



Promotion and Implementation of Sustainable and Responsible Development through Education

Theme: Promotion and Implementation of Sustainable and Responsible Development through Education

Purpose of the Meeting:

The purpose of the G8 University Summit is to acknowledge the pivotal role that higher education institutions and scientific research organizations should play in supporting sustainable and responsible development, both at local and global level.

As affirmed by United Nations, education is a human right and the primary agent of transformation towards sustainable development, increasing people's capacities to transform their visions for society into reality. The declaration of the United Nations Decade of Education for Sustainable Development (ESD) focuses attention on reorienting education on the long-term future of the economy, ecology and equity. This educational effort is intended to "encourage changes in behaviour that will create a more sustainable future." Education teaches people to be better individuals, family members, community members and citizens.

Quality education is holistic and a prerequisite for education for sustainable and responsible development. It upholds and conveys the ideals of a sustainable world. It takes into consideration the social, economic and environmental context. Quality education is locally relevant and culturally appropriate. It is informed by the past and relevant to the present, and prepares individuals for the future.

Universities and colleges were early adopters of the view that educational institutions have a major role to play in moving the world towards more sustainable pathways; and that role involves "walking the talk": going beyond educating their students to managing their facilities in a more environmentally responsible manner. A number of declarations have provided the impetus for individual universities to establish new policies for sustainability, starting from 1990 with the "Talloires Declaration", to 2005 with the "Graz Declaration on Committing Universities to Sustainable Development" (UNESCO and others).

In recognition of the importance of Education for sustainable and responsible development the 2009 G8 University Summit (Torino, Italy, May 17th-19th, 2009) gathers leading Presidents and Rectors to discuss and reinforce the significant role that Universities can and should play in tackling the issues facing humanity relating to responsible and sustainable development.

Universities are resolutely addressing the challenges of creating a sustainable future through education and research. They are aware of the necessity to update their strategies and procedures to accommodate the resilience required to progressively adapt to changing physical, historical and social conditions and to play an active role in shaping a more sustainable future. Universities are also aware of the responsibilities that their enhanced role entails and they declare their readiness to address them.

The 2009 University Summit has adopted a 4 Es framework - Economics, Ethics, Energy policy and Ecology - to better analyze and communicate the complexity of the issues related to sustainable and responsible development.

The following paragraphs illustrate the 4 Es to provide an introduction for facilitating discussion during the Parallel session.

Ethics

Focus:

Ethics as a basis of incentives fostering sustainable development.

Universities should make efforts to create new approaches to the solution of problems of sustainability that include a more prominent role for ethics and for arguments based on ethics to foster a sound sense of responsibility for the maintenance of the global community, and help policy makers introduce fair and sensitive incentives to facilitate decision-making consistent with sustainable and responsible development.

Keywords: confidence and trust, social contract, inclusion, local cultural identities/values, universal ethical codes, sense of responsibility

Ethics monitors how the values at the core of our social contracts are evolving and can address the crucial issue of consumption of the present versus the needs of future generations. Trust, which is at the corner stone of socio-economic systems, is based on the assumption that there are rules and principles distinguishing what is right from wrong, and which are agreed by society. Without trust there can be no sustainable and responsible development, but this trust now extends into the future for generations to come to make judgments.

One of the major ethical issues for supporting the return of trust in society and the achievement of sustainable and responsible development is inclusion, which can enable a greater level of trust. Inclusion in this context means being a part of what everyone else is, being welcomed and embraced as a member who belongs, and feels respected and valued. Lack of inclusion can mean that some people may feel outside the changing paradigm, not engaged and therefore not committed. This attitude can often arise from a lack of awareness of the others' perspective and Universities can play an important part in making sure that all are informed. Local cultural identities and values are also important as they shape the way people live, and determine their responsiveness to educational programs and the degree to which they feel involved in preserving a better future for generations to come. Building an effective global approach to sustainable development, inclusive of all differences and instances, will need to address people with a local discourse, about their immediate concerns.

Universities are microcosms of culture and of the society that supports them and can facilitate and foster trust in our present and future societies by providing a common understanding of what is a desirable and acceptable behaviour from all who are charged with sustainability issues.



Energy policy

Focus:

New approaches to energy production and policy

Universities should provide expertise and impetus toward the rational use of natural resources and the pro-active development of alternative energies and energy-saving technologies.

Keywords: energy consumption, alternative energy schemes, non-renewable energy sources, zero-carbon society

Energy and all other scarce and not-renewable resources (water, land, air, soil etc.) form the basis of the entire living process in the present and in the future. The focus should not merely be on preventing over-exploitation of existing scarce resources, or on limiting the growing excesses of pollution, but to provide alternatives that have a positive impact rather than negative. Sustainable science suggests that it is mandatory to take a more active and responsible investment in alternative energy even though this may not be currently profitable, as its continued development would be an important gift to future generations.

Education can support sustainable and responsible development by training, educating and encouraging human behaviour toward a reduction of energy consumption and by supporting the science and technology that will provide an answer to the increased loss of non-renewable energy sources. Most of the fuel consumed since the industrial revolution has come from within the earth in the form of fossil fuels: transport, food production, industrialization and the built environment have a significant impact on energy consumption.

The development of alternative energy systems is a crucial issue at a global level. The last two decades have seen the exploration of virtually every avenue that might contribute to greater self-sufficiency for communities including feasibility studies, demonstration projects and commercial development of a range of energy sources including hydropower, wind turbines, ocean waves, solar and geothermal energy, municipal solid waste and biogas. In many cases, progress in these alternative developments has fallen short of expectations. Shortfalls between hopes and accomplishments have been attributed to many factors, including inadequate resource assessments, poorly conceived projects based on unworkable assumptions, and even opposition by environmental and other groups. Universities, through Education, have a part to play in discerning between what is possible and what is appropriate and conveying the emerging knowledge to all generations.



Economics

Focus:

New models of economic growth consistent with sustainable development.

The current severe economic downturn has exacerbated the pressures on the already threatened global sustainability. Universities should provide rational approaches to understand how to use natural resources most efficiently, how to make them accessible to everybody and how to propose reasoned guidance for decision making, from the perspective of long-term sustainability.

Keywords: scarce natural non-renewable resources, non-market price goods, financial models revision, long-term decision-making, and engagement of the business environment

The unbalanced exploitation of natural non-renewable resources, which were once considered a commodity, has resulted in their scarcity and a growing cost and expense to consumers. More importantly such exploitation has led to increasing damage to the environment, the escalation of global warming and the potential for social unrest. This has fuelled a wide global political interest and support for a subject that was once the province of scientific bodies.

More recently, the severe economic downturn has shown that social-economic relations can be significantly damaged at a global level, calling into question the functioning of current financial models and adding momentum to the discussion on sustainable development. In particular, the models used appear to have created behaviour of suspect moral fortitude, which has begun to erode the trust on which socio-economic systems are based. In addition many of the models used by economists for assessing viability of decision-making have proved that they can work to the disadvantage of a long-term sustainable view by discounting future events. If this were the case, then new economic models and paradigms may be required to reflect a fundamental set of values related to human well-being beyond financial reward.

The role of the Universities to research, develop and communicate through education new paradigms cannot be underestimated if the world is to embrace the concept of sustainable development. An equally important remit of the University education is that also business models incorporate the new paradigm of engagement with the business.



Ecology

Focus: Understanding the sustainable ecosystems

Universities should focus on generating and disseminating knowledge on the interdependence between the environment and human activities, with the objective of aiding society and policy makers to understand the consequences of their activities and urging them to act rationally.

Keywords: climate change, inter-dependences, complex systems, impacts assessment, disaster risk reduction, empowerment, safety & security

All aspects of our living environment are composed of elements, chemicals and raw materials that originate in nature. A depleted planet will result in considerable restrictions to economic growth. In addition the way we behave through our social systems, the decisions we take in one sector impacting on another and the effect of our technologies on climate change are resulting in complex systems that have a high degree of inter-dependence. Exploring and teaching society the nature of this interdependence is critical to establishing the ecosystems which impact on sustainable development. For example, an understanding of the origins of the components of our urban environment can result in more careful utilization of nature and natural resources.

Improving awareness of sustainability includes such issues as the life-cycle impact of human activities on Earth systems, control of greenhouse gases, land and energy use, consumption patterns, pollution and transport. All of these need to be addressed in education for sustainable and responsible development. There is a high degree of inter-dependence between all these factors which needs to be studied and communicated. An understanding of these matters through education contributes to building the skills and attitudes needed to question the way we think, the values we hold and the decisions we make in the context of sustainable development. The study of ecology seeks to enable individuals to take informed and responsible decisions and actions, now and in the future by realizing the impacts of their decisions on others in the present world but also the impact on future generations.

In addition education is recognized as an essential element in disaster risk reduction strategies. Disasters such as the tsunami and the major earthquakes have a great impact on the sustainable development of those countries affected. This requires more education and training of all sectors of society on disaster reduction practices based on the application of scientific and technical advances and management practices, particularly those related to risk. Education for disaster reduction is a trans-disciplinary exercise aimed at developing knowledge, skills and values that will empower people of all ages, at all levels, to assume responsibility for building a safer and sustainable future.

