

GUPES MEETING REPORT:



Proceedings of the High Level Planning,
Consultative, Sharing and Learning
Meeting For University Leaders



5-6 September 2011
Universidad Andrés Bello
Santiago, Chile



EXECUTIVE SUMMARY



The GUPES High Level Planning, Consultative, Sharing and Learning Meeting for University Leaders was organized by UNEP (DEPI and ROLAC) in partnership with Universidad Andrés Bello, as a follow-up to the GUPES Consultative Meeting held in Nairobi in November 2010. Over 50 participants representing 35 Universities participated in this two day meeting in Santiago.

GUPES provides a platform for enhanced engagement with/amongst Universities, focusing around three key pillars – Education, Training and Networking. It builds on regional networks such as Mainstreaming Environment and Sustainability into African Universities (MESA), the Asia Pacific Regional University Consortium on Environment for Sustainable Development (RUC), and the Mainstreaming Environment and Sustainability into Caribbean Universities (MESCA).

The High Level Planning, Consultative, Sharing and Learning Meeting had 4 key objectives:

- Learning and sharing of experiences between Universities;
- Developing a position paper on ‘Universities and Sustainability’;
- Providing guidance on the strategic directions and activities of GUPES and EETU;
- Strengthening GUPES partnership, by building upon the ongoing initiatives and experiences at the regional, sub-regional and national levels.

The meeting had three keynote presentations on Leadership for Environment and Sustainability in Universities, RIO TO RIO+20: The Role of Universities for Sustainability and Resilience, as well as Green Economy in the context of Rio+20 Summit. Regional presentations Sustainability Innovations at the University were made by University representatives from Africa, Asia and the Pacific, Caribbean, Europe, Latin America, and North America.

A High level panel on Going Green: University Leadership, Management and Sustainability was convened with University Presidents, Vice Chancellors and senior University representatives. Working group sessions were convened on the two Rio+20 themes, and the strategic directions of GUPES covering education, training and networking, which were extremely useful, interactive and productive in soliciting new inputs and partnerships.

Overall, participants felt that the meeting had achieved all 4 objectives and were pleased with the outcomes. Four volunteers agreed to assist with the submission paper to the Rio+20 Secretariat on Universities and Sustainable Development. The meeting endorsed the finalization of the ESD innovation guidelines, Green Economy and Ecosystem Management sourcebooks, and guidelines for the Greening of the Universities. On GUPES, inputs from participants in terms of regional networks such as MESA, RUC and MESCA was complementary.

As a follow-up to this meeting, it was agreed that the formal launch of GUPES will take place in 2012, either in conjunction with the Rio+20 Conference in June, or other similar events/options.



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BACKGROUND



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The meeting agenda and list of participants are attached as Annexes 1 and 2. Case studies on innovations sustainability practices at Universities is in Annex 3.

More information on-line at:

www.unep.org/training/News_events/gupes_santiago_meeting.asp





DAY

1



Day 1, Session I

Welcome and Introductions

1.1



Mr. Mahesh Pradhan, Chief of the Environmental Education and Training Unit, United Nations Environment Programme, Nairobi, Kenya provided a warm welcome to all participants, most of whom were visiting Chile for the first time. Approximately fifty participants representing 30 universities from around the world were attending this consultative meeting. He thanked the host institution - Universidad Andrés Bello, Santiago - for the excellent arrangements and extra care in the preparations for and organization of the meeting. Upon his request, all participants introduced themselves by providing a brief account of their institutions and areas of expertise. Upon completion of self introductions, formal welcoming and opening remarks were delivered in the following order:

- Dr. Pedro Uribe Jackson, Rector, Universidad Andrés Bello;
- Prof. Wu Jiang, Interim Chair of the GUPES steering committee, and Vice President, Tongji University, Shanghai;
- Ms. Andrea Rudnick, Head of the Climate Change Office, Ministry of Environment, Chile; and
- Ms. Pamela Orgeldinger, ESD Focal Point, UNESCO Regional Office for Education, Latin America and Caribbean, Santiago.

Dr. Pedro Uribe Jackson, Rector, Universidad Andrés Bello, Santiago started by welcoming the participants to the GUPES consultations. He indicated that the Universidad Andrés Bello, Santiago (UNAB) was proud to host this first GUPES event in Latin America, on sustainability issues and targeting the next generation of leaders/professionals. He also indicated that his University was honored to have such a distinguished group of professors from across the globe. He went on to emphasize the fact that the Latin American region was highly susceptible to climate change impacts, which affected both economy and society in general. The need for corrective actions to address

these challenges was of high priority. In this context, he emphasized the need to train professionals and leaders of tomorrow, so that they have the capacity to successfully address these challenges.

He then turned to UNAB's efforts in moving towards sustainability. An expression of these efforts was the creation of the Research Centre for Sustainability at UNAB, which would serve as a meeting point between the academic faculty from various backgrounds, such as natural resources, architecture, engineering, etc. He exalted the fact that UNAB was not alone in this endeavor but was joined by eight other universities in Chile, all moving towards the direction of sustainability. He indicated that this challenge had been addressed in conjunction with the Ministry of Environment, through the creation of a protocol framework that led towards the implementation of sustainable campuses, a move which will not limit the sustainability and sustainable development as a theoretical framework within classrooms, but will form a continuous process within larger context of universities.

Dr Jackson also gave a brief overview of the environmental history of Chile, which started in 1980 when the constitution of Chile incorporated the concept of environment and placed the concept of right to live in an environment free of pollution as a protected right. It was only in 2010 that the Ministry of Environment was established. He went on to mention that the road was not an easy one with conflicting interests between environment and development playing out to its full. He highlighted the fact that these challenges posed pertinent questions and made universities in Chile to seriously rethink the quality and knowledge base within the university and those graduating every year. He emphasized the fact that universities should aim to graduate professionals who are not only able to be innovative and creative so as to provide balanced and effective solutions taking into account the three pillars of sustainable development - economic, social and environmental - but also those who have humanistic thinking with valid concern for future generations.

He closed his remarks by welcoming participants and challenging them to come up with innovative ideas to address sustainability challenges from the perspective of Universities. He hoped that the meeting could provide a platform for exchange of views and experiences. He also indicated that this will be the first of many meetings between different universities with the ultimate goal of achieving sustainable development within a global context, so that challenges of today and tomorrow are effectively addressed.

Prof. Wu Jiang, Interim Chair of the GUPES steering committee, and Vice President, Tongji University, Shanghai, provided a warm welcome to all participants and indicated that it was a pleasure to be at this second GUPES consultative meeting. He recalled that the first consultative meeting was successfully organized in Nairobi in November 2010, which had strengthened interaction between universities, conceptualized a global programme for mainstreaming environment and sustainability concerns into universities, and discussed mechanisms to influence environmental education policies at various levels. He provided an update on relevant developments within Tongji University. At the end of 2010, with support from the Ministry of Science and Technology (MoST), African Governments and GUPES universities, a Sino-African Water Resource Management Research was initiated. In March 2011, a white paper titled 'An Ecosystems Approach to Water Resources Management for African Cities' was jointly launched during the 'World Water Day' celebrations in Cape Town, South Africa. He indicated that these two initiatives confirm the effectiveness of GUPES, which provides a platform for higher education institutes to renew their commitments in promoting sustainable development.

He further informed participants of the strategic role of the UNEP-Tongji Institute of Environment for Sustainable Development (IESD), which serves as a platform for international cooperation and scientific research on sustainability oriented topics. The first International Student Conference on Environment and Sustainability was organized by IESD on 5th June 2011, during the World Environment Day. Nearly

200 students from 35 countries came together in Shanghai and endorsed a Global Youth Declaration on Environment and Sustainability. He informed participants that this International Student Conference will be held annually in Shanghai, in close consultation with UNEP's Environmental Education and Training Unit and will serve as a networking initiative to raise environmental awareness amongst future generations.

He concluded his remarks by expressing his gratitude to UNEP, for having launched the GUPES platform and for having given consistent guidance and coordination by bringing together different universities for common actions. He also thanked all the participating universities for the mutual exchange of ideas and inclusive sharing. He was optimistic that GUPES will have a bright, interactive and sustainable future and wished the meeting successful deliberations.

Ms. Andrea Rudnick, Head of the Climate Change Office, Ministry of Environment of Chile, initiated her remarks by thanking the organizers, UNEP and Universidad Andres Bello, for the invitation. On behalf of the Minister of Environment of Chile, Maria Ignacia Bentez and the Ministry, she warmly welcomed the participants to these high level consultations in Chile. She indicated that there were a number of ongoing events related to sustainability that week, including the Regional Preparatory Meeting for the Rio+20 summit organized by the Economic and Social Commission for Latin America and the Pacific (ECLAC).

She recalled that the challenge of sustainability had become a corner stone of the economic, social and environmental discussions in the last twenty years. She indicated that the environmental awareness increased since the middle of the twentieth century, also due to increasing environmental degradation, the failure to achieve an equitable development, the lack of advances in poverty reduction in many regions of the planet as well as the recent economic, financial and energy crisis. That, she added, urges all of us to find long term solutions, which must be feasible and affordable at the same time. She mentioned that many of our actions have global environmental

repercussions and that climate change could be the most compelling challenge of our times in this context. While continuing to elaborate on the same issue, she highlighted the fact that development involves eradication of poverty and provision of welfare for our current generation as well as future generations, on the basis of our environmental, cultural, social and ethnic endowment and heritage. She mentioned that the human civilization had achieved high levels of economic growth, but there still was a challenge to make development more inclusive and ensure that development reaches out to less privileged communities.

She highlighted the Ministry's engagement on sustainability including goals to achieve economic growth, specific targets to eliminate extreme poverty and to adhere to international commitments on marine and coastal ecosystems, GHG emissions, etc. She indicated that Chile was looking forward to preparations for the Rio+20 summit with an optimistic spirit. Conscious of the need for tradeoffs between short term local benefits and long term global welfare, the Chilean government has renewed its commitment to the multilateral process, starting with consensus within the Latin American region. She mentioned that it was only under a common, inclusive and open framework, that the goals of sustainable development can be achieved.

She informed participants that the Ministry was very pleased to note that the GUPES meeting will focus their discussions on issues pertaining to these challenges, with the aim of developing human resources that are able and willing to address these pressing challenges. She hoped and urged participants to transform their conversations into concrete actions, and wished them successful deliberations.

Ms. Pamela Orgeldinger, ESD Focal Point, UNESCO Regional Office for Education for Latin America welcomed participants to GUPES consultations on behalf of UNESCO and specifically on behalf of UNESCO's Regional Director Mr. Jorge Dequeria. She also thanked UNEP for inviting UNESCO to be part of the consultative meeting, which brought together

higher educational institutions from all over the world. She went on to explain UNESCO's role in the UN Decade on Education for Sustainable Development (2005–2014) and further explained what the Decade was seeking to achieve. She mentioned that the Decade covers all levels of education, including higher education, with focus on the development of the research agenda on sustainable development.

She mentioned that partnerships and networks such as GUPES are very strategic in achieving the objectives of UN-DESD. She highlighted the Bonn Declaration of 2009, an outcome of the UNESCO World Conference on ESD, which listed some of the key actions that needs to be enhanced, especially in the context of higher education. She went on to explain four key roles universities can play in the context of Education for Sustainable Development viz., development and research, education and teacher training, leadership and community engagement. She also highlighted that two other important initiatives relevant to higher education, namely the UNESCO UNITWIN network, and UNESCO Chairs on Sustainable Development/ Education for Sustainable Development.

Concluding her opening remarks, she wished participants fruitful discussions and networking, and looked forward to learning more on the role of universities for sustainability, especially within the context of the forthcoming Rio20 Summit.



Objectives and expected outputs of the meeting

Mr. Mahesh Pradhan, through his brief presentation explained the aims, goals and specific objectives of the high level GUPES consultative meeting, while taking the participants through the agenda of the meeting (Annex 4).

- One of the main outcomes anticipated was the learning and sharing of experiences between participants over the two days. Since there were more than thirty universities participating in the consultations, the meeting provided an excellent platform to learn from each other. The high level panel on Day 2 was expected to provide fillip to this learning and sharing process.
- A paper entitled 'Universities and Sustainability' as an input to the Rio+20 Summit was being planned, as a follow-up to this meeting. This paper could provide guidance and explore opportunities to help universities exert influence on international policy making processes. Three keynote presentations by Prof. Heila Lotz-Sisitka from Rhodes University, Prof. Nay Htun from the State University of New York (former UN Assistant Secretary General, UNDP and UNEP) and Ms. Marianne Schaper from the Secretariat for UN Nations Conference on SD (Rio+20), New York, would provide a basis for further inputs/discussions for this Rio+20 submission.
- Guidance from participants on the strategic directions and activities of UNEP's Environmental Education and Training Unit (EETU), and soliciting ideas on the engagement of universities in education, training and networking across different regions vis-à-vis UNEP. UNEP-EETU seeks inputs regarding specific initiatives such as the ESD Curriculum Guidelines led by Rhodes University, the Greening University Toolkit led by the University of New South Wales, and Graduate Curriculum Source Books on the

Green Economy and Ecosystems Management led by McGill University.

- Finally one of the main outcomes of the meeting was to strengthen GUPES partnership, by building upon the ongoing initiatives and experiences at the regional and national levels. He mentioned that the GUPES meeting provided a platform to discuss and upscale some of the key elements from successful regional initiatives, so that the replication and sustainability of the GUPES global initiative can be enhanced.

Day 1, Session II

Keynote Address: Prof. Heila Lotz-Sisitka,
Professor of Environmental Education and
Sustainability; Murray and Roberts Chair of
Environmental Education – Rhodes Univer-
sity, South Africa



Leadership for ENVIRONMENT AND SUSTAINABILITY in universities

Prof. Heila, started her keynote presentation by asking a fundamental and important question 'Why do we need sustainable leadership in our universities?' She went on to provide an answer in her presentation over the next half an hour or so. To begin with, she highlighted the ongoing 'The Quadruple Squeeze' and the 'PolyCrisis' which includes several environmental challenges at the same time. She mentioned that the number of extreme events had risen drastically recently, which in turn reinforced complex interacting forces amongst the different crises. She explained that currently there are new concepts for Human Development, including equity, sustainability, resilience, adaptation and transformability; new forms of Human Agency; new forms of knowledge, skills, values and social practices. She went on to ask another pertinent question of whether a new form of leadership in universities was necessary to effectively address these challenges/crises.

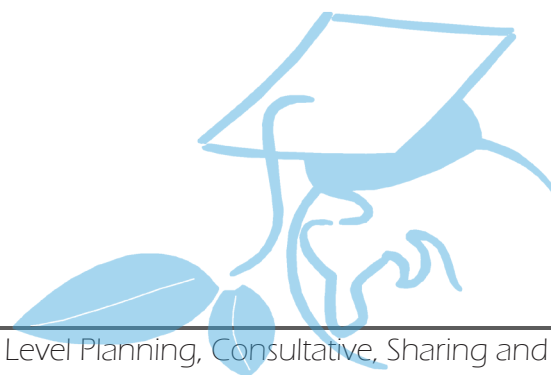
She indicated that the world was becoming less sustainable and explained the concept of human development. The 1994 Human Development Report explained that there was no tension between human development and sustainable development and that both were based on the universalism of life claims. She continued to explain that while concerns about the climate change, consumption and energy sufficiency are driving a new low carbon/green economic paradigm, environmental social justice issues are still predominant issues, whereas ecosystems continue to be degraded. She ran through the concept of innovation waves and indicated that humans were rising up to these challenge, eg. organic technologies.

She went on to ask few more critical questions, which included:

- 'How are our universities preparing the next generation for this new context?

- What [new] knowledge, skills, values and social practices do our scholars need to be learning?
- Is what our institutions currently offer adequate?
- What role does leadership play in engaging with this futures' challenge?

She also listed out various declarations and conferences that had dealt with sustainability issues and added that the Rio+20 conference provides us with an excellent opportunity to ask some these serious questions, take stock of the progress on Universities and Sustainability, and assess how Universities match up with broader socio-ecological goals and challenges?



Prof. Heila went on to state that whilst the environmental challenges have been growing in leaps and bounds, we have not been consistently addressing them and that the results of our interventions have been disappointing, often due to the lack of requisite capacities at the national level. She referred to the results of three large studies on environmental capacity in South Africa viz., Environmental Sector Skills Plan; Biodiversity Human Capital Development Strategy; Science and Technology Global Change Grand Challenge. The findings reveal that South Africa has severe 'skills gaps' in the environmental sector viz., environmental sciences; biodiversity sciences; global change, water and climate sciences; and lack of adequate capacity to respond to environmental and global change challenges, esp. climate change, biodiversity loss, environmental health and service delivery. The education and training system is reactive to sustainability issues, change in the university system is slow and ad hoc, and the role of teachers and the quality of (environmental teaching) in education is generally under-valued and under-emphasised (especially at policy levels, but also in practice). She then posed additional questions which are very pertinent including the gaps between 'knowledge and action'? And what role does leadership play? What kind of leadership do we need in order to address the current poly crisis and the gaps between 'knowledge and action'?

She explained the traits of a leader and indicated that a Sustainability Leader was someone who inspired and supported action towards a better world, as given by Polly Courtice. She indicated to participants about our perception on leadership. Leadership definitely matters since the current educational system is notoriously 'slow' and out of sync with realities of the day. The need for a systems-based, integrated approach which also multiplies leadership across the system was brought out clearly in her presentation. She went on to explain eight features of sustainability leadership as given by Fullan. Participants were made aware of the need for a change in the cultures of leadership of our university institutions. A recent GUNI/AAU/IAU study on universities and sustainability in Africa emphasised the fact that leadership support was a key factor in facilitating structural change to

promote sustainability within universities; which was also linked to the availability of resources.

Prof. Heila also provided a comprehensive overview of the kinds of leadership needed at universities including Policy leadership, Sustainability leadership, Technological leaderships, Teaching leadership, Networking leadership, Campus mgt and green campus leadership, Participatory governance and innovation leadership, Student led social change innovation leadership, Community action leadership, Wider system – leadership, Sustainability leadership etc and provided concrete examples of each type of leadership. She emphasized the need for Critical Thinking Leadership that values Social Justice and inclusivity and Leadership that is explicit about values and not afraid to speak truth to those in power. Summarizing her presentation, she indicated the need for an open systems-view of leadership that reflects contextual connectedness, a vision of transformation towards a more sustainable, just world; critical and innovative forms of teaching and scholarships, with social change and sustainability actions which match.

Discussions

The ensuing discussions were lively and interactive. Participants deliberated on several issues, as follows:

- It is generally understood that the university systems go against visionary leadership and hence it is important to know where leadership emanates. It has been observed in most of success stories that the strongest environmental leadership comes from groups of students and they are the ones that inspire university administration to accept and effect change. Such types of networked leadership are important for ensuring changes in the current context. There is a need to nurture such kind of leadership through empowerment of the student community so as to be able to effect changes.

- Universities are to be made into expos of ideas that could provide solution to the existing problems;
- It is important to understand the context within which universities exist and what their mandates and missions are in order to effectively address the sustainability and sustainability leadership related issues. There is a need to redefine these mandates and mission so universities are better placed to address current crises that humankind;
- It is also imperative to address the issues outside the universities which have an influence on universities ie. there is a need to work with Ministries and other institutions which are important for the effective functioning of the universities. Policy leadership is a fundamental need. GUPES could provide an excellent platform to facilitate work with agencies and ministries that influence higher education institutions;
- There is a need to discuss issues related to ethics in leadership. There is also a need to identify ethical leaders who can inspire others to follow suit. The Vice Chancellor of Rhodes University was cited as a good example of how ethical leadership could influence/facilitate sustainability changes at the university.

Sharing of Experiences-Regional Presentations: University Sustainability Best Practices and Networking

Africa - An innovative ESD process at the University of Buea, Cameroon: Mainstreaming climate change issues and adaptation strategies into the curricula

Prof. Samuel Ayonghe, Coordinator, Interdisciplinary Climate Change Laboratory, University of Buea, Cameroon started his presentation by providing a brief overview of the agro-ecological zones of Cameroon and its location within the continent. He further explained that University of Buea created a team comprising of members of an Interdisciplinary Climate Change Laboratory to try and incorporate climate change issues into teaching and research projects of students. The work of this team had finally succeeded in incorporating issues and ideas into contents of a compulsory university course on Civics and Ethics CVE 100, which will be finalized in October 2011. This innovation is linked to UNEP's priority thematic areas. There are several beneficiaries including students, junior faculty members, local communities, councils, government institutions etc because of this innovation. There are also several partners such as the Cameroon Academy of Sciences, Civil Society Organizations and others in the endeavor. The course incorporating the climate change issues will contain studies of the trends of climate change in Cameroon during the past decade indicating the varying climatic patterns and corresponding impacts in each of the agro-ecological zones, highlighting the need for adaptation and possible adaptation strategies for consideration.

Furthermore he indicated that the team would explore opportunities to extend the innovation into the curricula of other tertiary Institutions in the country. The team had the privilege to win a UNDP consultancy sponsored by the Government of Japan on the elaboration of a strategy for the integration of climate change adaptation, by proposing training programmes and/or courses on climate change adaptation in the primary, secondary and tertiary

educational system of Cameroon. He concluded his presentation by indicating that several activities are planned under the consultancy.

Discussions

- It was difficult at the beginning to convince the university system and structures about the intended innovation. However, having been part of the MESA programme, (Mainstreaming Environment and Sustainability into African Universities) it was easier to influence university authorities.
- It was suggested that UNEP needs to do a complete assessment regarding how successful these initiatives are across member universities of GUPES/MESA.
- There is a need to explore the possibilities of mainstreaming climate change issues into the primary and secondary level education and then link it with the tertiary education. This will enhance the mainstreaming strategy that GUPES is intending to implement.

Asia and the Pacific: Sustainability Best Practices at the University of Wollongong

Prof. M Sivakumar, Assoc Professor in Civil and Environmental Engineering GeoQuest Research Centre, University of Wollongong started his presentation by providing an overview of the Asia Pacific region and its economic and strategic importance as well as the environmental challenges the region was facing. He indicated that there were several universities in the region and many are top class universities. Before dwelling on sustainability issues at the University of Wollongong, he shared information about several sustainability initiatives where UNEP-EETU and GUPES could learn from and also play an active role. This included the UI green metric ranking, Australian Campuses towards Sustainability, Asean University Network, People and Planet Green League etc.

He went on to explain the key sustainability initiative at UoW. He informed that that the drivers for change within UoW were in general the Australian carbon foot print and Emission trading and in specific the energy consumption reporting, sustainability policy and the 2005 water and energy use survey conducted by the university. The university now has integrated sustainability issues into their operations and maintenance, learning and teaching, research and innovation and community engagement. He further explained in detail about the Environment and Sustainability Initiatives at the university, which also has its own dedicated website. He went on to explain the Environmental Management Plan (2010 – 2013) of the university and its components. Explanations regarding energy and water use monitoring, savings and target were provided. The issues pertaining to transport, materials management and community engagement were described in details. The campus environment including biodiversity management as part of the EMP were touched upon.

It was informed to the participants that over 108 subjects/courses at UOW have contents associated with some aspects of sustainability topics. The environmental curriculum at both UG and PG levels has been redesigned to incorporate sustainability principles in all subjects. Concluding his presentation he indicated that in order for sustainability initiatives to succeed there should be recognition by top university leadership and there should be suitable institutional mechanisms and funding. Furthermore, sustainability initiatives must penetrate the entire campus and targets should be set whereby there is ongoing monitoring and continuous improvements. He also indicated that these initiatives should lead to cultural and behavioural change. Finalizing his presentation he put forth the view that UNEP-EETU could play a vital role in global sustainability assessment and ranking of universities through GUPES could enhance the understanding and buy in on sustainability issues by universities across the globe.

Discussions

- Australia is amongst the highest energy and resource consumers in the world. It is important that sufficient awareness is created amongst students in order to make changes towards sustainable lifestyles. It is also important to include new courses on energy technology and efficiency to address these critical issues.
- There are several M.Sc and Ph.D programmes in interdisciplinary programmes linking culture and environment, which are part of the sustainability issues within the university.
- The sustainability initiative was successful only when the leadership was convinced of importance of sustainability issues to the university and the nation as a whole. Hence, it is important that university leadership is taken into consideration on sustainability related issues.

for implementing sustainability plans. As part of the project a team of scientists conducted workshops on sustainability issues with the school board of management, heads of teacher education, student bodies and several others including the non-academic staff working within the campus by discussing with them the key issues pertaining to sustainability. They choose environmental stewardship and greening of the campus to start with and were able to work across the disciplines including water conservation, energy management, green landscaping. These were done with the help of NGOs assistance and in collaboration with education ministry and other stakeholders. Tremendous success was achieved through this approach, which has in turn inspired teachers to conduct action research. The success of the project is also due to the fact that the concept of stewardship was introduced amongst the students, who have taken the concepts with them to their work places once when they had graduated.

Caribbean: Sustainability Best Practices

Dr. Marcelline Collins, University of West Indies gave a brief overview of the environmental and cultural issues that the Caribbean region faces. She indicated that the region was rich in sports, music and culture and that culture was used to educate people on environment and sustainability issues. There are numerous centers within the University of West Indies, which are addressing sustainability related issues including watershed management, water harvesting, Environmental Management, Ecosystem management, Sustainable tourism and agriculture, biodiversity etc.

She went on to present and provide information on a good practice, the research and development work that is being done out of School of Education which is home to more than 1,500 students. She went on to explain about one particular project which was initiated recently. Through this project, several activities were carried out across many schools and she explained in detail about one particular teacher education institution which was chosen as a pilot institution



Europe: Linking Policy to Education and Society: the International University Network on Cultural and Biological Diversity promoted by the Sapienza University of Rome in accordance with the UNCBD Secretariat

Prof. Pierluigi Bozzi, Coordinator International University Network on Cultural and Biological Diversity, Research Centre of Development Studies University of Rome Sapienza started his presentation by indicating that Multilateral Environmental Agreements (MEAs) represent very complex interconnections with science, policy and society. However, the entry point to unravel the complexities and address the critical issues is biodiversity and cultural biodiversity. He went on to explain the interaction between education, science and environmental policy and also about the role of education and science in such environmental multi scale policy implementation. He introduced the International University Network on Cultural and Biological Diversity and explained its intention and programme of work in detail.

Furthermore, he highlighted the extraordinary linkage between biodiversity and education and went on to explain that biological cultural diversity is an educational journey in itself to become a trans-disciplinary programme of studies opened to local society, indigenous communities and experts alike. He also indicated that each aspect of biodiversity had a natural and social science dimension and that biodiversity education was a learning process that integrated natural science, social science and society.

He provide a good explanation of the value chain of the CBD implementation and gave an overview of the results of a policy analysis which University of Rome in Sapienza had recently conducted. The results of the analysis pointed to the complex implementation processes of the CBD policy agenda and programmes of work, highlighting weaknesses and gaps with respect to capacity building, local management and overall education. Universities are of paramount importance because they can play a key role not only for education but also for capacity building and

public awareness – which are the milestones for good governance and effective policy making. The existing challenges, he emphasized, can be addressed by bridging the gap of coordination, communication and knowledge between universities and the CBD policy agenda and programme of work.

On the basis of this analysis, the Research Centre of Developing Studies of the University of Rome Sapienza had developed a methodology and innovative strategy designed for addressing CEPA – Communication, Education and Public Awareness – and capacity building challenges. As a result, the CBD Secretariat and Sapienza University had recently signed a Memorandum of Understanding and Cooperation. The CBD Secretariat “designates University of Rome ‘Sapienza’ as a ‘University Focal Point’ of the Convention for implementing, disseminating and main-streaming the objectives, policy agenda and programme of work of the CBD, in particular in developing countries, promoting cooperation activities, establishing and coordinating networks with other universities and concerned institutions”. Prof. Bozzi, went on to provide an example how the Network functions using the pilot case of the University of Antananarivo – Madagascar’s research and teaching programme. The Biodiversity University Network aims at: (1) introducing a new paradigm of relationships between international conventions and universities, (2) allowing universities to play a fundamental role as local social drivers opened to society, local/indigenous communities, experts, policy makers, (3) disseminating and introducing the CBD policy agenda and programmes of work – including UNEP, UNESCO, FAO biodiversity related programmes - in the universities system of studies, bridging the gap between academic and institutional policy perspectives (4) developing joint research/teaching/capacity building initiatives and events in order to strengthen local capacities, exchange and compare local experiences and case studies at international/national multi-scale level, achieve high standards of advanced studies, link universities to the local implementation of the CBD, provide tools to grow a critical mass of experts (5) designing innovative curricula/ initiatives taking into account the local context

He then informed that participants that there is an excellent opportunity for the Biodiversity University Network and the GUPES to collaborate and learn from each other.

Discussions

- The linkage between cultural and biological diversity is the core of the network and a fundamental perspective of the CBD itself. It is essential to develop the capacity of universities in this field considering the education/science/policy interface.. Article 8j of CBD deals with the traditional knowledge and equitable sharing of benefits, and traditional lifestyle. In addition the Nagoya Protocol provides measures for the implementation of these provisions.

North America: Urban Leadership Programmes at Yale University

Prof. Yajie Song, Yale University, started his presentation by providing an introduction to Yale University indicating that Yale is a global university with international focus, multidisciplinary in nature. Yale’s motto was of *Thinking Globally, Targeting Regionally and Acting Locally*. During the past few years Yale had been concentrating on the theory and practice of interdisciplinary ecosystem ecology by combining several major subjects together. Yale, through its School of Forestry and Environmental Studies, had been one of the first schools in the western hemisphere to address forestry and environmental issues since 1900. Furthermore, it is at the forefront of measuring and monitoring sustainability through its flagship programme entitled, Environmental Performance Index (EPI), which has been brought out in collaboration with Colombia University, and provides useful benchmarks on national performance on environmental sustainability issues.

Yale has been actively addressing leadership issues. It has run several leadership programmes and trainings especially in partnership with Tongji University. This collaboration was initiated since September 2002. Yale had also run leadership training programmes

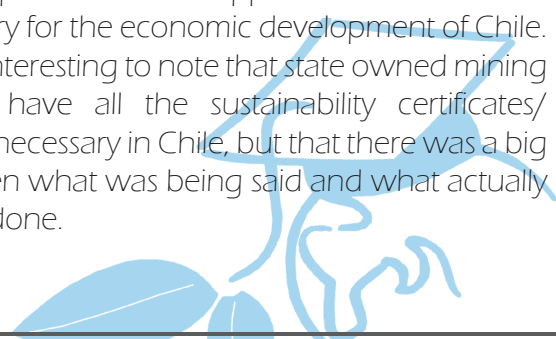
exclusively for Mayors of various cities in China. Till date, nearly 300 Chinese Mayors/Leaders have been trained. Yale, in partnership with many universities, runs training programme for university as well as community leaders. Prof. Yajie concluded his presentation by indicating that there is an excellent opportunity to upscale these activities through GUPES – UNEP-EETU.

Discussions

- The participants discussed in detail and agreed with Prof. Song that leadership trainings are necessary and there is a need to enhance the efforts.
- However, it was also indicated that leadership training for leaders from developed countries are also essential in order to address the sustainability related issues, ie. Sustainability vis-a-vis production and consumption.

Latin America: Sustainability challenges and education in Chile

Dr. Marcelo Mena-Carrasco, Director, Center for Sustainability Research, UNAB, started his presentation by providing an overview of sustainability issues of concern for Chile. He indicated that there was pressure for economic development in Chile and explained the relationship between these issues and social unrest. Recent research findings indicated that there was a big gap between economic development and people’s happiness in Chile, which was also related to environmental issues, amongst other issues. Chile was in a sustainability crisis since she had not taken economic, social and environmental issues in tandem. Very recently thirty young children were hospitalized due to SO2 pollution from Copper smelter which was a key industry for the economic development of Chile. It was also interesting to note that state owned mining companies have all the sustainability certificates/paperwork necessary in Chile, but that there was a big gap between what was being said and what actually was being done.



A recent survey done by UNAB and OPINA revealed that roughly 92 percent of the sampled population indicated that environment was important to them. He mentioned that while Chile had made tremendous progress with respect to air quality, the perception of people was that much more needs to be done. The research results also revealed that 69% of the population agreed that the environment should be protected despite possible job losses and productivity. Obviously, he indicated that there is a shift in paradigm including environmental consciousness in the market which went green over the past few years.

He then briefed participants through sustainability initiatives of higher learning institutes in Chile. The Green Campus Protocol had been signed by universities committed to carry out initiatives towards a sustainable campus. Nearly eight universities from Metropolitan Region signed the protocol with many more in the process. The agreement for Cleaner Production has been signed which has led to funding in consulting for greener campuses. Multiple diplomas, master's programs have stemmed from this protocol. In the last year many LEED certified buildings were also constructed.

An overview of the UNAB's Office of Sustainability and its objectives and operations was provided to the participants. The office is responsible for overseeing and coordinating requirements stemming from Cleaner Production Agreements under the Sustainable Campus Protocol alongside internal UNAB requirements. Several other sustainability initiatives within UNAB were presented including the sustainability and corporate social responsibility courses available for all campuses, developing 'Master's degrees in Sustainable Systems' and recycling and energy efficiency initiatives were also mentioned.

He concluded his presentation by providing critical remarks. Sustainability in developing countries was more natural since austerity and efficiency are inherent to lifestyles in developing countries, which can be taken as an added advantage for progress towards sustainability. Furthermore, he remarked that sustainability was key in addressing

the challenges that the planet is facing with shrinking resources and a growing population. Within higher education institutions, sustainability education while interdisciplinary, must be rooted in some discipline in order to obtain the necessary buy in. Finally, he also cautioned that green washing of sustainability issues should be rejected and indicated that any progress towards sustainability should be real.

Discussions

- Discussions about the cost of sustainable buildings were discussed. It was understood that more sustainable the building, the overall operational costs were lower. Interventions in eco-architecture can lead to substantial reduction in costs.
- While green washing may also be an issue that needs attention, in itself it provides a good start for work towards sustainability. As soon as an initiative is started there is every possibility that it can develop in a more meaningful way.

Day 1, Session III

RIO TO RIO+20: The Role of Universities for Sustainability and Resilience

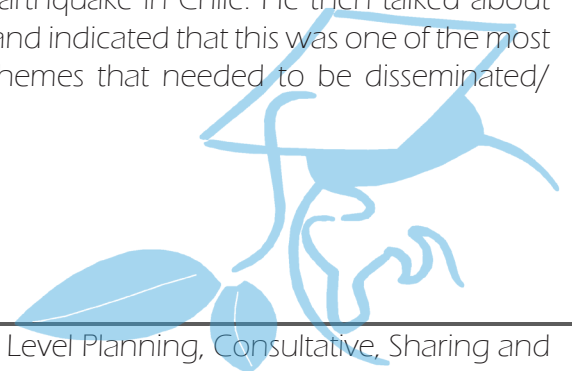


Prof. Nay Htun, University of New York at Stony Brook, broadly classified his presentation into three sections: Past, Present and Future in relation to Rio+20. His presentation included information on the role universities for enhancing sustainability and resilience. In the first section dealing with the past, he spoke about the history and events during the Earth Summit in 1992 in Rio de Janeiro. He recalled that the major outcomes of the conference included the Rio Declaration and Agenda 21. He went on to indicate that there was broader political consensus and buy-in and endorsement by all stakeholders on the imperative for sustainable development during the Rio 92 Conference. He also recalled the history of the Earth Charter and the Tailloires Declaration and their importance in addressing the modern day environmental crises with respect to Universities. He highlighted the spirit of cooperation and sense of purpose that existed before and during the Rio conference, which arose from the moral obligations and responsibilities that the stakeholders had at that time for current and future generations.

Moving into the present, Prof. Nay Htun reminded participants that the Rio+20 Summit will be organized in 2012 in Rio de Janeiro. He also informed them about the two themes of the conference: *A green economy within the context of sustainable development and poverty eradication; and Institutional frameworks for sustainable development.* He further explained in detail regarding the context and mandate of the Summit. He highlighted the evolution of the “Green” word and concept, and mentioned that the words ‘Green Revolution’ are connoted with ‘Miracle Rice’ whereas “Greening” is still related to the planting of trees. However, Prof. Nay Htun clearly put forth his views regarding ‘Green’ which is increasingly an encompassing and expanding concept, in terms of ‘State of mind’ of ‘Green’ in almost all economic and production sectors. A paradigm change is evolving including behavior and lifestyles. He emphasized the fact that the Rio+20 processes and outcomes can give momentum, legitimacy and buy-in to this change in paradigm.

Prof Nay Htun touched on the concerns of developing countries on the theme ‘Green Economy’, whereby it could be a road to conditionality, a concept and mechanism to sell green technologies or probably a subtle non-tariff trade barrier. Developing countries were also concerned that this could be a way and means to extend and continue the dependency syndrome. While the main objectives for Rio+20 are clear and agreed upon, he mentioned that it was not yet clear how these objectives can be achieved. The outcome(s) of Rio+20 are not yet agreed. He indicated that there are many possible outcomes and one of the possibilities was to have a political document along the lines of Copenhagen Accord. This start of the outcome journey, he indicated could be an important determinant whether the Road to Rio+20 would be a meandering track, unpaved and with potholes, a road to nowhere, or a super highway. He mentioned that that the ‘outcome’ structure and content would exert influence beyond Rio+20. He went on to elaborate the Rio+20 outcome processes, wherein he also indicated that the interlocking crisis of the Brundtland Report (energy, development and the environment) which still exist even today. He then informed participants about the positions of G77+ China, EU and Pacific SIDS.

Stepping into the emerging future section, Prof. Nay Htun took participants through thematic issues which he felt were new and re-emerging. They included energy-imperative transitions to low carbon, urbanization, increase in the number of elderly age groups, disparity in income levels, water stress, access and inequity, ocean acidification and pollution, environmental health and wellbeing, food security and safety and temperature increase and disasters and extreme weather. Continuing to dwell on the last theme he took the participants through a list of major disasters and extreme weather events including the Jan 2 earthquake in Chile. He then talked about ‘Resilience’ and indicated that this was one of the most important themes that needed to be disseminated/ addressed.



Finally, Prof. Nay Htun elaborated on issues pertaining to the roles and opportunities for universities in the Rio+20 process. One of the major contributions could be to elaborate the concept, principles and parameters for a 'Green economy within the context of sustainable development and poverty eradication'. Also elaboration on the linkages between sustainability and resilience together with addressing the issues of principles and parameters for resilience could be an excellent contribution. At the global level GUPES could collate, synthesize and provide inputs to the Rio + 20 outcome document on or before 1st November, and at the national level the GUPES members could contribute by infusing the synthesize into their country's national preparatory process. Universities are a place where people and institutions are different from 'Business as usual' to 'A transformational paradigm change of green sustainable resilient future' and hence involvement of Universities was vital to ensure the success of Rio+20 conference.

inter-sessional meetings) was also provided where substantive and procedural issues of participation were mentioned. In comparison with the Rio '92 conference which has 74 days for prior consultations, Rio+20 only has 14 working days for preparations. She then reiterated the point that the current path of energy and resource intensive growth was no longer possible and that there was a need for radical change. Together with the economic growth, she highlighted the fact that the CO₂ emissions had also drastically increased over the past few decades. Material and commodity intensity of the GDP growth had also increased drastically in the past few decades.

The results of the historical growth pattern were many including unevenly distributed gains of economic growth with increased concentration of wealth and income, also within countries. It also led to fossil fuel dependency and worsening climate change amongst others. This was compounded by the fact of increased population growth which in turn demands 70% increase in food production within the near future. These issues pose several pertinent and central questions on development, as to why a large group of developing countries were NOT able to narrow income gaps with developed countries? Why was it that only a small number of highly populated and historically poor countries have been successful in their growth process and in catching up with developed countries? Her presentation also indicated that the underlying structural factors of the global growth picture. She mentioned that developed countries had dematerialized their production, but not their consumption. The shift of environmental impacts to other countries through trade also happened. The emerging countries which are highly populated are at early stage of development benefited from this dematerialization in production. They are now dependent on rapid expansion of resource and energy-intensive industries and high elasticity of emissions. The Natural Resource rich countries sometimes benefit from higher commodity prices: but risk the "Dutch Disease" (being out-competed in manufacturer and services). There is a net transfer of financial resources from developing countries due to massive accumulation of international reserves.

27 Green Economy: Context of Rio+20 Summit

Ms. Marianne Schaper, Secretariat for UN Nations Conference on SD (Rio+20), NY started by providing a overview of her presentation which included the Green Economy in the Preparatory Process for Rio + 20 and Green Economy: History of the Concept amongst others. While talking about the history of the Green Economy she indicated that it is not a new concept and it dates back to 1989 with the publication Blueprint for a Green Economy by Markandya, Pierce and Barbier, et al wherein they addressed the linkages between the environmental issues and economic decisions. The Green Economy Initiative was then launched in 2009, under UNEP leadership for addressing the global financial crisis. It was for the first time a new concept in the intergovernmental discussions entitled Green Economy in the Context of Sustainable Development and Poverty Eradication (GESDPE), which was one of the two themes of the Rio+20 conference.

She went on to explain the objectives of the Rio+20 conference and recalled the two major themes agreed by member states. A briefing on the preparatory process (preparatory committee meetings and

She also brought forth the issue of technological asymmetries and explained them in detail indicating that the engine of the world growth is technological change.

Technological asymmetries: increasing transfer of resources from developing countries to the technologically most advanced countries (for licence fees and royalties), most technologies generated in industrial countries with a few emerging countries playing a role. She mentioned the fact that the engine of world growth was technological change.

Furthermore, there were proliferations of definitions and approaches with respect to the Green Economy. Various approaches include a new economic development paradigm, sectoral approaches, emphasis on internalization of environmental externalities, public policy focus etc. The concerns of developing countries were numerous including the risk of being trapped into new aid conditionalities. The very political context of the agenda itself was still a concern for many developing countries. GESDPE requires decisive reorientation of economic policy goals including strategic redirection of macroeconomic policy goals to orient the growth process. She indicated that the greening of the economy will increase in the labor productivity from the current levels. She concluded her presentation indicating that any investment in clean energy options will result in positive impacts on the drivers of the economic growth. However, it requires retention of talent and stimulating investment in industry and tourism amongst others and adding commercial services. These would also ultimately lead to demographic changes leading to a greater need of sustaining economic growth.

Discussions

- Discussions on Sustainable Development have been within the ambit of three interrelated dimensions. It was also understood that all sources of development should be within the environmental threshold and hence environmental issues may need more emphasis than others. However, it has been observed and

the trend was that the economic planning and finance ministries were not participating in many of the SD discussions. Hence it was important to change the language towards the development process for greater buy in from countries which are in the process of eradicating poverty and developing further. For any success within the context of Sustainable Development it must be stressed that environment is part of sustainable development and discussions should be in the context of all three pillars. There could possibly be fourth pillar ie. Ethical pillar.

- Green economy in the context of SD and poverty eradication actually covers the three dimensions of SD and this line should always be kept rather than emphasizing the environmental issues. The Rio processes opened opportunities for civil society participation, and many are already participating in intergovernmental meetings.
- Religion, extinction, conflicts have not been discussed as compared to discussions during Rio conference in 1992. The wisdom that has been developed from Stockholm to Rio does not seem to be captured in the preparatory processes. One possible way to influence and have all these important issues included is by submitting GUPES contribution before 1 November as requested by the secretariat.
- Human dimensions have to be at the center of the Sustainable Development debate and for that to happen there has to be institutions which are different from others, where human dimensions are at the core. These issues could be addressed through IFSD and hence the group could put into a position paper or a discussion paper all these issues and submit to the Rio + 20 secretariat before 1 Nov.



Day 1, Session IV

Group activity Positioning Universities in the Rio+20 Summit



A group activity was conducted in brainstorming mode whereby ideas and opinions were collated and presented during plenary presentations. Two groups were formed around the two Rio+20 Conference themes. A summary is listed below:

Group 1 – Institutional Frameworks for Sustainable Development

Leadership :

- Need for universities to regain their leadership and create intellectual capital around these critical sustainability issues and opportunities for discourse on sustainable development.
- Need to generate independently thinking leadership within the universities and mechanisms to foster such leaders.
- Rio+20 could be an excellent platform for universities to regain leadership and influence policy on the sustainability agenda.

Institutions:

- Universities need to generate ideas regarding institutional mechanism for advancing sustainable development, taking into account problems and prospects for humanity
- Need to create IFSD within each of the universities themselves. There is a need to create institutional frameworks which would allow leadership to have many voices and ideas.
- GUPES can act as a platform for identifying innovative institutional mechanisms that are already in place and make necessary amendments/adjustments to it, if need be, so that the participating universities could use/learn from them.
- Institutional frameworks which help to effectively influence the policy through the

knowledge that is generated within universities should to be put in place. These institutional frameworks should also facilitate connections between generations.

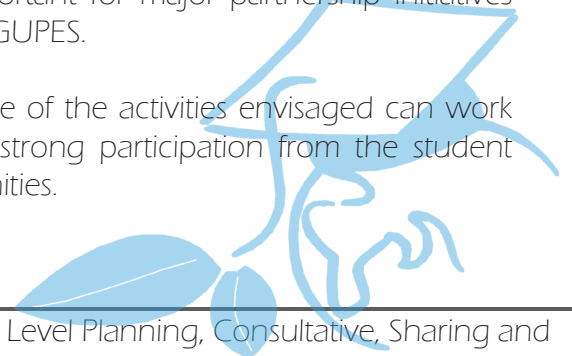
- Institutional mechanisms that are put forth for advancing sustainable development should be able to graduate students with awareness of contemporary SD issues and with expertise on the tools and mechanisms to address them.
- Utility of collaborative initiatives such as GUPES, which could be used to enhance the influence of universities on policy and policy making processes.

Research:

- Researchers within the GUPES member universities should work towards bringing out clarity on many sustainability related issues viz. sustainability indicators, bench marking etc. through concrete research programmes.
- Need to conduct research that contributes towards stronger influence on policy.

Partnerships:

- Universities should identify and create innovative partnerships for Sustainable Development with various stakeholders, including communities.
- Apart from research, training and funding, relationship with governments and civil society partnership are important activities within universities that will further the cause of sustainable development. These elements are also important for major partnership initiatives such as GUPES.
- None of the activities envisaged can work without strong participation from the student communities.



Teaching and Curriculum:

- Core functions of the university which include education and teaching should be strengthened.
- There is a need to rearrange curriculum and teaching methods to support students so that they could have stronger relationships with various stakeholders including business and civil society.
- Benchmarking tools and methodologies for successful teaching should be developed and standardized. For the purpose of teaching and research, universities could serve as living models.

Others:

- There is a need to remember the basic principles ie - respect, responsibility etc. as we move forward in preparing for Rio+20 and thereby reaffirm the agreed commitments eg. Earth Charter, which asks for respect.
- The issue of empathy and innovation also needs to be looked into while discussing on the role of Universities in the sustainability agenda.

The Working Group finally concluded that they were ready to address some of the issues raised, and that these could be implemented within the ambit of GUPES

Group 2 – Green Economy

The Green Economy group deliberated in detail the issues pertaining to second theme of the Rio+20 Summit and indicated that a concept paper/position paper on the following issues should be developed.

- The Working Group agreed that universities should play a critical role in conceptualizing the concept of green economy, also at various levels.

The issues of scale, scope and power should be addressed.

- Universities should play a critical role in developing metrics for measuring the extent and progress in green economy initiatives at different levels.
- Iterative reflective process – culture as an aspiration – address the issues of sufficiency
- The role of the universities in Life Cycle Analysis vis a vis green economy could be explored together with alternative models and options for green education, green jobs etc.
- Discourse on the green economy led to a strong suggestion by the group that universities need to take lead role in identifying local solutions to local problems on the green economy.



DAY

2



Day 2, Session V

Synthesis of previous day and key messages



The synthesis of the previous day deliberations was presented by Dr. Marcelline Collins, University of West Indies wherein she captured the key elements of discussions of the first day, and how they relate to the overall theme of the high level consultative meeting.

Green Economy – Key Concepts and Issues

Dr. Elisa Toda, Officer in Charge, UNEP Brazil Office and Regional Programme Officer, Sustainable Consumption and Production – Resource Efficiency, UNEP/ROLAC, indicated that her presentation consisted of extracts from a recently published UNEP Green Economy Report. She mentioned that there seems to be a growing inclination of stakeholders to move towards this direction, in light of the awareness of the carrying capacity of our earth and the pressures being exerted on the remaining natural resources due to our unbridled economic activity. The recent international crises including the financial, fuel and food crises were key to get the green economy discussions to the next stage indicating that its time had come. The report provided the definition of green economy as given by UNEP, which indicates that green economy is one that results in “improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities”.

Green economy could also be thought of as one which emphasizes the low carbon, resource efficient and directly connected to all the three pillars of sustainable development. Green economy was also an economy that ensures that issues pertaining to sustainable production and consumption are taken care of. She went on to clarify that the concept of green economy as it was discussed within the ambit of Rio+20 was never meant to be a substitution to the concept of Sustainable Development which was already an agreed upon concept at the national level but instead it was an instrument that was developed to take nations towards sustainable development. It was an instrument that could lead the fight against poverty. Again, she clarified, green economy was not a concept that could be uniformly applied across all nations but was very specific to the context of individual nations who could have their specific definitions and

specific road maps to implement components of the green economy. The green economy report was a massive document but divided into chapters with relevant information and concludes by providing recommendations. Moreover, the findings are also global and hence they may not be relevant for any particular context within the report.

The report analyzes if today the world decided that 2% of the global GDP was reoriented towards investments which breed low carbon, resource efficient and inclusive growth. It is a series of considerations at all levels. The modeling and research that was done to project growth until 2050 clearly indicates that being sustainable is not contradictory to growth and development. Furthermore, the redirecting of GDP on a number of variables shows how indicators change over time viz., energy demand decreases by 40% and overall ecological footprint reduced by 48%. Obviously, this requires a specific context to happen and several enabling conditions have to be there and one of which is to have a clear and sound regulatory framework though it is also not the same for all stakeholders. Other necessary conditions are that there should be a priority for an investment that is really green and discourage those investments that go against the greening of the economy (i.e. subsidies for fossil fuels) and in order for the transition to occur there is a need to develop skills, capacity and ensure that the necessary technology and techniques are available for this transition. The global findings include a number of sectors including agriculture and food processing, renewable energy technology, manufacturing and waste etc.

She concluded by bringing forth information on the chapter enabling conditions where there was specific mention of training and education for the purpose of capacity building and developing specific skills of workers in the transition towards a Green Economy. Another element stressed is the understanding of what is really required to undertake green economy and hence a need for knowledge/information generation and data collection and management. Furthermore, the information that we currently have is at the global level hence there is a need to identify required information within specific contexts in order

to ensure that the findings are relevant to different national settings ie. Barbados decided that at Prime Ministerial level they wanted to lead in ensuring the transition towards the GE and hence they assessed their specific context targeting specific sectors viz., tourism, housing, transport and agriculture and they decided how they could go about in greening the economy. It was undertaken based on their current economic context and legal framework and the investments that they were undertaking currently. The government of Barbados linked with a local university for a green economy scoping study and to guide them towards a green economy national initiative using the main findings. To assess and gather comprehensive information on the social and economic affairs so as to ensure that the planning is done based on clear information. A key element for this to happen is to build capacity for policy makers and technicians. There is also need to stimulate innovation in practices, technology taking into account the life cycle perspectives. Development of knowledge and understanding on the Green Economy metrics to measure real progress can rely on studies and research convened at the university level. She highlighted these as some areas where universities can play a key and strategic role.

world decides to use 2% GDP are not clearly mentioned in the report. However, there is another report which discusses production and consumption and how they impact the green economy agenda and hence the issues of the winners and losers to some extent addressed. There are also be pilot studies that indicate how the modeling would work at the national level.

- At the national level there is a high level of interest especially in South Africa, in the labor unions, the planning commissions etc. however, there is a big capacity gap to take the initiative forward.
- Participants highlighted the fact that the report did not emphasize the need for training and capacity building. There is no national knowledge on GE training and hence not much can be done on GE without building capacity at the national level.
- The issue of equity should also be emphasized.

UNEP-Universities Nexus: The Environmental Education and Training Unit (EETU)

Mr. Mahesh Pradhan, Head of EETU, started his presentation by providing a brief overview of the number of universities across the globe, roughly 16,000+ including a breakdown by region. He indicated that it was almost impossible to assess the actual number of graduates from the 16,000+ universities, especially those graduating from sustainability oriented programmes. The role of universities is vital to ensure that current graduates become critical thinkers, problem solvers, strong communicators and work effectively as a team. Graduates these days have access to additional information through the internet, so learning modalities need to be upscaled and adapted. Funding is always an issue for most universities, as well as governance and the level of autonomy they have. In the current day context, the mobility of graduates has improved drastically,

Discussions

- The GE report itself is a first step to set the scene for further reports and hence not all the stakeholders have been clearly indicated ie. Indigenous communities, private sector, civil society and hence the universities have also not been mentioned. The report is a delivery of message from the member countries.
- The report has come out very well, however there is a lack of urgency in the report. It gives us information about the scenarios until 2050. Nevertheless, there is a need to talk about what happens in the next few years, what happens to the MDG targets that are not met etc and not wait until 2050.
- Discussions about who would be the winners and who would be the losers while transitioning to the green economy and if the

whereby students today have a lot of choices on their fields and places of study.

UNEP's mission involves inspiring, informing and enabling people and institutions on the environment and sustainability agenda. UNEP-EETU is promoting UNEP's mission through enhanced engagement with Universities. UNEP has six thematic priority areas, six divisions and works across six regions. EETU is located in the Director's office within UNEP's Division of Environmental Policy Implementation (DEPI), which is the largest UNEP Division. EETU promotes attitudes and value systems that influence environmentally-ethical behavior by developing understanding, skills and values that will enable people participate as active and informed citizens in the development of an ecologically sustainable and socially just society. EETU also implements EE&T for SD within the broader context of the UNDESD, 2005-14. The target audience at EETU is on HIGHER EDUCATION (universities & other tertiary institutions of higher learning) and POLICY MAKERS in government, civil society and academia through targeted training courses at selected universities.

EETU's engagement with and through universities, is anchored around three pillars: Education, Training, and Networking. The first pillar on Education focuses on integration of environment and sustainability dimensions into university curricula, management and operations. EETU is also looking at catalytic curricula and there are plans to develop a source book on the Green Economy and Ecosystems Management.

The next pillar is training which intends to bridge the gap between the policy and practice, by building capacity. It works through partnerships with universities to package and deliver targeted training courses for policy makers in government, civil society and academia; this pillar is intended to enhance applied competence and decision-making capacity on contemporary and emerging issues on environment, development and sustainability – with due consideration of UNEP's six priority thematic areas. Currently EETU has around 10 annual training programmes with over 300+ policy makers being

trained – eg. Dresden University is conducting its 35th year of EMS training with UNEP.

The third pillar aims at encouraging and strengthening regional and sub-regional higher education networks on environment and sustainability modeled around continents, UNEP regions as well as North-South and South-South frameworks; Establish linkages with other higher education initiatives for environment and sustainability around the world and recognized programmes of excellence. He also provided some examples of networks at various levels:

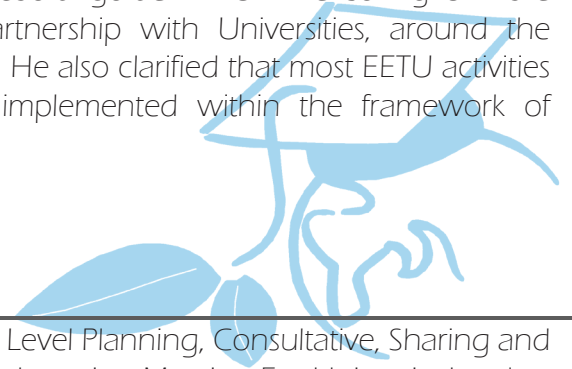
Global:

- GUPES + Tailloires; Copernicus Campus; Ubuntu Declaration; GHESP, ULSF, RCEs, UNDESD – IAC, Eye on Earth,

Regional:

- Africa - Mainstreaming Environment and Sustainability into African Universities (MESA), Phase 3: 2011-14, 60% coverage, African Association of Universities
- Asia Pacific – Regional University Consortium on Sustainable Development, being coordinated by Tongji University
- Caribbean – Mainstreaming Environment and Sustainability into Caribbean Universities (MESCA), 11 Universities,
- Latin America – linkages with the Environmental Training Network (ETN)

Mr. Pradhan highlighted how GUPES could add value to the existing university networks. He also challenged participants to come up with innovative and good ideas that could guide EETU in ensuring a more effective partnership with Universities, around the three pillars. He also clarified that most EETU activities would be implemented within the framework of GUPES.



Day 2, Session VI

Masters Curriculum Outline on Green Economy and Ecosystems Management



Dr. Mark Curtis, Faculty of Agriculture and Environmental Sciences, McGill University started his presentation by providing an overview about the McGill-UNEP Collaborating Centre on Environmental Assessment which works towards Integrating Sustainability science, economics and policy for global resource management. He then went on to update participants on the Master of Science, Environmental Assessment, which he indicated, is aimed at professionals and advanced environmental and social science graduates active in careers in the international, governmental, private sector and civil society institutions and agencies that guide environmental impact assessment, integrated assessment and sustainable development in Canada and worldwide. Structured in collaboration with the UNEP and the Canadian International Development Agency, the Masters program was based at McGill's Macdonald Campus. The program duration was one year (January- December) and comprises three inter-related elements: 1) graduate level courses, 2) an internship, and 3) a project related research paper.

infrastructure, Dedicated faculty "champion" for MDP, Substantial development experience, Dedicated personnel, Practical training opportunities, Student demand and finally financial commitment.

He then briefed participants on newly commissioned work on curriculum source book on the Green Economy and Ecosystems Management, which in the process of development. Based on his experience and networks in creating new UNEP-affiliated Masters Programs he concluded his presentation by opening the floor for discussions on some general points including questions regarding Thesis vs Non-Thesis, Timeframes, Target Cohorts, Professional Programs vs "Academic" Programs, Existing or new courses? Complementary Options? etc.

Courses are delivered by McGill academic staff and experts from partner organizations involved in environmental assessment and sustainable development. The courses also include guest speakers drawn from public and private sector institutions internationally. A summer internship was a central feature of this Masters program, which can cover a wide variety of scientific disciplines and can be carried out with a growing number of host organizations. These include the United Nations Environment Programme, the Canadian International Development Agency, the Canadian Environmental Assessment Agency, the African Development Bank. Student interns are supervised by both their host organization and an academic supervisor from McGill, and upon completion of the internship are required to write a comprehensive report of their work.

Keys to success of the Masters Programme, according to Prof. Mark Curtis, were: Strong institutional support, High academic standards, Significant geographic representation, Sufficient institutional capacity, Supportive institutional "home", Established



ESD Curriculum Guidelines for Higher Education

Prof. Heila Lotz-Sisitka, Professor of Environmental Education and Sustainability: Murray and Roberts Chair of Environmental Education – Rhodes University, South Africa, started her presentation by indicating that the work to come up with curriculum guidelines for mainstreaming Education for Sustainable Development in the university curriculum. The guidelines are expected to be ready by the end of the year and would be shared with all relevant stakeholders. The presentation consisted of the proposed structure of the guidelines which begins with curriculum and context, approaches to ESD curriculum transformation, transforming curriculum and assessment for transformative learning, principles and questions to guide curriculum review and strategies for innovation, review and evaluation. She went on to explain in detail each of the proposed structure.

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With respect to curriculum and context she indicated that there was a need to understand the changing knowledge and societal context, the planetary challenges and link them to UNEP's main thematic areas and explore how they manifest locally. It is also imperative that the guidelines provide ideas about what the nature of issues that needs to be addressed are which are complex, integrated, involve past-present future, local and global at the same time. This section would also deal with the new concepts for development (e.g. Sustainability, resilience, transition, transformation etc.)

The second section deals with approaches to ESD curriculum transformation since there are changes within specific disciplines. Thorough discussions with respect to multi and inter-disciplinary approaches, trans-disciplinary approaches, competence and capabilities approaches would be held in this section.

The section would also provide examples from various disciplines and context and also deal with the cross cutting issue of whether there would be a bolt/add on approach, integration approach or a complete

intrinsic transformation approach to ESD curriculum transformation.

The third section is about transforming curriculum and assessment for transformative learning. This section fundamentally deals about the understanding of the transformative learning (self, society and environment), participation in learning and critical and creative thinking, values and transformative learning. It would also deal with the approaches that strengthen transformative learning; implications for curriculum and assessment.

Prof. Heila also extensively informed the participants about the plans for the section four which is about the ESD Principles and Questions to guide Curriculum Reviews. With respect to the last and final section she indicated that while dealing with the Strategies for ongoing curriculum transformation, evaluation and review it would closely look into Curriculum transformation networks and resources, Curriculum committees and panels, Communities of Practice approaches to curriculum transformation and evaluating curriculum transformation at different levels. he concluded by indicating that the above mentioned stages are general guidelines and the main purpose of the presentation was to obtain the inputs from the participants so as to improve the contents.

Discussions

- Nairobi University, United Nations University, UNEP and UN-Habitat have come up with a masters course titled Education for Sustainable Development in Africa which consists of Rural Development, Mining and Sustainable Urban Development. SUD has already come up with new curriculum and will very soon be presented in a workshop. The ESD curriculum guidelines could include experiences from the processes in developing the masters course.
- Suggestions were also made regarding the order (No 4 to go to No2 and vice versa) of the stages.

Greening University Toolkit

The Green University toolkit was presented by Prof. Muttucumaru Sivakumar of University of Wollongong on behalf of Prof. Deo Prasad from the University of New South Wales, who was unable to join the meeting. Prof. Siva started by indicating that universities have a special responsibility both to define and to exemplify best practice so as to achieve sustainable development. The greening of the universities tool kit was also in response to the increasing pressures put upon universities to engage with and respond to climate change and other sustainable development issues and the associated risks and challenges. At the same time Universities are expected to be the engines and innovation centres for sustainable development through teaching and learning, research and knowledge transfer. Moreover, universities' educational role extends to the plethora of activities which support and extend the teaching and research core: campus management and operations; campus planning, design, construction and renovation; purchasing; transport; and engagement with the wider community.

Evidence, however, shows that many universities are struggling with the concept and agenda of university "greening"; achievements to date have been scattered and unsystematic. While some noteworthy exemplars of university sustainability initiatives exist around the world, there is a need to maximise the potential benefits by encouraging dissemination of experiences and replication on a large scale. The objective of the project is to inspire, encourage and support universities to develop and implement their own transformative strategies for establishing green, resource-efficient and low carbon campuses. It provides an opportunity to build stakeholder capacity to deliver systemic, institution-wide integration of sustainability principles into all aspects of university business. The contents of the tool kit is designed to provide universities with the basic strategies and tactics necessary to transform themselves into green, low carbon institutions with the capacity to address climate change, increase resource efficiency, enhance ecosystem management and minimize waste and pollution.

- The first section, Defining the sustainable university, establishes the context with a brief introduction to sustainability and sustainable development, and the elements expected of a sustainable university which includes Integration of sustainability criteria in the university's vision and mission, across the curriculum, research agenda and campus administration; Student involvement in action to minimise the unsustainable impacts of the university's own activities; Outreach and service to the wider community; and Celebration of cultural diversity.
- The second section, Strategies for transformation, addresses the strategic infrastructural, managerial, operational and cultural issues to be considered in developing a framework for sustainability planning and management. Case studies from six continents are presented as exemplars.
- The third section, Tools for transformation, sets out generic guidance on the tactical aspects – step-by-step methods and procedures, checklists, performance indicators and monitoring, evaluation, reporting and communication tools. Web links to a variety of existing online resources and organisations are provided to enable universities to access information pertinent to their particular circumstances.
- The fourth and final section, Recognising and rewarding progress, outlines a methodology and potential criteria for a global award scheme to facilitate continual improvement in university sustainability performance.

Each section has been prepared as a stand-alone "pullout" document which can be read and used on its own, or be combined with the other sections to constitute the full Toolkit. A separate introductory brochure provides a brief promotional introduction to the project and an executive summary of the outcomes. Concluding the presentation on behalf of

Prof. Deo, Prof. Siva requested participants to provide their inputs into the Greening Universities Toolkit at the earliest possible.

Discussions

- Low cost/no cost options should be included within the toolkit. This will be helpful for the universities to initiate sustainability actions at minimal costs.
- The issue of local technologies and how these technologies could be up-scaled should be included within the toolkit.
- The Imperial College of London has initiated low and no cost sustainability actions and it is important to include such examples within the final tool kit.
- It was also discussed during the session that being aware of the actions is the first step even before getting into action itself.
- There has to be oneness with respect to the awareness level and the vision regarding sustainability actions within universities (eg. Nairobi University).

The toolkit could also include a sustainability pledge to be taken by all the staff members both academic and others. This would also provide any new staff joining a university with a clear idea about what the goals and actions are with regards to sustainability.

Day 2, Session VII

High level Panel: University Leadership,
Management and Sustainability – Issues,
opportunities and challenges

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Universiti Sains Malaysia

Prof. Dzulkifli Abdul Razak, University of Science, Malaysia, Vice President of International Association of Universities situated in Paris and affiliated to UNESCO, as well as Vice Chancellor and President of University of Science, Malaysia, started his Skype presentation by providing an overview of IAU and indicated that for IAU higher education and sustainability is part of the core priority since 1993 and since then have been heavily involved in many activities around the world and also nationally to promote the idea of Sustainable Development. It had worked towards realigning the concept of Sustainable Development at the institution level and also at the same time towards getting the support of the higher management/leadership of the universities for these issues. In 1993 IAU was instrumental in drafting the Kyoto Declaration of Sustainable Development which is supported by more than 90 university leaders around the world. IAU being an international institution has more than 700 universities as its membership. IAU has also established a task force with a mandate to do quite a number of activities including advising higher learning institutions about the direction it needs to take on Sustainable Development related issues which include curriculum design, content of curriculum, issues and policies of greening the universities, campaigning and advocacy related to sustainable development. IAU has collaborations with institutions around the world and more recently with Association of African Universities (AAU). The IAU website is a good place to obtain sustainable development related information. IAU will be organizing a number of conferences on sustainable development during this year. One will be in Germany on Sept 14, where sustainable development issues will be discussed. In November 16, in Nairobi IAU will be having an international conference with one of its theme being sustainable development and will invite university leaders from across the globe. In the context of Rio + 20 IAU will support a world symposium on sustainable development which will be organized in parallel to the main conference.

USM is a science university with nearly 29,000 students, with about 8,000 graduate students. Since two years

SD issues have become core part of the business of the university. And the ambition of the university is transforming higher education for a sustainable tomorrow. Several activities have been initiated and one of them being the establishment of Centre for Global Sustainability Studies which works on issues related to sustainable development. Of the many things that the university has done, research teams will be more likely the platform where different academia will engage with. He indicated that a number of chapters within the research teams have been organized in order to address specific sustainable development related issues eg. production and consumption and also the very basic idea of changing the lifestyle within the campus. The university particularly considers the campus as a test lab where sustainability actions will be taken up. This will provide an excellent opportunity for the staffs and students to interact. The successful sustainability actions within the campus are then taken out of the campus to the community and thereby there is an opportunity for the staff and students to interact. The society in principle is looking at the universities as a role model especially how sustainability is featured within the universities. The actions of USM are satisfactory on this count. These successes and experiences in the past two years have provided the university with the much needed experience to upscale its activities related to sustainability and able to address several issues of the down trodden and marginalized society and hence allowed the university to focus on the aspect of human being and quality of life they live.

Asian Institute of Technology, Thailand

Prof. Said Irandoust, President, Asian Institute of Technology (AIT), Thailand started his Skype presentation by providing an insight into the mission and sustainability activities of AIT. He indicated that AIT being an international institution for higher education promotes regional cooperation on matters related to sustainable development. Sustainability is integrated as a core component of all the activities of the university. Not only the concept of technology but also other dimensions including social, economic, political and spiritual aspects of sustainability are being discussed and integrated into the activities of AIT. The university also

works on energy use, waste generation and pollution related issues which it believes will also contribute to sustainable development. Furthermore, it also works towards understanding the issues pertaining to increasing the GDP through green sector in the regions and also through green investments. The university has also established a **Centre of Excellence on Research** in the context of climate change and sustainable development. It also addresses the issues of disaster risk management and reduction. The university also has a Centre which addressed the issues of social business and corporate responsibility etc. thereby ensuring that the sustainability issues are addressed in the private sector as well, in addition to the public sectors. One of the main tasks of AIT is dissemination of the information and knowledge on sustainable development to various stakeholders.

AIT has established a number of professional programmes on issues of sustainability and works with many regional institutions and also CSOs ie. it works with Wetlands Alliance Programme to address the issues pertaining to the local capacity on wetlands management. The university also serves as a global secretariat on waste management issues. It hosts a Centre for Asean Water Research and Education and it is also built in the model of public and private partnerships. AIT also hosts a joint centre with UNEP, known as the Regional Resource Centre for Asia and the Pacific (RRC.AP). He concluded his presentation by informing the participants that the university is also developing sustainable building codes for the various types of building in the region and is trying to be a low carbon model both at the local and regional level.

Chalmers University, Sweden

Prof. John Holmberg, Vice president, Chalmers University, Gothenburg Sweden; Professor in Physical Resource Theory and UNESCO Chair holder Sustainable Development at Chalmers University of Technology, started his Skype presentation by providing a brief overview of the Chalmers University and its location. He then moved on to indicate that the earth will have 10 billion people in few years' time and posed a question whether they all could be happy.

Moving further on, he then explained Chalmers University's responses to the Sustainable Development debate. As early as 1989 the Gothenburg Center on Sustainable Development involving Chalmers and University of Gothenburg was started. After about ten years, in 1999 the Chalmers Environmental Initiative 100 MSEK was initiated and also 7 new chairs at different departments at Chalmers were established. In 2001 it became a member of Alliance for Global sustainability. Eight areas of advance with sustainable development as the driving force was initiated in 2009. Recently in 2011 around 5 regional knowledge clusters with sustainable development as the driving force was established. The university has also organized a series of conference on Education for Sustainable Development. Furthermore, the university has also published several reports and books on the Sustainable Development in higher as well as school education. The university had been organizing series of advanced international training programmes and the recent one titled Education for Sustainable Development in Higher Education was organized both in Sweden, South Africa and China in May and Oct/Nov respectively.

He further depicted pictorially in what ways the universities could contribute, the knowledge triangle with research, education and innovation at the three ends of the triangle. Universities are neutral meeting places with new options for interaction and a place for trustworthy development of local-global knowledge clusters. He indicated that basic Science constitutes the foundation with Sustainable development; innovation and entrepreneurship provide the driving forces. The areas of advance that needs to be looked into in the current context are energy, information and communication, life sciences, material science, nano science and technics, production, built environment and transport.

He introduced to the audience the concept of triple helix with academy, public sector and private sector forming the helixes and went on to explain that universities should act as **nodes in glocal knowledge clusters** and attract competence and investments. He then talked about the regional knowledge clusters

including urban future, bio based products, mobility solutions, life sciences and marine and maritime studies.

He then emphatically put forth the argument that the traditional view of the role of universities with academic research being considered as producers and public and private sectors as users is no more a viable option. He indicated that academic and public and private sectors co-produce the research and its outputs in a participatory way and it is these demand driven research whose utility is higher than others. He mentioned that successful collaborations begins with listening and the cost of not listening is quite high.

Concluding his presentation he briefed the participants about the lessons that every one needs to take into account for successful sustainability actions. It included avoiding lock-in effects, by building open, inviting and service oriented neutral arenas for bottom up engagement; avoiding loss of momentum when governmental and management teams are shifted by maintaining memory and momentum in relevant networks; avoiding one way communication, by creating interactive learning environments within universities, in regions and between countries and avoiding getting stuck in defining sustainability by acting.

Tongji University, China

Prof. Wu Jiang, Vice President, Tongji University, China, started his presentation by mentioning that Tongji University had been seriously considering how to provide common courses on sustainability for all the students studying at the University. He indicated that already there are special degree programmes on sustainability particularly for international students and also unique leadership programmes both for international and domestic students. He also informed participants that Tongji University has more than 40,000 students. He mentioned that secondary degree on environment and sustainability issues were not the same for everyone but different for different disciplines. He also informed participants that there are efforts to make the entire Tongji university into

a 'sustainable university'. There are many universities in China and they have different approaches to sustainable development issues. However every year, most of these Universities come together and discuss under the ambit of several university platforms on issues regarding environment and sustainable development.

Middle East Technical University, Turkey

Prof. Lale Ozgenel, Asst. President, Middle East Technical University, Turkey informed the participants that she is responsible for the architectural and campus planning as well as cultural and aesthetic affairs of the campus. She went on to provide a comprehensive overview of the Middle East Technical University, which is based in the capital city of Ankara at Turkey founded in 1956. While listing out the sustainability issues the university is facing including the age of the campus buildings themselves, she indicated that her university has accomplished a lot in terms of environmental and sustainability issues due to its planning policy set in the 1950s.

The successes achieved included the building of the campus and deciding on the designing philosophy of the built environment. One of the strongest assets of the campus is the forest created over the past 50 years through the re-forestation programme. The decision making on the sustainable development of the campus including preserving natural/cultural heritage, maintaining the original design principles, governing the lake area belongs to the presidency itself and its related offices. The reforestation programme has resulted in increase in the quality of the campus life and also in the urban quality of life. The programme itself is sustainable in both short and longer terms and was duly recognized for its sustainability issues through the Aga Khan Award for Architecture in 1995.

She went on to dwell on the research agenda of the university, which she indicated, is focusing on alternative energy issues in addition to the building programmes study. A center for wind energy research was established this year. The university administration plans to bring together this research

potential by initiating a research park project. Presently, the university has intensified attempts to increase awareness for sustainability among students, research and education communities. One such example is the student competition named 'Towards a Sustainable Campus' that was held recently and had received great attention by multidisciplinary students.

A new sustainability related interdisciplinary graduate program, named Earth System Science, was launched in 2010. The program mainly targets employees of public institutions so as to integrate sustainable development into governmental decision-making and implementation. Over all METU is on its way to develop a more structured policy in organizing an agenda on issues of sustainability, in its research and curricular activities, administrative body and community and institutional awareness. She concluded by indicating that she hopes to foster some partnerships and joint projects together with GUPES initiatives. She also indicated that METU is willing to establish a network among the Turkish universities and coordinate possible contributions that may come from different institutions, researchers and related interest groups.

University of Nairobi, Kenya

Prof. David Mungai mentioned that the University of Nairobi recognizes that the nature and scale of its activities can impact on the environment, both locally and globally. The University has a responsibility to manage its activities in a way that reduces the negative environmental impacts and enhances positive impacts. The University of Nairobi was committed to sustainable development and the preservation and enhancement of the natural ecosystems on campuses and their environs, and integrating human activities with these ecosystems. The University mainstreams the requirements of sustainable development and environmental awareness into all stages of planning, design, implementation and decision-making processes of all proposed projects, developments and activities at the University.

In order to operationalize this principle, the University:

- Provides appropriate incentives to Departmental Heads and individuals within the University who achieve demonstrable continuous environmental improvements
- Ensures that all changes in the University campuses are designed, constructed and maintained in a manner that promotes sustainability
- Encourages innovation in construction management, systems maintenance and retrofitting and, landscaping

The University of Nairobi recognizes that it has a role to provide students with the tools to be environmentally conscious citizens. The University desires to offer leadership as an environmentally responsible organization and is committed to promoting environmental awareness, and educating and training the University community regarding the collective responsibility to implement its environmental policy:

- Providing students and all cadres of staff including administrators with courses, workshops and information seminars which will increase their knowledge and awareness of environmental responsibilities
- Encouraging the formation of Waste Minimization Clubs among the students and staff of the University
- Building partnerships with local communities, national organizations and other stakeholders pursuing environmental programmes and initiatives
- Assists students with internships and volunteer opportunities in the areas of environmental awareness and sustainable development
- Promoting interdisciplinary education

and research across faculties, schools and departments

- Encouraging the mainstreaming of Cleaner Production in the curricula
- Initiating an award scheme for individual or group environmental initiatives and performance
- Supporting the development of demonstration projects based on institutional initiatives that demonstrate best environmental practices that can be replicated in other institutions

The University of Nairobi was committed to measuring and monitoring its progress towards reaching its environmental goals and objectives in its environmental policy:

- Evaluating conformance with its environmental policies and standards
- Using a set of meaningful environmental indicators that measure the University's performance and assist in identifying areas of improvement
- Benchmarking its performance against other academic institutions in Kenya, the region, Africa and the world
- Preparing an annual environmental report that contains quantitative indicators to measure progress toward meeting the obligations contained in this policy

The University is committed to purchasing products which balance quality and cost, and which promote environmental sustainability. The University will encourage its suppliers and contractors to provide environmental data about their products and to develop products that are environmentally friendly.

The University of Nairobi was also committed to developing and sustaining an Environmental Management System (EMS) based on the International Standards ISO 14001. The EMS, together with the ISO 9001- 2000 Standard, serves as the mechanism for achieving the University's Environmental Policy, including compliance with legislative requirements and the measurement of continual improvement targets and outcomes.

Universidad del Pacífico, Peru

Prof. María Matilde Schwalb Vice –Rector, Universidad del Pacífico, Peru, initiated her presentation with an introduction of the Universidad del Pacifico and went on to explain the concept of the need to transform the society into a more just and inclusive and what role universities could play in this. While universities activities lead to certain impacts she made it clear that the values viz., justice, solidarity, respect, honesty and freedom of thought are equally important for the sustainable human development. She further explained impact areas or the variables in details and provided links to the various university activities including teaching, research, community outreach and management. Next, she explained how the processes of formation of responsible leader who promotes wealth creation works within the university system. She also informed participants about the research centre on sustainability and six research areas including regulation, infrastructure and competency.

Student activism was also explained in detail. UP's student center organizes extracurricular activities in order to balance their studies. There are several others including one named Action Sustainable which works towards creating awareness and motivation of the students in order to improve the social and environmental life. She also explained in detail how the social outreach for sustainable development issues has been set up with interaction with the business sector, contribution to the government and partnerships and networking with civil society organizations being the three key issues to be looked into. University professors in high public office have also helped to enhance the activities related to sustainability. Concluding her

presentation she also dwelt on issues pertaining to formulation and evaluation of public policies.

Universidad Rafael Landívar, Guatemala

Dr. Hector Tuy, Institute of Agriculture, Natural Resources and Environment from the Universidad Rafael Landívar talked about Measuring Green Economy Education, Training and Networking. He started his presentation by providing an overview of his university and indicated that it was the second largest in Guatemala and home to many Mayan students. The university had specific mandate from the government on various sustainability related issues and in order to fulfill this mandate the university has adopted the social ecological system as a fundamental framework. He explained about the System of Integrated Environmental and Economic Accounting (SEEA) and its use and utility in measuring green economy. SEEA was used to do an environmental accounting.

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He provided detailed description of system they had developed for accounting in the central bank. The university had an office in the national statistics office and worked on developing a system of environmental statistics and indicators for environmental accounting eventually leading to informed policy making. He also indicated that the university worked with the Ministry of Environment and Planning on various counts including publishing environmental outlook reports, official environmental statistics report and also the environmental report of Guatemala every year. The university is also constantly striving to reduce the carbon footprint of all its campuses.

Day 2, Session VII

Group work – Education, Training and Networking



Based on the strategic directions of EETU, three working groups brainstormed on the education, training, and networking pillars in parallel. This was followed by plenary presentations by the three working groups.

Group 1 – Education

- The group indicated that there is a need to develop a one page concept paper that needs to be submitted to the Rio+20 secretariat before 1 Nov. They went on to indicate that this will give everyone an opportunity to bring education back to the driving seat for bringing forth a green and inclusive economy, introducing new approaches to economic thinking.
- The GUPES platform also provides an opportunity for being proactive and not reactive. The group deliberated on the priority issues that need to be included in the submission as follows (not listed according to priority):

»Bring out the need for the introduction of new approaches to economic thinking;

»Need for the agenda to be contextualized to local conditions;

»Emphasis that the green economy agenda should be multidisciplinary in nature;

»Indicate the need for GUPES to use knowledge and education to empower local communities and to engage them and make use of the enormous indigenous knowledge, which was often neglected in the formal education systems;

»Include issues pertaining to human value and ethical issues;

»Make suggestions regarding how

universities could act as “living laboratories”;

»Suggest that sustainable development education should be inculcated in all disciplines in undergraduate education, wherein eco-literacy should be a must.

- The group indicated that GUPES should make necessary efforts to reach out to various other universities and also wider stakeholders including international and regional associations viz., IAU, AAU national education boards and others. These stakeholders should be identified and informed about GUPES and the work it does and Rio+20.
- Systems thinking should be the underlying concept that runs through all the issues being discussed. In the pedagogical sense, systems thinking should be included.
- The discussions also clearly brought out the unique features (niche) of GUPES vis-a-vis which is, it is an educational agenda, which emphasizes the path towards sustainability through education and knowledge generation which no other initiative is trying to do. However they also indicated that it is important to have an overview of other similar activities so as to ensure complementarity of efforts.
- The participants concluded that urgency should be kept in mind and suggested a unique title for the policy brief: Systems and systemic trans-disciplinary knowledge for green economy within the context of sustainable development and poverty eradication.

Group 2 – Training

- Training programmes:
 - »The group concluded that there should be focused and targeted



regional training programmes through GUPES, which in principle will address the concept of thinking globally and acting regionally. UNESCO's training programmes were mentioned together with the idea of using the same training materials that would be developed in the future through GUPES, conceptualized to the local level where ever the training is provided (adapting to the local level). It was mentioned that GUPES should be able to provide training to various stakeholders depending on their particular needs. GUPES could also organize capacity building training at the local government levels through partners.

»The group indicated that GUPES should identify new and current ideas that needs to be part of the training to the stakeholders. Experiences of already existing training programmes and those which would be developed in future should be shared to all the members of GUPES (also as case studies). It was suggested to explore options available for successful training programmes within universities (infrastructure for trainings, etc).

»GUPES training programme to provide priority to Africa and other developing regions as identified. Inventory of existing training programmes and regional needs should be undertaken through GUPES

- Teaching: GUPES should encourage all universities to undertake basic standardized courses on sustainability (universal standards). The content has to be updated constantly. The

suggestion was to have a core group of trained professors with expertise on certain subjects, who could be used to train stakeholders in different regions.

- **Online platform:** It was suggested that GUPES establish an information platform, which could provide relevant information and materials through a dedicated website
- **Resource mobilization:** The group also discussed on issues pertaining to resource mobilization. It was brought to the notice that individual professors within member universities could run training programme as part of their research programmes which could go a long way in building capacity to various stakeholders. It was also indicated by the participants that UNEP-EETU through GUPES could influence the national governments to provide resources to the partner universities to train their own people at the national level.
- **Others:** It was recommended that UNEP/EETU supports regional GUPES committees to initiate some activities. This would help universities to convince their leadership that their efforts are this is a part of a larger initiative.

Group 3 – Networking

- A Declaration of basic guiding principles, possibly 12 or 15, for the Green Economy in the context of Sustainable Development and Poverty Eradication to be developed and submitted on behalf of GUPES, before 1 November to the Secretariat of the UNCSD/Rio+20. This declaration should be developed drawing on the wisdom of the past documents viz., Stockholm, Rio Declarations, Johannesburg Plan of Implementation, the Tailloires declaration (which was still being signed up by universities), the Earth Charter with the sub chapter on the values and ethics, etc.
- It was recommended that a policy paper/brief for higher education on the Green Economy in the context of sustainable development and poverty eradication should be developed. The policy brief should be only three to four pages and should include important issues in line with what governments are looking for. The paper should talk about low carbon resource efficiency, inclusiveness and equity. The paper should also refer to the declaration of the basic principles that the group has envisaged to prepare. The paper should include key elements that the governments are looking for, including financing for green economy, private sector engagement, green bonds, economic incentives, standards etc.
- The group highlighted two issues that came out strongly during the GUPES meeting was the sense of urgency and the sense of respect.
- The group recommended the notion of capacity building to be included in the policy brief, which will entail that the role of higher education in capacity building should be discussed and defined. The brief should be circulated within universities and also externally for comments/inputs.
- The group recommended that GUPES should also dwell on the issue of membership and make facilitate additional universities to become members of GUPES.
- It was suggested that there was also a need to have an online platform wherein various members could discuss about sustainability. It was suggested that GUPES provides a platform wherein partner institutions could provide courses on sustainability through a web based platform. Technology has improved a lot these days, whereby the same course could be offered to numerous students across the globe at any given point of time. GUPES should also have an online platform whereby relevant information are able to post resources, which will be of tremendous benefit to students and other stakeholders alike. The participants also indicated linkages with Google Earth could be explored. The group discussed about possibility of hosting such a platform at one of the partner universities, whereby there is necessary flexibility in making the online platform vibrant. Tongji University offered to host the website and the team agreed that if need be Tongji university could host the online platform and indicated that UNEP-EETU should pursue this opportunity.
- The group also recommended that GUPES should be launched at Rio+20 and the notion of innovation partnerships/trans-disciplinary collaboration could be easily made either with individual universities with others or there could also be multiple universities.



Day 2, Session VIII

The Global University Partnership for Environment and Sustainability



Mr. Mahesh Pradhan provided an update on GUPES, which was a relatively young initiative since the initial consultations in Nairobi last November. UNEP has been supportive of GUPES, especially under the leadership of the DEPI Director who has provided additional support to EETU as a follow up to the Nairobi consultations last year. An interim GUPES Steering Committee comprising of two regional representatives from each of the five regions, and an interim chair were also elected in Nairobi last year. He then briefed participants on GUPES progress since the Nairobi consultations, as follows:

Institutional development of GUPES

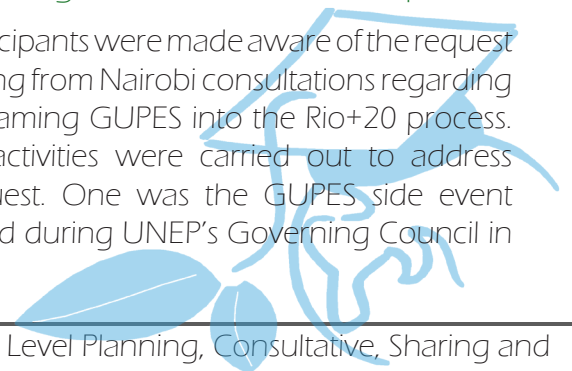
- **Charter and Bylaws:** A draft charter and bylaws were adopted during the Nairobi meeting, which was further refined through consultations with the Interim Steering Committee. Currently, the draft Charter and Bylaws were being reviewed within UNEP. One option was for the Charter and Bylaws to be kept within the UN system, which means have to be reviewed and approved through existing UN legal system and procedures. A second option involves one of the GUPES members taking the lead, and hosting the GUPES charter and bylaws, thereby promoting a sense of university ownership for GUPES. Participants felt that the UNEP-Tongji Institute of Environment for Sustainable Development might be best placed for the second option, given their role as Chair of the Interim Steering Committee.
- **Interim Steering Committee:** Mahesh explained the composition of the Interim Steering Committee and requested participants for their feedback. Participants unanimously agreed, by acclamation, for the continuation of the Interim Steering Committee as is, given the diligence and efforts made by the Committee.
- **GUPES Secretariat:** He updated participants on the status of the interim Secretariat at EETU. EETU is currently in the process of recruiting a Programme Officer, as well as a United Nations Volunteer. Once these two new staff members

are on board, EETU will be better placed to service GUPES.

- **Membership criteria:** The issue of inclusivity was raised in relation to GUPES membership. How could all interested universities become GUPES members was a question posed to participants. It was agreed that this issue will be further discussed in the coming days, and participants will provide feedback to EETU.
- **Partnerships:** After the Nairobi consultations, UNEP-EETU has been in constant touch with a number of partners and interlocutors, such as IAU, AAU, UNESCO and UNU and informed them of GUPES. GUPES has proposed a side event during the World Conservation Conference in South Korea next year. Discussions have also been held with LEAD International on possible collaboration on training. Partnerships have been evolving slowly, but positively.
- **Online platform:** UNEP-EETU had been pursuing to establish an online platform with a dedicated website for the GUPES initiative. However, there has been some challenges on this front in view of limited staff, and bureaucratic procedures. The offer by Tongji University was a very welcome move in this direction.
- **Joint Projects:** One of the prominent joint projects over the past 6 months has been Tongji University - Africa Water Resources Project. A joint publication – Green Hills, Blue Cities was prepared and released during the 2011 World Water Day celebrations in Cape Town in March 2011.

Mainstreaming GUPES into Rio + 20 process

- Participants were made aware of the request emanating from Nairobi consultations regarding mainstreaming GUPES into the Rio+20 process. Several activities were carried out to address this request. One was the GUPES side event organized during UNEP's Governing Council in



Feb 2011 in Nairobi. Several GUPES members took part in this side event, which discussed on issues pertaining to the core work of UNEP-EETU viz., education training and networking, and the role of Universities in sustainability. Furthermore, EETU had taken time to brief UNEP Divisional Directors on the GUPES initiative, including the Rio+20 Secretariat within UNEP. Inputs to the UN DESD Interagency Committee, on GUPES were provided on the margins of CSD19 in New York, in May 2011. EETU was currently awaiting a final decision from UNEP senior management on options for the GUPES formal launch at Rio next year or alternate arrangements. UFRJ in Rio had in principle agreed to host the formal launch of GUPES in Rio, pending necessary clearances within UNEP.

GUPES documents/action plan

GUPES focus has been on three pillars: education, training and networking, which was presented and approved by DEPI leadership. Applied research, which was indicated earlier as a separate pillar, had been integrated within the networking pillar.

- Mobilization of resources

»Based on a briefing provided on the UNEP-EETU and GUPES strategy, the DEPI Director had allocated additional funds for activities. In-kind support was received from Tongji University for a joint water publication on African cities.

»UNEP-EETU had been looking to strengthen GUPES related activities and was in the process of developing a consolidated project document, for consideration within UNEP's next Programme of Work, 2013-14.

»UNICEF and UNEP have signed a framework agreement, which

includes environmental education as one of the areas for collaboration. One pilot activity being explored was for South Sudan, focusing on teacher training.

- Specific activities

»Education: On the education front UNEP-EETU has been working towards initiating guidelines for greening universities, ESD curriculum guidelines, innovative masters sourcebooks on the green economy and ecosystems management. In addition, Sustainability Seminars were also being implemented in Kenya.

»Training: SIDA has confirmed continuation of the ITP training programmes for an additional period of two more years. In addition to the 10 training programmes which UNEP-EETU is undertaking, a Biodiversity related MEAs training course was jointly conducted with University of Eastern Finland at AIT in Thailand recently.

»Networking: The International Students Conference on Sustainability was successfully convened by Tongji University in June 2011. The President of the Tongji university has in principle agreed to host this event on an annual basis. Plans are also on foot with respect to synergies with the Environmental Training Network for Latin America in close collaboration with UNEP ROLAC. Partnerships with UN-HABITAT and their HABITAT Partner University Initiative (HPUI) were also mentioned.

GUPES outlook for 2011-12:

- **Interim Steering Committee** – The interim steering committee will continue until the formal launch of GUPES in 2012.
- **Draft declaration and policy brief** – One document comprising both the draft declaration and policy brief to be finalized before 1 November and submitted to the secretariat of Rio+20 by the Interim Chair of GUPES. The drafting committee would comprise of four volunteers - Anamarija Frankic (UMASS, Boston), David Mungai (University of Nairobi, Kenya), Prof. Sivakumar (University of Wollongong, Australia) and Prof. Heila Lotz-Sistika (University of Rhodes, South Africa). The drafting committee will be provided with a draft paper by EETU in a weeks' time. The update document will be circulated to all meeting participants by the third week of October, so as to solicit inputs prior to formal submission to the Rio+20 Secretariat.
- **GUPES Charter and Bye Laws** – UNEP-EETU will follow-up on this matter, both internally and externally, so that these can be finalized as soon as possible.
- **Resources** – EETU will seek to mobilize US\$500K for 2012, both in cash and in-kind.
- **Web based platform** – UNEP-EETU will explore the possibility to host a web based GUPES platform. Possibilities of hosting this with existing GUPES partners, especially Tongji University, will be explored and expedited. Participants also indicated the need to have the web platform in several languages including Spanish, Chinese etc.
- **Regional and Sub-regional networks** – UNEP-EETU will focus more on regional and subregional networks particularly in Africa through MESA programme, in Asia Pacific through the RUC programme, and LAC through the MESCA and ETN programmes. Participants unanimously agreed to this approach.
- **Formal launching** – Participants were keen on the formal launch at Rio. Other options included Shanghai, in conjunction with the next International Student Conference on Sustainability, as well as in South Africa. EETU will communicate final options based on decisions of senior management of UNEP. Participants also emphasized the issue of making an announcement on GUPES at Rio, in any case. Other innovative ideas were also discussed which included organizing a symposium type of academic event, a dialogue amongst universities wherein concrete outputs in the form of invited papers could also be published under the ambit of GUPES. There were also suggestions to launch GUPES in individual participating universities through student and academic events, which in turn could help in reducing the carbon footprints. EETU was also initiating discussion with organizers of the 'World Symposium on Sustainable Development at Universities' (WSSD – U- 2012) in order to better coordinate events and related activities.



Day 2, Session IX

Conclusions and way forward

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The session started with Mr. Mahesh Pradhan providing a vote of thanks. He thanked participants and indicated that the discussions over the past two days were extremely productive and useful. He thanked all the key note speakers and facilitators who had done a great job over the past two days. He joined participants in thanking the host university, UNAB, and specifically Waldo, Alvaro, and the team of student volunteers for their hard work and dedication in ensuring the success of the GUPES high level consultations.

He also thanked UNEP colleagues in Latin America, Ms. Isabel Martinez in particular, for their support and cooperation, without which this meeting would not have been possible. He also thanked the UNEP-EETU team based in Nairobi, for their exemplary work in the preparations for this meeting.

In concluding, he revisited the objectives of the meeting and sought feedback from participants as to whether these had been achieved over the past two days.

With respect to the objective of sharing of experiences, all participants felt that this had been successfully achieved. They also agreed that the high level panel with three vice chancellors, rectors and deputy presidents provided them with an enriching and unique experience.

On the second objective of the position paper on universities role vis-à-vis sustainability issues, to be submitted to the Rio+20 Secretariat, he recalled that four volunteers would assist in the drafting committee. The draft submission would be circulated to all participants by mid-October, well before the deadline of 1 November set by the Rio+20 Secretariat.

Thirdly, on the issue of core priority areas and strategy of UNEP-EETU, he indicated that he had received valuable inputs through the various working groups. This would help in updating the EETU strategy and partnerships. He also indicated that finalization of the ESD guidelines, Green Economy and Ecosystem Management Masters sourcebooks, and the guidelines

for Greening of the university would require further inputs and comments from GUPES members, prior to dissemination. He hoped that this would add value to the existing body of knowledge on the subject matter.

Finally on GUPES, the inputs from participants had been extremely useful, especially in terms of regional networks such as MESA, RUC and MESCA.

Closing remarks

[Prof. Hernan Orellana Hurtado](#), Dean of Faculty of Engineering started his closing remarks by indicating that it was a great honor to host this meeting at UNAB and went on to thank all the participants. He also informed the participants that while they were discussing on the next steps, the University had itself been discussing on how to increase sustainability with their curricula etc. He mentioned that the university is intending to build three new campuses and the two day deliberation has immensely influenced their plans, and helped further the agenda of sustainability at UNAB. He once again thanked participants and invited them for a conference dinner later that evening.

[Prof. Wu Jiang](#), interim Chair of GUPES, also shared similar sentiments. He agreed that the participants had a very productive two days at UNAB. He went on to explain that not only had the meeting had been very productive in terms of the discussions and sharing of experiences, it had also built new friendships and networking amongst them. He was of the opinion that GUPES was in the process of becoming a powerful initiative and that any doubts that he had last year during the initial consultations in Nairobi had been fully addressed this time round. He was convinced that GUPES could only get better and stronger with time. He, on behalf of the participants, confirmed and assured continuous participation by the member universities in GUPES. He thanked UNEP for the excellent consultations as well as UNAB for being an excellent host.

The meeting was closed at 530PM.

