

EDUCATION FOR SUSTAINABILITY

A critical contribution to the Decade of Education for Sustainable Development

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

ABSTRACT - In this text, the author presents and questions the theme education for sustainable development and its relationship with the globalization context, with the sustainable lifestyle and the construction of a planetary civilization. He also presents the Decade of Education for Sustainable Development as a great opportunity for educational systems and to educate for a sustainable living. He detach that we need much more to educate for another possible world. Finally, he asks what do we really need to learn in order to save the planet.

Fist of all I would like to say that sustainability represents 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 we have hope not because he was persistent, but for “historical and existential imperative” as he affirm in his *book Pedagogy of hope* (Freire, 1992). Based on the epigraph of this text, we can sustain that, todays, sustainability, also represents a hope and as the hope, sustainability became a historical e existential imperative. As Paulo Freire has said in his last book, “it is urgent that we take upon ourselves the duty of fighting for fundamental ethic principles, such as respect for the life of human beings, the life of other animals, of birds, rivers and forests. I do not believe in lovingness between men and women, among human beings, if we are not capable of loving the world. Ecology gains a fundamental importance in the end of this century. It has to be present in any educational practices that are radical, critical and liberator (...). In this sense, it seems to me a distressful contradiction to have a progressive and revolutionary speech and have, at the same time, a life-denying practice. A practice that pollutes the sea, the water, fields and that devastates forests, destroys trees, threatens animals and birds” (Freire: 2000:66-67).

Paulo Freire was the author of a grand book: *Pedagogy of the Oppressed*. In the present time we consider Earth as an oppressed as well, the biggest of all. Therefore, we also need a pedagogy of this oppressed, which is the Earth. We need a *Pedagogy of the Earth* (Gadotti, 2001) as a great chapter of the *Pedagogy of the Oppressed*; so we need an ecopedagogy (Gutiérrez, 1989). Ecopedagogy is a pedagogy focused in life: it takes into account people, cultures, lifestyles and the respect towards identity and diversity. It acknowledges human beings as creatures that are always in movement, as “incomplete and unfinished” beings, according to Paulo Freire (1997), which are constantly shaping itself, learning, interacting with others and with the world. The current

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dominant pedagogy is centered in tradition, in what is static, in what generates humiliation for the learner due to the way he/she is evaluated. In ecopedagogy, the educator should welcome the student. Sheltering, caring are the basis for education for sustainability.

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

- First of all because "to educate for the sustainable development" (ESD) seems to me as a limited concept and also as a way to limit education. It doesn't have the necessary scope to constitute a organizing conception of education. The sustainability concept is paradigmatic, as Leonardo Boff has been sustaining in his works. Second, because 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 many others, although without ignoring its limitations. This is what allow us 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 may show critically the differences without necessarily open to usefulness and unnecessary demobilizations contradictions.

1. A great opportunity for educational systems

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

In 2006, Unesco has created a *Reference Group* in order to give conceptual and strategical support to the Decade's Secretariat. Unesco's Secretariat for the Decade, based on studies and researches on ESD, is producing educational materials in order to offer necessary training 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. Many regions, such as Europe, Asian-Pacific region, Latin America and the Caribbean, already have their own strategy to implement the Decade. According to Aline Bory-Adams, Unesco 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 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).

- Which are the goals of the DEEDS?

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

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

- a) to facilitate networks and bonds among activists that defend ESD;
- b) to improve ESD teaching and learning;
- c) help countries to adopt the Goals of the Millenium by means of ESD;
- d) offer countries new opportunities to adopt ESD in their efforts of educational renewal..

Stimulating changes in attitudes and behavior is a simple idea. A tool for mobilization, diffusion and information that strongly depends on partnerships, especially with NGOs and Social

Movements. One of the goals of the Decade is to “facilitate bonds and networks, exchanges and interaction among social actors for Education for Sustainable Development (ESD), which means to facilitate contact, the creation of networks exchange and interaction among parties involved in ESD.

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

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

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

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

I agree with the United Nations’ document. However, I wish he had given a bigger importance to the works that are being developed by NGOs and Social Movements. We are, essentially, a society of *networks* and *movements*. 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 it was more deeply associated to these 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 their impact on society and environment). These are the key areas of ESD.

Regarding the impact of the concept of sustainability at the formal education, we can considers two levels:

a) The *legal level*: educational reforms (curriculum, contents). The law, the rule can introduce new behaviors, but, we need an other level.

b) The level of the *commitment of persons*, engaging her endorsement (for a sustainable lifestyle), by a virotic process, biological, intuitive (not mechanic or rational process), possible by different motivations (compassion, love, fear, anger, etc.).

ESD, despite his ambiguity, is a *positive vision* of a humane future, a consensus supported by a broad majority. With the global warming, the Decade is very urgent, and can contribute to the understanding of the current crises (water, food, energy, etc).

ESD implies to *change the system*, implies life respect, care vis-a-vis the planet and care with 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 of future-oriented of educational system. However, 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 make part of the problem, not just part of the solution.

I believe that sustainability is a powerful concept, an *opportunity* for education to renew olds systems, funded in 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 need to adapt this concept to different realities. There are different application of this concept, depending of the context: we have *different comprehension* of this concept, for example, in Europe, in Africa, in Irak, 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 need to stress the idea that don't exist an universal model of ESD. Therefore, we can have *different approaches* of EDS, different pedagogies and methods to translate this common vision at local level.

ESD is a *integrative* (integrate education, health, jobs, sciences, etc) and *interactive* concept. We need, for example, to establish a dialog between ESD and *Education For All* strategies. EFA have made a long way (Jomtien, Dakar...). ESD is beginning. We need to create synergies between this two processes and use the concept of sustainability to implement a new quality of formal education, a socio-environmental education. In this moment, the rich countries have more attention to ESD and the poor countries, due to his reality, have more attention to EFA (WADE, 2007).

What is the different of emphasis between this tow movements?

EFA refers to basic education, formal system, to basic learning needs, to schools, literacy, to the right of education. Basically, EFA involve just the Ministry of Education. By contrary, ESD movement go beyond the basic education and formal education. He is also non-formal, and involve the lifelong learning education (social level, systems and organizations). However, ESD, serve to reorient curricula. It is more emancipatory and involve other Ministries, like Environment, Agriculture, etc.

2. Education for a sustainable living

Although having been used for the first time only in 1987, in the Brundtland Report, the concept of sustainable development has important *historical precedings*. It takes us back to the 1960's. In 1968, the *Club of Rome* was created. The Club is a group of economists and scientists who warned humanity about the rhythm of "growth" (Meadows, 1972), that could take us to a threshold situation that, if trespassed, would put the survival of the species at risk. This concept was also present in 1982, during the *Stockholm Conference* (Sweden), in which the "Declaration on the Environment" demonstrated its concern with the use of natural resources. Two years later (1974), the environmentalist Lester Brown created the organization *Worldwatch Institute* in order to research on the theme and whose results were published ten years later (1984) in the *State of The World Report*. This document contained very preoccupying data on the environmental impact of the dominant economic model.

The Stockholm Conference was also concerned with poverty and income distribution, but its main focus was on *pollution* caused by human activities, specially by insdustrial development,

that were degrading the environment. Rich countries did recognize they were the ones that most polluted the Earth, but did not discuss how to avoid this. They said it was the price we had to pay in the name of “progress”.

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

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

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

In the Rio+10 Conference, organized by the UN in Joannesburg, South Africa, in 2002, the failure of the measures adopted years before was evident. The world started to know that the ecological awareness that followed the 1992 Earth Summit was not enough to avoid the disaster later confirmed (2006 and 2007) by the *Intergovernmental Panel on Climate Change* (IPCC). Global warming is not considered 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 to produce and reproduce our existence, or we die. Data given by the IPCC show that the main cause of global warming is human action. Until the end of this century, the planet's temperature may rise from 1,8 to 4 degrees, which will bring serious consequences for all Earth's ecosystems.

The UN's report has showed that the growth rate of greenhouse gases emission is due to the energy sector, which has increased its emissions in 145% in the last 15 years; the transport sector's emission has increased in 120%; the industrial sector's in 65% and the forest sector' in 40%, due to deforestation. We can all contribute to reduce the emission of greenhouse gases by changing our *lifestyle*, using less energy (turning off the lights, using less air-conditioning...), walking, using public transport, working more at home (using the Internet), etc. We need to look inside ourselves and to our standards of unsustainable consumption. IPCC reports warn us to the fact that we have already gone beyond the limit. Now we have to create strategies to survive, by first preparing ourselves to changes and, second, by reducing the negative effects of global warming by reforesting the planet, for example, and not repeating what was done in the past.

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

- In order to understand what is education for a sustainable development, it is necessary to understand what is sustainable development. As we have seen, the most simple definition of sustainable development can be found in the report *Our Common Future*: “sustainable development is a transformation process in which the use of natural resources, the direction given to investments, the orientation given to technological development and institutional change get in harmony with each other and reinforce the present and future potential, in order to fulfill human needs and aspirations”. As we can see, it is a very wide concept. The report *Our Common Future*

does not give details, what caused ambiguity, leaving the concept open to creativity and ideological disputes.

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

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

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

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

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

It is not enough to educate for a sustainable development. We need to educate for a sustainable life. We call *sustainable life* a lifestyle that harmonizes human environmental ecology by means of appropriating technologies, co-operation economies and individual effort. It is an intentional lifestyle whose characteristics are personal responsibility, commitment to other people and a spiritual life. A sustainable lifestyle is related to ethics in managing the environment and economy, trying to keep balance between fulfilling current needs and guaranteeing the fulfillment of the needs of future generations.

3. Ahmedabad: the first encounter of environmental education with education for sustainability

The *IV International Environmental Education Conference*, was accomplished from the 24th till the 28th of November, 2007, in the Center of Environmental Education in Ahmedabad (India), an institution founded in 1984, in the Gujarat State, that counts with 48 regional nucleus in all the states of the country. Participated on this conference 1200 people. 30 working groups covered all the aspects of the general theme. It was built in a participative form with preparatory meetings in Durban, South Africa, in New York and Paris.

In Ahmedabad many references were done to *Tbilisi*. Thirty years before (1977), in Tbilisi (Georgia), had been accomplished the I International Environmental Education Conference. Before Tbilisi the theme had already been rise in the United Nations Conference about Sustainable development held in Stockholm (1972) and in the Belgrade Conference (1975). Until Tbilisi,

environmental education was much more known as education for conservation (conservationism). Tbilisi had given a step ahead, consecrating the expression “environmental education”, in the broader vision that we have today. Tbilisi became a divisor in the question of environmental education.

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

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

It was in *Thessaloniki* (Greece), in 1997, the III International Environmental Education Conference that the theme of education for the sustainable development appeared, for the first time, associated to environmental education, in function of the recover to Chapter 36 of the Agenda 21, approved in RIO-92. In 2002, at Rio+10, held in Johannesburg, environmental education was much more understood as a strategy for governance of the environmental education questions, associated to three dimensions of sustainable development defended in Rio.

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

The *Ahmedabad Declaration* reflects this new context. In a way, it remembers a little the first version of Earth Charter from the RIO-92 Global Forum, a call to education for a sustainable life. The debates were dominated for the presence of a central thought of Gandhi's work: “my life is my message”. Doubtless, we need to give examples, we also need to be the difference we pray to be. The Declaration of Ahmedabad makes it clear: “our example is very important. By our actions, we add substance and dynamism to the search for a *sustainable life*. With creativity and imagination we ought to rethink and change our values, our choices and actions. We need to reconsider our instruments, methods, and prospectives, our politics and our economy, our relationships and partnerships, as well as the own principles and objectives of education and how it relates with our kind of life”.

In Ahmedabad it was a lot discussed the theme of *global warming*, still under the impact of the IPCC's reports. It was instituted that, in what it refers to this theme, 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 economical growth, and this one's question is linked to the relationship among the nations and to the demands of cooperation, equity and transparency. We came out from Ahmedabad with the firm conviction that is needed to do all possible efforts, as educators, to change global economy. The difference can be made from education. The Declaration of Ahmedabad reflected this intense debate about the economy, development and way of life: “our vision is of a world in which our work and lifestyle contributes for the wealth of all life in the planet. We believe that through educations, the human ways of life can maintain the ecological integrity, social and economic justice, in a sustainable way and respecting all kinds of life. Through education, we can learn to prevent and solve conflicts, respect cultural diversity. Create a careful society and live in peace”.

Being, the way of life, a dominant theme in Ahmedabad, the *sustainable consumption* has

had much relevance. There are no way of talking about education for the sustainable development without talking about the education for the sustainable consumption. The State of Gujarat, in India, where was held the IV International Environmental Education Conference, is essentially a vegetarian state. It has been a lot discussed the nurture habits based on animal protein.

It was reminded that the meat consume is the major polluter of the planet. It is necessary something about 16 billion animals to feed the consumers of meat these days. In a period of five years the amount of meat consumed has doubled. It was also reminded that the farming and 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 emission of pollute gases from the greenhouse effect is provided from transport in the planet, 18% of these same emissions come from the animals.

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

We concluded that the nurture model of 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 needed Earth surface to produce animal protein for all would be 15 times larger than the space necessary to produce vegetable protein. Added to the fact that animal protein is the cause of numerous illness, among then: cancer, diabetes, and vascular illness. Due to all this, the agricultural model is cause. It is needed to invent another model, one more sustainable, in what refers to people's health as much as the issue of protection of environment.

We must eat to survive, but, differently from the animals we don't do that by pure instinct. We feel pleasure on eating and we are able to make choices. The act of eating is transformed by us into a very significant act. It is not a mere satisfaction of a instinctive necessity. Eating is also a cultural act. Society transformed that into a social act. There is a huge variety of aliments and some of these victuals are sufficient for all human beings on Earth. There is a lack of equal distribution.

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

In November 27, 2007, IPCC (International Panel of Climate Change), has launched his fourth Report, a synthesis for policymakers, in order to take the necessary decisions to face the *global warming*. This document reaffirmed what it had sustained in the last Report, that Industrial Revolution, started in the middle of the XVIII Century, is a determinant factor in the increase of CO₂ concentration in the atmosphere, which causes the greenhouse effect and the growth of temperature of the planet. This tendency shall continue for many centuries, even if humanity will be able to control the CO₂ emission and balance gases concentration of greenhouse effect. IPCC affirms, textually, "the growth of the sea level and the warming are inevitable".

Considering that we will have to live, inevitably, with the global warming, but that we have to diminish its harm effects; considering that our life style and, particularly, our food has considerable impact on the greenhouse effect; considering that ESD and, particularly, education for sustainable consumption is a fundamental part of this education, and may have a positive impact in order to diminish CO₂ emission; as an educator, I proposed that we gather and engage the biggest number as possible of schools and students towards a change in their life style to create habits of a sustainable life, particularly trough sustainable ecological food. We still have not used the organizative and transformative potential of schools. More than one billion children and youth study today in the world and a change in their life style would make a big difference.

4. How to educate for sustainability into the insstainabale economic model?

As we have seen, we are consuming beyond the Earth's capacity of renewal. In order to feed with dignity the whole population of the planet, fulfilling their needs according to capitalism's consumption standards, 3 planets would be needed. Nowadays, people who are the most educated are exactly the ones who are harming the planet, due to their unsustainable lifestyle. The countries that offer greater opportunities of access to education (which is, supposedly, of good quality) are the countries that have in their history (past and present) habits and values that are deeply harmful to life in the planet: "just as statistics are so convincingly demonstrating that people more rich have the longest and most advanced education, their lifestyles are consuming most of the world's limited resources" (Lindberg, 2007:38).

It is important to understand that environmental degradation is basically the result of an economic policy conceived and put in practice by the first world. Usually, poor countries are the ones to be judged and condemned for disrespecting the environment. A false idea that degradation lives in the third world, due to lack of responsibility and competence, is widely disseminated among us. The history that led us to such reality and the part played by the richest countries in the world in it, are not mentioned.

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

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

The DEDS document supports that there is not a unique nor 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 departs from reading the world, from respect to each one's context, that offers an emancipatory and dialogical methodology. In Latin America, for example, its rich tradition in *environmental education* must be considered instead of simply trying to replace it. The Decade was responsible for putting the theme "development" in the world's agenda and in the environmental education practice. To us, environmental education and education for a sustainable development are both dimensions of a *civil education*, which involves moral values.

It is explicit in the Decade's document that the economy guided by profit, by the accumulation of goods and by exploitation of work, is essentially unsustainable. Poverty and hunger are also unsustainable. Wars and military industrial complexes that support them are unsustainable. Also unsustainable is the current armamentism, the main cause of the environmental disaster we are facing, as said by Peace Nobel Prize winner and current president of Costa Rica, Oscar Arias, in the opening ceremony of the "Latin-American meeting 'Building an Education for a Sustainable Development in Latin America'" (San Jose, October 31st, 2006). The *armamentism* does not only put in danger the world population, but it causes serious damages to the environment. Even in times of peace, armamentism increases the emission of carbon dioxide more than any other human activity. The world's *military industrial complex* spends billions of dollars every year buying weapons and maintaining military contingent, depriving the world's

poorest populations from the possibility of fulfilling their basic needs and services. Production and maintenance of weapons and war generate catastrophic environmental effects, besides being a state of extreme violation of human rights. We all pay a very high cost to maintain this capitalist military industrial complex. The army is nowadays the most pollutant factor in the world. Our priorities are highly mistaken.

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

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

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

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

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

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

There is no doubt regarding the fact that education for a sustainable development is a great opportunity to environmental education, but in order to this taking place, we must understand this development from a more holistic point of view, not only as plain and simple vegetation growth. We need a *altermundialist* view of sustainable development, one that does not separate economic, political and social aspects from the search for a sustainable existence. Hence, to educate for a sustainable development is to educate for a sustainable lifestyle, in contrast with educating for a capitalist model of development.

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

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

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

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

The conclusion is simple: in order to save the planet we need another paradigm that allows

everyone to have access to energy one needs. We need a more sustainable relationship with nature: instead of considering ourselves “lords” of the earth, we should consider ourselves part of it. And to create this new mentality the education for a sustainable development can give a great contribution.

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

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

- The 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 chance, Scotland has created a Sustainable Development Liaison Group whose responsibility is to implement the concept of sustainability in school curricula, making them more flexible, involving teachers, students, parents and communities, associating formal and non-formal education. The community in and out of the school meets in order to discuss the theme and to build *eco-political-pedagogical projects* in schools, attaching education and sustainability. The result is the construction of a eco-school.

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

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

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

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

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

The Decade's role is to promote education as a foundation for *another possible world*, for another society, less cruel to humanity; It is, therefore, an essentially solidary education a not only an education for a certain kind of development. Sustainability demands solidarity and the search

for a common well-being, an old liberal thesis that is not very often put in practice by economical liberalism. An ESD is incompatible to the current state of aggressive diffusion and planetary promotion that is done by means of communication of a unsustainable lifestyle, of a *irresponsible consumption*, promoted by unsolidary capitalism. The success of capitalist competitiveness represent the failure of sustainable development. No individual and isolated action can be effective.

Essentially, the Decade aims at making people aware through means of their disposal. Therefore, it will work with ethical values and principles which are related to people's sustainable life and to the planet's survival itself. For this reason, the Decade is, above all, a call for a transforming action, a call for popular education, for an education for and to planetary citizenship, for an intertranscultural and intertransdisciplinaty dialogue, for a culture of peace and sustainability that promotes the end of poverty, of illiteracy in the world, of political domination and economical exploitation, finally, an education for emancipation.

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