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# UNITED NATIONS UNIVERSITY (UNU) Bonn

Dr. Jörg Szarzynski ***et al.***  
Head of Section  
*Enhancing Graduate Educational  
Capacities for Human Security*  
United Nations University Bonn



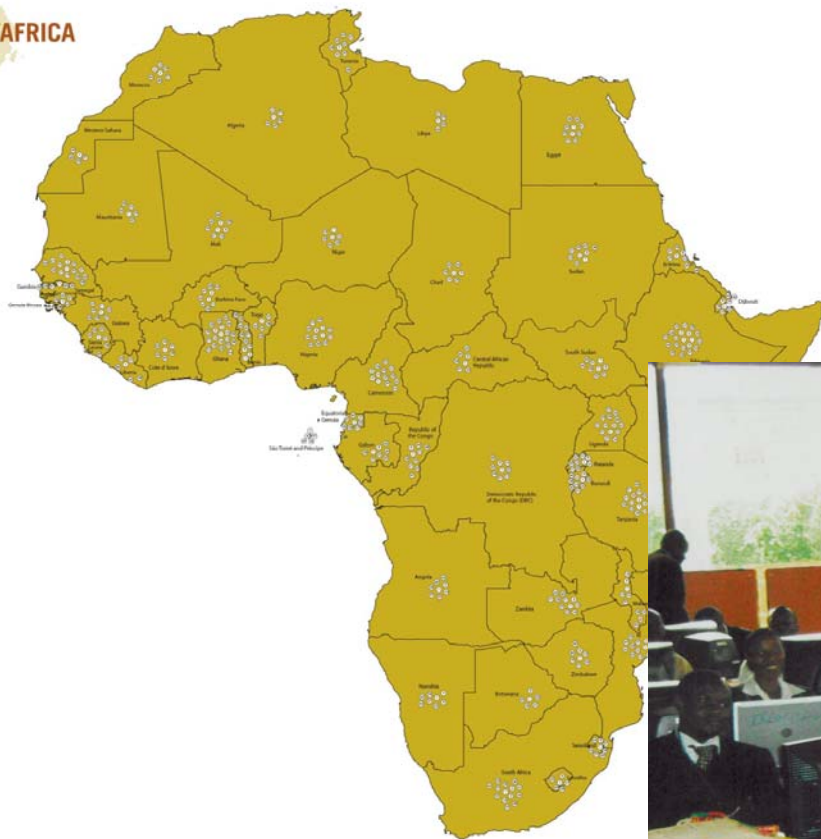
# *eLearning & Knowledge Sharing @UNU-EHS*



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PRIORITYAFRICA



# Who we are



Dr. Jörg Szarzynski  
Head of Section



Dr. Erick Tambo  
Associate Academic  
Officer



Dipl. - Ing. Vilma Hossini  
née Liaukonyte  
Research Associate



Chahira Nourira  
Research Associate



Jessica Rosenfeld, MA  
Research Associate



Tomás Gilgenmann  
Lorza, MA  
Intern

# Structure of UNU-EHS, Bonn

## DIRECTOR / VICE-RECTOR

### Academic Programmes

EMSVA	VARMAP	EVES	EGECHS
Environmental Migration,  Social Vulnerability  & Adaptation	Vulnerability Assessment  Risk Management  Adaptive Planning	Environmental Assessment  Ecosystem Services	Enhancing Graduate Educational Capacities for Human Security

### Central Units

(Administration / Finance, Executive Office, ICT and Communication)

# Mandate of UNU



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“The United Nations University (UNU) represents the academic arm of the United Nations system implementing research and educational programmes in the area of sustainable development, **with the particular aim of assisting developing countries.**

Established by the UN General Assembly in **1973** as “an international community of scholars, engaged in research, postgraduate training and **dissemination of knowledge in furtherance of the purposes and principles of the Charter of the United Nations**”, UNU operates through a worldwide nexus of institutes and programmes that are coordinated by UNU Centre in Tokyo.

With a **systems-oriented approach** that is necessary for achieving sustainable solutions to the world's challenges, the University's activities are clustered into five interlinking thematic areas:

- 1.) Peace, Security and Human Rights
- 2.) Human and Socio-economic Development and Good Governance
- 3.) Global Health, Population and Sustainable Livelihoods
- 4.) Global Change and Sustainable Development
- 5.) Science, Technology, Innovation and Society

# UNU Campus Worldwide



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Ressources

Problems

\* UNU Centre

1 UNU-INWEH (Water)

2 Office at the UN (Liason)

2 UNU-FNP (Food & Nutrition)

3 UNU-BIOLAC (Biotechnology)

4 UNU-FTP, UNU-GTP, UNU-LRT  
(Fisheries, Geothermal Research,  
Land Restauration)

5 UNU-MERIT (Innovation & Technology)

6 UNU-WIDER (Development Economics)

7 UNU-CRIS (Regional Integration)

8 UNU-ViE (Vice Rectorate in Europe)

8 UNU-EHS (Human Security)

8 UNU-FLORES (Integrated Material Fluxes)

9 Office at UNESCO (Liason)

10 UNU-INRA (Natural Resources)

11 UNU-IIGH (Health)

12 UNU-IIST (Software)

13 UNU-IAS (Advanced Studies)

13 UNU-ISP (Sustainability & Peace)



- 
- No research „in the North on the South“
  - Develop true partnership
    - Provide attractive scientific environment
  - Counteract brain drain
  - Institutional long-term North-South Partnership
  - „South“ partner has to provide 30% of funding

### UNU-FLORES

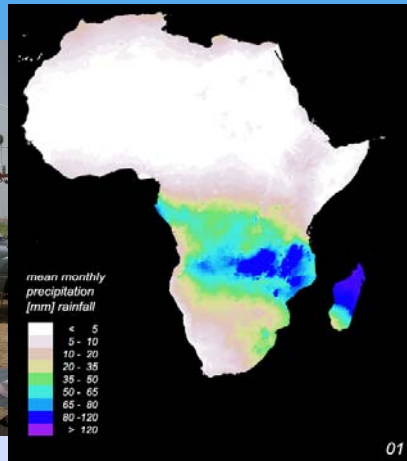
- *Institute for Integrated Management of Material Fluxes and of Resources*
  - TU Dresden – Maputo



# The New NEXUS



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Science

Education

Practice



# PRIORITY AFRICA



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## Contacts:



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Vice Rectorate in Europe (UNU-ViE)

UNU Institute for Natural Resources in Africa  
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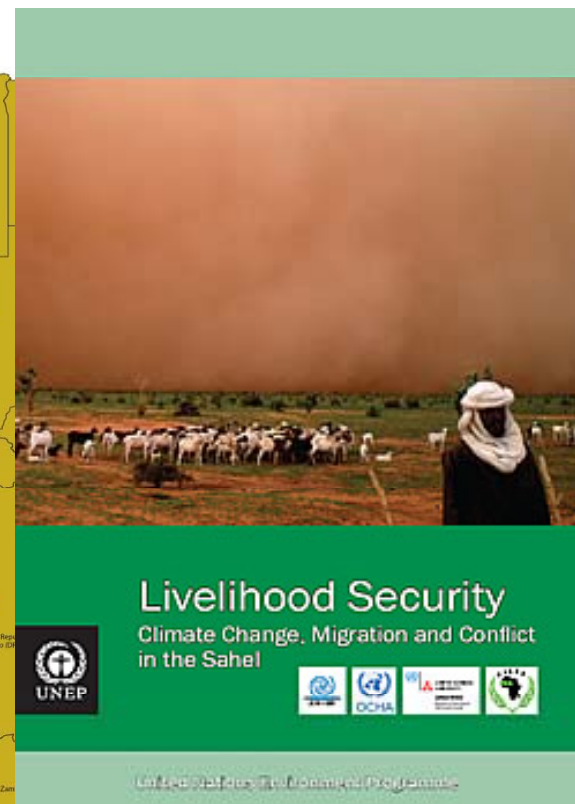
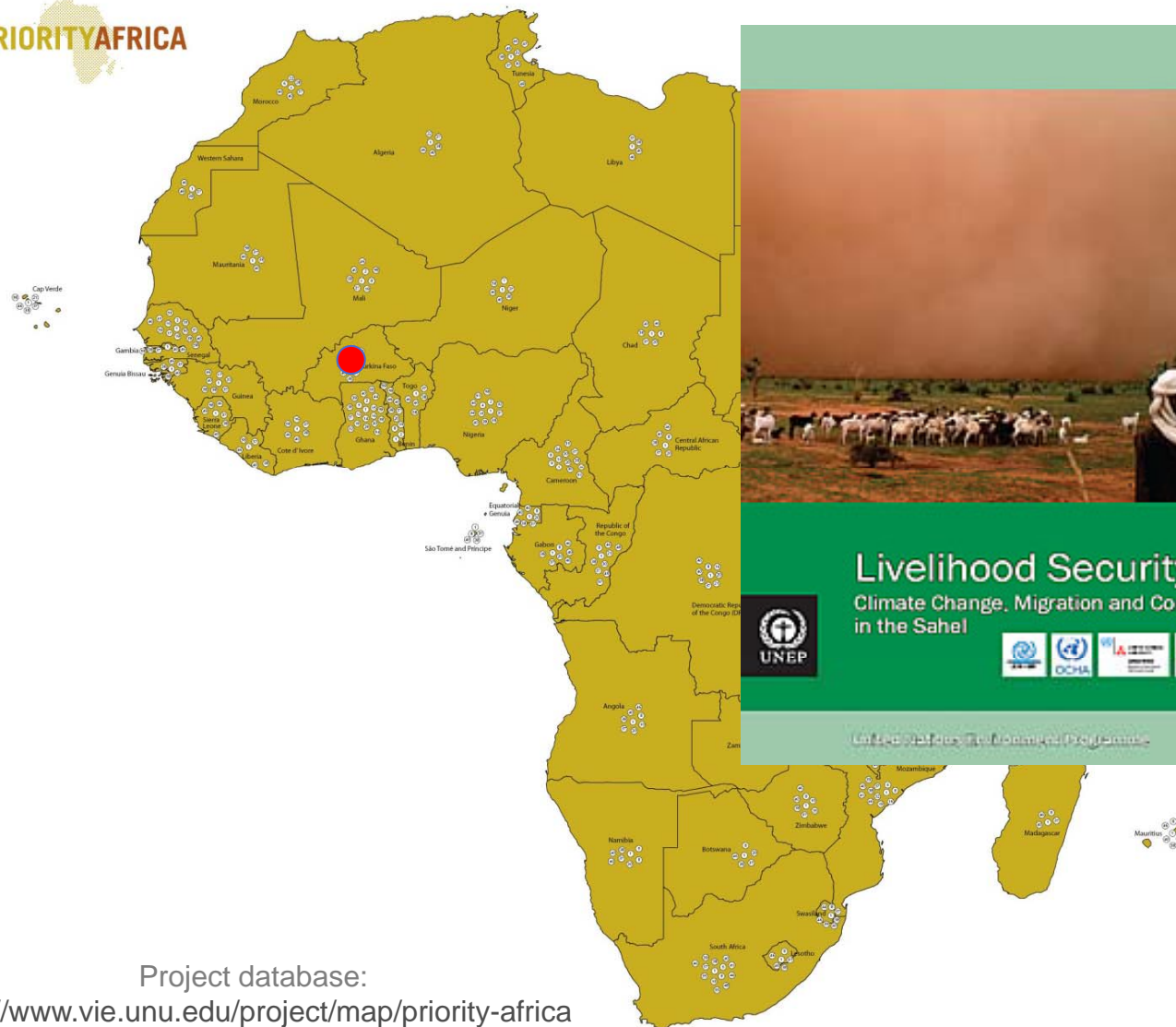
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PRIORITYAFRICA



Project database:  
<http://www.vie.unu.edu/project/map/priority-africa>

# West African Science Service Center on Climate Change and Adapted Land Use (WASCAL)

Funded by BMBF, coordinated by ZEF



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Enhancing the resilience of social-ecological systems to the impacts of climate change and increased climate variability.

Major components of WASCAL:

1. Competence Center
2. Research Programme
3. Graduate Research Programme



# eLearning & the role of social media



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facebook

December 2010



# Well connected ICT Pioneers in Africa



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The role of Social Media:  
Facebook usage in Africa

University of Yaounde I, Cameroon

Kenyatta University, Kenya

University of Capetown, South Africa

# UNU Bonn Expertise in E-Learning

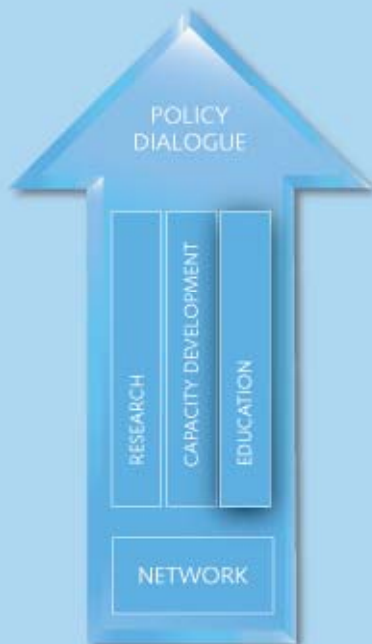


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- Integration of e-learning into Higher Education
  - Open Education
- Capacity building for e-learning in African HEIs
  - Online discussions + facilitation
  - Quality assurance in e-learning
    - Facilitation techniques
- Social Media for knowledge exchange and collaboration





# Building institutional capacities & supporting the strategic integration of e-learning in Africa



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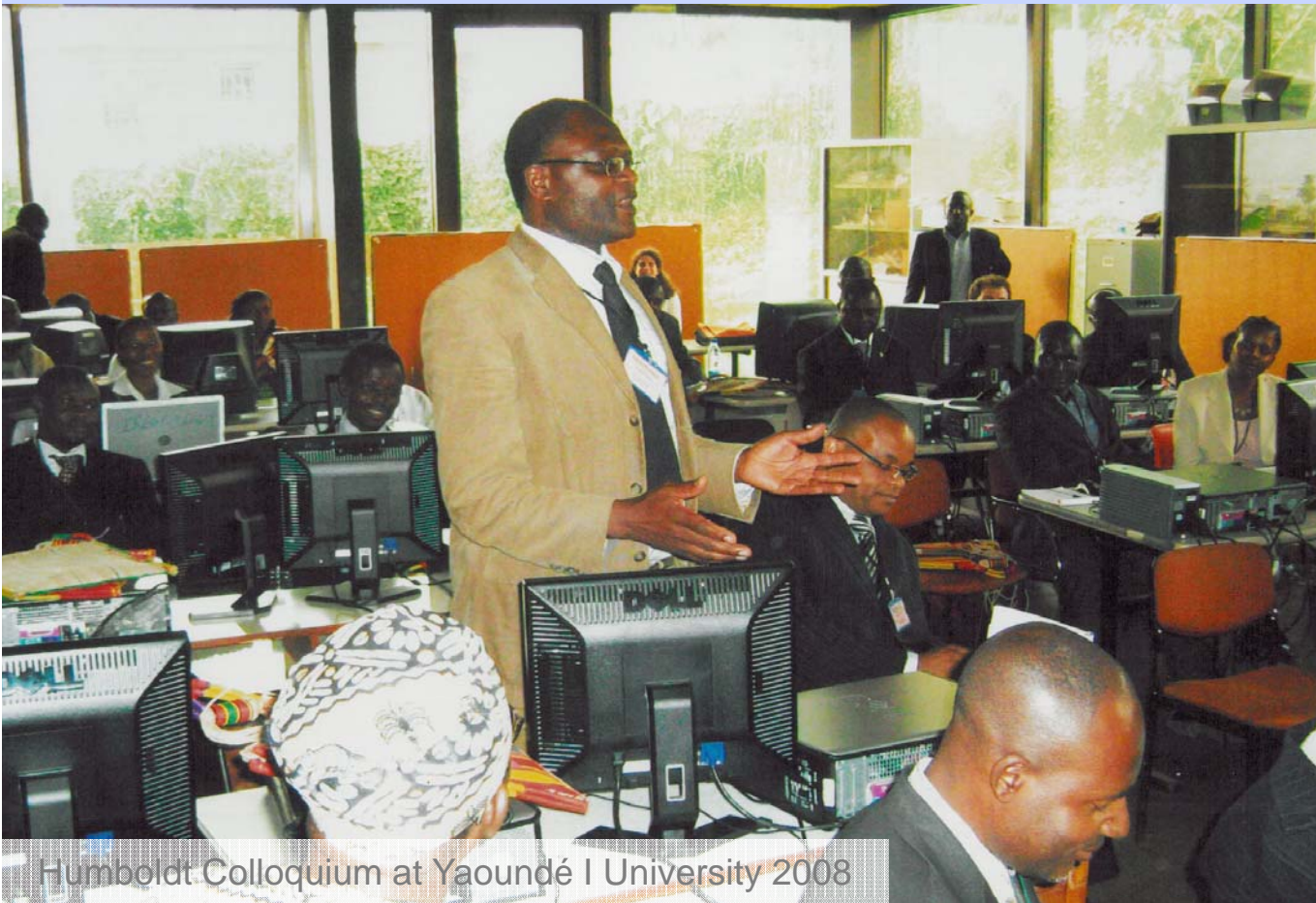
Higher Teacher Training College  
University of Yaoundé I, Cameroon

# E-learning training in Cameroon, 2008



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Humboldt Colloquium at Yaoundé I University 2008

“Challenges and perspectives for e-learning and research development in Cameroon”

Mobilizing at grass roots level



# „Peer learning building alliances and network“, Bonn, 2008



26 and 27 November 2008 in Bonn, Germany

Study Visit  
at UNU-ViE in  
Bonn, Germany

(Sept – Nov  
2008)

# Workshop „Integrating E-Learning into Higher Education“, Bonn, 2009



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DAAD

Bringing people together –  
Conversations that matter





# Fact Finding Mission & E-learning training in Cameroon, 2009



19-23 Oct 2009 Yaoundé, Cameroon

Meeting with the university management

Training of researchers & setting up a core team  
for e-learning



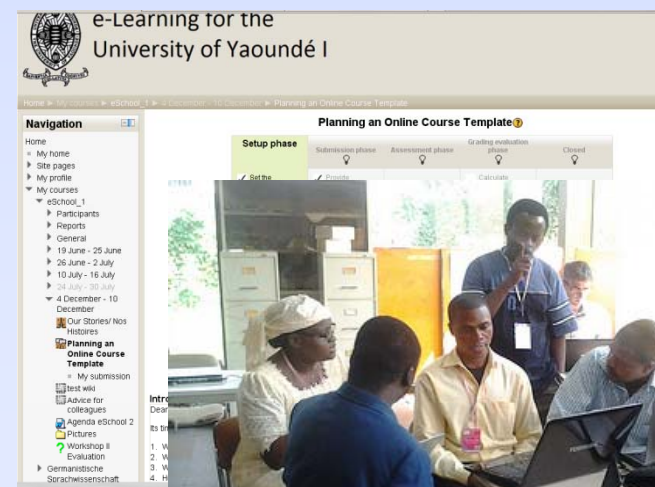
Hands-on-practice



December 2011

Development of course templates

Developing a vision and a model for  
e-learning at the University of  
Yaoundé I





# ECBCheck Training: Quality in E-Learning, Italy, 2011



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Self-assessment & Peer review



<http://ecb-check.org>



# Institutional Cooperation



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MoU between University of Yaoundé I & UNU-ViE (12 Jan 2012)

# Network and Collaboration



The power of networks and alliances

# UNU Network in Education & E-learning



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## AFRICA

Series of e-learning workshops “University 2.0” created core group of African Universities

- Pan African University (PAU) – MoU in 2013?

## EUROPE

- OU Catalunya, Spain
- FU Berlin, Germany
  - Edinburgh, UK
  - Bologna, Italy
  - Grenada, Spain
- Fernuniversität Hagen, Germany

## AROUND THE GLOBE

- Columbia Center for New Media Teaching and Learning
  - Commonwealth of Learning (COL)
  - UNeLearn group, UNESCO
  - UNU Institutes and Programmes
- European Foundation for Quality in E-Learning (EFQUEL)

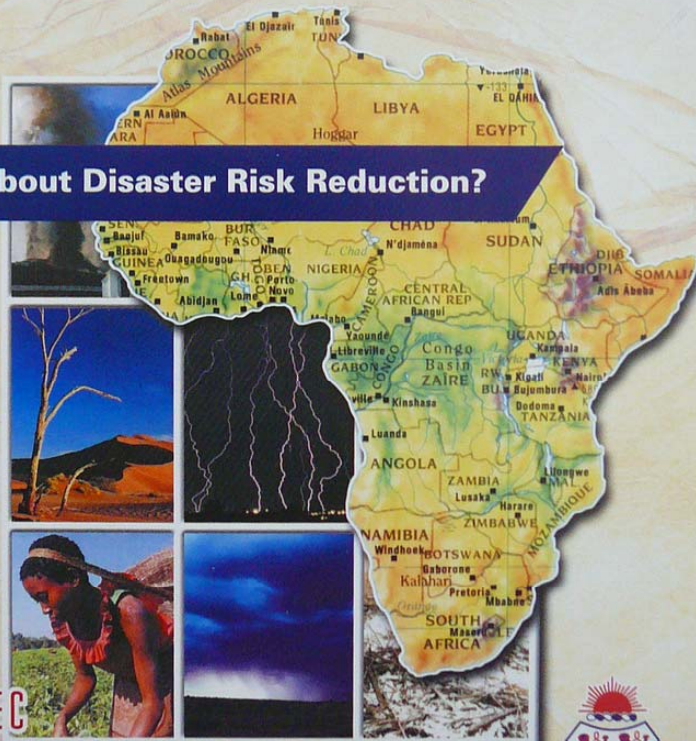




DISASTER RISK MANAGEMENT  
TRAINING AND EDUCATION  
CENTRE FOR AFRICA



**Serious about Disaster Risk Reduction?**



**DIMTEC**  
UNIVERSITEIT VAN DIE VRYSTAAT • UNIVERSITY OF THE FREE STATE • YUNIVESITHI YA FREISTATA  
PO Box 339, Bloemfontein 9300 • Tel: +27 (51) 401 2721 • E-mail: dimtec.sc@ufs.ac.za • www.ufs.ac.za/dimtec



# DIMTEC NEWSLETTER

VOLUME 2 QUARTERLY BULLETIN APR - JUN 2009

**SPECIAL  
POINTS OF IN-  
TEREST:**

- Introduction to Disaster Risk Reduction  
Rand Water  
15 - 17 July 2009
- Closing Date for Masters Degree Applications  
30 Sept 2009
- Closing Date for Final Ringbanded copies of theses for February 2010 graduation  
30 Sept 2009
- 1st Year Final Contact Session  
26 - 28 October 2009
- 2nd Year Final Contact Session  
29 - 30 October 2009
- 2nd Year Practical Exam  
31 Oct - 4 Nov 2009

## UNU / UFS Vulnerability Course



From left: Mr. Andries Jordaan, Prof. Dusan Sakulski, Ms. Awatif Ayadh (DIMTEC student from Sudan), Dr.-Ing. Vilma Hossini (Training Programme Associate: United Nations University Institute for Environment and Human Security)

DIMTEC presented a training course on Vulnerability and Disaster Risk Management in collaboration with the United Nations University Institute for Environment and Human Security (UNU-EHS).

A training course was presented on 1-5 June 2009 at the University of the Free State, on Vulnerability and Disaster Risk Management. The focus was on Social, Environmental and Economical Vulnerability, Global Warming and Early Warning Systems.

Dr. Fabrice Renaud (Associate Director: United Nations University Institute for Environment and Human Security), Dr.-Ing. Jörn Birkmann (Head of Section: Vulnerability Assessment: United Nations University Institute for Environment and Human Security) and Prof. Dusan Sakulski (Africa Representative: United Nations University Institute for Environment and Human Security) from Bonn, Germany presented the course, together with Mr. Andries Jordaan (Director: DIMTEC) and Mr. Eugene Poolman (Chief Forecasting Specialist: Disaster Risk Reduction, South African Weather Service).

This course was the first and will be presented at the Novi Sad University, Serbia in October 2009 and September 2010 as well as in Bonn, Germany in May 2010 where it will be part of the UNU PhD block course.

## Visitors from Congo-Brazzaville

Three visitors from Congo-Brazzaville came to Bloemfontein to meet with the director of DIMTEC, to get some more insight on Disaster Management Centers in South Africa. DIMTEC took them on a tour to Cape Town and George where they visited the Provincial and District Municipality Disaster Management Centers to see how they operate. Congo-Brazzaville are interested to copycat the Disaster Management System in South Africa to their country. They requested the UNU and DIMTEC to assist them.



# Education Programs: Block course



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# New Components of Capacity Building & Training Modules

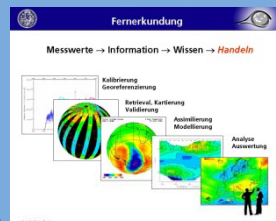


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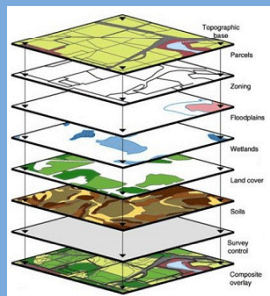
## Presentation

PowerPoint  
or HTML/XML  
E-learning



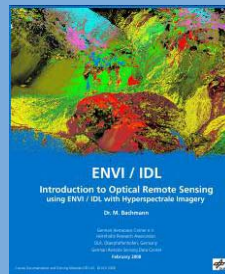
## Exercise

Hands-on  
Training on GIS  
& Remote Sensing

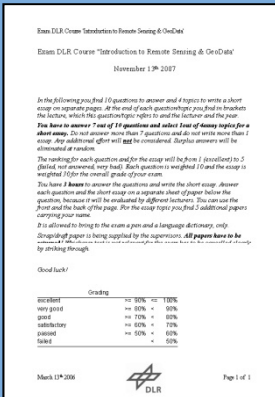


## Technical Documentation

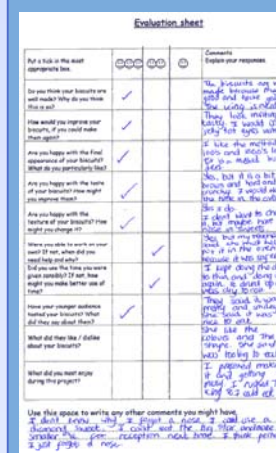
Compendium  
describing the  
components,  
curriculum etc.



## Exam HTML/XML/ Flash e-learning exams



## Evaluation Sheet



## Certificate







# REGIONAL CENTRE FOR MAPPING OF RESOURCES FOR DEVELOPMENT

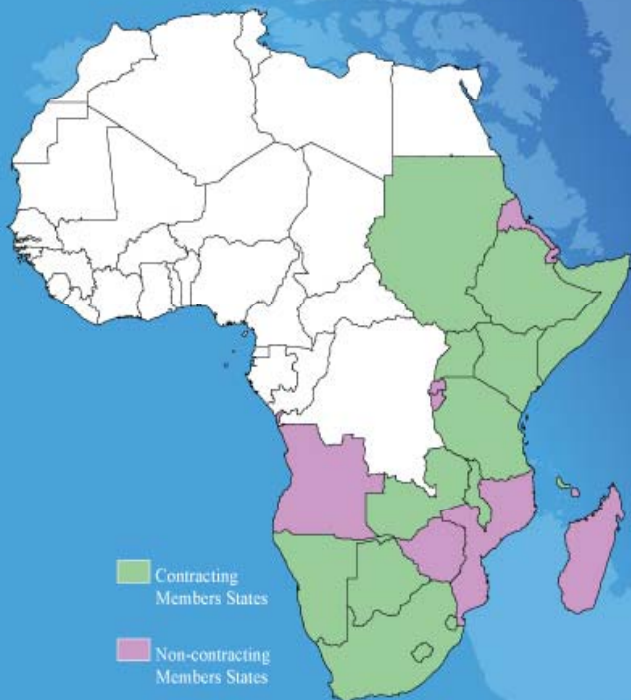


## *Our Vision*

To be a premier Centre of excellence in the provision of Geo-Information & Information Technology Applications in Africa & beyond

## *Our Mission*

To provide quality Geo - Information & allied Information Communication Technology products & services in environmental & resource management for sustainable development in our Member countries & beyond



# UNU Network in Education & E-learning



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RCMRD: EO & GIS training course,  
Nairobi, Kenya, April, 2010





## Dimensions of Vulnerability

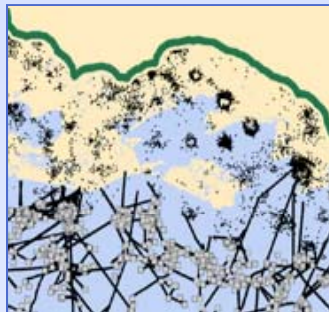
### Social Dimension

Vulnerability of different social groups,  
Role of social networks (coping)



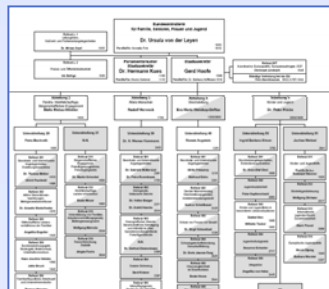
### Economic and Infrastructure Dimension

Vulnerability of different economic sectors and infrastructures  
(life-lines – technical)



### Environmental Dimension

Environmental fragility (groundwater, land)  
Dependency on environmental services



### Institutional Dimension

Effectiveness and failure of structures and institutions



# Modularization of eLearning Content Instructional Design

## 1. Course Components

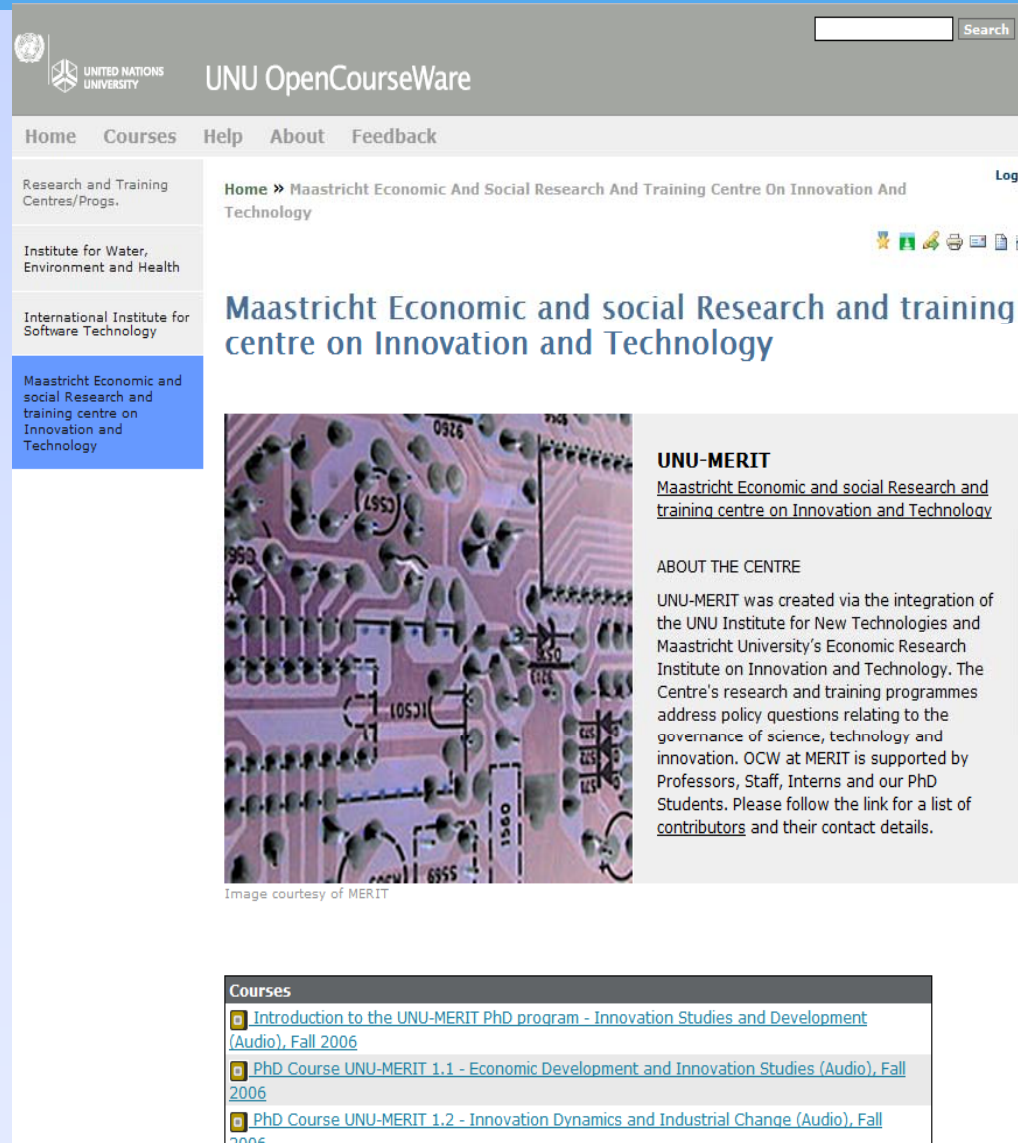
## 2. Course Design

## 3. Didactical Unit

## 4. Content Packaging

## 5. Content Processing

## 6. Content Sharing



The screenshot displays the UNU OpenCourseWare website. The header includes the UNU logo and the text "UNU OpenCourseWare". Below the header, there is a navigation bar with links: Home, Courses, Help, About, Feedback. A sidebar on the left lists various research and training centres, with the "Maastricht Economic and social Research and training centre on Innovation and Technology" highlighted in blue. The main content area features the title "Maastricht Economic and social Research and training centre on Innovation and Technology" and a section titled "UNU-MERIT" with a description of the centre's mission and a list of courses. The courses listed are:

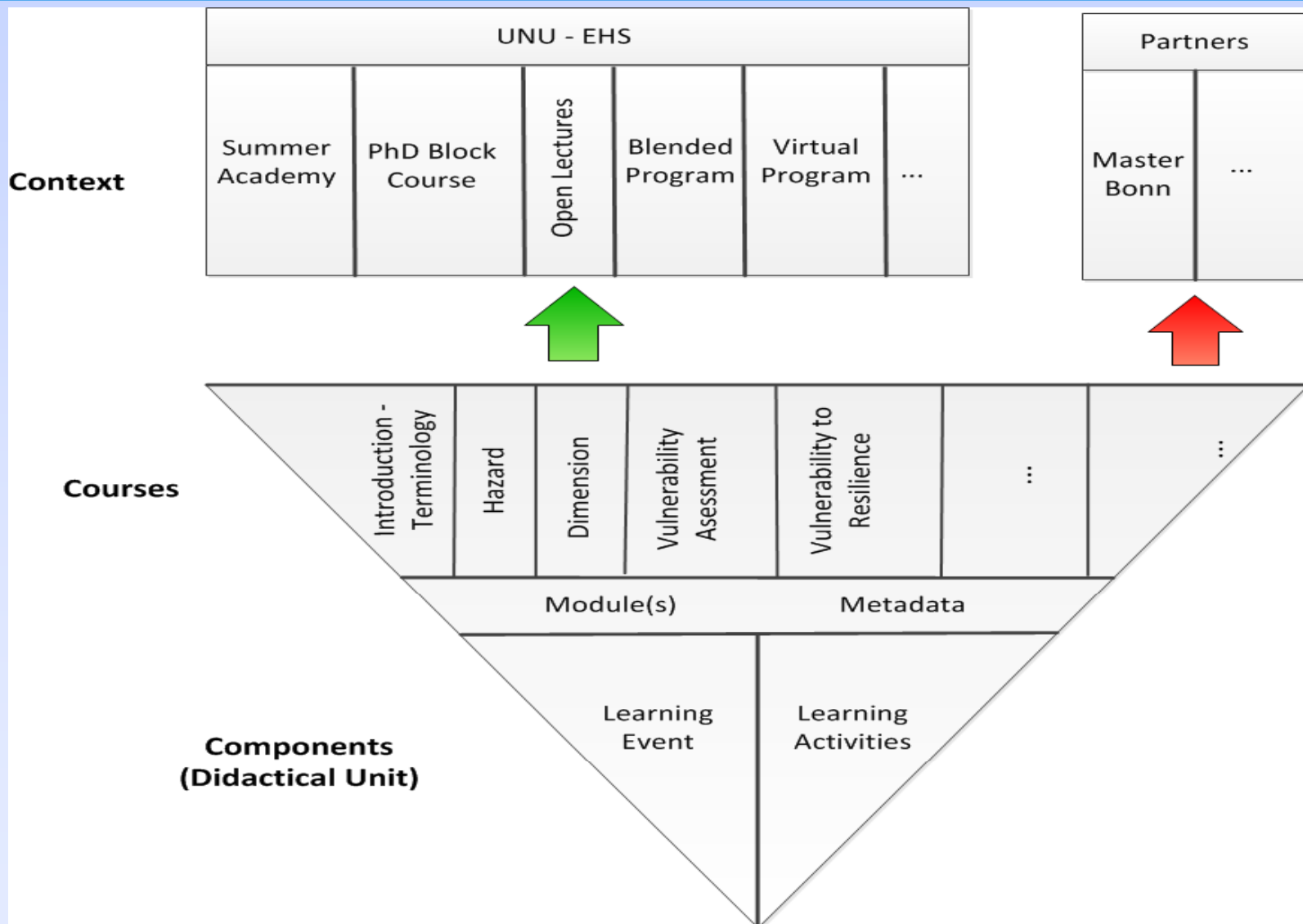
- Introduction to the UNU-MERIT PhD program - Innovation Studies and Development (Audio), Fall 2006
- PhD Course UNU-MERIT 1.1 - Economic Development and Innovation Studies (Audio), Fall 2006
- PhD Course UNU-MERIT 1.2 - Innovation Dynamics and Industrial Change (Audio), Fall 2006

# Modularization of eLearning Content



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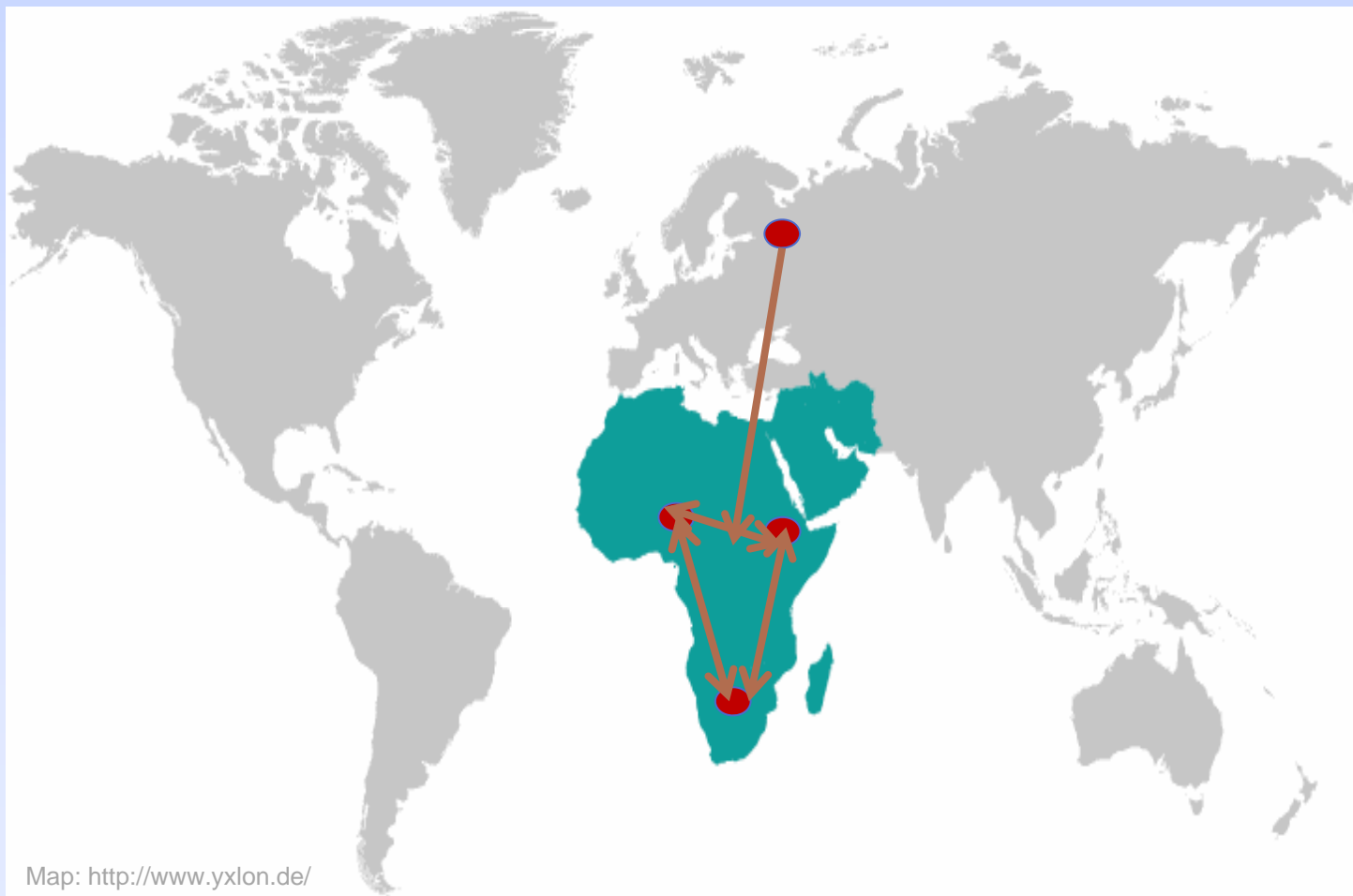


# Inter African Collaboration Food for Thought



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Map: <http://www.yxlon.de/>



# Problem: Brain drain from Africa

The efficient use of ICT can help to reduce the effect of brain drain → brain gain



Brain Drain



Brain Gain



# Utilization of the potential of professionals of the **Diaspora** via ICT

- Over 300,000 professionals reside outside Africa [OIM, 2010].
- More than 3,000 doctors have left Ethiopia. There are more Ethiopian doctors on the east coast of the U.S. than there are in Ethiopia
- Between one-third to half of all graduating doctors in South Africa migrate to the U.S., United Kingdom, and Canada
- Over 21,000 Nigerian doctors practice in the U.S
- There are reportedly more Malawi-trained doctors in Manchester, England, than there are in all of Malawi

# Tele-Medicine, Tele-Surgery

- Surgical and radiological online expertise
- Improvement of acute care in accident surgery





# Case study: Tele-medicine

- Telemedicine: Use of telecommunications technology for medical diagnosis and patient care when the provider and client are separated by distance
- Role of the Diaspora:
  - Remote diagnosis: acquiring medical data of patients in Africa, transmission to Diaspora professionals for assessment and subsequent feedback to Africa.
  - Remote monitoring: remotely monitoring of a patient by a professional using various technological devices
  - Interactive services: real-time interactions (phone conversations, online communication) between patients in Africa and professionals in the Diaspora

# Genesis Telecare Experience in Cameroon (Case study)

- Start Date: April 21, 2009
  - Agreement between the Ministry of Public Health and Genesis Telecare
  - Engagement of the Ministry of Economy and Ministry of Public Health
- From the starting date, approximately 12.000 patients benefited from the telemedicine services
  - Tele-cardiology at urban and remote sites
  - Tele-gynecology at urban and remote sites
  - Generalist consultations at urban and remote sites

# What lies ahead...



Presentation: **“Management of environmental risks and natural disasters - How can e-learning help?”**

Input from Partners:

- **National Disaster Management Agency Cameroon**
- **University of Yaounde I, Cameroon**

## DAAD



**“Enhancing collaborative research and development capacities of German and Sub-Saharan African partners on IWM”**

**Objective:** bridging the communication gap between scientists/researchers, practitioners/decision makers and the local population in the field of integrated watershed management

**Partners:**

- United Nations University, Bonn / Germany
- Baden-Württemberg Corporate State University, Stuttgart / Germany
  - Kenyatta University, Nairobi / Kenya
  - University Yaoundé I, Yaoundé / Cameroon
- University of Cape Town, Cape Town / South Africa

E-Learning for Human Security



# Policy Dialogue & Education: Using the UN-Mandate at high-level conferences

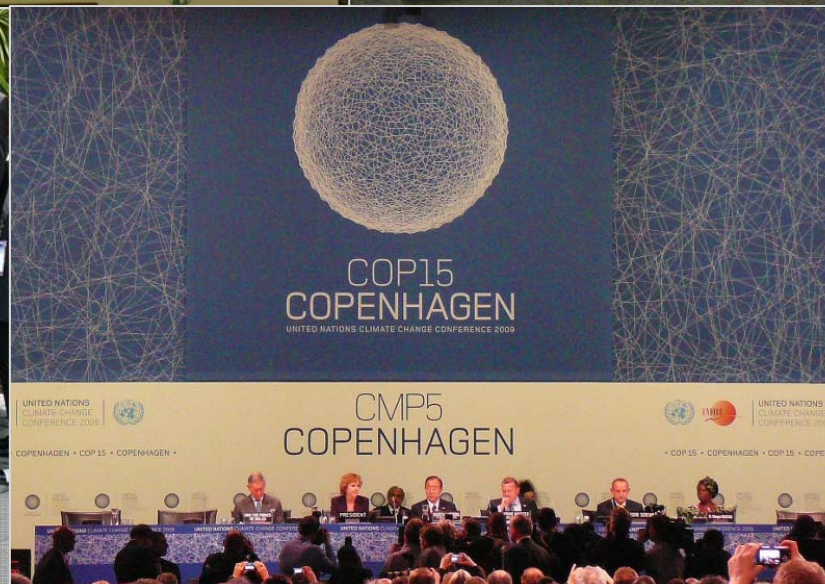


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RCMRD 7<sup>th</sup> Conference of Ministers  
22 November 2010, Cape Town, South Africa



For further information



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*"Education is the most powerful weapon which you can  
use to change the world."*

*Nelson Mandela*