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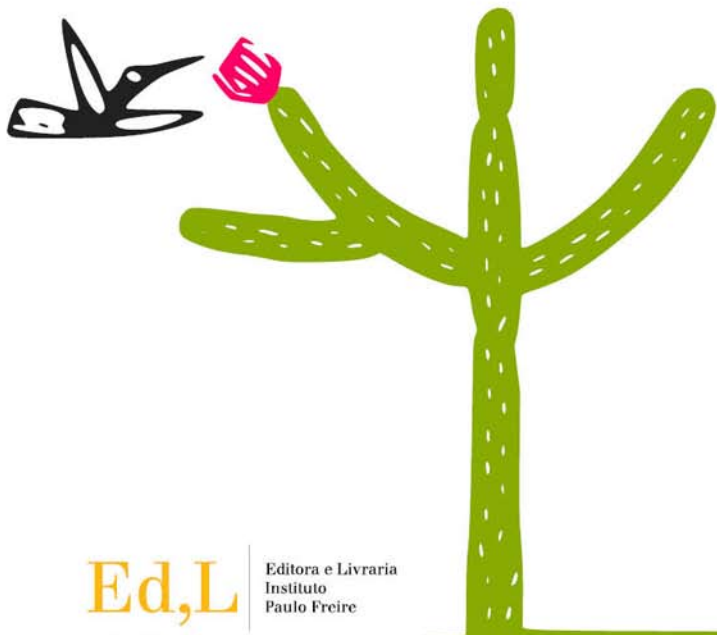
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# EDUCATION FOR SUSTAINABILITY

A contribution to the Decade of  
Education for Sustainable Development

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Moacir Gadotti

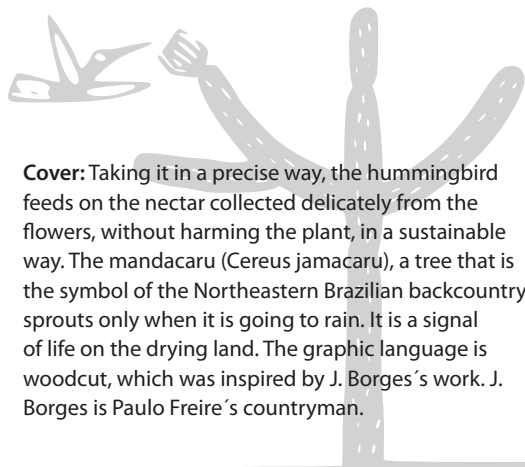


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**Cover:** Taking it in a precise way, the hummingbird feeds on the nectar collected delicately from the flowers, without harming the plant, in a sustainable way. The mandacaru (*Cereus jamacaru*), a tree that is the symbol of the Northeastern Brazilian backcountry, sprouts only when it is going to rain. It is a signal of life on the drying land. The graphic language is woodcut, which was inspired by J. Borges's work. J. Borges is Paulo Freire's countryman.

# EDUCATION FOR SUSTAINABILITY

A contribution to the Decade of Education for Sustainable Development

**Moacir Gadotti**

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*The category sustainability is central for the ecological vision of the cosmos and possibly constitutes one of the bases of a new civilized paradigm that searches to harmonize human being, development and Earth, understood as Gaia.*

**Leonardo Boff**

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## Presentation

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The data announced from 2006 to 2008 by the *Intergovernmental Panel of Climatic Changes* (IPCC) have aroused debates all around the world. There's no other most worrying theme than the global warming and the one about climatic changes. But that theme isn't new. Alert has been given by ecologists since the 1960s. In Rio 92, 173 government leaders approved a document, *Agenda 21*, in order to put the world in the path of "sustainable development", a compromise with the future generations. At the same occasion, The *Global Forum* approved two important documents: The *Earth Charter* and the *Treaty on Environmental Education for Sustainable Societies and Global Responsibilities*. In 2002, the United Nations launched *The Decade of Education for Sustainable Development* (2005-2014). The world is moving, in different manners, to avoid the worst that could



happen. Nevertheless, we are still worried, and the great challenges haven't been surpassed yet.

— *What can education do in such a context?*

— This is the question we would like to discuss in this book.

I became acquainted with education for sustainable development through the Earth Charter and environmental education. 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 adopted by the international community" (In: Corcovan, ed., 2005:10). The Earth Charter has been an ethical inspiration for the United Nations' "goals of the millennium". Peter Blaze Corcoran, professor of the Florida Gulf Coast University, adds: the Earth Charter is an "arch of hope" (Corcoran, ed., 2005:16) focusing on the new concept of "sustainable lifestyle".

Mirian Vilela, Executive Director of the Earth Charter International Initiative, wrote about its history and significance (In: Corcovan, ed., 2005:17-22) and says that the consultation process impelled by Maurice Strong, General Secretary of the 1992's Earth Summit, has given global legitimacy to this document in every continent: the Earth Charter is a movement of the civil society of the whole world in order to "build consensus and shared values" (Id., p. 22) while seeking a fair and sustainable lifestyle.

The Earth Charter has a great **educational potential**, which has not been sufficiently explored either in formal

or non-formal education yet. 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 to 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 Unesco's coordination, and that global educational system may set a common humanistic foundation for all national systems of education. It is not a matter of 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. The educational systems are very similar all over the world, in spite of the cultural diversity. That aspect has both advantages and disadvantages. The disadvantage is their rigid structure, resisting to changes; the advantage is that the innovation introduced in one system can be introduced in the other systems more easily.

It is well known that environmental degradation generates human conflicts. The Earth Charter is, in many cases, serving as a basis for the resolution of conflicts previously generated by an unsustainable way of producing and reproducing our existence in the planet, mainly on a daily basis and particularly among the young people who adopted its principles. The Charter helps us to overcome **fundamentalisms** that currently challenge a pacific co-habitation among nations and peoples in the planet. As Abelardo Brenes, professor of the United Nations University for Peace, has stated,

the principle of global responsibility established in the introduction of the Earth Charter “complements the Human Rights Declaration, recognizing each person as a citizen of the world” (In: Corcovan, ed., 2005:35). Each person is similarly responsible for the Earth’s community as a whole, even though we have different roles and responsibilities individually.

The strategy of associating the Earth Charter to other UN’s documents and conventions has been widely used to develop its transforming potential. Among those documents, we can emphasize the *Global Campaign for Education*, the *Decade of Instruction in Reading and Writing*, the *Decade of Education for a Sustainable World*, the *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, ed., 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., p. 44).

The confluence of **Agenda 21** and the Earth Charter occurred because they have a lot of complementary and convergent aspects. A new model of development demands a new ethical support. We are still far from

a true integration, however. Based on fundamental principles and values which will guide peoples and States towards sustainable development, the Earth Charter will serve as an ethical framework of Agenda 21. Once approved by the United Nations (we are still engaged in 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, religious traditions, literature on global ethics, the environment and development, and practices of peoples that have sustainable lifestyles, 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.

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, Instruction in Reading and Writing, Citizen Education, Curriculum, Popular Education etc. – as an *interdisciplinary theme*. In order to achieve this, we have created the concept and vision of an **Ecopedagogy** (initially called *Pedagogy of Sustainable Development*), as an appropriate pedagogy for the Earth Charter, the environmental education and the education for sustainable development (ESD). 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 (2005).

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. Paulo Freire said that he hoped not because he was persistent, but because of a “historical and existential imperative”, as he states in his *book Pedagogy of hope* (Freire, 1992). Based on the epigraph of that book we can assert that today sustainability also represents a hope and, as so, sustainability became a historical and existential imperative. As Carlos Rodrigues Brandão states (2008:136), sustainability

is opposed to everything that suggests unbalance, competition, conflict, greed, individualism, domination, destruction, expropriation and undue and unbalanced material acquisition, regarding change and social transformation of society or environment. So in the most generous and widest way, sustainability means a new egalitarian way, a free, fair, inclusive and solidarity way to get people together in order to build their social living world at the same time that they handle, manage or transform the natural sustainable environments where they live and on which they depend to live and be together.

The first contact with the culture of sustainability is odd, difficult and complex, because we have a different way of looking at reality. In order to implement the principle of sustainability in our projects and in our Institutional Development Plan, we have been developing an **Earth Pedagogy** (Gadotti, 2001) for the past years, and that 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 ethical principles, such as respect for the life of human beings, the life of other animals, birds, rivers and forests. I do not believe in lovingness among men and women,

among human beings, if we are not able to love 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 liberating (...). In this sense, it seems to me a distressful contradiction to have a progressive and revolutionary speech and, at the same time, a life-denying practice. A practice that pollutes the sea, the water and fields; a practice that devastates forests, destroys trees, threatens animals and birds (Freire, 2000:66-67).

Paulo Freire was the author of an important book: *Pedagogy of the Oppressed*. In the present time we consider Earth as an oppressed being as well, the most oppressed of all. Therefore, we also need a pedagogy of that oppressed, which is the Earth. We need a *Pedagogy of the Earth* as a great chapter of the *Pedagogy of the Oppressed*, so we need an ecopedagogy.

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), beings which are constantly shaping themselves, learning, interacting with others and with the world. The current dominant pedagogy is centered in tradition, in aspects that are static and generate humiliation for the learner due to the way he/she is evaluated. In ecopedagogy, the educator should welcome the student. Sheltering, caring are the bases of education for sustainability, which has being promoted since 2002 by the United Nations through the creation of a “Decade” entirely dedicated to it.

Ecopedagogy and **education for sustainability** are linked very closely. As Gro Harlem Brundtland said in the preface of the United Nations’ Report *Our Common Future*,

unless we are able to translate our words into a language that can reach the minds and hearts of both young and old people, we shall not be able to undertake the extensive social changes needed to correct the course of development.

This is one of the tasks of the education for sustainability.

— *Why do I prefer talking about education for a sustainable life or simply **education for sustainability**?*

— I think educating for the sustainable development (ESD) is a limited concept and also a way to limit education. It does not have the necessary scope to constitute the organizing conception of education. The sustainability concept is paradigmatic, as Leonardo Boff has been stating in his works. The concept of ESD does not have the potential to transcend the ambiguous and vague notion of development. Only a critical vision of ESD will be able to carry us ahead.

Doubtless we shall keep going with such contradictory concept, as well as several others, although we do not ignore their limitations. That is what allows us to transcend it. On the other hand, it is not the case to polarize positions between sustainability and development or between environmental education and ESD. We can show the differences critically without debating in useless and demobilizing ways.

### Global alliance for sustainability

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

In 2006, Unesco created a **Reference Group** in order to give conceptual and strategic support to the Decade's Secretariat. Based on studies and researches on ESD, Unesco's Secretariat for the Decade is producing educational materials for the 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 guided by five basic **strategies**:

- To establish the principles for a *big global alliance* for sustainability in governmental and non-governmental levels;
- To concretely start working for the creation and monitoring of the work done by the Decade's National Commissions;
- To create *reference centers* in different parts of the world to promote discussion, research and intervention on education for a sustainable development;
- To establish strong ties with other UN's initiatives and decades, such as: Decade of Instruction in Reading and Writing, Education for All, HIV/SIDA and Goals of the Millennium;
- To establish communication and information strategies strongly based on new technologies, 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 for ESD nowadays.

The first Conference in which the theme education for a sustainable development was discussed took place in 1977, in Tblisi, Russia. However, the theme 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".

In Thessaloniki, the importance of the role played by consumers, a role whose great power can act towards a more sustainable lifestyle, became evident. The **Decade of Education for Sustainable Development** (DESD) has, therefore, historical precedents that have to be considered. In Thessaloniki there were talks about the importance of introducing the concept of sustainability in the re-orientation of formal education; of changing both 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 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**<sup>1</sup>.

Many regions, such as Europe, Asian-Pacific region, Latin America and the Caribbean, have already had their own strategy to implement the Decade<sup>2</sup>.

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 to have a sustainable lifestyle. One of the strategies that was presented is to create responsible consumption groups and networks, exchanging ideas, optimizing energies and discovering the "global village" (Unesco/Unep, 2002).

2. According to Aline Bory-Adams, Unesco's Secretary of the DESD, the Decade "is a process and needs to take into account the specificities of each country. While it is possible to identify countries

**Europe** has defined its strategy during a summit meeting of Environment and Education Ministers, the Economic Commission for Europe and the Environmental Policy Committee in June 2005. 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, maybe even exaggerated concern with **indicators of sustainability**, which are difficult to define. An International Conference promoted by the Unesco German Commission, which was held in Berlin, on Mai 24<sup>th</sup> and 25<sup>th</sup>, 2007 and whose main focus was to discuss the “European Contribution” to the Decade, discussed the issue of the indicators deeply, emphasizing their importance, but also warning that it is important not to end up giving importance only to what can be measured<sup>3</sup>. 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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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. Nickel, 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](http://www.agf.org.uk/pubs/pdfs/51515web.pdf)).

Germans have developed the concept of *Gestaltungskompetenz* in order to refer to competences 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’s 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 recognizes 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 an interdisciplinary manner; to be able to plan and to 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 to act autonomously; to be able to show empathy for and sympathy 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’s Decade, *Gestaltungskompetenz* includes:

anticipatory, future-orientated thinking; living, complex interdisciplinary knowledge; and participation in social decision-making processes. ESD 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 aiming at 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 their cognitive aspects, since they involve challenges, behaviors, attitudes and intentions. Apart from the cognitive component, they also involve certain emotional and motivational components. Competences are not limited to capacities or abilities that one has to solve problems. They also involve one's ability to organize his/her own work, to think critically, to work in groups, to feel bound to a human community, as it is inferred from the notion of *Gestaltungskompetenz*.

Besides, when we talk 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 for the strategy of implementing UNECE in Europe, as Arjen E. J. Wals, professor of the University of Wageningen (Holland), has emphasized in 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* consists of

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 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 ESD.

Supported by UNEP and the United Nations University, the **Asian-Pacific** region has developed a regional strategy (Unesco Bangkok, 2005), and we have to highlight the importance given 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 Asian-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, states 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, by 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 a Latin-American meeting held in San Jose da Costa Rica in November 2006 (Unesco/Earth Charter Center for Education for Sustainable Development, 2007). Latin America has a long tradition in **environmental**



**education** movements, with which the challenge that came along with the Decade of Education for Sustainable Development has been associated. 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, strengthening of public policies for their improvement, communication and information on the concept of sustainability, and strengthening 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 have already elaborated their own national plans or strategies for education for sustainable development, such as Finland, Japan, Scotland, India, Sweden and Germany.

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

**Japan** was one of the first countries to create its own plan in a meeting between the Ministry of Education and the Ministry of Environment in the beginning of 2006. "Japan's DESD's Plan of Action" attaches ESD to the Goals of the Millennium and establishes many programs in order to promote good quality education according to the principles of sustainability, specially in teachers' training:

by actively promoting ESD, we aim at helping everybody to know the situation of 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 (CEE), created in 1984 and member of the Nehru Foundation for Development, has succeeded in promoting the DEEDS through its training program all over the country. In November 2007 the Center for Environmental Education held Unesco's IV International Conference of Environmental Education.

**Germany's** "National Plan of Action" reinforces the Decade as a "continuous process" with an "integrative function that promotes global responsibility": "informal and lifelong learning becomes more and more important as traditional education institutions and formal educational sectors have to be redefined in the light of processes of rapid change" (German Commission for Unesco, 2005:8). Among the aims of the Plan of Action, 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 ESD activities at national level, producing materials and promoting training in "gestaltungskompetenz".

Mário Freitas, from the University of Minho, **Portugal**, proposes and defends that the DEEDS may be



oriented to constitute itself as an opportunity to 1) go deep in the theoretical and practical debate regarding the concepts of sustainability, sustainable development and sustainable societies; 2) promote an intense and profitable intersection of views, necessarily different, in order to be able to build a sustainable future; 3) promote the emergency of complex methodological epistemological approaches that may empower the inter-discipline studies and the inter-trans-cultural aspect; 4) create conditions for the emergence and strengthening of civic and popular movements, not empowered; 5) demand political and economic authorities to render clear, objective and public accounts related to the assumed engagements; 6) create wide networks to share, divulge and debate experiences of sustainability; 7) promote researches and produce knowledge focused on popular and communitarian education (Freitas, 2007:135-6).

For Carl Lindberg, Special Advisor to Unesco's Swedish National Commission and Member of the High-Level Panel on the UN's Decade of Education for Sustainable Development, the DEDS

is the golden opportunity offered to us all – committed teachers at all levels, school 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 our educational systems in every level (Lindberg, 2007:38).

## The Decade in the context of globalization

Globalization, impelled by technology, seems to have an increasing power in determining our lives. Decisions concerning what happens 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 experience today, the “globalism” (Ianni, 1996), the **capitalist globalization**. Its immediate effects are unemployment, the increase of differences between a small number of people who have too much and a big number of people who have too little, the loss of power and autonomy by many nations. Therefore, we have 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**, performed by transnational companies, from **citizen globalization**. Both of them use the same technology, but their logics is opposing. 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 performed by organizations of global civil society. Those organizations had their first meeting in Rio de Janeiro, in 1992. The **92 Global Forum** was one of the most meaningful events in the end the 20<sup>th</sup> century: it gave a great force to citizenship globalization. Currently, the debate involving the Earth Charter and the DEDS has become an important factor for the construction of this planetary citizenship. Any pedagogy

that is thought about without considering this new globalization and the global ecological movement has serious contextualization problems.

Milton Nascimento, a Brazilian singer, wrote in the lyrics of one of his songs: “I’m not going to be a foreigner / I am a citizen of the world”. If the children from our schools understood the meaning of that lyrics deeply, they would be starting a true pedagogical and curriculum revolution. How can I feel like a foreigner in any territory of this planet if I belong to an only territory, the Earth? There is no foreign place to Earth people on Earth. If I am a citizen of the world, there are not borders to me. The cultural, geographical, racial or any other difference weakens before my feeling of belonging to humankind, to Earth.

The notion of (global) **planetary citizenship** is supported by 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 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 the 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.

Globalization itself is not a problem. It represents a process of advance never seen before in human history. Similarly there is not only one possible market, there is not one possible globalization. Nowadays what we see is a globalization from 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 are less important than the corporative interests of big transnational companies. Therefore, we can 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. The Earth Charter and the Education for a Sustainable Development can and must give important contributions to the second globalization.

— *Where does the **ecological movement** stand when it is 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 Ecopedagogy and planetary citizenship*, that the construction of an environmental citizenship is a strategic component for the process of building up 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 recognized merits when it refers to the theme planetarity; this movement was a 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 parts of the same social action field, with common aims and sensitivity.

**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: a live 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 forest. Keeping the Earth alive is a task that has to be undertaken by all of us, it has to include 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 and 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 shared way and among different sectors.

Planetary citizenship must focus on fighting for the end of inequalities, for the elimination of huge economic differences and for humanity’s intercultural integration, in short, a culture of **justipeace** (peace generated by justice). It is not possible to talk about planetary or global citizenship without having effective citizenship in local and national spheres. Planetary citizenship is **integral citizenship**, therefore, it is active citizenship, not only regarding social, political, cultural and institutional rights, but also regarding economic rights. It also involves the existence of a planetary democracy. So, differently to what neoliberals say, we are actually far from effective planetary citizenship. It still remains

as a human project. It has to be part of humanity’s own project. It will not be a simple consequence, a product of technology or economic globalization.

## A great opportunity for educational systems

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 reviews the history of fights for a sustainable culture from Stockholm (1972) to “Our Common Future” (1987), Rio-92, Dakar Education Forum (2000), up to the Goals of the Millennium (2002).

The Decade represents a way for implementing the 36th chapter of Agenda 21. It tries to re-orientate and to give potential to existing policies and education programs, such as environmental education and initiatives like the Earth Charter. 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. Chapter 36 identifies the following major challenges to begin the work of ESD: to improve basic education, to re-orientate existing education in order to attain sustainable development, and to develop public understanding, awareness, and training.

— *Which are the goals of the DEDS?*

— The document states that (Brazilian edition, May 2005):

the Decade’s main goal is to integrate principles, values and practices of sustainable development to all aspects of education and teaching. This educational 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 program 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 knowledge, competences, perspectives and values that are related to sustainability (Unesco, 2005:57).

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

- to facilitate networks and bonds among activists that defend ESD;
- to improve ESD teaching and learning;
- to help countries to adopt the Goals of the Millennium by means of ESD;
- to 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 stated in the document itself, when it asserts that "market global economy, as it currently exists, does not protect the environment or is beneficial to even half of the world population" (Unesco, 2005:56).

Consequently, for ESD to 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, it looks for both acknowledging tendencies and the implication of change" (Unesco, 2005:39). And concludes:

a transforming education is necessary; an education that contributes to make the urgent and fundamental changes brought by the challenge of sustainability possible (...). However, a learning experience within the ESD program cannot limit itself to a personal sphere – learning must lead towards an active participation to search and adopt new organizational standards and changes (Unesco, 2005:42 and 45).

What seems to be problematic in the Decade's documents is the relationship between **Education for Sustainable Development** and **Environmental Education**. In the document it is stated 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 man and natural environment, in terms of how to preserve it and how to appropriately manage its resources. Therefore, sustainable development joins together 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 during the *5th Brazilian Forum on Environmental Education* in November 2004, an event

in which over 1500 participants were present, 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 “confusing”. It was also said that substituting Environmental Education for 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 have to debate the relationship between environmental education and ESD further, in order to avoid this kind of misunderstanding

In the United Nations there is a great legal set of declarations and programs, 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 existing “campaigns” 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 or 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 another initiative. Due to its 12 years of existence, the Earth Charter can also give great contributions to the Decade

in its implementation, monitoring and evaluation.

I agree with the United Nations’ document in general terms. However, I wish it 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**. The Earth Charter and the DEDS 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 they were more deeply associated to those Forums.

The *Rio Declaration* (1992) argued that

all sustainable development programs (...) must consider the **three spheres** of sustainability: *environment* (resources and fragility of the physical environment), *society* (including culture, participation, public opinion and media), and *economy* (the economic growth and its impact on society and environment).

These are the key areas of ESD.

Regarding the impact of the concept of sustainability in formal education, we can consider two **levels**:

- the *legal level*: educational reforms (curriculum, contents). The law, the rule can introduce new kinds of behavior, but, we need another level;
- the level of *people’s commitment*, engaging their endorsement (for a sustainable lifestyle), by a viral, biological, intuitive process (not a mechanical or rational process), possible thanks to different kinds of motivation (compassion, love, fear, anger etc.).

ESD, despite its ambiguity, is a **positive vision** of humane future, a consensus supported by a broad

majority. With the global warming, the Decade is very up-dated, and it can contribute to the understanding of the current crises (water, food, energy etc).

ESD implies to **change the system**, life respect, daily care for the planet and for all community of life. That means to share fundamental values, ethical principles and knowledge (respect Earth and life in all its diversity; care for the community of life with understanding, compassion, and love; build democratic societies that are just, participatory, sustainable and peaceful). ESD is a central point to the educational system facing the future. However, it is not enough to change individual behaviors; we need political initiatives.

The educational formal system, in general, is based on predatory principles, on instrumental rationality, reproducing unsustainable values. In order to introduce a culture of sustainability at school systems we need to reeducate the systems. They are part of the problem, they are not only part of the solution.

I believe that sustainability is a powerful concept, an **opportunity** for education to renew old systems, based on competitive principles and values and to introduce a culture of sustainability and peace in the school communities, in order to be more cooperative and less competitive. However, we have to adapt this concept to different realities. There are different ways of application of this concept, depending on the context: there are **different ways of understanding** this concept, for example, in Europe, in Africa, in Iraq, in Afghanistan. The risks (vulnerability) are global, but the solutions are local and regional. We can reduce, but not eliminate risks. Learning to live with risk is a requirement of SD. We have to stress the idea that there is not a universal model of ESD. Therefore, we can have **different**

**approaches** to EDS, different pedagogies and methods to translate this common view at local level.

ESD is *an integrative* (it integrates education, health, jobs, sciences etc.) and *interactive* concept. We have, for example, to establish a dialogue between **ESD** and **Education For All** strategies. EFA has gone a long way (Jomtien, Dakar...). ESD is just starting its journey. We have to create synergies between those two processes and use the concept of sustainability to implement a new quality of formal education, a socio-environmental education. At the moment, the rich countries are paying more attention to ESD and the poor countries, due to their reality, are paying more attention to EFA (WADE, 2007).

— *What is the difference between the approaches of these two movements?*

— EFA refers to basic education, formal system, basic learning needs, schools, literacy, the right to education. Basically, EFA involves only the Ministry of Education. On the other hand, the ESD movement goes beyond basic and formal education. It is also non-formal, and it involves the lifelong learning education (social level, systems and organizations). However, ESD is good to re-orientate curricula. It is more emancipating and it involves other Ministries, like the Ministry of Environment, Agriculture etc.

# Sustainability and well-living

Although it was used for the first time only in 1987, in the Brundtland Report, the concept of sustainable development has important **historical precedents**. 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) – if it were trespassed, it could take us to a threshold situation in which the survival of the species would be at risk. This concept was also present in 1982, during the **Stockholm Conference** (Sweden)<sup>4</sup>, in which the

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4. This was the first major international event in which the People's Republic of China participated as a new member of the United Nations. The Conference was chaired by the Canadian ecologist Maurice Strong. Only two heads of State attended it, Mr. Olof Palme, the Prime Minister of Sweden and Mrs. Indira Gandhi, the Prime Minister of India. “She traveled to Stockholm to emphasize the close link between the deteriorating environment and poverty. She argued that one problem could not be solved without addressing the other. The seeds of sustainable development concept had been sown” (Sarabhai and others, 2007:1).



“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. The findings of the research were published ten years later (1984) in the *State of The World Report*. This document contained very preoccupying data on the environmental impact of the dominant economic model<sup>5</sup>.

The Stockholm Conference was also concerned with poverty and income distribution, but its main focus was on *pollution* caused by human activities, specially by industrial development, that was degrading the environment. The rich countries recognized they were the ones that polluted the Earth the most, but they did not discuss how to avoid it. 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 it created (1993) the *Global Commission on Environment and Development*, headed by Norway’s Prime Minister, Gro Harlem Brundtland. The commission aimed at creating proposals as to overcome the situation and published a report four years later (1987). That report was called **Our Common Future** or “Brundtland Report”. The expression “sustainable development” appears in the report for the first time, and it is defined as

5. According 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. *World conservation strategy*. Amsterdam: Noord-Hollands Uitgeversmaatschappij).

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 each other and reinforce the present and future potential, in order to fulfill human needs and aspirations.

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

- a political system that secures effective citizen participation in decision making;
- an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis;
- a social system that provides solutions for the tensions arising from disharmonious development;
- a production system that respects the obligation to preserve the ecological basis for development;
- a technological system that can search for new solutions continuously;
- an international system that fosters sustainable standards of trade and finance, and
- an administrative system that is flexible and has the capacity for self-correction.

The concept of “sustainable development” was definitely established during 1992 Earth Summit, the *United Nations Conference on Environment and Development*, whose main result was **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 for 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 the 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 Program), has been working with the concept of "human sustainable development", broadening its initial concept and emphasizing various dimensions that are essential to the development of a people, and it is related not only to economic 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 to 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 measures adopted years before was evident. The world came 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 is not a distant fact anymore. Its effects can be seen in the whole planet. We are now beyond the threshold situation 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 of producing and reproducing our existence, or we will die. Data provided by the IPCC show that the main cause of the 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 increased its emissions in 145% in the last 15 years; the transportation sector's emission 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 transportation, working more at home (using the Internet) etc. We have to look inside ourselves and to our standards of unsustainable consumption. IPCC reports warn us that we have already gone beyond the limit. Now we have to create strategies to survive. First we have to prepare ourselves to changes and, second, we have to reduce the negative effects of the global warming by reforesting the planet, for example, and not repeating what was done in the past.

### **The multiplicity of meanings of the concept of sustainable development**

Despite all the discussion about them, the expressions "sustainable" and "development" are still vague and controversial. That is why we have 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 label, 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 kind of development without harming the environment. It involves human beings finding a balance between themselves and the planet, and 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 at school? 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 have on education? The topic leads us to *planetary citizenship*, *planetary civilization*, *planetary awareness*. As such, a **culture of sustainability** is also a planetary 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 **widely criticized** many times due to misuse, in spite of being considered as a “politically correct” and “morally noble” concept. José Gutierrez Pérez and María Teresa Pozo, from Universidad

Autónoma de Nuevo León – UANL (Mexico) –, say that the expression sustainable development

converted into a new type of multiuse instrument that put in contact environmentalists and real estate agencies, businessmen and conservationists, politicians and policy-makers, but the common use of the term led nowhere; on the contrary, with the generated confusion, those who have won the most are the defenders of neoliberalism, once the term development may signify anything depending on the way you look at it, and the finalities you use it for. Facing the mild appearance of semantical neutrality, we can see how its multiple uses allow diametrically opposite acceptations (Pérez, 2006:28).

And as it could be expected, the same critic referring to the expression ‘sustainable development’ is used to ‘education for the sustainable development’. Pablo Ángel Meira Cartea, from UANL, states that ESD is oriented by the neoliberal ideology of market: “we don't find reasons of any logical, epistemological, theoretical-pedagogical, methodological or ideological aspect, to accept that ESD is or could become something substantially distinct, superior or more efficient than environmental education” (Cartea, 2006:42). Even accepting these critics, it is understood that the DEDS and, therefore, ESD as it was conceived by the IV International Environmental Education Conference, held in Ahmedabad (India) from November 24 to November 28, represent a great opportunity for environmental education. It is not the case to polarize concepts, but to keep our radicalism, in practice, as environmental educators.

There are other expressions with a common conceptual basis 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 have begun to use the expression “human development” as an indicator of quality of life based on indexes of health, longevity, psychological maturity, education, clean environment and creative entertainment, which are also the indicators of 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** of the concept of sustainable development and of 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 have to talk more about “social-environmental” than about “environmental”, trying not to separate the needs of the planet from the human

needs. Ecologists, environmentalists and ourselves, all of us must 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 human being. For many years, this concept was applied with a colonizing view, when countries were divided between “developed,” “developing,” and “underdeveloped”... 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, which resulted in a vast increase of poverty, violence and unemployment in a lot of cases. Together with this economic model, ethical values and political ideals were transplanted, which led to the elimination of structures of peoples and nations. Therefore, it is not surprising at all that many people are reticent when one talks about sustainable development. This “developmentalist” and colonialist conception and practice of development led 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 more anthropological, holistic and less economic.

The **multiplicity of meanings** contained in the concept of “sustainable development” has been widely discussed. It is a **concept in dispute**. As Gabriela Scotto says, it is “a concept with much fame and little consensus” (Scotto et al., 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 people 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 are practical. After all, many other concepts are ambiguous, such as the 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 have to explicit their meaning.

Ambiguity can only be overcome through practice. Theoretical debates are very important, but they are limited if they are 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 peoples’ freedom to build their lives and their well-being as they want. What governments should do is to offer opportunities so that everyone is able to develop their talents, by guaranteeing economic, individual, cultural, social and political rights. Freedoms are interlinked planetarily nowadays. That is why democracy also has to be planetary and radical.

It is perfectly clear that there is an incompatibility of principles between **sustainability** and **capitalism**. This is a basic contradiction that can make the idea of sustainable development not feasible. Attempts to reconcile two incompatible expressions are being made. The failure of *Agenda 21* is a good example. How would it be possible to have equitable growth, sustainable growth, within an economy guided by profit, unlimited accumulation and labor exploitation? Thinking about all its consequences, sustainable development questions not only the unlimited and predatory economic growth, but the whole capitalist style of producing. Sustainable

development makes sense in a **solidarity economy** context, which is an economy guided by “compassion”, not by profit<sup>6</sup>.

The theme of sustainable development is still very centered in ecology. It has to be considered by politicians and economists as Joan Martínez Alier (2007) – from the Autonomous University of Barcelona – one of the most outstanding 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), poor people favor more the conservation of the natural resources and they suffer the impact of environmental problems more than the rich nations. In his opinion, “the confrontation between the economic growth, iniquity and environmental degradation must be considered in the landmarks of power relationships” (Alier, 2007:356).

The serious social-environmental problems and the criticism to the model of development have been generating an expansion of ecological awareness within society in the last decades. Although this awareness has

6. “Solidarity Economy is a new way of naming, conceptualizing, and interconnecting the many types of transformative economic values, practices, and institutions that exist all over the world. They include, but are not limited to, socially responsible consumption, work and investment; worker, consumer, producer, and banking cooperatives; fair trade businesses, progressive unions, high road and community businesses, local currencies, and unpaid care work. The Solidarity Economy is also about uniting these various forms of transformative economics in a network of solidarity: solidarity with a shared view, solidarity with the change of values, and solidarity with the oppressed” (www.transformationcentral.org, August 2007).

not provoked deep changes in the economic model and in government policies yet, 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 transportation were presented. These experiences point to the rise 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.

## Another economy for sustainable development

Solidarity 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:

solidarity economy is a movement of global reach that emerged among the oppressed, the old and the new excluded, the ones whose work is not valued by capitalist market, the ones who don't have access to capital, technology or credit. It is from them, from activists and people who promote solidarity economy that the desire and aspiration of a new paradigm for organizing economy and society emerge (Loureiro, ed., 2003:162).

It is actually a **demercantilization of the economic process**, a basic program for the construction of a new socialism nowadays. This demercantilization does not mean **demonetarization** or the end of the market, but the

elimination of profit as a category. Capitalism is a program that has a market-oriented view of everything. Capitalists have not put that into practice completely, but they have made improvements

towards that direction, and we know pretty well all their negative consequences. Socialism must be a program that aims at eliminating this market-oriented idea of everything (Immanuel Wallerstein, in: Loureiro, ed., 2003:36).

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

The relation between “sustainable development” and “solidarity economy” is inevitable, as it has been highlighted by the Brazilian Forum of Solidarity Economy’s (FBES) *Charter of Principles*:

solidarity economy has constituted the basis of a humanizing globalization, of a socially fair sustainable development, which aims at the rational needs of each person and of all the citizens of the Earth. It follows a path of sustainable development in life quality.

However, while the field of solidarity 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.

The concept of sustainable development has to do with what Maurice Strong called “**ecodevelopment**” (during the 1972 UN Summit – Stockholm): a development for people’s well-living, a development that can fulfill the human needs without destroying the environment (to

grow and to preserve). Later, the concept was recreated by Ignacy Sachs in his book *Ecodevelopment: to grow without destroying* (SACHS, 1986). According to the Brundland Report, the concept of “sustainable development” is very simple; it is the development that “fulfills the 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 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, 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 dissatisfaction with the Summit poor results. I believe this means that, somehow, they hoped that the world’s richest countries would sacrifice 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 in order to develop according to the global economic system. However, we should understand that, being capitalist nations, the US, the EC, 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.



In order to be sustainable, development has 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 produced nowadays, or, maybe, it would be even worse (...). It is evident that recovering the environment depends on creating some 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 happily, in harmony with the environment, without destroying it. The theme is complex and cannot be seen separately.

**Solidarity economy** 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 characteristics, since it clearly differs from the capitalist private sector's. Capitalist management is linked to accumulation of capital and profit, while solidarity management is linked to the improvement in its associates' quality of life, solidarity ventures and its population well-living. These principles are opposing to the capitalist way of business management, which focus only on their leaders and owners.

Solidarity economy is strongly linked to the need of cultural development. It is a deep change of values and principles that guide human behavior 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 solidarity 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, knowledge and awareness. Every human being needs self-determination.

In order to change the way human beings produce and reproduce their existence it is necessary to change the logics that determines the human existence. It is not a matter of extinguishing wealth and the market in which wealth 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 solidarity 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 *Solidarity Economy Charter of Principles* is to associate **solidarity economy** with **sustainable development**. This association will bring a positive new meaning to sustainable development. Sustainable development is also an arena where many concepts and practices are constantly struggling.

# Education for sustainable living

Neither does the feeling of being part of the universe begin at an adult age, nor does it arise from logical thinking. Since the very beginning of our lives, we feel tied to something that is much greater than us. From childhood we feel deeply linked to the universe and we face it with a mixed feeling of respect and astonishment. And throughout our lives we look for answers to questions such as who we are, where we come from, where we are going to, in short, what the meaning of our existence is. This is an unceasing and endless search. Education may play a very important role in this process promoting the discussion of many fundamental philosophical issues, as well as dealing well with our knowledge, with our capacity to be fascinated with the universe.

Nowadays, we have become aware that the **meaning of our lives** is not separated from the meaning of the planet itself. Confronted with 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 our pollutant and consumption-oriented lifestyles, and the *Ecozoic* path, which is based on a new healthy relationship with the planet, recognizing that we are part of a natural world, that we should live in harmony with the universe, which is characterized by the current ecological concerns. We are confronted with a **choice**. This will define the future we shall have.

However, we cannot really understand these two paths as opposing ones. They can be orientated in parallel, and not opposed to each other. It was through the *technozoic* path that man was able to go to the moon and see the Earth. Technology and humanism are not opposed to each other. But, of course, there were excesses in our polluting and consumption-oriented lifestyles, impelled by technology and by an unsustainable economic paradigm. This is what has 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 on an ecological awareness, which depends on education. And that is the contribution that can be given by the Earth Pedagogy, the ecopedagogy. It is a pedagogy that intends to **promote the learning** of the “sense of things 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 solidarity pedagogy.

Francisco Gutiérrez and Cruz Prado’s research on ecopedagogy originated in the concern about the

sense of daily life. Training is linked to time/space, where relationships between human beings and the environment concretely take place, as well as the relationships among the human beings. They occur more in the level of sensitivity than in the level of awareness. The relationship man/woman-nature is also a relationship that occurs in a subconscious level. For this reason, we need an **ecotraining** 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: bachelardian inspiration, studies about the imaginary, the approaches given by transversality, by the studies of a subject taken by different disciplines and by the exchange among cultures, constructivism and the pedagogy of alternation.

We need an ecopedagogy and an ecotraining today; we need an **Earth Pedagogy**, because without this pedagogy, which is necessary for reeducating men/women, mainly Western men/women, 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 an **education for sustainable living**, Earth will continue to be considered only as a space of our technical-technological domain providing our sustenance, the object of researches, essays, and, at times, of our contemplation. But it will not be the space of life, of shelter, of “care” (Boff, 1999).

We do not learn to love the Earth only by reading books on the subject, or books on integral ecology. Our own experience is fundamental. To plant and to watch a tree or a flower growing, to walk on the streets of a city, to venture into a forest, to listen to the birds singing in sunny mornings, to watch how the wind sways the plants, to feel the warm sand of our beaches, to gaze at

the stars at night. There are many ways of enchantment and emotion when we face the wonders of nature. There is, of course, pollution and environmental destruction to remind us that we are able to destroy these wonders, and also to create our ecological awareness and to motivate us to act. To watch a small plant growing in the middle of a cemented wall. To gaze in awe at a sunset, to smell the leaf of a *pitanga* tree (Surinam cherry), or of a guava tree, orange tree, cypress, or eucalyptus... there are many ways of living in constant fusion with this generous planet and of sharing our lives with all those ones that inhabit or are parts of it. Life does have a meaning, but it only exists when related 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 say this only here on Earth. If he were in another planet of our solar system he could not say it. Only the Earth is nice to humankind. The rest of the planets are clearly hostile to man, though they came from the same cosmic dust. Are there 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.

## Ecopedagogy and education for sustainability

Within this context of evolution of ecology itself that the word “ecopedagogy” was born – and it is still very new. It was first called “pedagogy of sustainable development”, but today it has gone beyond that meaning. Ecopedagogy is developing as a **pedagogic movement**,

either as a **curriculum approach**.

Just as ecology, ecopedagogy may also be understood as a *social and political movement*. As any new movement, in process, in evolution, it is complex and it 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 may be considered a “trap” because it is anti-ecological, as stated by the theologian Leonardo Boff. But there is also an emancipating view. As any new movement, the field of ecology is also a field of ideological disputes.

Ecopedagogy implies a *curriculum reorientation*, so that some principles may be incorporated to it. These principles should, for example, orientate towards the conception of contents and elaboration of school material. Jean 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**, in which the concern is not only the preservation of nature (Natural Ecology) or 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 the economic, social and cultural structures. It is, therefore, linked to a *utopic project*: change current human, social, and

environmental relationships. That is where 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 during the **92 Global Forum**, in which one of the main topics was environmental education, that it was noticed the importance of a pedagogy of sustainable development or 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 **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.

While the planet's current dominant model of development leads to planetary unsustainability, the concept of sustainable development points to a planetary sustainability. And that 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:

- **ecological, environmental and demographic sustainability** (natural resources and ecosystems), which refers to the physical basis of the development

process and to the capacity of nature to tolerate human action, regarding its reproduction and the limits of population growth rates;

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

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

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 the 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 or to take part of it. There is an intelligibility crisis to which many false prophets offer magical solutions. A new spirituality emerges, and market-religions have taken good advantages of it. 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 a 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. Today the answer seems to come from strengthening 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 orientated public management. And here we find the important role played by education and training for active citizenship.

This is not only an ecological commitment, but an ethical-political one, supported by pedagogy. In other words, by a science of education and a well-defined social practice. In this sense, within these **social-historical movements**, building citizens who are capable of choosing their own quality indicators for the future, ecopedagogy is an entirely new and radically democratic pedagogy.

The 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 24<sup>th</sup> to 26<sup>th</sup>, 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 24<sup>th</sup> to 26<sup>th</sup>, 2000. From these meetings, some of this movement’s guiding **principles** emerged and were assembled in a “Ecopedagogy letter”. Some of them are: the planet as a single community; the Earth as a mother, an evolving living organism; 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: to involve, to communicate, to share, to question and to relate to each other; to go on with our daily lives giving more sense to them; to reeducate the way we look at things, our hearts, our senses, a culture of justipeace and sustainability.

**Traditional pedagogies** are anthropocentric. Ecopedagogy is based on a planetary awareness (genders, species, formal and nonformal 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**.

The ecopedagogy movement, emerging from 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”, a formal declaration, but the translation of an experienced process of critical participation of the “demand”, as said by Francisco Gutiérrez and Cruz Prado (1998).

Gaia, the same as life. Many people understand that it 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 do not have the opportunity of looking from the outside as the astronauts did, but we can try to do the same as the astronauts did in relation to 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 billion-year history. The first cell appeared 4 billion years ago. Since then, life’s evolutionary process has not ceased to become 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 see ourselves as members of an immense cosmos, so that we can incorporate new values based on solidarity, love, transcendence and spirituality to overcome the logic of competitiveness and capitalist accumulation, we must follow a difficult path. There is no such thing as a pacific change. And we will not

change the world only by praying or by desiring 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, to read the world, to understand it, also scientifically and not only emotionally, and above all, intervene in it in an organized way.

Rationalism must be condemned without condemning the use of reason. The rationalist logic led us to destroy nature, it has led us to death in the name of progress. But reason has also led us to discover **planetary**. The astronauts’ poetic and moving phrase “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, astronaut Neil Armstrong said: “a small step for 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, scientific and technological knowledge accumulated by humanity up to that moment. And this is huge. If we are able to build networks of networks within the planetary communication through the Internet nowadays, this is possible due to the use of imagination, intuition, emotion and reason by the gigantic and true human effort to discover ways of living better in this planet, of interacting with it. It is true that we did it the wrong way many times. We have considered ourselves “superior” beings, due to our rationality and we exploited nature without care or respect for it. We have not truly learned how to deal with nature with respect, emotion, sensitivity. In this field we are still crawling, but we are learning,

What we see today is the birth of the planetary citizen. We have not been able to imagine all the

consequences of this unique event yet. We do feel, 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.

## Education for a culture of peace and sustainability

Today we know that we can destroy life in the planet, UN's IPCC reports have been showing it. A global action is necessary, a movement as a great civilizing work done by everyone is vital for us to put this **other globalization** in practice, this "planetarization", based on 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 be decisive for its life or death, for 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, or able to answer to our future needs. We need other paradigms, based on a sustainable view of the planet Earth. Globalism is essentially unsustainable. First It fulfills the needs of the capital then it answers to 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 the various reflections of the last decades, specially within the ecological movement. It bases itself on a philosophical paradigm (Paulo Freire, Leonardo Boff, Sebastião Salgado, Boaventura de Sousa Santos, Edgar Morin, Milton Santos) which has emerged from the education that proposes a group of interdependent knowledge and values necessary to a **sustainable life**. We call **sustainable life** a lifestyle that harmonizes human environmental ecology by means of appropriate technologies, cooperation 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 the fulfillment of current needs and the fulfillment of the future generations' needs.

Among the pedagogical values and principles of the culture of sustainability and peace and future-oriented education, we can highlight:

- **To 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 vital to know how to think. And to think about our reality, not to think about what has already been thought about. Given that, we have to consider what to know how to learn is, as well as to know how to acquire knowledge, its methodologies. To educate so that people learn that there is only one home. To educate to transform at local and global levels. Some struggles are planetary.

Our survival in the planet is a common cause. To educate people not to be neglectful, indifferent or conniving with the destruction of life in the planet.

- **To educate one's feelings.** Human being is the only being who questions what the sense of life is. To 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.
- **To teach our identity with 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 individual and cosmic at the same time. To educate to be emotionally bound to Earth.
- **To educate for planetary awareness.** To understand that we are interdependent. The Earth is a single nation and we, people from the Earth, are its citizens. We do not need passports. Nowhere in the Earth we should be considered foreigners. To separate the world in first and third world means to divide the world in order to let it be ruled by the most powerful ones; this is the globalist division, between globalizers and globalized, which is opposite to the process of planetarization.
- **To educate for understanding.** To educate for human ethics and not for the market's instrumental ethics. To educate for communication. Not the communication that explores the other ones or that takes advantage of the others, but to better understand other people. The Intelligent are not the ones who knows how to solve problems (instrumental intelligence), but the ones who manifests a life project with solidarity. Because solidarity is not only a value nowadays. It is the condition of our survival.

- **To educate for voluntary simplicity and quietness.** Our lives need to be guided by new values: simplicity, austerity, quietness, peace, serenity, listening, living together, sharing discoveries and building together. We have to choose between a world that is more responsible in relation to the current dominant culture, a culture of war, and to start to act concretely, sharing, practicing sustainability in our daily lives, in our families, at work, at school, on the street. The simplicity we defend is not synonymous to simple-mindedness, and quietness is not culture of silence. Simplicity has to be voluntary, by willingly changing our consumption 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 others, which is different from giving speeches, ready-made ones, right from the start, dictating rules, imposing a unique speech. Quietness has to do with creating conditions for many narratives, the ones currently silenced, to come to life.

In 2007, I was fishing with my father, a 93-year-old agriculturalist, and he gave me a lesson of voluntary simplicity: "Son, you only have to possess the land that your arms can cultivate", stating that we can live well, and for much time, as he has been living, without a lot of goods, just with the area of land to cultivate our vegetables.

Robert Goodland (1997:293) points out 13 changes in **lifestyle** that promote environmental sustainability: walking, riding a bicycle and using public transportation are less harmful to the environment than using a car; using more blankets and sweaters causes less harm than



turning on the thermostat; opening the windows costs less than turning on the air-conditioning; insulation costs less than turning on the oven; recycling costs less than throwing things in 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 meat-based diets; agroforest land whose crops are sold to small communities is more productive than agrobusiness; preventing pollution and garbage is less harmful than treating them; intensive labor growth costs less, in terms of environment, than intensive capital increase; the majority of renewable resources is less harmful than coal and petroleum.

Of course, all that 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 to talk about it with people who have not had access to basic consumption yet. 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 **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, it shows us the mystery of the 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 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 universes within the whole natural world (De Moore, 2001). We find different life forms, life resources, life processes in it. And having this in mind we can change our **school program**. 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**. The Earth Charter explicitly talks about “sustainable life”. It has been giving a great contribution to the DEDS, to the culture of peace and sustainability. The Earth Charter has 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, each individual person, as a historical 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.

## The encounter of environmental education and education for sustainability

The **IV International Environmental Education Conference** took place from November 24<sup>th</sup> to November 28<sup>th</sup>, 2007, in the Center of Environmental Education in Ahmedabad (India), an institution founded in 1984, in the Gujarat State. The institution has 48 regional nuclei in all the states of the country. 1500 people from 97 countries participated in this conference. 30 working groups covered all the aspects of the general theme. It was built in a participative way with preparatory meetings in Durban (South Africa), in New York and Paris.

In Ahmedabad many references were made to **Tbilisi**. Thirty years before (1977) the I International Environmental Education Conference happened in Tbilisi (Georgia). Before Tbilisi the theme had already been risen in the United Nations Conference about Sustainable Development held in Stockholm (1972)

and in the Belgrade Conference (1975). Before Tbilisi, environmental education was much more known as education for conservation (conservationism). Tbilisi took a step ahead, consecrating the expression “environmental education” with the broader view that we have today. Tbilisi was a divisor in the issue of environmental education.

The 60's and the 70's were decades of questioning of formal education and environmental education seemed to be an alternative education to the teaching system. Reading Rousseau, Froebel, Dewey, Montessori, Steiner, and later, Freire again served as a basis for this area of knowledge and the so called “environmental education” pedagogical practice. This diversity of inspiration and practices has turned environmental education into a rich field of studies, researches and intervention projects.

Ten years later, there was the II International Environmental Education Conference in **Moscow** (1987). In this conference, environmental education was associated with the “environmental management” theme. The conference gave a lot of emphasis to the gender of education. “Gender and environment” also became a theme in the educational agenda. It also discussed education for development, for peace and for human rights. Right after there was RIO-92, where the *Environmental Education Treaty for the Sustainable Societies and the Global Responsibility* was approved by the Global Forum of the NGOs and the popular movements. RIO-92 gave much more emphasis to three interdependent dimensions of sustainable developments: *ecology, economy and society*.

It was in 1997, in Thessaloníki (Greece), in the III International Environmental Education Conference that the theme of education for sustainable development

was associated with environmental education for the first time, because Chapter 36 of Agenda 21, approved in RIO-92, was resumed. In 2002, at Rio+10, held in Johannesburg, environmental education was understood as a strategy for dealing with the environmental education questions, associated with the three dimensions of sustainable development defended in Rio.

From Tbilisi to Ahmedabad there was a great practical and theoretical advance. The first preoccupations with environment were much more focused on “preserving” nature, on “conserving” it. After that, the central theme became biodiversity. These themes are not in the past, but now, facing the global warming and the climatic crisis, the central theme of environmental education has become people’s **lifestyle**: if we do not change our way of producing and reproducing our existence, we may be putting in danger all the lives in our planet.

The **Ahmedabad Declaration** reflects this new context. In a way, it reminds us of the first version of the Earth Charter from RIO-92 Global Forum, a call to education for sustainable life. The debates were dominated by the presence of a central thought of Gandhi’s work<sup>7</sup>: “my life is my message”. Doubtless, we have to give examples, we also have to be the difference we defend. The Ahmedabad Declaration makes it clear:

The example we set is very important. Through our actions, we add substance and vigor to the quest for sustainable living.

7. According to Kartikeya V. Sarabhai (2007a:1), “the Gandhian philosophy of education is all about the development of Body, Mind and Spirit. His concept of education has impacted the framing of the objectives of the Indian education, emphasizing self-reliance and dignity of the individual which would form the basis of social relations characterized by non-violence within and across society.”

Using creativity and imagination we have to think a second time and change the values we live by, the choices we make, and the actions we take (...). We must reconsider our tools, methods and approaches, our politics and economics, our relationships and partnerships, and the very foundations and purpose of education and how it relates to the lives we lead.

Sustainability has to be seen from other points of view; not only of the point of view of the concept of environment.

In Ahmedabad **global warming** was discussed extensively, since it was still under the impact of the IPCC’s reports. There was some insistence on the fact that the risk is global, although the solutions are local, therefore, it is in environmental education that we can directly act. The climatic issue is not apart from the economic growth, and this problem is linked to the relationship among nations and to the demands of cooperation, equity and transparency. We came out from Ahmedabad with the firm conviction that we, educators, have to make every effort to change the global economy. The difference can come from education. The Ahmedabad Declaration reflected this intense debate about economy, development and way of life:

our vision is of a world in which our work and lifestyle contribute to the wealth of all the life in the planet. We believe that, through education, the human ways of life can maintain ecological integrity and social and economic justice in a sustainable way and respecting all kinds of life. Through education, we can learn to prevent and solve conflicts, to respect cultural diversity. Create a careful society and live in peace.

As the way of life was a dominant theme in Ahmedabad, the **sustainable consumption** had much relevance. There is no way of talking about education for sustainable development without talking about education

for sustainable consumption. The State of Gujarat, in India, where the IV International Environmental Education Conference was held, is essentially a vegetarian state. Nurture habits based on animal protein was discussed a lot.

It was noted that meat consuming is the major polluter of the planet. It is necessary something about 16 billion animals to feed meat consumers these days. In a five-year period the amount of meat consumed has doubled. It was also noted that the cattle raising frontier is the principal factor of deforestation, as well as the fact that one kilogram of meat needs 15 thousand liters of water to be produced. While 14% of the emissions of polluting gases of the greenhouse effect are provided by transportation, 18% of these same emissions come from animals.

In addition to that, the massacre of animals involves violent acts opposite to the compromise that we may have with life. Every life is sacred. What we eat becomes ourselves, in our body, it belongs to us. What we eat reflects our posture before life, our ideal of life and of the world we want to build. Our basic concept should be compassion for all the community of life.

We concluded that the nurture model of the rich countries cannot be generalized by the simple fact that we would need one more planet (we would need 2,6 planets) to be able to feed everyone. The Earth surface necessary to produce animal protein for all would be 15 times larger than the space necessary to produce vegetable protein. Besides the fact that animal protein is the cause of numerous illnesses, including cancer, diabetes and vascular illness. That's why the agricultural model is an issue. It is necessary to create another model, a more sustainable one, both for people's health and for

the protection of the environment.

We must eat to survive, but, differently from the animals, we do not do that by pure instinct. We feel pleasure in eating and we are able to make choices. The act of eating is transformed into a very significant act by us. It is not a mere satisfaction of an instinctive necessity. Eating is also a cultural act. Society transformed that into a social act. There is a huge variety of food and there is food enough for all human beings on the Earth. What is missing is an equal distribution.

The best choice of food is that produced locally and the worst is the one that comes packed, from far away, and that produces much more garbage (the industrialized products) and has more social and environmental costs. It is all about knowing how the products that we eat were processed. To know the entire food production system.

In November 27, 2007, IPCC (International Panel of Climate Change) has launched his fourth report, a synthesis for policy makers, in order to take the necessary decisions to face global warming. This document restated what it had asserted in the last report, that the Industrial Revolution, that started in the middle of the XVIII century, was a determinant factor in the increase of CO<sub>2</sub> concentration in the atmosphere, causing the greenhouse effect and the increase of the planet temperature. This tendency will continue for many centuries, even if humanity is able to control the CO<sub>2</sub> emission and balance gas concentration of the greenhouse effect. IPCC affirms, textually, "the rising of the sea level and the raise of the warming are inevitable".

Considering that we will have to live, inevitably, with the global warming, but that we have to diminish its harmful effects; considering that our lifestyle and specially our food have considerable impact on the

greenhouse effect; considering that ESD and specially education for sustainable consumption are fundamental parts of education, and may have a positive impact in order to diminish CO<sub>2</sub> emission; as an educator I proposed that we gather and engage the biggest possible number of schools and students towards a change in their lifestyle to create habits of a sustainable life, particularly through sustainable ecological food. We have not used the organizing and transformative potential of schools yet. More than one billion children and youth study in the world today and a change in their lifestyle would make a big difference.

From Tbilisi to Ahmedabad many changes took place: in the way of thinking about environmental education, that is more centered in learning now, in the new impulse to partnerships with the civil society, in the very concept of environment, incorporating the culture and not only nature and pollution. In spite of the pledge of millions of educators, the current situation of the planet got worse, demanding a still bigger effort.

Therefore, the **recommendations** of Ahmedabad highlighted the necessity of a “new sense of urgency” and of a “new paradigm”:

we no longer need recommendations for incremental change; we need recommendations that help alter our economic and production systems and our ways of living radically. We need an educational framework that not only follows such radical changes, but can take the lead. This requires a paradigm shift. The roots of our present worldwide education paradigm can be traced to the Enlightenment era, which gave birth to science as we know it today and influenced all areas of human thought, activity and institutions. This Enlightenment paradigm is based on the idea that progress is rooted in science and reason, and that science and reason can unravel the mysteries of nature. It encourages us to

‘know’ nature in order to use, transform and consume it for our insatiable needs.

We need to redefine the notion of progress to be happy and to live in the sustainable form and in peace. Because, as Gandhi used to say, “there is enough in the world for everyone’s need, but not for each one’s greed”.

# Sustainability and economic model

As we have seen, we have been consuming beyond the Earth's capacity of renewal. In order to feed the whole population of the planet with dignity, fulfilling their needs according to the capitalism's consumption standards, 3 planets would be needed. Nowadays, people who are the most educated ones 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 supposed to be of good quality) are the countries that have (in their past and present history) habits and values that are deeply harmful to life in the planet<sup>8</sup>. It is important to understand that environmental degradation is basically the result of an economic policy conceived and put into

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8. "Statistics show that although people with a greater income have a long and more advanced education, their lifestyles are consuming most of the world's limited resources" (Lindberg, 2007:38).

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 the world are not mentioned.

Something is happening with our **educational systems**. The education that has been developing in the world up to now can be considered more as *a 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 sustainable development has to take advantage of the contradictions in the current educational systems on its behalf 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 emancipating one, and without changing the habits within these spaces. In order that educational systems can incorporate the education for sustainable development in their pedagogical process, they need, to be educated to and by sustainability first.

The education for sustainable development is, in its essence, inter and transdiscipline-oriented as well as intersector-oriented. Education cannot be understood as something based on sectors. A result in education can never rely only on pedagogical measures. The DEDS reminds us of other campaigns and initiatives, such as the fight against HIV, the Decade of Literacy, the objectives

of “Education for All” and the Goals of the Millennium. The synergy of education for sustainable development as a way to fight **HIV/SIDA** is in the agenda when we talk about education for a healthy life. In this field, work has to start very early, within the formal system and in non-formal health programs, The access to information on the theme is vital, specially for youngsters. On the other hand, **Dakar Action Plan** has 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 the reaction to HIV-positive students in schools, another one is to avoid infection through school education itself. We all know that infection causes serious emotional and economic changes in the quality of life, within families, among friends and communities.

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

To educate for sustainable development is also to educate to fight illiteracy in the world. That is where the synergy with the **Decade of Literacy lies** (2003-2013). Bringing illiteracy to an end starts by putting all children in schools. The Decade of Literacy document defends the right to a high-quality public education, giving special attention to gender issues/differences and

social inclusion. It is important that coordination of different United Nations' Decades at a national level is done by local governments in partnership with the civil society. The education delay is huge among developing countries and the State will not be able to overcome this delay by itself.

The DEDS document supports that there is not a unique or universal model of ESD. 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 starts from reading the world, from respecting every person's context, and which offers an emancipating and dialogical methodology. In Latin America, for example, the rich tradition in **environmental education** should be considered and not be replaced. 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 sustainable development are both dimensions of **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 the exploitation of work is essentially unsustainable. Poverty and hunger are also **unsustainable**. Wars and industrial military complexes that support them are unsustainable. The current militarism, the main cause of the environmental disaster we are facing, is also unsustainable, as Peace Nobel Prize winner and current president of Costa Rica, Oscar Arias, said in the opening ceremony of the "Latin-American meeting 'Building an Education for Sustainable Development in Latin America'" (San Jose, October 31<sup>st</sup>, 2006). Militarism both puts the world

population in danger, and it causes serious damages to the environment. Even in times of peace, **militarism** increases the emission of carbon dioxide more than any other human activity. The world's **industrial military complex** spends billions of dollars every year to buy weapons and to maintain a military contingent, and it deprives 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 the human rights. We all pay a very high price to maintain this capitalist industrial military complex. The army is the most pollutant factor in the world nowadays. Our priorities are highly mistaken.

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

- *world social crisis*: cruel and pitiless poverty and exclusion of members of our own species;
- *drinking water crisis*: many children die from diseases caused by the lack or treatment of water and sewage. Drinking water is becoming scarce;
- *food crisis*, which will come attached to water crisis;
- *greenhouse effect crisis* (climate change). If this crisis is not overcome, there will be nothing else to share;
- *energy crisis*: how long will we still keep using non-renewable fuels? Petroleum is currently the planet's blood.

There is no doubt that education for sustainable development is a great opportunity to environmental education, but, in order that it takes place, we must understand this development from a more holistic



point of view, not only as plain and simple vegetative growth. We need an alter worldly 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 sustainable development is to educate for a sustainable lifestyle, in contrast with educating for a capitalist model of development.

In the Decade's document, Unesco indicates a **group of themes** that could give more consistency to the practice of this concept and can help to transform the educational systems, such as poverty, rural development, health, consumption, environmental conservation and protection, gender equality, human rights, cultural diversity. Both environmental education and education for 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 the real world is still the DEDS's main challenge. It is a matter of knowing how to implement this concept in programs for formal and non-formal education, involving governments, communities, the private sector, trade unions, the civil society, the media, international agencies etc.

Education is fundamental to achieve sustainability, to create a more sustainable future. All **subjects** and **teachers** can contribute to education for sustainability: Mathematics can work with data that refer to pollution of the environment, the poverty growth; Linguistics can analyze the role played by the means of communication and advertisement in the consumption habits; History and Social Sciences can discuss ethnic issues and gender inequality. Besides promoting diffusion, learning and cultural changes through education for sustainable

development, Unesco can strengthen evaluation and monitoring tools by making annual evaluations, diffusing successful experiences etc. the civil society is a strong ally to this engagement. After two years, most governments of the UN member countries have not noticed the importance of the DEDS yet. More engagement is expected from them for the forthcoming years.

## The great challenges of the Decade

Environmental problems have been revealed in the last years. Al Gore's movie about global warming, *An inconvenient truth*<sup>9</sup>, has touched the whole world and even won an Oscar, by even showing how the *Kyoto Protocol* has been revealing itself completely inefficient in fighting against problems caused by the greenhouse effect<sup>10</sup>. Its goal of reducing the emissions of CO<sub>2</sub> in 5.2% – based on 1999 numbers – until 2012 will not avoid the consequences of the 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 it won't be at all able to avoid the increasing and evident global warming, specially if the

9. Al Gore's movie is not about values and education. It is about technical recommendations. It does not include education as a part of the strategy. On this issue we could say he was "inconvenient", but, above all, he was limited concerning the strategies to confront global warming.

10. In December 2007 the UN Conference on Climate Changes, held in Bali, Indonesia, had overcome the initial pessimism. That happened because, in the last moment, the USA agreed with the commitment to reduce gas emission after 2012. On the other side, China, India, Brazil and South Africa also agreed on taking measures, in a volunteer manner, to restrict the increase of emissions.



industrialized countries' "right to pollute" in exchange of buying carbon from poor countries is maintained. At the end, the "right to pollute" also became a commodity.

— *Can the CO<sub>2</sub> market reduce deforestation?*

— Researchers from IPAM (Institute of Environmental Research of the Amazon River Region) and the Woods Hole Research Center, from the United States, estimate the cost of this reduction is about US\$ 10 per ton of carbon. The indigenous people and farmers could maintain their forests, thus compensating the emission of carbon from other pollutant activities. Countries as the United Kingdom have been establishing internal official aims to lower gas emissions that cause the greenhouse effect at a long term. However, some people think **carbon credits** have become entrepreneurs' marketing. The commercialization of credits has become a *commodity* nowadays. On the other hand, the quantity of carbon that is negotiated today became despicable when compared to the quantity of carbon emitted by fossil fuels. The problem is how to reduce the emissions. We have to resume the way to fight global heating through the so-called three "Rs": reduce, recycle and reuse.

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 diarrheal, heart and respiratory diseases in developing countries. These illnesses will increase the number of deaths in more vulnerable populations. The impacts of global warming will be even more severe in the poorest regions:

in the middle of this century, the rise of temperature associated with the decrease of water in the soil will make tropical forests become savannas (...) and it will cause the desertification of

rural areas. The productivity of some important crops will decrease and cattle breeding will decline. There is a big risk to biodiversity because of the loss of endangered species in tropical forests (Miguel, 2007:7).

The forecasts shown in the IPCC report are alarming: millions of people exposed to an increasing watery stress, droughts, floods and storms, endangered coral reefs, ecosystem alteration, negative impacts on small farmers and fishermen's productive activities, tendency to decrease in cereal production at low latitudes.

The Decade of Education for Sustainable Development does not ignore this context.

The greatest challenge of the Decade is still its implementation, how to transform its declaration of principles into concrete demands. The speech of the proclamation is descriptive, while the speech 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 has to be part of 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 speech, but from daily life problems. The **process** has to make sense to the participants. This way, the DEEDS is a true **call**. It is not a program, but a challenge, a philosophy of life for a sustainable existence.

With the Decade, themes that are related to education in general, environmental education, and specially, the issue of quality of education as a subjective public

right for everybody were included in the global agenda. Education has an important, but limited role compared with the changes that are needed in the model of economic development. Education is not itself able to revert pollution in the atmosphere, 150 years of gas emission that generated the greenhouse effect. But it can certainly 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 is a long-term inter-sector process, therefore, it represents a privileged space for **integrations**, one of the biggest objectives of the Decade. And it looks at herself hopefully, hope for the 781 million illiterate people in the world. Overcoming illiteracy is a condition for ESD.

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

- Rethink **paradigms**: dialogue of knowledge and ignorance (what do I ignore?, what don't I know?, what don't I know and I should know?), dialogue of civilizations.
- Reconstruction of **ethics** not as part of philosophy or religion, but ethics of life.
- An **theological view** of education: what do we educate for? Refounding educational processes based on sustainability; If education does not aim at stimulating critical thinking, it will become training sooner or later.
- **Environmental education** is a social movement and a field of knowledge. Studies and researches are

vital in this field in order to have ESD. 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 have 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 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 conceived as an object anymore, but as a evolving living creature that shares with human beings the same fate. That is why environmental knowledge is an ethical-political one. It is not only a matter of giving humankind the possibility of being aware of the ecological principles in defense of nature, but it 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 the current educational systems**, which are still based on a predatory view of the world. Environmental education and education for sustainable development are fundamental axes to these reforms when they are associated to human rights, gender rights, democratic rights, peace and sustainability. That is the reason 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 current education is to follow the educational model that has been destroying the planet since the 19<sup>th</sup> century.

In 2007, we celebrated the 20<sup>th</sup> anniversary of the **Brundtland Report** (1987), which is a landmark in the sustainable development issue. This Report stated that it 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, require 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 dependence and not reciprocity.

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

It is widely insisted that we have to have a "common view" when, in fact, we have to build this view from **practices**, from good practices. We do not have to agree with each other 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.

## A call for transforming action

Based on a Greenpeace report, the journalist Antonio Martins 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, aeolic, 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 have to increase renewable sources so that we can reach at least 50% of use of clean energy, as soon as possible<sup>11</sup>.

The **energetic paradigm** that has contributed to modern industrial development is based on non-

11. Despite the current promotion of a global **ethanol** market, as a utopian replacement for oil, ethanol is not the fuel of the future. Agro-fuels are not clean and green, they result in deforestation and cause hunger. The costs of ethanol are: water pollution, monoculture, land degradation, genetic contamination, smallholder dispossession, exploited labor, poverty and food insecurity. The *Brazilian Forum of NGOs and Social Movements for the Environment and Development* inform that the agro-industries in Brazil promoted illegal deforestation for new sugar cane, soy or eucalyptus planting; expulsion of small farmers and land concentration; pollution of soil, rivers, and subterranean waters from deforestation and chemicals used in monocultures; "green deserts" of poverty (for every 100 hectares of eucalyptus planting there are 2 poorly-paid jobs, for sugar cane planting, 10 poorly-paid jobs).

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 the 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 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 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 DEEDS's main goal is to influence on curricular change by introducing the theme sustainability. Some countries have already started. In order to promote this, 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 from the school and outside it 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 an **eco-school**.

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

We need to reorientate existent educational programs in the sense of promoting knowledge, competences and abilities, principles, values and attitudes related to sustainability. A concrete strategy to start this debate inside our schools is to have and **eco-audit** in order to discover where exactly we have been unsustainable. It is very simple: we only have to trace everything we do and to compare these data with the principles of sustainability. It is not hard to identify, in our curriculum, where we are and where we are not integrating 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 are more

meaningful than words) and to know plants and animals' needs, their *habitat*, how to reduce, reuse and recycle materials that were used, how to keep ecosystems linked to forests and water. In a more advanced level, we need to discuss biodiversity, environmental conservation, energy alternatives and global warming. At *university* level, besides diffusing environmental information, we need to produce new knowledge and to make research that aim at looking for a new development paradigm.

To educate for sustainable development is to educate for the use of renewable sources of energy, to save energy and rethink 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. Each person's responsibility must be attached to the global fight to transform capitalism. We can have different attitudes towards food, transportation, 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 to reach big-scale production. Changing the system is what matters. For this reason, we must continue to make small changes that, on being 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 solidarity education and 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 into practice by economic liberalism. ESD is incompatible with the current state of aggressive diffusion and planetary promotion spread by the means of communication of a unsustainable lifestyle, of an **irresponsible consumption**, promoted by non-solidarity capitalism. The success of capitalist competitiveness represents 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, an education for and by planetary citizenship, for an inter-trans-cultural and inter-trans-discipline dialogue, for a culture of peace and sustainability that promotes the end of poverty, of illiteracy in the world, of political domination and economic exploitation, finally, an education for emancipation.

## Final considerations

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The ecological problems we face nowadays are not as much related to the sea, forests and air, as they are to the problems of big cities. Such problems are 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 make a few more considerations, thinking about the education of the future, an education for another possible world (Gadotti, 2007).

An 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 21<sup>st</sup> 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.

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

To 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 to deny its form of hierarchy in a structure of orders and subordination; it is educating to articulate different ways of showing non-conformity and denial of capitalist social relations today, it is educating to radically change our way of producing and reproducing our existence in the planet; it is, therefore, an **education for sustainability**.

To educate for another possible world is to **educate for a life in a network**, being capable of communicating and acting in group, to educate to create cooperative ways of production and reproduction of the human existence, to educate for self-determination. Diversity is humanity's main characteristic. 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 oppose another single thought. To educate for another possible world is not to educate for one single possible world, but to educate for other possible worlds. Modern

"technicist" education has lost its humanity and the capacity to be open to the other. To educate for another possible world is to educate to rehumanize education itself.

We were not educated to have a planetary awareness, but to have an awareness of the 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/planetary era. To educate to another possible world demands from educators a commitment to make education non-mercantile and an ethical-political-pedagogical approach of paying attention to the universe of which we are all part. Educators have to address not only the students, but also the inhabitants of the planet, to consider all of them as citizens and sons of the same "Motherland" (O'Sullivan, 1999; Boff, 1995).

The Earth is our first educator. To 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 educating for **planetary awareness**. To educate for a **planetary conscience**, for pertaining to a planetary human community, for deeply feeling the universe.

To educate for planetaryization 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.



To educate for another possible world is to educate for having a sustainable relationship with all Earth's beings, humans or not.

To educate for living in the cosmos – cosmological education – broadening our comprehension of the Earth and the universe. It is educating 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, cannot 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 is a crisis of civilization paradigms. To educate for another possible world needs a new paradigm, a holistic one.

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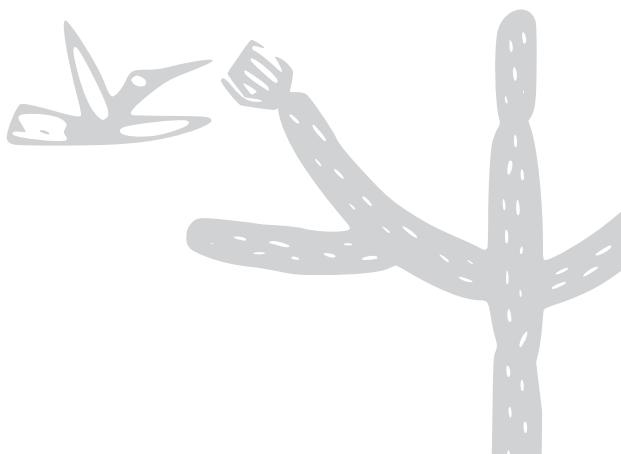


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**Moacir Gadotti**, doctor in Educational Sciences by the University of Geneva, is professor of Philosophy of Education at the University of São Paulo and Director of Paulo Freire Institute, and author of many widely-read and translated books, among others: *History of Pedagogical Ideas* (1993), *Pedagogy of Praxis* (1994), *Pedagogy of the Earth* (2001), *The Masters of Rousseau* (2004), and *To Educate for Another Possible World* (2007), where he develops an educational proposal, oriented by the paradigm of the sustainability. Moacir Gadotti took part in the Global Forum (Rio-92), in which 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*. He is a member of the Reference Group of the United Nations' Decade of Education for Sustainable Development (2005-2014).





Sustainability has a great educational potential which has not yet been sufficiently explored in formal and non formal education. Sustainability is the dream of leading a good life with a dynamic balance among other people and nature. It involves respecting life, taking care of the planet and the living community as a whole. It opposes itself to everything that suggests selfishness and injustice.

*Education for sustainability* means to educate for a sustainable life. Sustainability is closely related to planetarity, which means, to see the Earth as a living superorganism in constant evolution and as a simple community. This paradigm allows us to better understand the problems of desertification, of deforestation and global warming that affect humans and non-humans nowadays.



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