacional para o século XXI*. (Transformative Learning: an Educational vision for the XXIst Century). São Paulo: Cortez/IPF.

PADILHA, Paulo Roberto, 2004. *Currículo intertranscultural: novos itinerários para a educação*. (Intertranscultural Curriculum: new paths for education). São Paulo, Cortez/Instituto Paulo Freire.

PALMER, Joy A. 2006. *50 grandes ambientalistas: de Buda a Chico Mendes*. (50 great environmental experts: from Buda to Chico Mendes). São Paulo: Contexto.

PELIZZOLI, Marcelo Luiz, 1999. *A emergência do paradigma ecológico: reflexões ético-filosóficas para o século XXI*. (The Emergence of the Ecological Paradigm: ethic-philosophic reflections for the XXIst Century). Petrópolis, Vozes.

PENNA, C. G. 1999. *O estado do planeta: sociedade de consumo e degradação ambiental*. (The Planet Condition: consumption society and environmental degradation). Rio de Janeiro: Record.

PINEAU, Gaston, 1992. *De l'air: essai sur l'écoformation*. Paris, Païdeia.

PLAMER, Joy A., 1998. *Environmental Education in the 21st Century: Theory, Practice, Progress & Promise: London: Routledge.*

RAZETO MIGLIANO, Luis, 2001. *Desarrollo, transformación y perfeccionamiento de la economia en el tiempo* (Libro cuarto de "Economía de solidariedad y mercado democratico") (Development, transformation and improvement of economy in time, fourth book of "The solidarity economy and democratic market"). Santiago: Universidad Bolivariana.

RICOEUR, Paul, 1991. *O si-mesmo como um outro*. (The self as another). Campinas: Papirus.

ROBERTS, Carolyn and Jane Roberts, 2007. *Greener by Degrees: Exploring Sustainability through Higher Education Curricula*. Gloucestershire (UK): University of Gloucestershire.

SACHS, Ignacy, 1986. *Ecodesenvolvimento: crescer sem destruir*. (Ecodevelopment : to grow without destroying). São Paulo, Vértice.

SACHS, Ignacy, 1986. *Ecodesenvolvimento: crescer sem destruir*. (Ecodevelopment: grow without destroying). São Paulo: Vértice.

SACHS, Ignacy, 2007. *Rumo à ecossocioeconomia: teoria e prática do desenvolvimento*. (Towards ecosocioeconomy : theory and practice of development). São Paulo: Cortez.

SALGADO, Sebastião, 2000. *Exudus*. São Paulo: Companhia das Letras.

SANTOS, Boaventura de Sousa, 1995. *Pela mão de Alice: o social e o político na pós-modernidade*. (By the hand of Alice: the social and political in post modernity). São Paulo, Cortez.

SANTOS, Boaventura de Souza (org.), 2002. *Produzir para viver: os caminhos da produção não capitalista*. (Product for living: the paths of the non capitalist production). Rio de Janeiro: Civilização Brasileira.

SANTOS, Boaventura Souza, 2005. *Fórum Social Mundial: manual de uso*. (World Social Forum: Guide Book). São Paulo: Cortez.

SANTOS, Milton, 1997. *A natureza do espaço: técnica e tempo, razão e emoção*. (The nature of space: time and technic, and time, reason and emotion). São Paulo, Hucite.

SANTOS, Milton, 2000. *Por uma outra globalização: do pensamento único à consciência universal*. (For another globalization: from the unique thought to the universal consciousness). São Paulo: Record.

SATO, Michele e Isabel Carvalho (orgs.), 2005. *Educação ambiental: pesquisa e desafios*. (Environmental Education: research and challenges). Porto Alegre: Artmed.

SCHMIED-KOWARZIK, Wolfdietrich, 1999. *O futuro ecológico como tarefa da filosofia*. (The ecological future as a task for philosophy). São Paulo: Instituto Paulo Freire.

SCOTT, William, A. D. Reid, and J. Nikel, *2007. Indicator for Education for Sustainable Development: a report on perspectives, challenges, and progress.* Anglo-German Foundation for the Study of Industrial Society (www.agf.org.uk/pubs/pdfs/51515web.pdf).

SCOTTO, Gabriela, Isabel Cristina de Moura Carvalho e Leandro Belinaso Guimarães, 2007. *Desenvolvimento sustentável*. (Sustainable development). Petrópolis: Vozes.

SEN, Amartya, 2000. *Desenvolvimento com liberdade*. (Development with freedom). São Paulo: Companhia das Letras.

SOROS, George, 1999. *A crise do capitalismo*. (Capitalism Crisis). Rio de Janeiro: Campus.

TAMARIT, José, 1996. *Educar o soberano: crítica ao iluminismo pedagógico de ontem e de hoje*. (Educate the sovereign: critics to pedagogical illuminist from yesterday and today). São Paulo, IPF/Cortez.

TELLEGEN, Egbert, 2006. *Sociology and Sustainable Development*. Amsterdan: Universiteit Ambsterdam.

TRAJBER, Raquel e Lúcia Helena Manzochi (coord.), 1996. *Avaliando a educação ambiental no Brasil: materiais impressos*. (Evaluating environmental education in Brazil: press materials). São Paulo, Gaia.

TRIGUEIRO, André (org.), 2003. *Meio ambiente no século 21: 21 especialistas falam da questão ambiental nas suas áreas de conhecimento*. (Environment in the 21st Century: 21 experts talk about the environmental question in their areas of knowledge). Rio de Janeiro: Sextante.

UNESCO Bangkok, 2005. *Working paper: Asia-Pacific Regional Strtegy for Educatiion for Sustainabel Development – UN Decade of Education for Sustainable Development (2005-2014)*. Bangkok: UNESCO Bangkok.

UNESCO, 1999. *Educação para um futuro sustentável: uma visão transdisciplinar para uma ação compartilhada*. (Education for a sustainable future: a transdisciplinarian vision for a shared action). Brasília: UNESCO/IBAMA.

UNESCO, 2005. *Década das Nações Unidas da Educação para o Desenvolvimento Sustentável (2005-2014)*. (Decade of the United Nations in education for sustainable development). Brasília: UNESCO.

UNESCO/Centro da Carta da Terra de Educação para o Desenvolvimento Sustentável, 2007. (Center of the earth charter of education for sustainable development). *Encuentro Latinoamericano Construyendo una Educación para el Desarrollo Sostenible en América Latina y el Caribe*. San José (Costa Rica): UNESCO/ Carta de la Tierra Internacional.

UNESCO/UNEP, 2002. *Youthxchange – Towards sustainable lifestyles: Training kit on responsible consumption*. Paris: UNESCO/UNEP.

VEYRET, Yvete, 2007. *Os riscos: o homem como agressor e vítima do meio ambiente*. (The risks: man as an aggressor and victim of environment). São Paulo: Contexto.

WALS, Arjen E. J. (ed.), 2007. *Social learning: towards a sustainable world*. Wageningen: Wageningen Academic.

WCED, 1987. *The Worl Comission on Environment and Development: Our common future*. Oxford: Oxford University.

ZIAKA, Yolanda (org.), 2003. *Educação ambiental: seis proposições para agirmos como cidadãos*. (Environmental education: six propositons to act as citizenship) São Paulo: Instituto Polis.