

DECLARATIONS ON ECOLOGICAL SUSTAINABILITY AND ROLE OF UNIVERSITIES

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Abstract

This paper reviews definitions and frameworks for sustainability in higher education by examining a set of major national and international declarations and institutional policies related to environmental sustainability in universities. This article explores the notion of ecological sustainability in the context of the contribution Universities can make in creating environments that include ecologically sustainable practices. It considers the important role of environmental health in building a sustainable future for the population. At present, the climate change, ecological degradation and the resultant threat to civilization are upper most in the agenda of almost all the countries of the world. Many international meets and conferences have been held over the last few decades to find means to upgrade eco-environment and to manage the balance between economic development ecological degradation. Beginning with Halifax declaration till Kyoto declaration much has been laid down by international leaders, statesmen, president and premiers of different countries about the steps that are needed to protect ecological environment. However, from the review of literature it's clear that much has not been done to make a thorough and comparative analysis of these international declarations with the actual performance of the universities. Further, the role underlined in these declarations at the world level for the universities has hardly been studied. It is very rare to find that studies have been conducted in India to examine whether the universities have done the duty underlined in these declarations. It presents the evidence for the need for comprehensive approaches to ecological sustainability within the University and offers suggestions about how this can take place. It concludes by arguing that to date there is a substantial gap between the rhetoric and the reality in the University context. As such it becomes imperative to make an attempt to cover this research gap.

Keywords: ecology, education, environment, public health, sustainability

Introduction

The world commission on environment and development published a report in 1987 in which the definition of sustainability known as the “Brudtland definition” is included. This is the most commonly used internationally accepted definition today comes from “our common future” and affirms that “sustainable development is the development which meets the needs of the present without compromising the ability of future generations to meet their own needs”. There are three aspects of sustainable development: (1) Economic: an economically sustainable system must be able to produce goods and services on continuing basis, to maintain manageable level and avoid imbalances. (2) Environmental: an environmentally

sustainable system must maintain a stable resources base, avoiding over-exploitation of renewable resources systems and depleting non-renewable resources only to the extent that investment is made in adequate substitutes. (3) Social: a socially sustainable system must achieve distributional equity, adequate provision of the social services including health and education, gender equity and political accountability and participation. Sustainable development therefore involves: (1) A broad view of social, environmental and economic outcomes; (2) A long- term perspective, concerned with the interests and rights of future generations as well as of people today; (3) An inclusive approach, to action, which recognizes the need for all people to be involved in the decisions that affect their lives.

Sustainable means to maintain the necessary and desired characteristics of people, their communities and their surrounding environment for the long term (indefinitely). Development in this context means to bring something to a fuller and better condition. It is a qualitative idea that should be distinguished from growth which is purely a quantitative physical increase. The combination of these two concepts “sustainable” and “development” embody the world need to preserve and improve certain areas in order for life (people, plants and animals) to endure.

Research Methodology

This paper reviews definitions and frameworks for sustainability in higher education by examining a set of major national and international declarations and institutional policies related to environmental sustainability in universities. This article explores the notion of ecological sustainability in the context of the contribution Universities can make in creating environments that include ecologically sustainable practices. It considers the important role of environmental health in building a sustainable future for the population. The objective of the research was to examine the major national and international declarations and institutional policies related to environmental sustainability in universities. The research was conducted on the basis of review of the literature.

Universities role defined in various international meets

Tallories Declaration on October, 1990 at France

Participants are:

Jean Mayer, President and Conference convener Tufts University, U.S.A. | L. Avo Banjo, Vice Chancellor University of Ibadan, Nigeria | Robert W. Charlton, Vice Chancellor and Principal University of Witwatersrand, Union of South Africa | Michele Gendreau-Massaloux, Rector l'Academie de Paris, France | Augusto Frederico Muller, President Fundacao Universidade Federal de Mato Grosso, Brazil | Calvin H. Pimpton, President and Emeritus American University of Beirut, Lebanon | T. Navaneeth Rao, Vice Chancellor Osmania University, India | Stewart Saunders, Vice Chancellor and Principal University of Cape Town, Union of South Africa | David Ward, Vice Chancellor Canipinas, U.S.A. | Pablo Arce, Vice Chancellor Universidad Autonoma de Centro America, Costa Rica | Boonrod Binson,

Chancellor Chuaialongkorn University, Thailand | Constance W. Curris President University of Northern Iowa, U.S.A. | Adamu, Nayaya Mohammed Vice Chancellor Ahmadu Bello University, Nigeria | Mario Ojeda Gomez President Colegio de Mexico, Mexico | Wesley Posvar, President University of Pittsburgh, U.S.A. | Pavel D. Sarkisow, Rector D. I. Mendeleev Institute of Chemical Technology U.S.S.R. | Akilagpa Sawyerr, Vice Chancellor University of Ghana, Ghana | Carlos Vogt, President Universidade Estadual de Brazil | Xide Xie, President Emeritus Fudan University, People's Republic of China

Resolution in Tallories Declaration

- (1) Use every opportunity to raise public, government, industry, foundation, and university awareness by publicly addressing the urgent need to move toward an environmentally sustainable future.
- (2) Encourage all universities to engage in education, research, policy formation, and information exchange on population, environment, and development to move toward a sustainable future.
- (3) Establish programs to produce expertise in environmental management, sustainable economic development, population, and related fields to ensure that all university graduates are environmentally literate and responsible citizens.
- (4) Create programs to develop the capability of university faculty to teach environmental literacy to all undergraduate, graduate, and professional school students.
- (5) Set an example of environmental responsibility by establishing programs of resource conservation, recycling, and waste reduction at the universities.
- (6) Encourage the involvement of government (at all levels), foundations, and industry in supporting university research, education, policy formation, and information exchange in environmentally sustainable development. Expand work with nongovernmental organizations to assist in finding solutions to environmental problems.
- (7) Convene school deans and environmental practitioners to develop research, policy, information exchange programs, and curricula for an environmentally sustainable future.
- (8) Establish partnerships with primary and secondary schools to help develop the capability of their faculty to teach about population, environment, and sustainable development issues.
- (9) Work with the UN Conference on Environmental and Development, the UN Environment Programme, and other national and international organizations to promote a worldwide university effort toward a sustainable future.
- (10) Establish a steering committee and a secretariat to continue this momentum and inform and support each other's efforts in carrying out this declaration.

I. The Halifax Declaration in December, 1991 at Canada

Participants

The presidents and senior representatives of 33 universities from 10 countries on 5 continents met in Halifax, Canada to take stock of the role of universities regarding the environment and development. They were joined by a number of senior representatives from business, the banking community, governments, and nongovernmental organizations. The meetings were sponsored by the International Association of Universities, the United Nations University, the Association of Universities and Colleges of Canada, and Dalhousie University, Canada, which also provided the detailed planning and secretariat support. The Halifax Declaration was released at the conclusion of the conference.

Resolution in Halifax Declaration:

1. To ensure that the voice of the university be clear and uncompromising in its ongoing commitment to the principle and practice of sustainable development within the university, and at the local, national and global levels.
2. To utilize the intellectual resources of the university to encourage a better understanding on the part of society of the inter-related physical, biological and social dangers face the planet Earth.
3. To emphasize the ethical obligation of the present generation to overcome those current malpractices of resource utilization and those widespread circumstances of intolerable human disparity which lie at the root of environmental unsustainability.
4. To enhance the capacity of the university to teach and practice sustainable development principles, to increase environmental literacy, and to enhance the understanding of environmental ethics among faculty, students, and the public at large.
5. To cooperate with one another and with all segments of society in the pursuit of practical capacity-building and policy measures to achieve the effective revision and reversal of those current practices which contribute to environmental degradation, to South-North disparities and to inter-generational inequity.
6. To employ all channels open to the university to communicate these undertakings to UNCED, to governments and to the public at large.

I. Rio Declaration on Environment and Development on 3rd to 14th June, 1992 at Rio de Janeiro

Participants are Prime minister and other dignitaries.

Resolutions in Rio Declaration:

1. Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.
2. In accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their

jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national Jurisdiction.

3. The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

4. In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

5. All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

6. The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries.

7. States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit to sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

8. To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.

9. States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

10. Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

11. States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and development context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries.

12. States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.

13. States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

14. States should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health.

15. In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

16. National authorities should endeavor to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

17. Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.

18. States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted.

19. States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.

20. Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development.

21. The creativity, ideals and courage of the youth of the world should be mobilized to forge a global partnership in order to achieve sustainable development and ensure a better future for all.

22. Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

23. The environment and natural resources of people under oppression, domination and occupation shall be protected.

24. Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.

25. Peace, development and environmental protection are interdependent and indivisible.

26. States shall resolve all their environmental disputes peacefully and by appropriate means in accordance with the Charter of the United Nations.

27. States and people shall cooperate in good faith and in a spirit of partnership in the fulfillment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development.

II. ACU—The Swansea Declaration on 20th August, 1993 at Swansea, Wales

The declaration adopts, quite substantially, the language of the Halifax Declaration, which was written by Ivan Head and Walter Kamba in consultation with Halifax conference participants.

Participants are:

The Association of Commonwealth Universities (ACU)

Resolution in the Swansea Declaration:

1. To urge universities of the ACU to seek, establish and disseminate a clearer understanding of sustainable development - "development which meets the needs of the present without compromising the needs of future generations" - and encourage more appropriate sustainable development principles and practices at the local, national and global levels, in ways consistent with their missions.
2. To utilize resources of the university to encourage a better understanding on the part of governments and the public at large of the inter-related physical, biological and social dangers facing the planet Earth, and to recognize the significant interdependence and international dimensions of sustainable development.
3. To emphasize the ethical obligation of the present generation to overcome those practices of resource utilization and those widespread circumstances of intolerable human disparity which lie at the root of environmental unsustainability.
4. To enhance the capacity of the university to teach and undertake research in sustainable development principles, to increase environmental literacy, and to enhance the understanding of environmental ethics within the university and with the public at large.

5. To co-operate with one another and with all segments of society in the pursuit of practical and policy measures to achieve sustainable development and thereby safeguard the interests of future generations.
6. To encourage universities to review their own operations to reflect best sustainable development practices.
7. To request the ACU Council urgently to consider and implement the ways and means to give life to this declaration in the mission of each of its members and through the common enterprise of the ACU.

III. Kyoto Declaration on November, 1993

This declaration embodies the language and substance of both the Halifax Declaration and the Swansea Declaration.

Participants are:

Universities Member

Resolution in Kyoto Declaration:

1. To urge universities of the IAU to seek, establish and disseminate a clearer understanding of sustainable development - development which meets the needs of the present without compromising the needs of future generations - and encourage more appropriate sustainable development principles and practices at the local, national and global levels, in ways consistent with their missions.
2. To utilize resources of the university to encourage a better understanding on the part of governments and the public at large of the inter-related physical, biological and social dangers facing the planet Earth, and to recognize the significant Interdependence and international dimensions of sustainable development.
3. To emphasize the ethical obligation of the present generation to overcome those practices of resource utilization and those widespread disparities which lie at the root of environmental unsustainability?
4. To enhance the capacity of the university to teach and undertake research and action in society in sustainable development principles, to increase environmental literacy, and to enhance the understanding of environmental ethics within the university and with the public at large.
5. To co-operate with one another and with all segments of society in the pursuit of practical and policy measures to achieve sustainable development and thereby safeguard the interests of future generations.
6. To encourage universities to review their own operations to reflect best sustainable development practices.
7. To request the IAU Council urgently to consider and Implement the ways and means to give life to this declaration in the mission of each of its members and through the common enterprise of the IAU.

(V) CRE Copernicus Charter on May, 1994 at Geneva

Participants are:

Association of European Universities and CRE Bureau

Resolution in Copernicus Declaration:

- Institutional commitment
Universities shall demonstrate real commitment to the principle and practice of environmental protection and sustainable development within the academic milieu.
- Environmental ethics
Universities shall promote among teaching staff, students and the public at large sustainable consumption patterns and an ecological lifestyle, while fostering programmes to develop the capacities of the academic staff to teach environmental literacy.
- Education of university employees
Universities shall provide education, training and encouragement to their employees on environmental issues, so that they can pursue their work in an environmentally responsible manner.
- Programmes in environmental education
Universities shall incorporate an environmental perspective in all their work and set up environmental education programmes involving teachers and researchers as well as students - all of whom should be exposed to the global challenges of environment and development, irrespective of their field of study.
- Interdisciplinary
Universities shall encourage interdisciplinary and collaborative education and research programmes related to sustainable development as part of the institution's central mission. Universities shall also seek to overcome competitive instincts between disciplines and departments.
- Dissemination of knowledge
Universities shall support efforts to fill in the gaps in the present literature available for students, professionals, decision-makers and the general public by preparing information didactic material, organizing public lectures, and establishing training programmes. They should also be prepared to participate in environmental audits.
- Networking
Universities shall promote interdisciplinary networks of environmental experts at the local, national, regional and international levels, with the aim of collaborating on common environmental projects in both research and education. For this, the mobility of students and scholars should be encouraged.
- Partnerships

Universities shall take the initiative in forging partnerships with other concerned sectors of society, in order to design and implement coordinated approaches, strategies and action plans.

- Continuing education programmes

Universities shall devise environmental educational programmes on these issues for different target groups: e.g. business, governmental agencies, non-governmental organizations, and the media.

- Technology transfer

Universities shall contribute to educational programmes designed to transfer educationally sound and innovative technologies and advanced management methods.

IV. Barbados Declaration on 25th April to 6th May, 1994 at Bridgetown, Barbados

Participants are:

Prime minister and other dignitaries

Resolutions in Barbados Declaration:

1. The international community should cooperate with small island developing States in the implementation of the Programme of Action for the Sustainable Development of Small Island Developing States by providing effective means, including adequate, predictable new and additional financial resources in accordance with chapter 33 of Agenda 21; facilitating the transfer of environmentally sound technology, including on concessional and preferential terms as mutually agreed, taking into account the need to protect intellectual property rights as well as the special needs of developing countries; and promoting fair, equitable and non-discriminatory trading arrangements and a supportive international economic system.

2. The international community has a responsibility to facilitate the efforts of small island developing States to minimize the stress on their fragile ecosystems, including through cooperative action and partnership.

3. To achieve sustainable development and a higher quality of life for all people, including people of small island developing States, all States should reduce and eliminate unsustainable patterns of production and consumption, and should promote appropriate demographic policies.

4. The international community should build new and equitable partnerships for the sustainable development of small island developing States through the implementation of the Programme of Action and should send a powerful message to the world's peoples on the possibilities of joint action undertaken with a sense of common purpose and partnership.

5. Through regional and sub regional cooperation, small island developing States and the international community should encourage strong functional cooperation in the promotion of sustainable development by sharing information and technology, strengthening institutions and building capacity.

**V. International Association for Bridge and Structural Engineering (IABSE)
on 21th June 1996 at Copenhagen, Denmark**

Participants are:

Individuals Companies and Institutions of IABSE

Resolution in IABSE Declaration:

1. The full understanding of the interdisciplinary actions required to sustain and optimize the natural, built and socio-economic environment
2. The increased use of renewable and recycled non-renewable materials in the construction and operation of structures
3. The conscientious assessment of the environmental impact of projects, basing recommendations on environmental soundness.

**VI. Ottawa Declaration on Tobacco and Sustainable Development on 6th
November 2002 at Ottawa, Canada**

Participants at the meeting included:

- American Cancer Society
- Canadian Institutes for Health Research (CIHR)
- Canadian International Development Agency (CIDA)
- Canadian Tobacco Control Research Initiative (CTCRI)
- Health Canada
- Research for International Tobacco Control (RITC) at the International Development Research Centre (IDRC)
- International Tobacco Evidence Network (ITEN)
- Institute for Global Tobacco Control at Johns Hopkins School of Public Health
- London School of Hygiene and Tropical Medicine
- Open Society Institute
- Rockefeller Foundation
- Society for Research on Nicotine and Tobacco
- State of California Department of Health Services
- Thai Health Promotion Foundation
- Tobacco Free Initiative of the World Health Organization (WHO) (Headquarters and Regional Office for the Western Pacific (WPRO))
- Pan American Health Organization (PAHO)
- UICC Global ink - The International Tobacco Control Network
- World Bank

Resolution in Ottawa Declaration:

1. Mobilize increased financial resources to extend the knowledge base, including support for a wide-range of strategic research activities.
2. Strengthen research capacity in developing countries, including partnerships and networks across countries.

3. Incorporate a sustainable development focus into tobacco control research agendas.
4. Generate financial and political support for proactive dissemination of knowledge to inform the debate on public policy on tobacco control. Integrate tobacco control into the research and programming agendas of development agencies.
5. Deny funding for tobacco control research to researchers that have received financial support from the tobacco industry. Ensure transparency in accepting funding for tobacco control research from industries where conflict may exist.
6. Mobilize civil society and governments against the tobacco epidemic at the country, regional, and global levels, building on the variety of effective tobacco control mechanisms already available.
7. Support the adoption and implementation of the Framework Convention on Tobacco Control (FCTC) to help control the tobacco epidemic globally.

VII. Johannesburg Declaration on Sustainable Development from 26th august to 4th September 2002 at South Africa

Participants are:

Prime minister and other dignitaries

Resolution in Johannesburg Declaration:

1. Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to complete free and compulsory primary education of good quality.
2. Achieving a 50 percent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.
3. Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate and life skill programmes.
4. Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.
5. Improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes.
6. Eliminating gender disparities in primary and secondary education by 2005 and achieving gender equality in education by 2015 with a focus on ensuring girls full and equal access to and achievement in basic education of good quality.

Conclusion

Throughout the world there are numerous examples of institutions of higher education pursuing environmental sustainability. Some institutions believe that they have met the challenge of sustainability through the signing of national or international declarations while others create individual institutional policies. This paper has only explored institutions that are attempting to affect change. This paper also highlighted that there should be a current gap in knowledge and information regarding the degree of implementation of national and

international declarations within specific institutions, as well as an understanding of what challenges and opportunities universities have faced during attempts at implementation. The number of institutions that are signing national and international sustainability declarations and creating their own policies and implementation plans is growing. This suggests that to some extent sustainability declarations and policies are useful to many institutions and capable of facilitating change.

From the study two things are very clear one there is extreme deficiency of various aspects of environmental degradation due to fast economic development among academia the masses. The other thing that comes to right is that the universities have been assigned a prominent role for protecting the eco-environment. In this regard, an evaluation of various declarations was made and it is found that although lot has been emphasized and advocated by the different declaration held at various places yet nothing significant has been initiated by universities in this regard. It is high time the universities wake up and recognize the need to work towards the sustainable development or climate change for a bright future. This paper helps illuminate the state of sustainability in higher education regarding national and international declarations and institution specific policies, and recommends areas for further research.

Suggestions:

1. Right from childhood, children should be made conscious of the threat to the survival of mother earth. So that, they develop a mind set in favor of sustainable development.
2. Universities should set special websites regarding sustainable development.
3. The library of the universities should have sufficient number of journals and books for the students to get knowledge about climate change and its impact as also the reasons of the same.
4. As is clear from the studies of various international meets universities have been assigned a significant role towards ecological concerns and healthy economic growth. The universities should not escape their responsibility universities grant commission (UGC) should monitor it and get feedback from the universities performance in this regard.
5. Universities should call noted environmentalist from time to time to enlighten the university academic about their experiences and ground realities faced by civilization in regard to distorted economic development and its impact on eco-environment.
6. The countries which are signatories to these declarations should set up regulatory committees or other bodies to watch the performance of the universities in the light of the responsibility put on universities to defend mother earth from the onslaught of so called economic development which promotes luxurious life styles.

7. Universities since ancient times have been the fountain heads of knowledge and the guiding force for the solution of the problems of the society. They should take proactive steps to balance the economic development and ecological degradation.
8. Various laws enforce to protect ecological environment should be strictly implemented.
- 9.

Limitation of the study:

Voluminous contents of around a dozen declarations over a period of around two decades were studied. Though every effort has been made to cover all declarations, due to inadvertence any related meet may have missed.

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