



EAUC Annual Conference University of Leeds 23 – 25 March 2015

CHALLENGING CONNECTIONS

Incorporating the Student Sustainability Summit, Further Education Sustainability Summit and Transformational Leadership Summit

Workshop 18: Promoting South-North partnerships on Higher Education for Sustainability through GUPES the Global University Partnership for Environment on Sustainability

Mahesh Pradhan, UNEP; Gitile Naituli, Multimedia University Nairobi and Fengting Li, Dy Dean, ISED, Tongi University, China



@TheEAUC
#EAUCConf15



Conference Sponsor

CarbonCredentials



The MESA Network
Prof. Gitile Naituli, PhD
Multimedia Univeristy of Kenya

SO HOW DO WE BUILD CAPACITY TO BUILD CAPACITY FOR SUSTAINABLE DEVELOPMENT?

- ***Mainstreaming Environment and Sustainability in African Universities Partnership Programme (MESA)***



WHAT IS MESA?

An open partnership programme that seeks to:

- ***Conceptualise the relevance of Education for Sustainable Development in relation to teaching, research, community services and management ...***
- ***Design and apply innovative approaches to teaching, research and /or community services that reflect principles and values of Sustainable Development, enhance learning and use of ICTs***
- ***Develop and apply innovative strategies to strengthen institutional capacity for responding to environmental and development issues ...***



Sida International Training Programme on Education for Sustainable Development in Higher Education

COMMITTED PEOPLE COMING TOGETHER TO SHARE AND TO LEARN FOR CHANGE



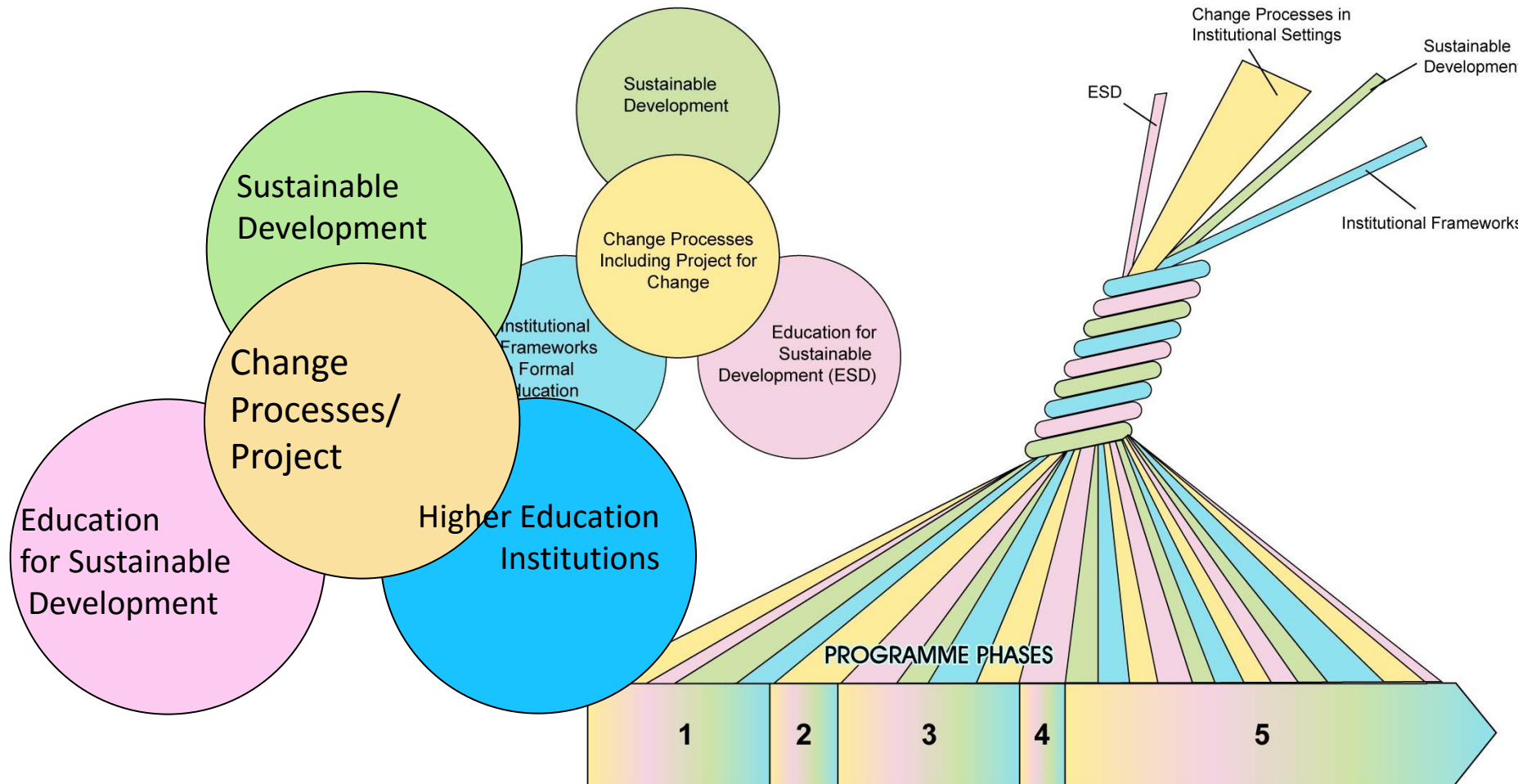
MESA- ITP ON ESD IN HIGHER EDUCATION

The **Overall Objective** is to provide an opportunity to exchange knowledge and experiences in ESD in the higher education sector within the African Continent.

More specifically the programme seeks to:

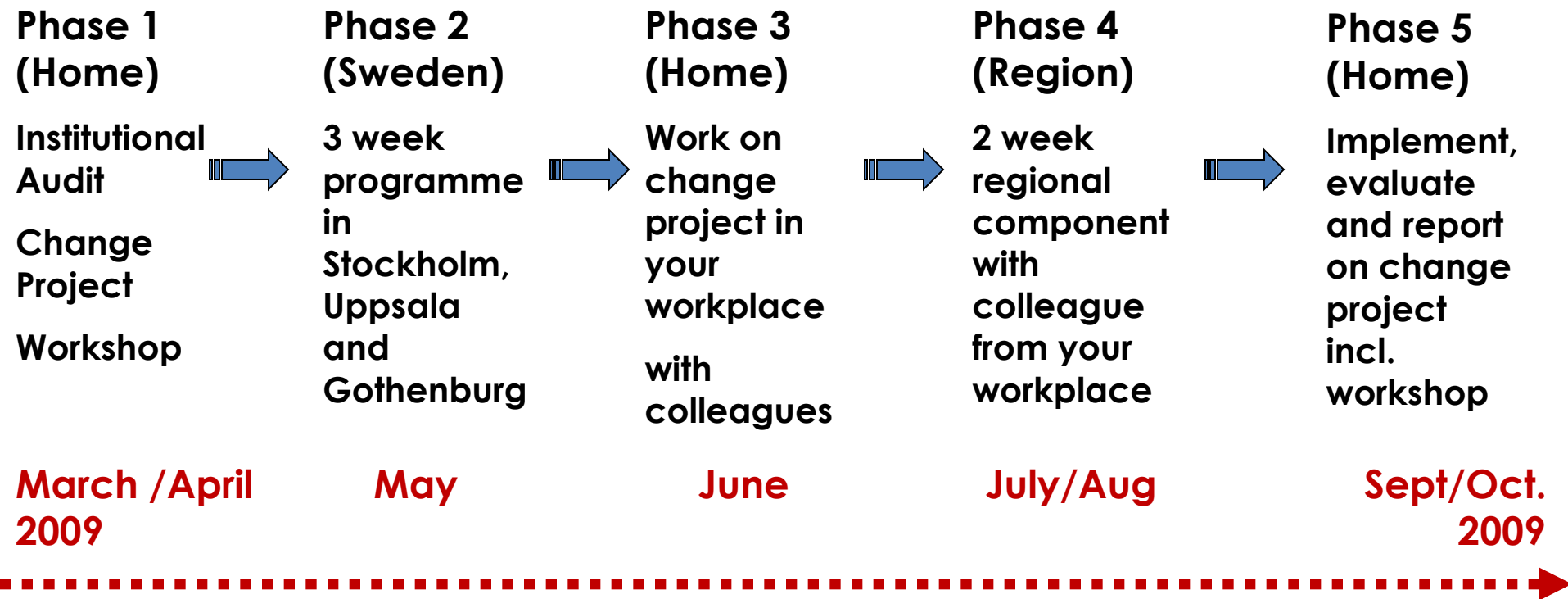
- Support and strengthen the human capacity in African institutions to create innovative learning systems to address environment & developmental challenges.
- Promote a scientific knowledge base about ESD, meant for students and staff, and the creation of skills to raise awareness and bring across specific issues.
- Provide a platform for dialogue and collaboration for universities, civil society, communities and the private sector on sustainable development projects at the local levels.
- Support and recognize innovations in African Universities that respond to Africa's most pressing economic , social and environmental challenges and opportunities.
- Promote South South, North South partnership to consolidate ESD in Africa Universities.

Programme Orientation: Themes and Phases



5 PHASES OF THE PROGRAMME

- Phases



THE EXPERIENCE: WHAT HAVE WE LEARNED?

PREVIOUS BELIEFS:

- 1. Sustainability is mostly about the environment**
- 2. Sustainability is just another issue, like business studies or computer literacy**
- 3. Sustainability is secondary to the university's core mission and function**
- 4. Sustainability will almost always cost the university more money**
- 5. Sustainability is primarily a scientific and technical problem**

MESA'S KEY THRUST

To change African University's operational and policy norms so all students can learn And practice how to be:

- 1. Environmentally responsible**
- 2. Socially responsible**
- 3. Economically responsible**
- 4. Active citizens on a global economy**

INTEGRATION OF SUSTAINABILITY ISSUES IN UNIVERSITY PROGRAMMES

Evidence gleaned from reviewing change project proposals for MESA-ITP sponsored by sida indicate that:

- 1. Lecturers are now developing a more holistic view of knowledge-showing how different disciplines complement each other/add value to each other in resolving problems**
- 2. Developing a more situated approach to knowledge, seeking out the relationship between culture, knowledge and social changes**
- 3. Prioritize responsible and ethical applications of knowledge**

- 4. Developing reflective (evaluative and practical) approaches to working with knowledge and**
- 5. Generating new forms of knowledge through multi-disciplinary approaches to research and learning**
- 6. Increased awareness about sustainability issues in university communities**
- 7. Increased practice and engagement in sustainability issues**

THE MESA (2006) SEMINAR HELD IN DECEMBER 2006 AT LUKENYA, NAIROBI LAID DOWN FOR US SOME PRINCIPLES FOR WORKING WITH THE COMMUNITIES FROM WHICH WE CAN BORROW A LEAF:

- **Learn from and with people**
- **Go at the pace of the stakeholders**
- **Link learning to action**
- **Be flexible and use friendly approaches**
- **Use multiple perspectives**
- **Search for reason why**
- **Be inclusive among and within groups**
- **Promote voluntary participation –
respecting the research ethics principle of
informed consent**

THE ROLE OF UNIVERSITIES

- **Equip leaders and civil society in Africa to play a far greater role in shaping responsive measures both globally and locally.**
- **Prepare leaders to be accountable to civil society and particularly marginalized communities within their countries**
- **Work with marginalized communities to have their voices heard in decision making bodies both globally and locally.**
- **Equip government, civil society and business to mitigate and adapt to climate change, environmental issues and sustainable development challenges.**

OUR VISION – BECOMING REALITY

- **largely as the result of MESA activities and the ITP programme sponsored by Sida, sustainable development opportunities are blossoming in Africa. Colleges and universities are developing the capacity of graduates and society as a whole to critically address sustainability challenges. By developing contextual understanding, creativity, competence and compassion higher education institutions are contributing to the realization of Africa's awesome potential.**

**THANK YOU for being part of that
vision**





GUPES Achievements and Strategic Directions

**EAUC Annual Conference
25 March 2015
Leeds**

GLOBAL ENVIRONMENT OUTLOOK

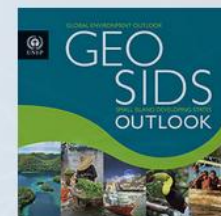
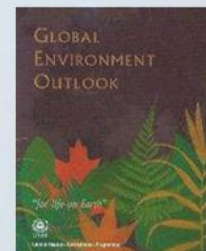
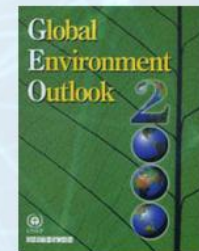
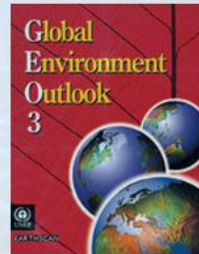
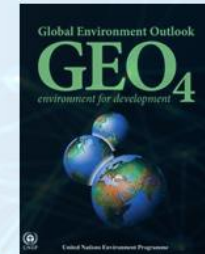
GEO6

GEO-6 Global
Intergovernmental and
Multi-stakeholder meeting in
Berlin, 21-23 October 2014.



TO VIEW THE MEETING DOCUMENTS

GLOBAL ENVIRONMENT OUTLOOK SERIES





Climate Change



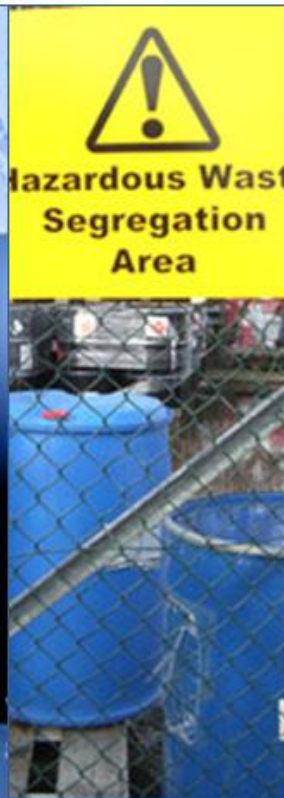
**Disasters and
Conflicts**



**Ecosystems
Management**



**Environmental
Governance**



**Hazardous
Waste**



**Resource
Efficiency**



**Climate
Change**



**Disasters
& Conflicts**



**Ecosystem
Management**



**Environmental
Governance**



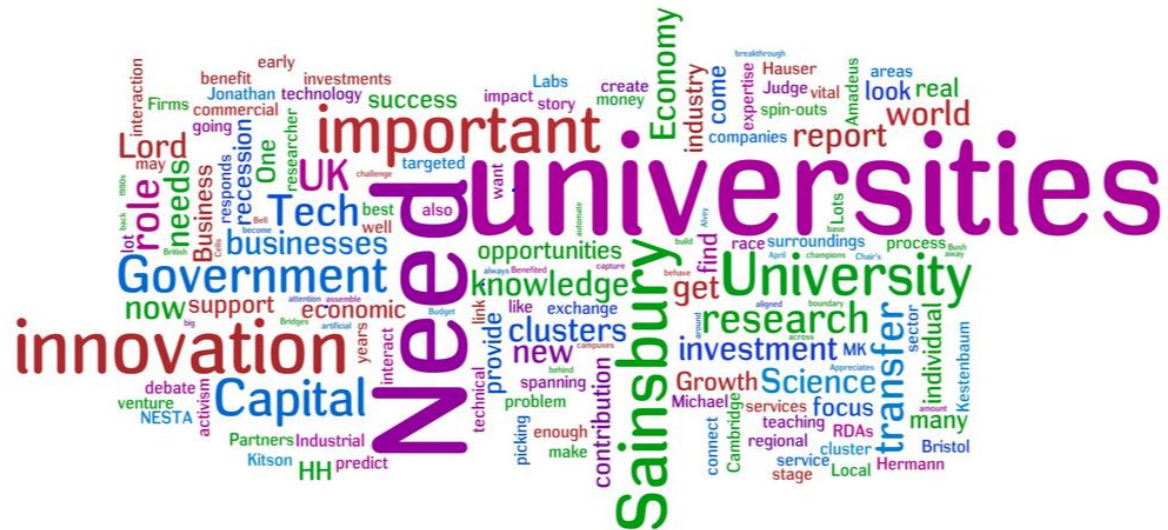
**Chemicals
& Waste**



**Resource
Efficiency**



**Environment
Under Review**



GUPES

Global Universities
Partnership on
Environment for
Sustainability



HESI

Higher
Education
Sustainability
Initiative





N. America
2 countries
8 members

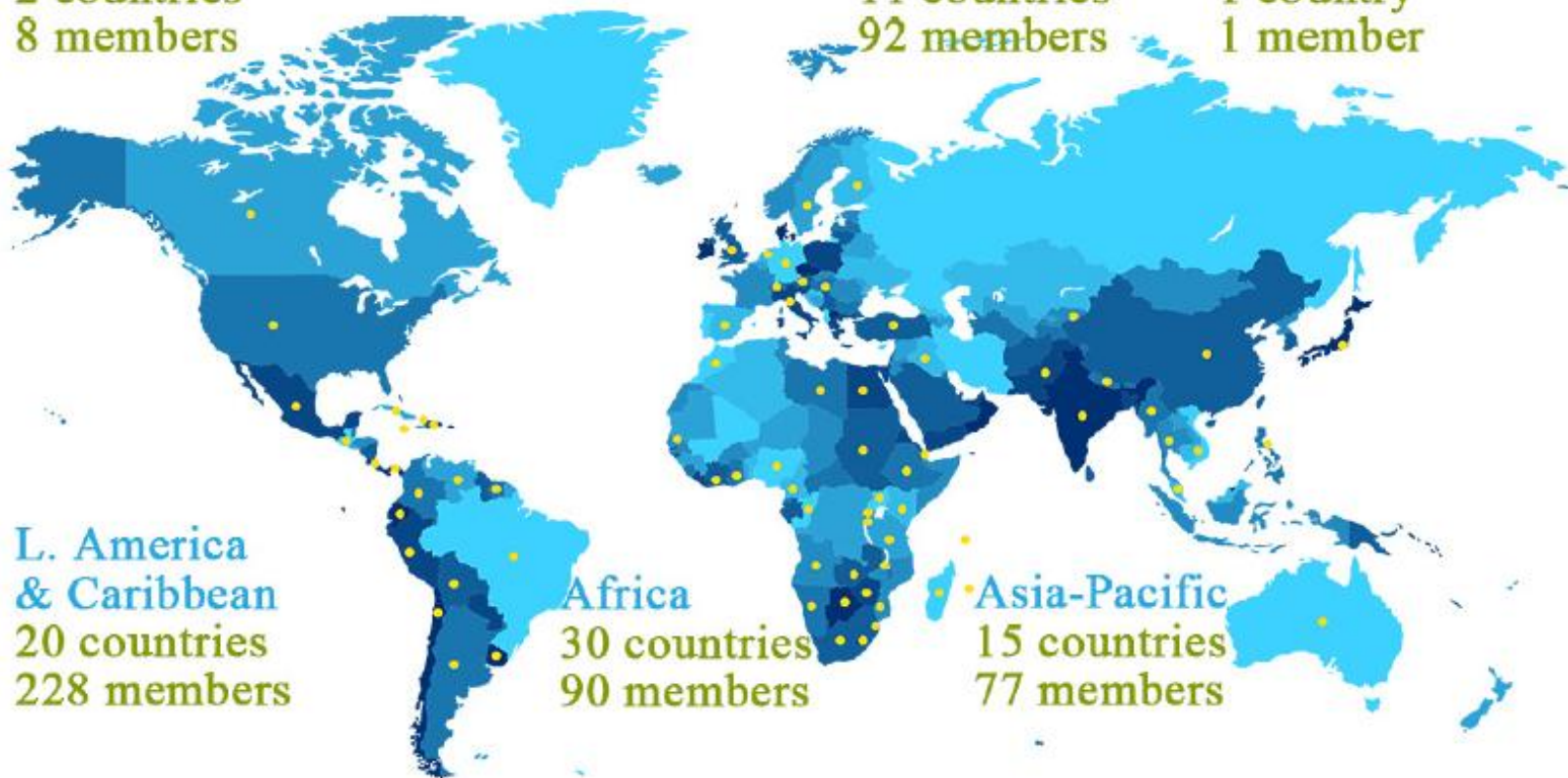
Europe
11 countries
92 members

West Asia
1 country
1 member

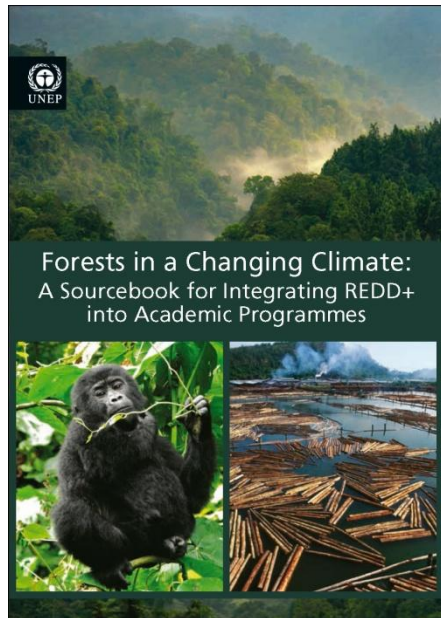
L. America
& Caribbean
20 countries
228 members

Africa
30 countries
90 members

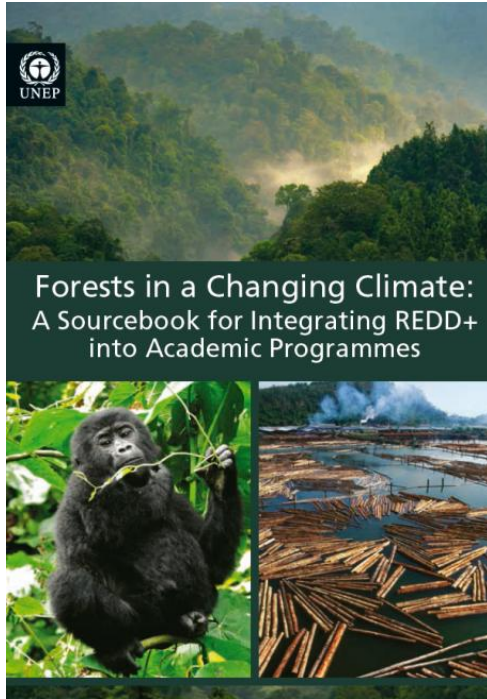
Asia-Pacific
15 countries
77 members



2014 Flagships

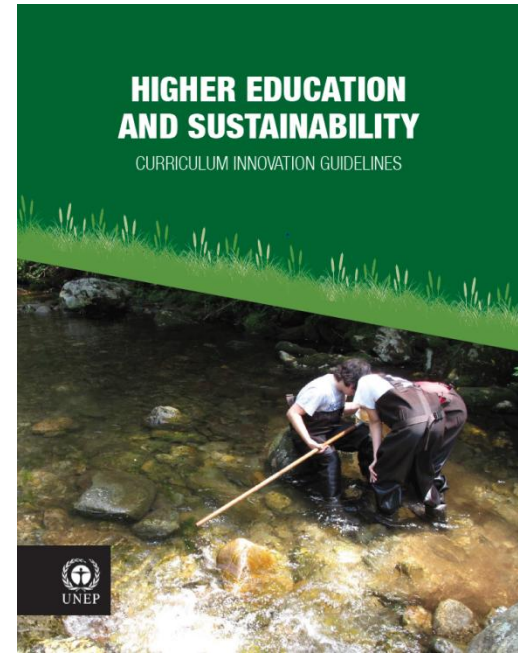


Education



GREENING UNIVERSITIES TOOLKIT V2.0

TRANSFORMING UNIVERSITIES INTO GREEN AND SUSTAINABLE
CAMPUSES : A TOOLKIT FOR IMPLEMENTERS



Training



UNEP/UNESCO/BMUB
International Postgraduate
Training Programme on
Environmental Management for
Developing and Emerging
Countries



Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety



YES YOUTH ENCOUNTER
ON SUSTAINABILITY



University of Eastern Finland - UNEP
Course on Multilateral
Environmental Agreements



Institute of
Management in Government



Networking



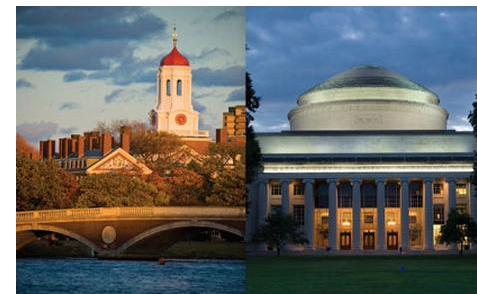
6th International Conference on Environmental Education and Sustainability
"Best of Both Worlds"
Bertioiga / Brazil - 12 - 16 may, 2014



BUAS | Biblioteca | VOL.1
Universidad, Ambiente y Sustentabilidad



ISCN 2014 Conference: Pushing Boundaries: Leveraging collective action for global impact



PLENARY SESSIONS

SCALABILITY: SCALABLE MODELS FOR GLOBAL IMPACT



Kent Larson, MIT

Davis Bookhart, Hong Kong University of Science and Technology

John Fernandez, MIT

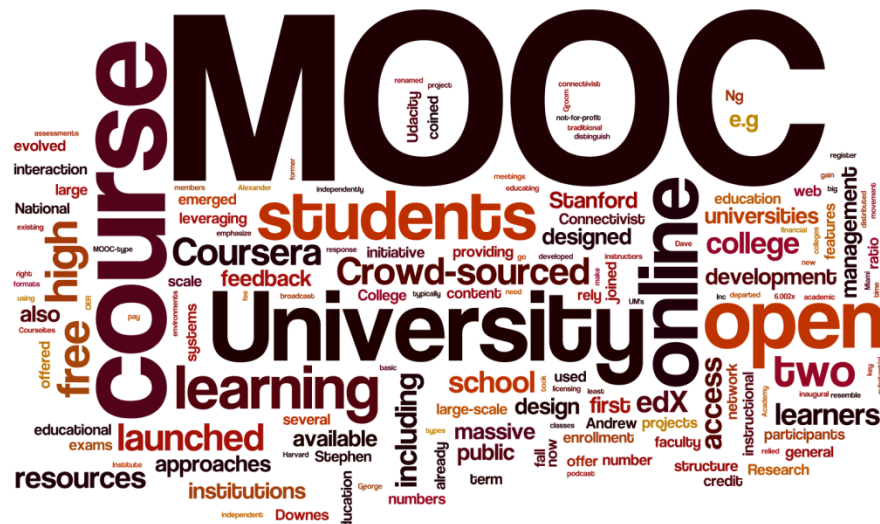
Maresh Pradhan, United Nations Environment Programme



Strategic Directions



SDGs



GUPES Review





UNEP



Role of University in South-South Cooperation

Prof Li Fengting

UNEP-Tonji Institute of Environment for SD

Tongji University

fengting@tongji.edu.cn

Shanghai, China

40,000 Students

19,000 BA/BSc, 12,000 MA/MSc, 3,600 PhD, 4,000 International Students

3,300 Teaching & Research Faculty and Staff

830 full professors, 1,470 associate professors

six academicians from the Chinese Academy of Sciences seven academicians from the Chinese Academy of Engineering

250,000 Alumni

9 Disciplines

science, engineering, medicine, economics, management, liberal arts, law, philosophy, education

2 Billion RMB Research Budget

40% public and 60% industrial projects

409 Degree Programs

81 Bachelor's programs, 218 Master degree programs, 94 PhD programs

More than 30 Organizations

more than 20 Colleges, 6 Uni. Hospitals

Green Building & Renewable Energy research base in campus

A residence: passive house in new county (brick concrete)

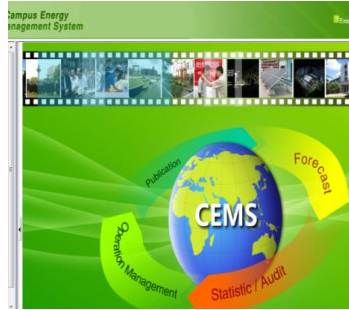
B residence: solar house of bamboo SD2010

C residence: Solar-containerized room SD2011

Green Energy Facility

Greenhouse Plantation

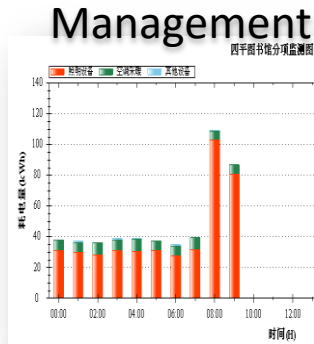
Green Campus Strategy



Rights



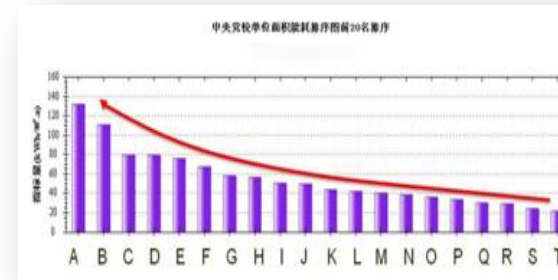
Navigation for campus



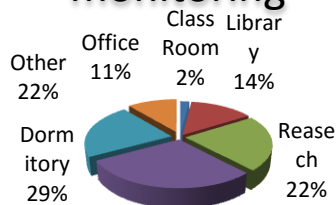
Real time data monitoring



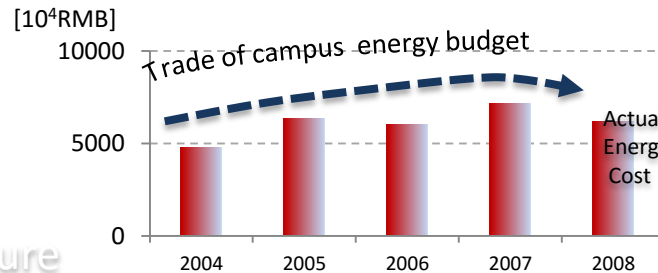
History data



Ranking for energy consumption



Energy consumption structure



Energy consumption trends

Expanding the green campus network to 200 Chinese Universities



校園建築分項逐時耗電量 校園建築能源結構及指標分析 校園建築設備系統監管



校園建築節能監管平台



Over 200 Univ.s

Technical support



同濟大學
TONGJI UNIVERSITY

nature

Vol 461 10 September 2009

SPECIAL REPORT

How green is your campus?

Universities are working to bring sustainability to their campuses and classrooms, and could serve as a model for other institutions looking to go carbon-neutral. But there's no single way to grade the initiatives.

On a typically muggy day in late August, some 1,300 incoming freshmen and their parents gathered for orientation weekend at Emory University, near downtown

Atlanta. The event was part of a sustainability initiative, says Anthony Cortese, president of the Boston-based non-profit organization Second Nature, which helps run the initiative. He expects 90% fulfilment by the beginning of

September. Universities are homing in on finding more centralized, lower-carbon alternatives for heating their buildings year-round.

carbon future. They include Tongji University in Shanghai, China, which has been implementing building upgrades and energy-saving projects. In 2006, it saved about 10 million kilowatt-hours of electricity and reduced its carbon dioxide emissions by 9,200 tonnes, according to the university's vice-president Chen Xiaolong. And in 2008, he says, it installed a system to perform real-time monitoring of energy consumption in some 300 buildings across four campuses.

AVERAGE GROSS EMISSIONS, BY SOURCE, FOR US DOCTORATE-GRANTING UNIVERSITIES*

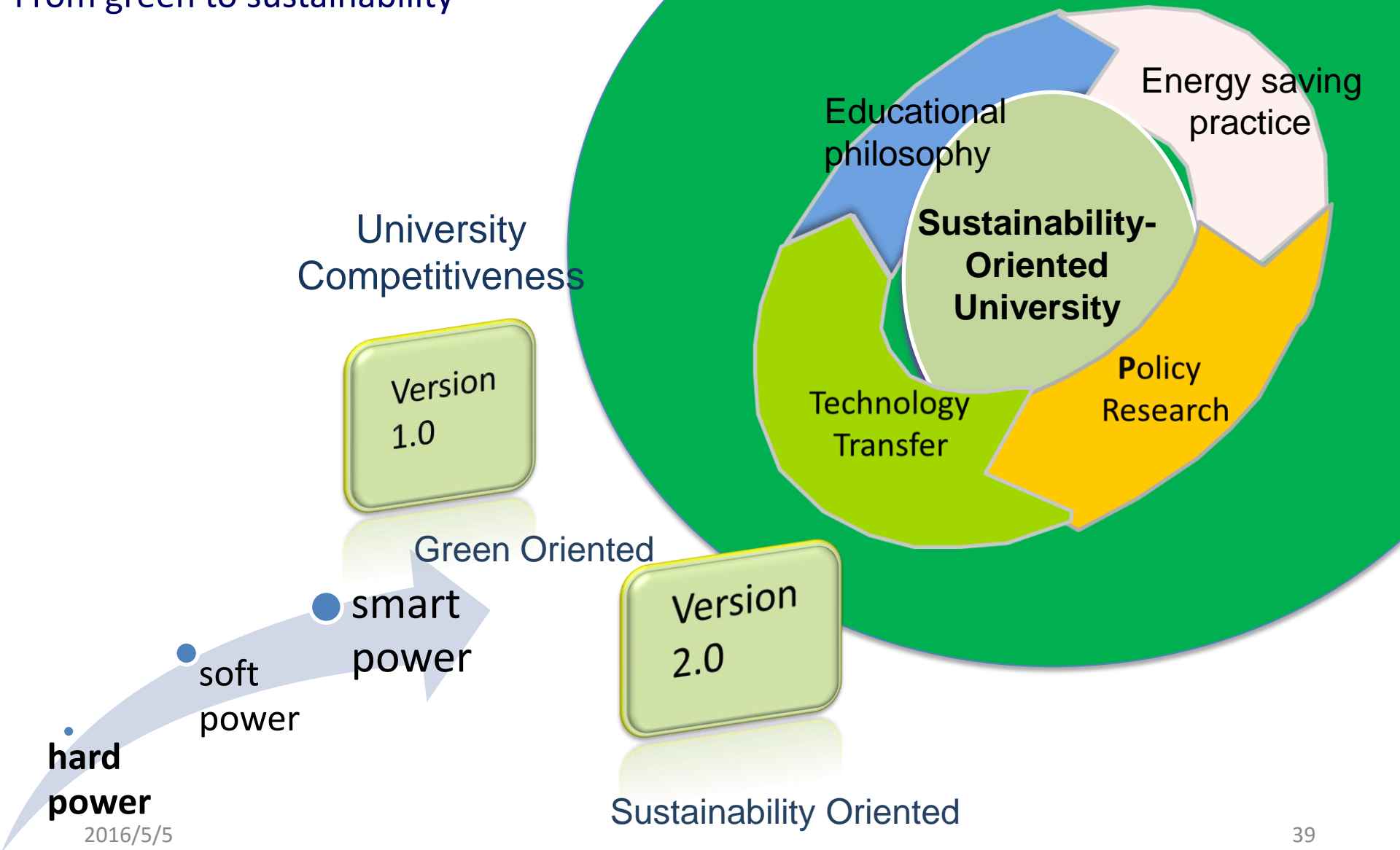


* As reported by 35 signatories to the American College & University Presidents' Climate Commitment



SUSTAINABILITY-ORIENTED UNIVERSITY

From green to sustainability

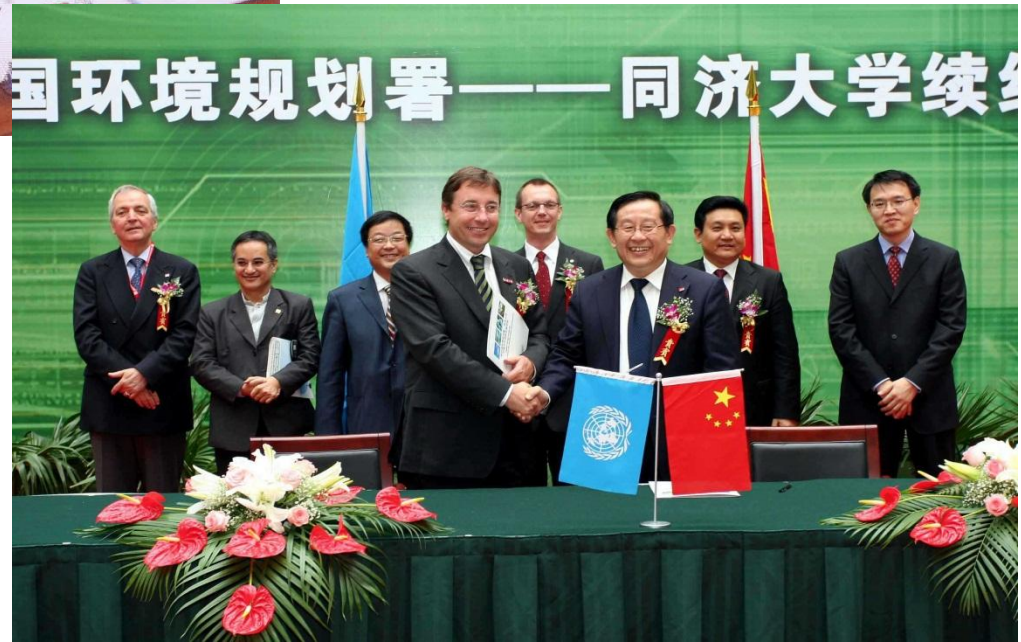


The establishment of UNEP Institute



Signing on May 9, 2002

Renewing on May 18, 2007



Regional University Consortium in Asia and Pacific



UNITED NATIONS
UNIVERSITY



Bayer



Hanns
Seidel
Foundation

Education

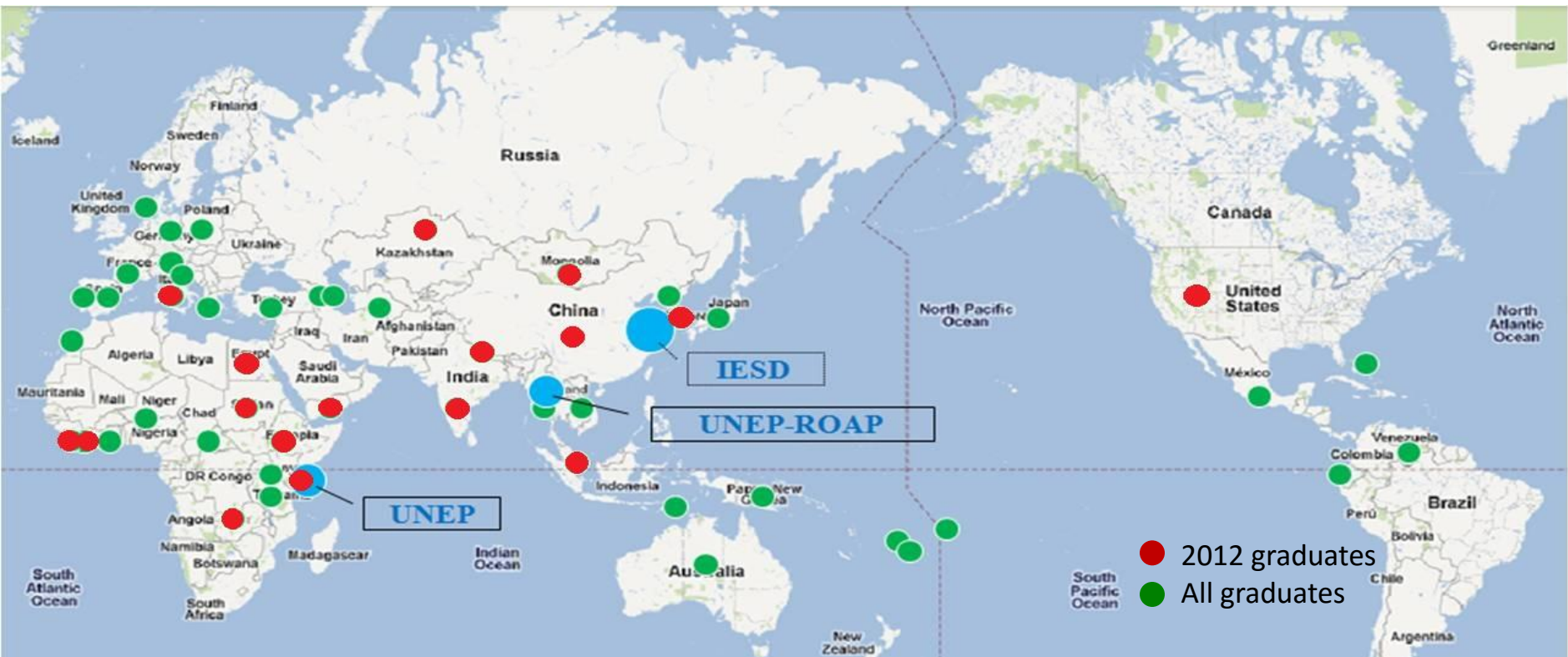


Professors



education

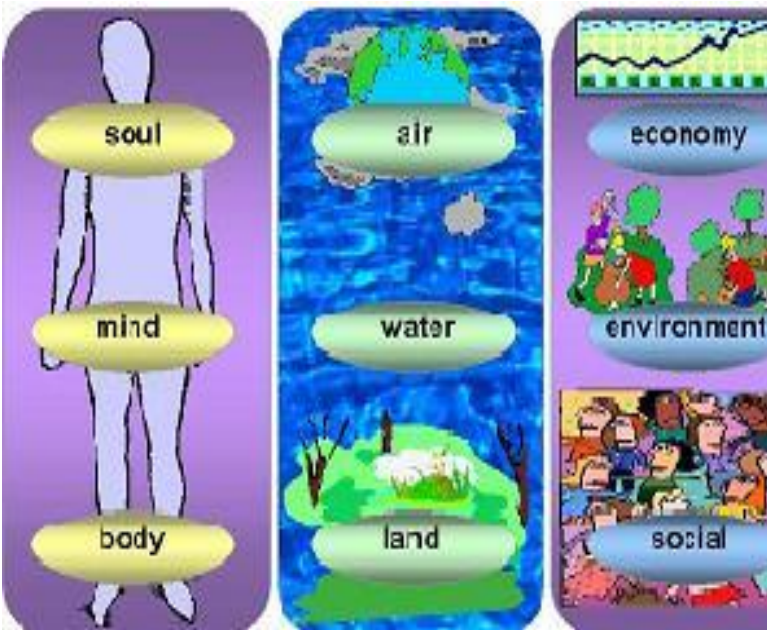
- IESD has enrolled **260 students** in total from **47 countries**, of which **65%** are international students.
- Most them have been employed in **int'l organizations**, **government agencies**, **NGOs**, **universities** and **industries** in S.D.



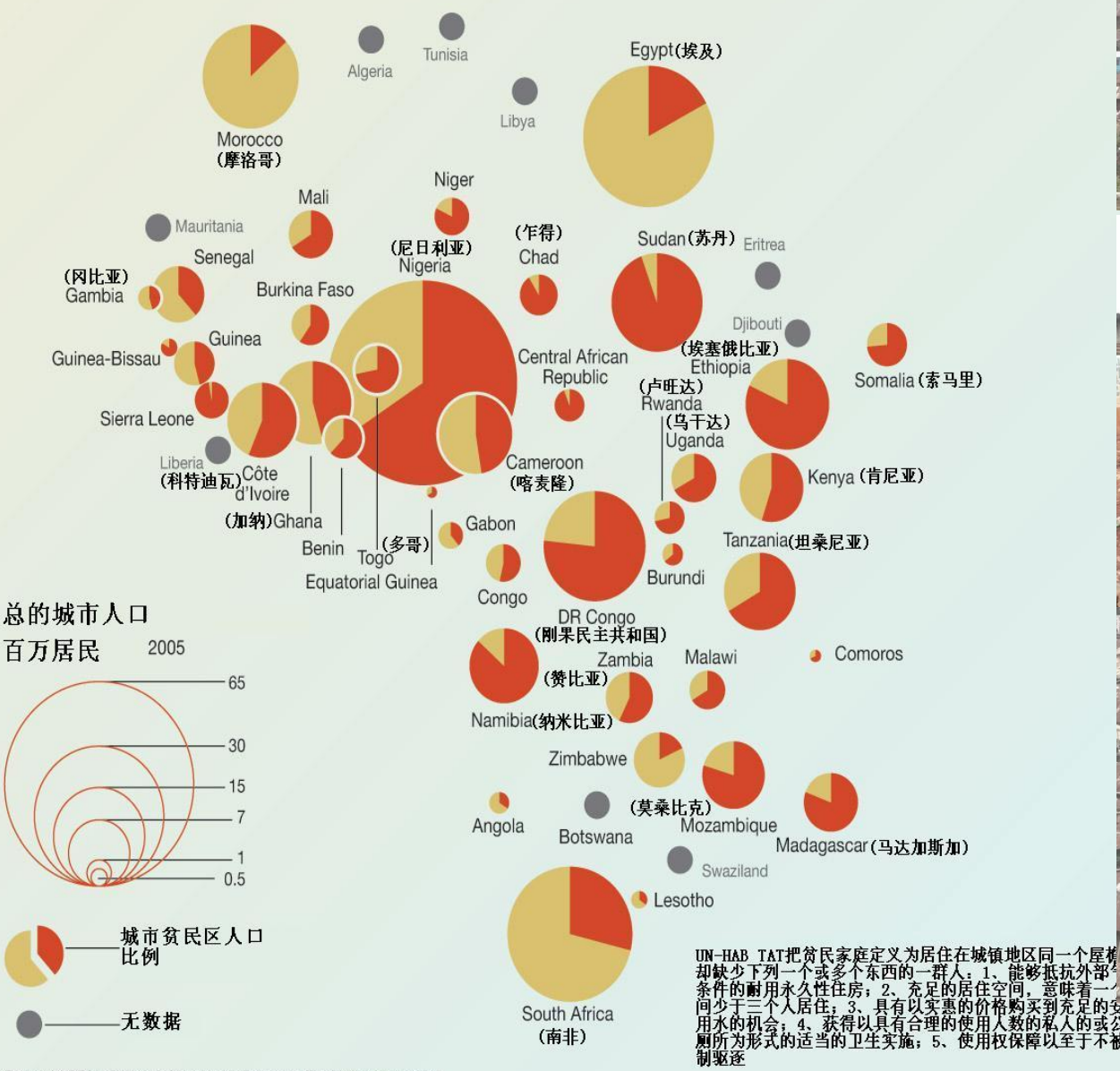
Leadership Programme on Environment for Sustainable Development(2004-)

Programme modules

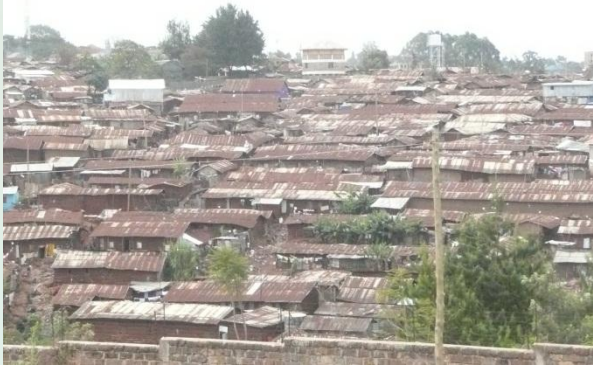
- Framework and introduction
- Human dimension (soul, mind, body)
- Environment dimension (air, water, land)
- Sustainable development dimension (economy, society, environment)
- Site visiting
- Interactive exercises



非洲城市贫民区人口



Source: UNDESA, The World Urbanisation Prospects, The 2009 Revision, 2010.



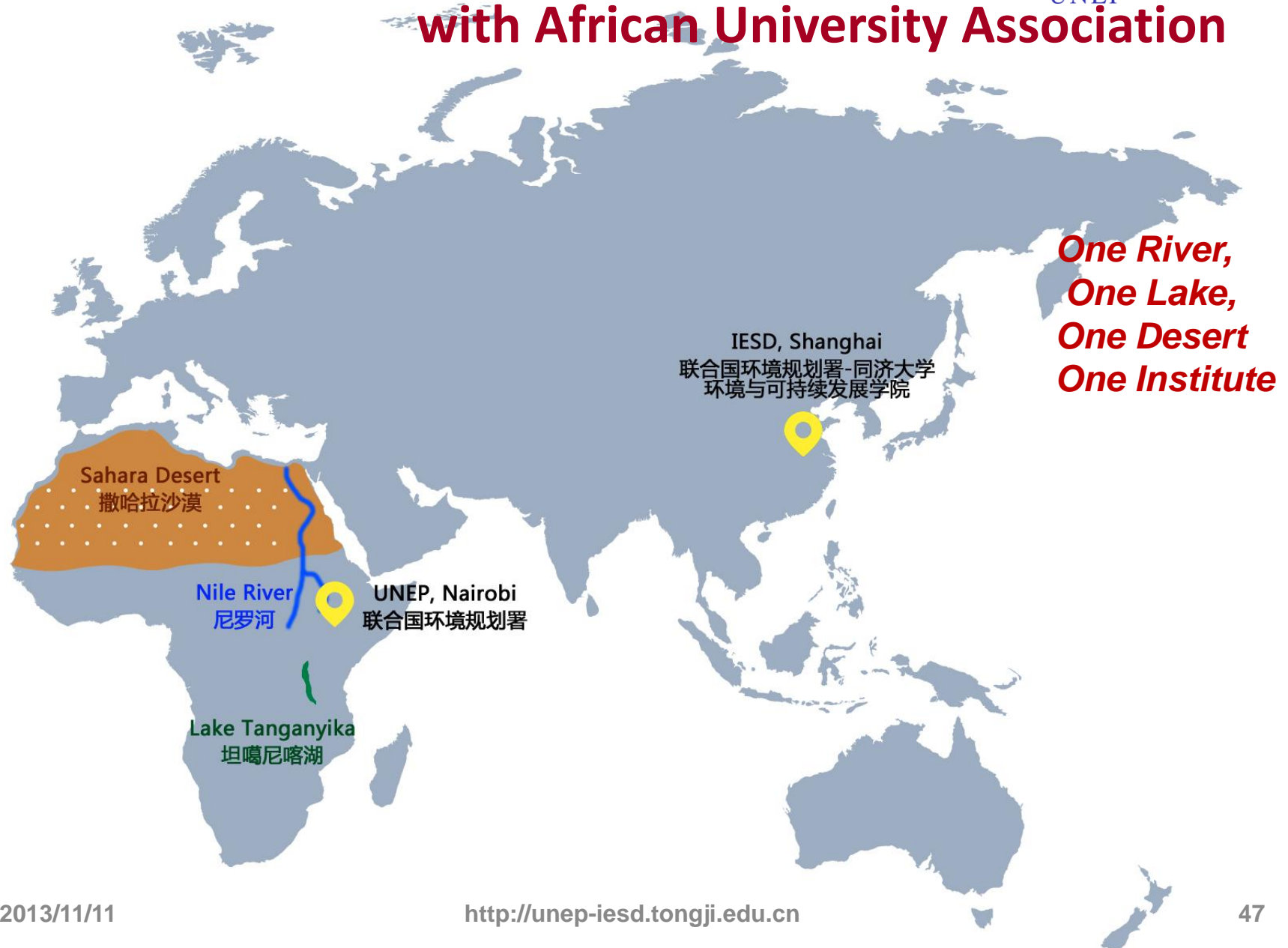
贫民窟给排水点

South-South Cooperation



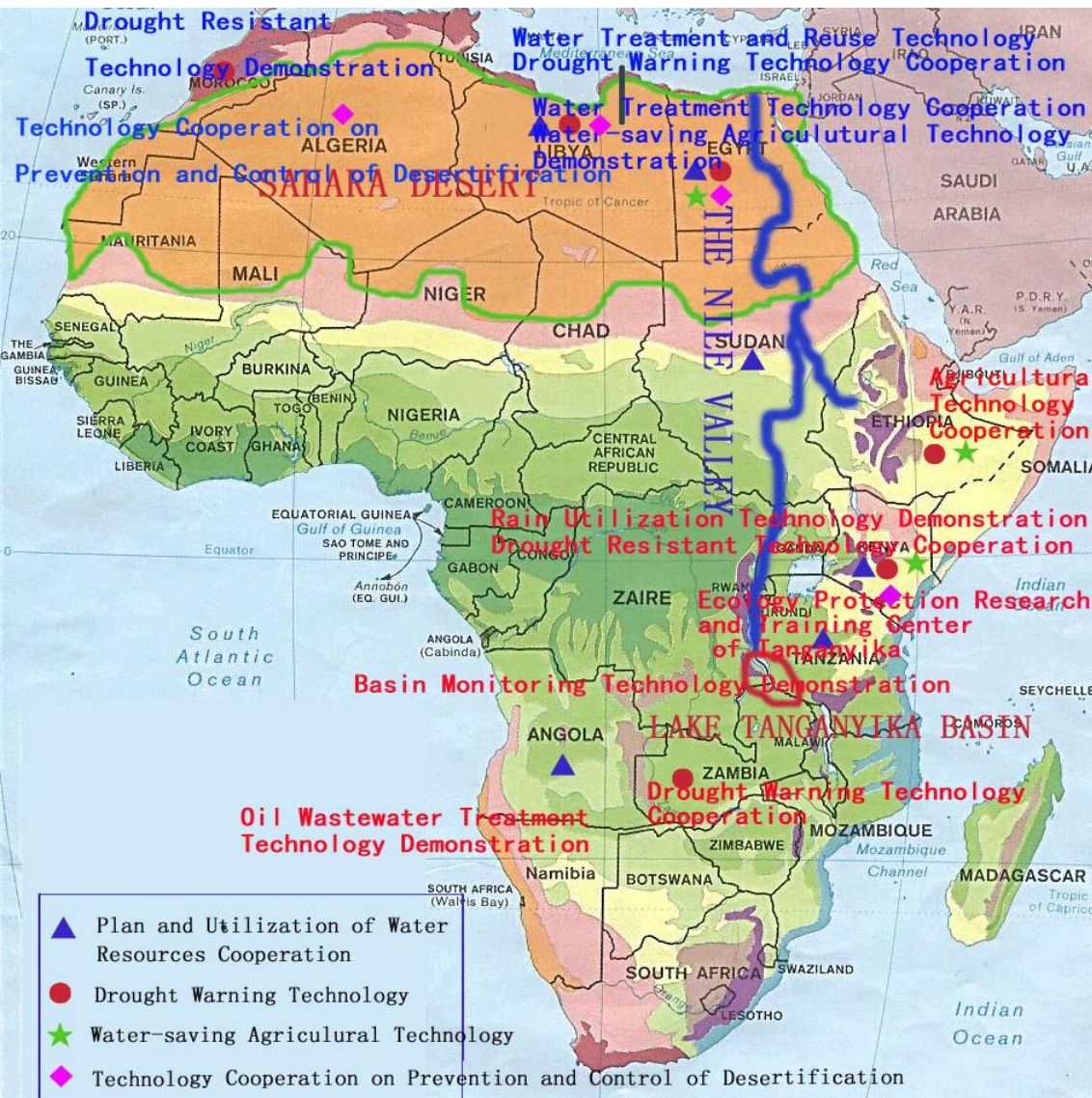
IESD

with African University Association



*One River,
One Lake,
One Desert
One Institute*

Africa-China Cooperation Program on Environment



The aim is:

- To mitigate the adverse effects on Africa brought by the shortage of fresh water, environmental degradation, agricultural issues and climate change.
- To provide technology support to African countries and enable them to realize Millennium Development Goals.(MDGs)

Clean water in Addis and Nairobi





El Rawakeeb Desert Plot, Sudan

Workshop on Planning for Greener Cities and South-South Cooperation in Africa

16-20 March 2015

Shanghai China



JOINT STATEMENT



**The challenge of providing safe water
and adequate sanitation will be aggravated
by unchecked climate change and
rising urban populations.**

Africa's urban population is projected to triple to over 1.2 billion by 2050 in cities already challenged in many places and in many ways by shortages of safe drinking water and inadequate sanitation services.

Access to clean drinking water and sanitation is perhaps one of the most important Millennium Development Goals because of its links to human health and the ability of people to carry out productive employment. It is also linked to gender and the nutrition of women and as well as their role in collecting water for families and communities.

Child mortality is also inextricably linked to water. Globally, at least 1.8 million children under the age of five years, or one every 20 seconds, die every year from water-related diseases. On the overall more people die from water-related diseases than are killed by all forms of violence including wars. Thus access to clean water is in many ways a pre-requisite for sustainable development.

The challenge of providing safe water and adequate sanitation will be aggravated by unchecked climate change and rising urban populations. As the world prepares for the UN Conference on Sustainable Development in 2012, 20 years after the Rio Earth Summit of 1992, water and urbanisation need to be key issues on the sustainability radar.

There is strong and growing evidence that a Green Economy, within the context of poverty eradication and sustainable development, can accelerate and scale-up delivery of these services

if countries and communities commit themselves to managing the use and the sources of water such as forests, wetlands and other ecosystems central to this sustainability equation.

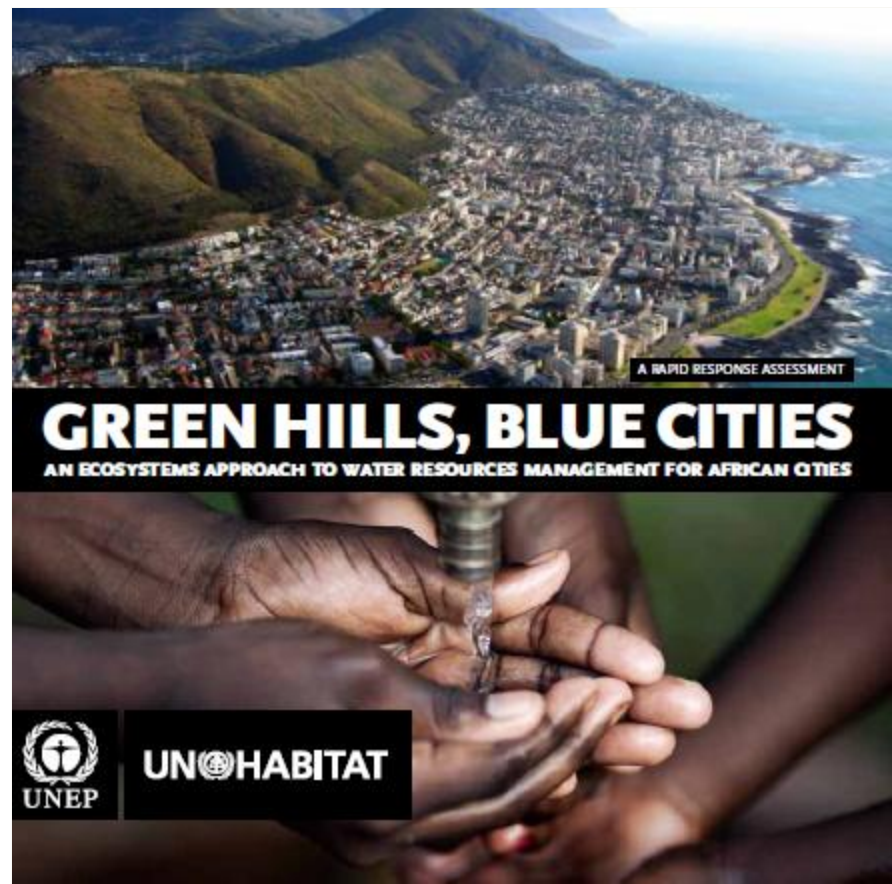
Creative and forward-looking policies, alongside partnerships across all sectors including agriculture, will also be key to sustainability.

This report, jointly produced by UNEP and UN-HABITAT in collaboration with the Africa Ministers' Council on Water (AMCOW) and funded by Tongji University, the Ministry of Science and Technology of China and Bayer Foundation, shows that there is a way forward for a more sustainable future where restoration of ecosystems, often in the green hills and watersheds surrounding cities, can provide cheaper, efficient and resilient water supply systems in a changing world.

Launched in Cape Town, a South African city surrounded by green hills that support water supplies to that city, it is our hope that World Water Day 2011 can provide a fresh vision for cities across Africa and beyond.

Achim Steiner Executive Director, UNEP
Joan Clos Executive Director, UN-HABITAT

Africa Water Report



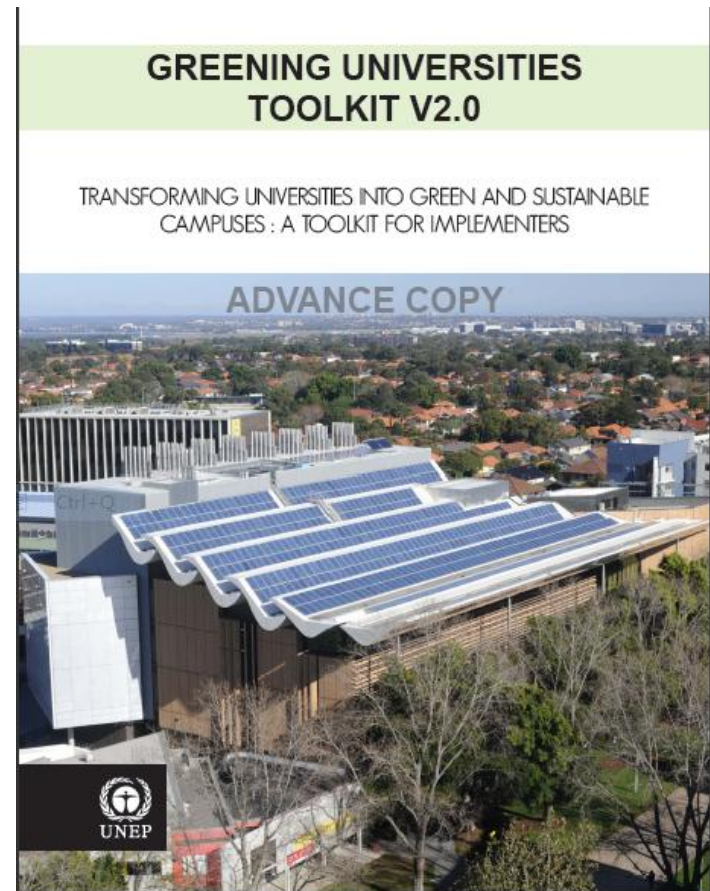
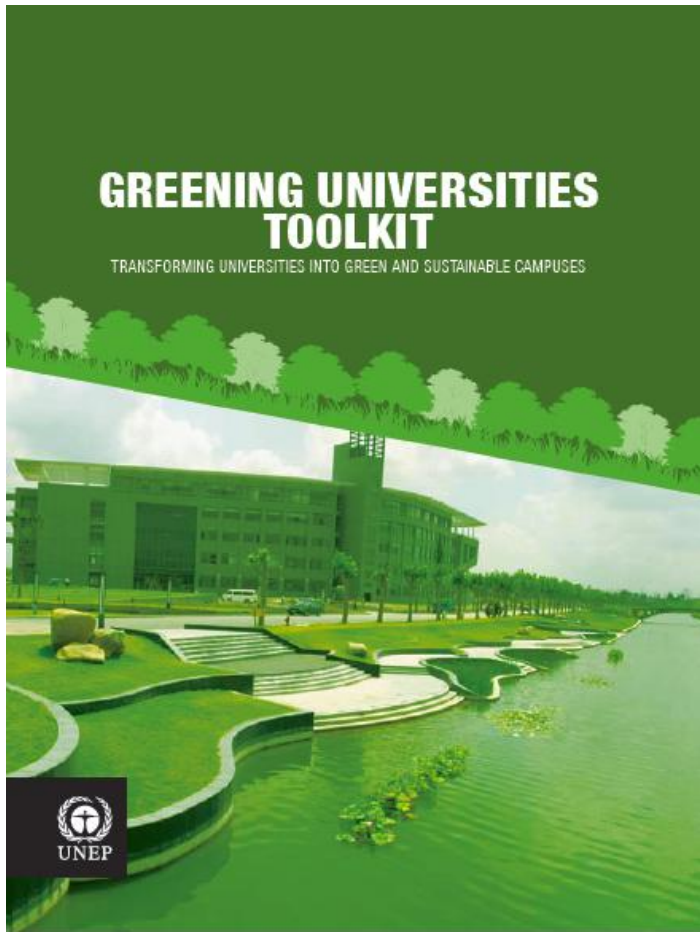


UNEP-CHINA-AFRICA COOPERATION PROGRAMME

Enhancing the Role of
Ecosystem Management in
Climate Change Adaptation

South-South Partnership
coordinated by UNEP

Greening Universities Toolkit V2.0 2014





<http://unep-iesd.tongji.edu.cn/index.php?classid=875>



