

Opportunities and Possibilities of Sustainable Development through Research

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Abstract – Sustainable development refers to a mode of development through which resource use aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for future generations. The term sustainable development was used by the Brundtland commission report which coined what has become the most often-quoted definition of sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development ties together concern for the carrying capacity of nature with the social challenges faced by human beings. The concept of sustainable development has in the past most often been broken out into three constituent parts: environmental sustainability, economic sustainability and socio- political sustainability. More recently, it has been suggested that a more consistent analytical breakdown is to distinguish four domains of economic, ecological, political and cultural sustainability.

Keywords – Sustainable Development, Sustainability, Research, Higher Education, Environment.

I. INTRODUCTION

According to korowitz, D. (2012), sustainability is a process which tells of a development of all aspects of human life affecting sustenance. It means resolving the conflict between the various competing goals, and involves the simultaneous pursuit of economic prosperity, environmental quality and social equity famously known as three dimensions with the resultant vector being technology, hence it is a continually evolving process of achieving sustainability is of course vitally important, but only as a means of getting to the desired future state^[11].

If societies are characterized by poverty, large inequalities, discrimination and exclusion, they are on the wrong path to development. It education systems are characterized by inequality, discrimination and exclusion; they contribute to increasing existing social and economic disparities and also deviate from the path of equitable and sustainable development. Sustainable societies are based on the belief that everyone has the right to learn, the capacity to contribute and the commitment to ensure that others share in the benefits of development.

II. HIGHER EDUCATION FOR SUSTAINABLE DEVELOPMENT

It is widely recognized that education is fundamental for just, peaceful, adaptable societies without poverty, and that none of the international development goals can be achieved without education. UNESCO must ensure that

Education for All (EFA) remain apriority on the global agenda and support countries' efforts to meet the six EFA goals by 2015, with a specific emphasis on equity. But the organization's actions in education stretch beyond this. With the ultimate goal of sustainable development, explicit attention must be paid to inclusion, social cohesion and social justice, to life- long learning and to the crucial role of higher education and research.

Important prerequisite to sustainable development is the issue of equity for future generation and equity for those of the present generation, whom have little or no access to natural resources and economic goods.^[17] Higher education plays important role for human sustainable development. Researches and training appears determining factors for increasing creativity and rational thinking. Problem solving capacities and competitiveness need to foster the increasingly complex cultural, social and technological decision involved in sustainable development. Researches for sustainable development are not just the areas of environment, but more about values and ethics. Researches for sustainable development are not only a social issue but also a matter of economic policy. There are two major challenges regarding the reshaping of higher education for sustainable development-

1. Devising institutional educational strategies and program. Taking into account all the educational actors and the communication channel available.
2. Increasing the quality and usefulness of the various educational and training processes, aimed primarily at citizens, economic partners and young people^[15].

Strengthening worldwide co-operation in higher education should help each country devise the most effective ways and means of enabling its people to contribute for improving the material and spiritual living conditions of the present generation without denying decent life for future generation. Higher education for sustainable development stresses the achievement of the continuous well being by searching for an optional balance in the formation and use of different resources and capital type-human capital, physical infrastructure and tools natural resources financial means technology and decision system. In this regard, structural changes are required related to the closed linking between the educational system, the world of work and that of the media.

A first issue is the need to consider the three pillars of sustainable development people, planet, and profit concerns. This can be seen as a matter of equilibrium, paying fair attention to each of the three pillars, but sustainable development research typically look for ways to identify the strategies to get beyond the hard opposition of interests by means of new and creative solution.

However, this is not always so easy in practice. As strong interests remain, stakeholders typically have different ideas of what constitutes a fair balance, and need to include a wide variety of interests may lead to complicated negotiations to identify, define and implement these solutions. Sustainability is not just a neutral connection between policy issues, but an attempt to put environment and social development.

Universities can make a significant contribution towards sustainable development through research, improving the curriculum and environmental action. Higher Education partnership for sustainability (HEPS) is a Forum for the Future worked with 18 universities and colleges to find ways to deliver education in a way that boosts sustainable development. It is an account of innovative solutions for implementing sustainability in higher education. Higher education in different national educational systems can optimize contributions to sustainable development. It explores how to integrate sustainability literacy into the provision of all higher education courses and provides a tool for it. Major objectives of the researches regarding sustainable development are as follows-

1. To identify and communicate good practice case studies in Higher Education Institutions teaching and research, community relations and institutional management.
2. To develop visions of higher education and to optimize its contribution to sustainable development.
3. To look at areas where policy solutions may be needed to support higher education contribution to sustainable development.

Social scientists studying how research results get used in policy systematically come to the conclusion that a linear process does not work. There is not a clear domain of science that produces knowledge which impacts upon a separate system of policy. Rather, there is a set of multiple forms of knowledge, including a variety of policy areas and specific policies. The integration of both is most successful when there is a process of interaction rather than a one-way delivery of knowledge on the doorstep of the policy maker. For example, policy makers and researchers need to be able to deliberate the formulation of research questions, in order to questions, in order to come to questions that are relevant to policy, while also researchable to the scientists.

For research, the sustainability principle means commitment to a complex field of activity, where quick and simple solutions will have little chance of success. Instead, integrated networked thinking beyond disciplinable boundaries is required. The concept of sustainable development is becoming an increasingly important economic factor. Research for sustainability is international. It is the only way to provide answers to the global challenges looming in the fields of climate, resources, health, safety and migration. The basis is a reliable network between science policy, program planners and research funders. The aim is to develop a coherent and socially relevant overall concept out of the multitude of current and topical field.

III. RESEARCH FOR SUSTAINABILITY

1. Improves our system comprehension through basic research,
2. Develops innovative technologies, applications and concepts on the basis of this knowledge and
3. Analyzes sustainable options for action for politics, economy and society.

The 18th Annual Conference of the International Sustainable Development Research Society (ISDRS) was hosted by the University of Hull, UK from June 24th to June 26th, 2012. The theme of the conference was "People, Progress and Environmental Protection." Major discussions were held on the issues regarding Climate change, other large-scale environment change. Population growth, widespread poverty, and increase in welfare diseases across the world, spread of infectious diseases and antibiotic-resistant bacteria are all examples of global sustainability challenges related to human health. The conference explored what it would take to master the challenge of sustainable development in a future with increasing constraints, assuming that developing countries will continue to strive for improvements in their standard of living. At the same time the conference examined opportunities and mechanisms through which global society can move toward a sustainable future. The nature of the global sustainable development challenge including investigation of fundamental pressures on natural and socioeconomic system in a developing world, limits of Earth to support future developing, and solutions to the problems created by continued development of a growing global population was discussed.

It was concluded that Research for sustainability should.

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It aims to support sustainability as a critical focus of teaching, research, operations and outreach at colleges and universities worldwide through publications, research, and assessment.

The sustainability of development presents some of the most important policy challenges concerning the future of our planet. Major demands are:

1. Greater awareness and efficient programs are urgently needed for facing the caused global economic risks and human suffering.
2. Improvement of the epidemiologic demographic transition is mandatory.
3. Sustainable solution for healthcare system must be found.
4. Research capacity strengthening in low and middle income countries is advocated as a prerequisite for improving health.
5. The transformation of the existing "sick care system" into "health care systems" with an emphasis on prevention is to be achieved.

For India diffusion of decentralized, renewable energy sources; sustainability and fighting poverty are the major issues of study.

IV. THE INSTITUTIONAL LINK IN SUSTAINABLE DEVELOPMENT

Research in political Theory and policy Analysis at Indian University focuses on finding institutional structures that allow people to effectively manage resources in their own long-term interests. The goal is to find out how people can manage common resources and maintain infrastructure themselves, if they have control over resources, a system of monitoring, and effective tools for enforcing sanctions on free riders, and for distributing the benefits of cooperation relatively fairly. Research has focused on indigenous management systems that work effectively in a variety of sustainable development.

Most of the workshop's projects have been in areas where there are already strong indigenous institutions for property management and cooperative production. Sustainable social solutions in these situations are often found in returning control to local institution and extending indigenous institution to new purposes. Indigenous associations and communities may have been severely disrupted by colonial economic policies, post – colonial centralization and bureaucracy, ethnic factionalism, or national politics based on patronage that undercuts local self reliance. New cooperatives, management groups, or other organizations must be built from scratch. This often significantly boosts the transaction costs of adopting new technologies and techniques.

Best place to start in choosing researches in with an historical analysis of local institutions, and a close look at the existing management of land, forest, water and infrastructure. Local control – oversight, regulation, monitoring and enforcement- through councils, meeting, committees or any other institution is the basic positive indicator. The more evidence we can find for relationships of trust built on ties other than kinship and clientage, the greater the likelihood that sustainable development will be possible in the near future. The more success a project developing technologies has in building social capital, the more likely it is continue to generate autonomous, sustainable development.

V. MAJOR SUSTAINABLE DEVELOPMENT ISSUES FOR RESEARCH

1. Placing a system of values and ethics at the centre of society's concerns.
2. Encouraging a meeting of disciplines, a linking of knowledge and of expertise, and to render our understanding more integrated and contextualized and so, in turn, to open up new horizons for justice and equality.
3. Encouraging lifelong learning, starting at the

beginning of life and grounded in life-one based on a passion for a radical transformation of society and a change in the moral character of society.

4. Advancing new conception rooted both in traditional scientific rationality and in popular beliefs and consciousness. Drawing on these as a source of human understanding and a pointer to collective wisdom.
5. Encouraging the refinements of locally based processes of change and of integral community advancement, one not mindless repetition of homogeneous development models.
6. Elevating the importance of social subjectivity and of the qualitative dimension of social life.
7. Encouraging new alliances between the state and civil society in promoting citizens' emancipation mediated by the practice of democratic principles while fully acknowledging the complexities inherent to every human reality.
8. Promoting a culture of citizenship and give value to social actors such as non –governmental organization and other sub-groups.
9. Mobilizing society in a concerted effort so as to eliminate poverty and all forms of violence and injustice that jeopardize the future and the maintenance of a good quality of life.
10. Valorizing aesthetics, the creative use of the imagination an openness to risk and flexibility and a willingness to explore new options.
11. Asserting the importance of local communities and their ties to the entire Earth and indeed with the universal
12. Identifying and pursue new human projects in the context of a planetary consciousness and a personal and a personal and communal awareness of global responsibility.
13. Engendering new hopes and ways of channeling the valuable energies and resources of entire nations.
14. Seek understanding, to anticipate, to imagine and to contextualize.
15. Reaching a stage in which the possibility of change and the real desire for change are accompanied by a concerted, active participation in change, at the appropriate time, in favor of sustainable future foe all.
16. Instilling in the minds of all people a conviction of the values of peace in such a way as to promote the creation of new lifestyles and living patterns.
17. Developing to the maximum, the potential of all, throughout their lives, that they can achieve self fulfillment and full self-expression with the collective achievement of a viable future; effect change in value systems, behavior patterns and lifestyles necessary to achieve sustainable development, and ultimately democracy, security and peace.
18. Disseminating the knowledge and skill necessary to foster sustainable production and consumption patterns and to improve the management of natural resources, agriculture, energy and industrial production.

VI. CONCLUSION

The developing world has a great diversity of ecological, social, and economic setting each with highly specific needs for development. There is much need of intensive long-term scientific research on sustainable technology to meet all these diverse needs. Using the five capitals model of sustainable development- natural, human, social, manufactured, and financial, it is necessary that typically the unanticipated consequences of research occur in one or more of the capitals other than the capitals in which the research is being carried out. Sustainable development is as an important focus for universities, but that their freedom to explore this idea in ways that make contextual sense to them and their stakeholder's needs to be safeguarded against too instrumentalist and prescriptive a view which would actually serve only to inhibit the possibilities for sustainable development. Universities need to establish barriers if their staff and students are to have their necessary freedom to research, teach and learn protected.

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