

South Africa / Afrique du Sud

(426)

UNITWIN/ UNESCO Chairs Programme

Progress Report

Period of activity: 2007 - 2009

UNESCO Chair in Hydrogeology

Report established by: Yongxin Xu, UNESCO Chairholder at the University of the Western Cape

I. Activities

1. Education/ Training/ Research

The UNESCO Chair's passion for capacity building is reflected by more than 20 international short courses and workshops that have been facilitated and held since 2001.

Education

Courses: Groundwater modules

Duration: 1 year

Target groups: undergraduate and hon's level

Geographical coverage: Southern Africa and Africa

Training

Courses: Many international short courses (3 to 5 per year)

Duration: 2 to 5 days

Target groups: All water practitioners and scientists

Geographical coverage: Africa and the Middle East

Research

Title: Hard rock hydrogeology

Duration: 5 to 10 years

Target groups: Academics, government, civil societies

Geographical coverage: Southern Africa

2. Conferences/Congresses/Meetings

From 2007 to 2009, the UNESCO Chair held several groundwater-related conferences and workshops, often at the University of the Western Cape, for attendees from all over Africa.

The UNESCO Chair also acted as the Interim Secretariat for the Africa Groundwater Commission (the Commission obtained its own facilities in 2010) and facilitated three events:

- Groundwater in the SADC IWRM Initiative. SADC / AMCOW Workshop. Gaborone, Botswana, November 2008
- Watering Development in SADC – Surfacing the Hidden Resource: Groundwater: SADC Multi- Stakeholder Water Dialogue. Johannesburg, South Africa, May 2009
- Sustainable Development and Management of Transboundary Aquifers. Concept Note developed by SADC, ORASECOM, LIMCOM, Botswana, Namibia and South Africa. Multi-Stakeholder Workshop, Pretoria, May 2010.

3. Publications/ Interuniversity exchanges/ Partnerships

Publications

From 2009 to 2010, the UNESCO Chair has produced four books and many peer-reviewed papers and software:

Books

Title: Sustainable groundwater resources in Africa

Author(s): Y Xu and E Braune

Publisher(s): Balkema (UNESCO IHP Series)

Year: 2009

Language(s): English

Number of pages: 300

Title: Assessing the Impact of Research Funded by the Water Research Commission on Capacity Building in the Groundwater Sector.

Author(s): Braune, E., Adams, S. and Xu, Y.

Publisher(s): Water Research Commission 2010

Number of pages: 54 pages

Periodicals

Special Edition of the international journal 'Ground Water' Groundwater in Africa

Others

Title: Groundwater and Society in Africa – learning to cope with the effects of climate variability and change.

Author(s): Braune, E., Moseki, C. and Duah, A. (2009).

Type: Issue Paper for the Africa Groundwater Commission. Nairobi: UNEP.

Title: Water for Growth and Development: Ground Water.

Author(s): Braune, E. (2009).

Type: Appendix B of a Water for Growth and Development Strategy of the Department of Water Affairs. Pretoria.

Interuniversity exchanges

The UNESCO Chair participated in interuniversity exchanges with institutions located in Malawi, Zimbabwe and Botswana as part of the FLEUR Programme, with the National university of Mal del Plata (Argentina), the Capital Normal University in Beijing (China) and the Queensland University of Technology (Australia).

Visits to about 40 countries were also organized either to deliver lectures or to attend expert meetings and workshops related to groundwater issues.

Partnerships

The UNESCO Chair has established a fruitful relationship with many academic institutes, UN agencies (UNEP, UNESCO and UN Habitat) and the Flemish-sponsored Framework for Education and Training in Water (FET-Water), and helped with the establishment of the UNESCO ISARM programme in SADC.

II. Outcomes

The UNESCO Chair is playing a leading role to assist the UN agencies involved in groundwater in Africa to develop and implement their programmes successfully and has become a part of the NEPAD Centers of Excellence on Water Science and Technology in partnership with other institutions in Southern Africa. This scientific recognition placed UWC Groundwater Center in a strong position in Africa in general and South Africa in particular.

The UNESCO Chair had adopted a phased approach over the past eight years. After initial consolidation of the groundwater niche areas and successful implementation of the rigorous outreach programme at the university, its proposal for the establishment of a Water Institute was accepted and approved by the university.

The UNESCO Chair has also continued to support the UNESCO IHP in the region, in particular the Nairobi Office in launching the Africa Groundwater Commission in 2010, and the Windhoek Office in initiating and growing the ISARM (Transboundary Aquifer Management in the Southern Africa Region).

Finally, the UNESCO Chair has continued to assist the Southern Africa Development Community (SADC) to establish and grow its Groundwater Programme as a follow-up to the groundwater resolutions taken by the African Ministers' Council on Water (AMCOW) in 2007.

III. Forthcoming activities

For the coming years, the UNESCO Chair has planned the following activities:

- Ongoing research projects like VLIR water project and UNESCO ISARM
- Ongoing short courses
- More than 20 postgraduates each year
- Support FET Water programme Phase III
- Support UWC Water Institute through the NEPAD Centers of Excellent on water science and technology.

IV. Development prospects

The UNESCO Chair firmly believes in that groundwater science should translate its jargon into productive force and eventually benefit for societal growth and development. Establishing important partnerships is therefore necessary to achieve this objective and the UNESCO Chair has already learnt how to build strong partnerships with various institutions over the years.

Such institutions (eg UNESCO, hosting country, hosting region, hosting institution) should work together to establish centers for a specific purpose and continue to act strategically and in unison to achieve sustainability and even higher objectives for the facility they created. In particular, there should be ongoing efforts to involve the UNESCO Chair in programmes of national and regional significance.

An opportunity in this regard is presently emerging, where UNESCO is leading the development of the groundwater component in a global water resource monitoring programme of GEF. Such a programme would be an ideal one to create a continent-wide continuity of cooperation for the UNESCO Chair and its networks.