

The Universities and Agenda 21

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Abstract: *Critical dimensions of sustainability in education are presented. Critical conditions determining the success of sustainability initiatives are then discussed.*

Agenda 21, adopted by the 1992 Earth Summit, emphasizes that human population, consumption, and technology are the primary driving forces of environmental change. Agenda 21 also states that education is critical for promoting sustainable development and improving the capacity of all people to address environment and development issues.

Recognizing the shortage of specialists in environmental management and related fields, as well as the lack of comprehension by professionals in all fields of their effect on the environment and public health, the role of the university has been defined in the following way: „Universities educate most of the people who develop and manage society's institutions. For this reason, universities bear profound responsibilities to increase the awareness, knowledge, technologies, and tools to create an environmentally sustainable future”.

This paper refers to the evolution of concerns for education for sustainable development (EDS) in higher education. We believe that the first concerns of many universities are based on the Talloires Declaration which contains the commitment of Leader University Association for a sustainable future (ULSF)¹.

Keywords: *sustainability, universities, Agenda 21, education for sustainable development*

Introduction

Sustainability is a term with multiple meanings, because it includes a variety of objectives such as: environmental sustainability, social and human sustainability, and a variety of fashionable targets: stability, the growth or the decrease of some indicators. Sustainability can focus on multiple targets, because people have different aspirations in different times, using different scales for measuring time, and why not, and in different contexts.

Literally speaking sustainability means the ability to be sustainable, or it can refer to a condition that can be maintained at a certain level. For example, the term could be used to express the manner in which best levels of harvest can be achieved in agriculture, fisheries, forestry without diminishing the ability to maintain ecosystem within renewability

Seen in this context, sustainability means environmental sustainability, or, in other words, the sustainability of ecosystem function to ensure food, fish, and other products and services.

¹The Association of University Leaders for a Sustainable Future (ULSF), located in Washington, D.C., is an international membership organization of academic leaders and institutions committed to the advancement of global environmental literacy and sustainability. ULSF helps colleges and universities build and strengthen institutional capacity to make sustainability a major focus of academic disciplines, research initiatives, operations and outreach. The ULSF Secretariat promotes the 1990 Talloires Declaration and maintains an international network of signatories, facilitating information exchange, providing technical support, and sponsoring conferences that foster organizational and individual capacity to develop sustainable policies and practices

This is different by comparison to the meaning of conservation, where the intention is to maintain the ecosystem as it is, whatever the objectives may be. Shortly, sustainability can be achieved only when there is a full reconciliation between [1, 23-35]:

- (1) Economic development;
- (2) Fulfilment of the aspirations and of the changing needs of the people; and
- (3) Conservation of the limited natural resources and of the environmental capacity to absorb multiple disturbance factors as a consequence of human activities

Sustainable development is a multidimensional and constantly evolving concept. It is hard to find a definition that meets the approval of all stakeholders. However, the most widely used definition is the one given by the "Brundtland Report" or "Our Common Future", prepared by the World Commission on Environment and Development: "the ability to meet the requirements of the present generation without compromising the ability of future generations to meet their own needs."

The term "sustainable development" began to become widely known and used only after the International Conference on Environment and Development organized by the United Nations at Rio de Janeiro in the summer of 1992, known as the "Earth Summit", attended by representatives of about 170 states. As a consequence, many conventions on climate change have been developed. The requirements addressed to the world were to reduce emissions of methane and carbon dioxide, conservation of species and biodiversity and stop the massive deforestation.

The initiatives that followed the Brundtland Report brought together a series of conferences of the United Nations and various NGOs which debated on the meanings and implications of sustainability; they searched for solutions and new directions of development. There were established a series of international agreements, including Agenda 21, at the United Nations Conference on Environment and Development in Rio.

1. Sustainability and Agenda 21

Agenda 21 outlines the key policies for achieving a sustainable development that meets the needs of the poor and recognize the limits of development in order to meet global needs. Agenda 21 has become a model for sustainability and forms the basis for the strategies of sustainable development are built on. It seeks to define a balance between production, consumption, population, development and life-support capacity of the planet Earth. It addresses the issue of poverty, excessive consumption, health and education, urbanization and agriculture, food and natural resources management and many other topics

Agenda 21 is divided into 40 chapters intended for specific program areas, grouped into four sections, as follows [2]:

1. The section "*Social and Economic Dimension*" structured on the following chapters: International cooperation to accelerate sustainable development in developing countries and appropriate internal policies, Poverty alleviation, Change consumption patterns, Demographic dynamics and sustainability; Protecting and promoting human health conditions; Promoting sustainable human settlements development, Integration of environment and of the development decision-making process.
2. The section "*Conservation and management of the resources for development*" where some of the most important chapters are: Protection of the atmosphere, integrated

approach to territorial planning and resource management; management of fragile ecosystems: combating desertification and drought, promoting sustainable agriculture and rural development, conservation of biological diversity, protection of quality and quantity freshwater resources; prudent management, in terms of environmental, solid waste and sanitation activities, prudent management, in terms of environmental issues and the safe radioactive waste.

3. The section “*Strengthening the role of major groups*” approaches the following themes: global action for sustainable and equitable development for women, children and young people, the recognition and the strengthening of the roles of indigenous peoples and their communities, strengthening the role of NGOs: partners for sustainable development; initiatives to support local Agenda 21, strengthening the role of workers and trade unions, strengthening the business sector and the role of industry, scientific and technical community.

4. The section called “*Means of implementation*” comprises the following: Resources and financial mechanisms, Transfer of cleaner technologies, Science for sustainable development, Promote education, public awareness and training, , international institutional organization, international legal instruments and mechanisms, information in support of decision making.

In terms of education Agenda 21 states that "education is essential to promote sustainable development and to improve the capacity of all people to solve environmental and development problems and development.

In spite of the fact that Agenda 21 is a document of international consensus, seen from a wider perspective, the negotiations of Rio haven't solved all disputes in accordance with the requirements of each participant and not necessarily in the interest of the majority. It is, however, a unique step to the road to sustainability, offering a bold plan to mobilize local, national and global action.

The interpretation of definitions and approaches to sustainability varies depending on views and interests, but each emphasizes that activities should lead to triple performance on environment, economy and society. The commitment towards sustainable development involves the acknowledging of the fact that social and environmental challenges of the 21st century are real and they require that the global political and economic order is founded on different values and practices

2. The Movement to Promote Sustainability in Higher Education

Education for sustainable development (EDS) is not just an extension of environmental education including further social and economic aspects, but it must also be a powerful link between global education, environmental education, technical education and health education. The aim of sustainable education is to "equip the new generation of leadership and management skills, and with the proper knowledge in order to create new systems that can lead to global sustainability” [3, 1-2].

The responsibility of universities regarding the sustainable development has been carefully analyzed at Talloires, recognizing the lack of specialists in environmental management and related areas, and the lack of understanding by professionals in all fields on what are the effects of their actions on the environment and human health. The role of universities has been

defined within this framework: "Higher education form most of the people who help develop and manage society institutions. For this reason, universities bear a profound responsibility in terms of increasing the awareness, knowledge, technologies and tools needed to create an environmentally sustainable future. [4].

Some various critical aspects of the vision of sustainable development in higher education are captured in the Talloires Declaration, taking into account the unprecedented scale of the climate change, the speed of pollution and environmental degradation and also depletion of natural resources. Thus, it is recognized the need for urgent action to address these fundamental problems and implement solutions that could reverse the trends. The following actions have been agreed on:

- Encouraging all universities to engage in education programs, research, policy formation, and also in information exchange on population, environment and development towards a sustainable future.
- Assuming programs that provide expertise in environmental management, sustainable economic development and related fields to ensure that all university graduates are informed citizens and develop a responsible attitude towards environment.
- Building an example of environmental responsibility by establishing programs of resource conservation, recycling and waste reduction at universities. (ULSF, 1990).

The Talloires Declaration has been signed by more than 265 university rectors and presidents of institutions in over 40 countries on five continents. This suggests the recognition of the fact that education and academic research should address sustainable development and change the way in which knowledge is used.. There is no doubt that signing the Declaration of Talloire has been a symbolic act for some institutions at that time. However, the document continues to be a strong impulse for continued progress towards sustainability for many others.

Promoting sustainability in higher education significantly depends on the active involvement of the lecturer in promoting the ecological theories and sustainable development practices as benchmarks for their fields. (e.g., in the criteria of peer-review for journal articles and in the topics and organization those professional associations are based on). It is encouraging that more and more teachers are involved in transforming their disciplines, both locally and at national or international level.

The impact of the programs developed by the educational environment on society is reflected in various social initiatives. The members of different professional associations have established and developed various working groups and sections focused on environment and sustainability. For example, The American Institute of Architects offers an environmental education program for teachers called "Design study" The American Academy of Religion has a section of ecology and religion. There are also various journals such as Journal of Interdisciplinary Studies in Literature and Environment. This publication has also a forum for literary critical studies that address environmental issues, including ecological theory, descriptions of nature, etc [5].

What it means to be a sustainable college or university? An academic institution committed to education for sustainable development path should help students to understand the causes of environmental degradation, to motivate them during the classes to seek sustainable environmental practices, to model them towards the full integration of justice and humanity. At the same time, we refer to the way in which the academic institutions define their curricula in relation to sustainable development. A real commitment is expected from everyone involved in order to create a sustainable future that can be embodied in the critical

dimensions of institutional life (e.g., in its written statements of mission and purpose, academic programs, and related energy procurement practices).

Although approaches to the "greening" of higher education vary considerably, institutions must implement practices in at least seven areas [5]:

1. Written statements of the institution's mission and its various units that expresses its philosophies and commitments. Description of the learning objectives and of the relationships between different faculties, departments, programs that expresses the permanent concern towards sustainability.
2. The college or the university adequately incorporates the concepts of sustainability in all academic disciplines and in all professional education requirements as well as in the practical and research activity of the students developing critical thinking skills which are essential for a future professional. The institutions that are committed to sustainability emphasize certain educational programs in their curricula such as: Globalization and Sustainable Development, Environmental philosophy, The ethics of land use and sustainable agriculture, Urban ecology and social justice, Sustainable production and consumption, etc.
3. The need a major shift in the university paradigm regarding the acknowledging of the institution's role in social, economic and environmental systems. Within this context the students will learn about the values and institutional practices. For example, all students must understand:
 - The way in which the ecosystem works within the campus (e.g., sources of food, water, energy, selective waste collection etc.), and its contribution to a sustainable economy.
 - The way in which the institution treats its own employees (such as students, administrative staff, the faculty involvement in decision making, its status and benefits, etc).
 - The core values and basic assumptions that can be identified in the content and in the teaching methods of academic subjects
4. Since research and teaching are fundamental goals of academic institutions, the knowledge of sustainability becomes a major concern for hiring and promotion systems. Thus, some academic institutions have decided to implement the reward with scholarships for those faculty members who contribute to sustainability.
5. Institutions have their own "ecological footprints". During their production and consumption processes the institutions apply sustainability related policies and practices, such as: reducing CO₂ emissions, construction and renovation of buildings in a sustainable manner, energy conservation practices, local food procurement programs, investments in organic products and more. All these activities and operational practices are then integrated into school educational and scientific activities.
6. The institutional support and the campus services for the student life, can focus on certain practices, such as:
 - a) A new orientation to the student, scholarships, traineeships jobs and counseling for a job in community service, sustainability and justice issues;
 - b) The existence of a council dealing with environmental issues and sustainability and of an environmental coordinator;
 - c) Student's participation in environmental audit;
 - d) The public celebration of certain events by students together with their teachers (lectures, conferences, occasioned by Earth Day, Environment Day, World Water Day, etc.)

7. The involvement of the institutions in partnerships for information and trainings on issues of sustainability, both locally and globally. The college or the university should support the community for a sustainable development and develop relationships with local businesses which encourage sustainable practices.

The implementation of the initiatives related to sustainability faces different degrees of success. In some institutions apparently strongly supported initiatives have disappeared. In many others, significant academic programs and operational policies have been implemented. Successful implementation of initiatives related to sustainability in colleges and universities is influenced by a variety of factors [5]:

1. How are the champions of sustainability being perceived by colleagues? Do they have the necessary credibility and personality in order to promote successful initiatives?
2. Have they got the approval from the leaders of their institutions for their initiatives? Is their commitment supported by the dean or the chancellor of the university?
3. Who benefits from this initiative? What departments perceive that this initiative favours them and who feel threatened by it? If such an initiative is perceived as being imposed to encourage a group of interests that requires to everybody in the university to understand and embrace the new concepts of sustainability, the initiative may be doomed to failure. And on the contrary, if it promises to contribute to the consolidation of several programs and departments, then it will be supported.
4. Does this initiative fit with the ethos of the institution and its organizational culture?
5. Does the initiative get the engagement of the university community? Is there enough advertising (by awareness events, press releases, articles, etc.) for the new policies and initiatives? Is there regular information about the progress made, the successes or the failures? Are there sufficient information provided in order to ensure accountability?
6. Is the academic initiative legitimate? Is it perceived and recognized as a result of theoretical and practical knowledge acquired during university training?
7. How valuable is the initiative so as to bring critical resources (e.g., grants and contracts, state funding, demand from students, recognition and support from key stakeholders such as media, local managers? Has the initiative produced savings costs over time?

Education and professional training should contribute to all three axes of sustainable development, namely:

- from a social perspective - education and training needs to strengthen social cohesion through investment in the human capital;
- from an economic perspective - education and training contribute to the building of a knowledge society and to a sustainable economic growth
- from an ecologic perspective- education and training are crucial to produce changes in the behaviour of the citizens on matters such as consumption, transport, use of renewable energies.

Conclusions

Referring to the institutions committed to the sustainable development we can say that each of them will find their own way of defining sustainability. The efforts that have been made so far, including those presented in this paper, are strongly oriented towards environmental initiatives. Sustainability may seem to be not so clearly emphasized, although the term "sustainability" is often used in specialized terminology.

Intellectual and cultural changes on education for sustainable development are considerable. The new dimensions of higher education must be based on the change of knowledge or more precisely, change of use of knowledge by "integrating disciplines", by preparing for taking

favourable decisions on environmental issues, by developing the purchasing capacity, the development and the use of essential knowledge so as to ensure the success and the quality of the approach on sustainability

In order to get the desired result, practicing a management with a strong impact on environmental education should focus on building networks and strategic alliances among the stakeholders involved: the ones who provide education in institutions, the ones who distributes permanent environmental education and the ones providing funding.

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