



Science Communication: Experience in Africa

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Canberra





CPAS - The Australian National Centre for the Public Awareness of Science – The only UNESCO Centre for Science Communication



South Africa and Namibia

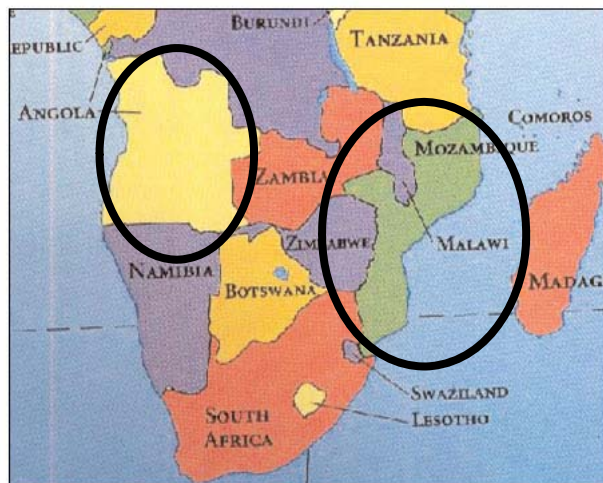


History

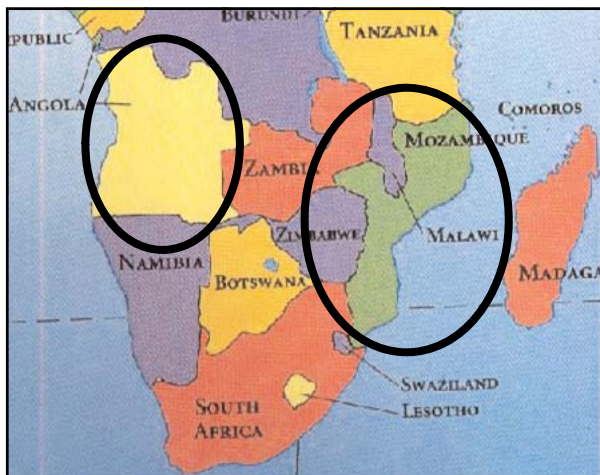
The Apartheid Regime neglected education for indigenous peoples.

This has been the case at both primary and secondary level.

Education in science was text-book based, and of quite low quality.



Angola and Mozambique

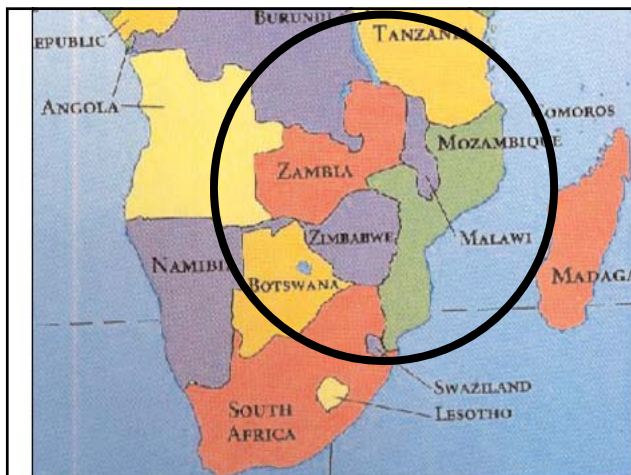


History
These nations were formerly Portuguese colonies.

The Administration was based in Portugal.
Thus the Minister for Education was a member of the Portuguese Government.
Science education was not well supported.



Botswana, Zimbabwe, Malawi, Zambia, Tanzania, Kenya



History

These nations were formerly under British rule.

Although primary education was quite well supported, secondary education was available to very few indigenous children. A further problem was the British examination system.

The Legacy

1. South Africa and Namibia

Nations in “catch-up” mode. The major challenge: to enable good science education at the primary level

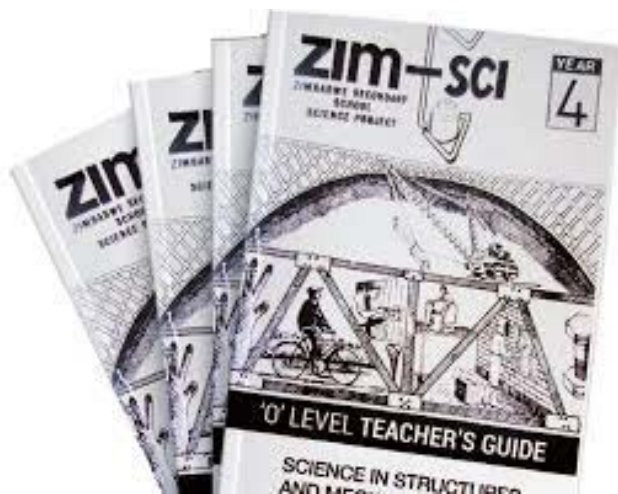
2. Angola and Mozambique

The challenge: Provide science education for the population past primary school

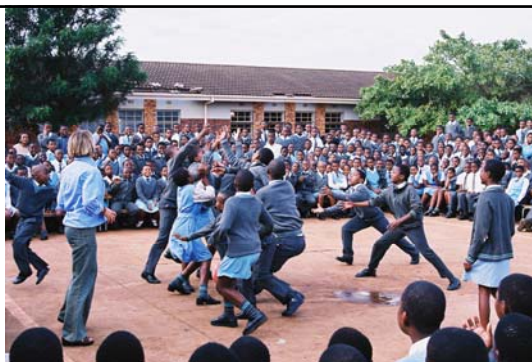
3. Botswana, Zimbabwe, Malawi, Zambia, Tanzania, Kenya

The challenge: to make the education system a better “fit” for the needs of the country

The Zim Sci Program 1982



The CPAS
experience: South
Africa from 1996
to present



Very large classes,
and very
enthusiastic
students!





<http://www.adeanet.org>

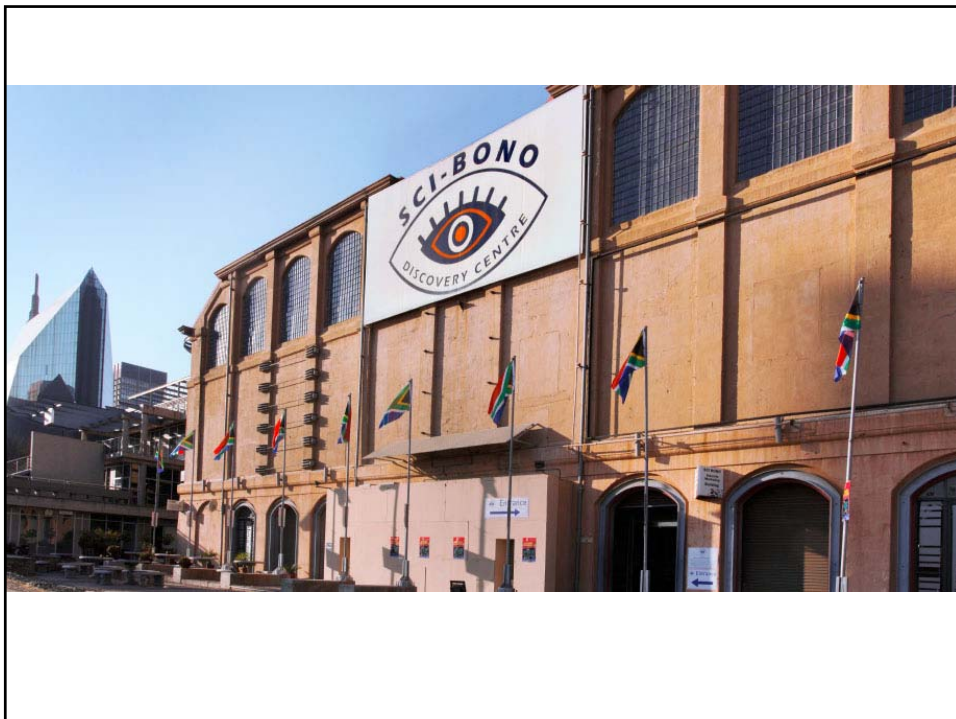


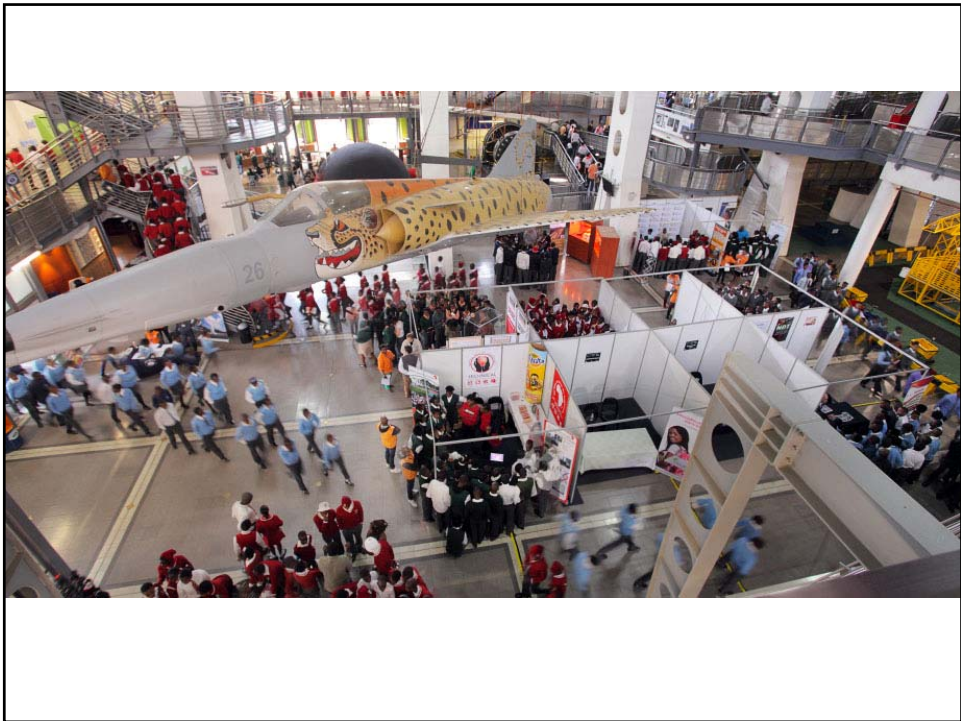
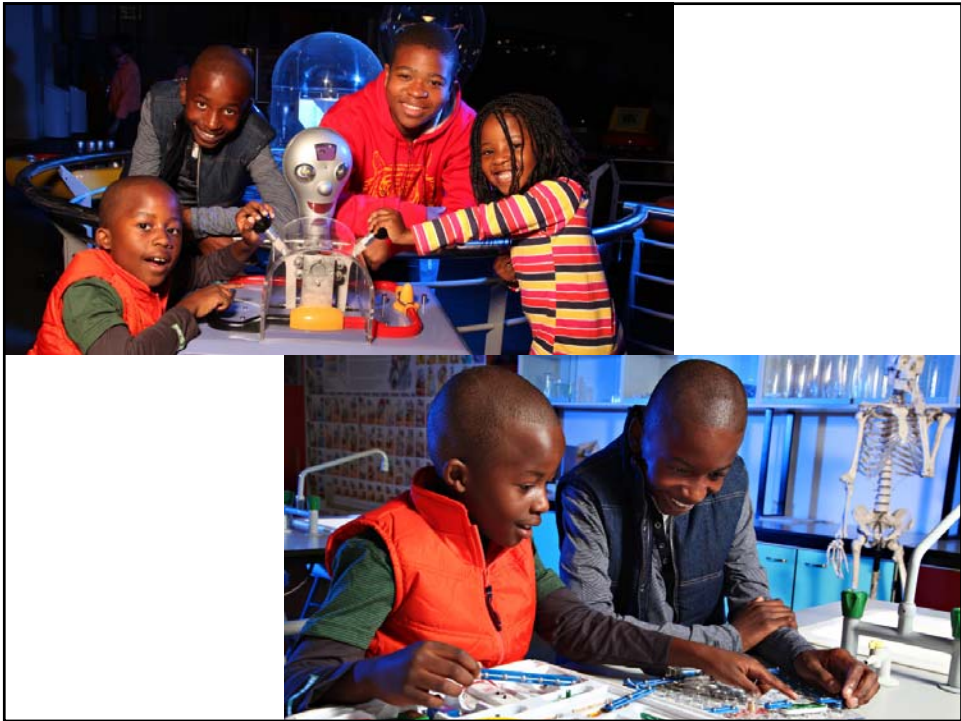
The rise of science centres in Africa

**Cape Town
Science Centre**



Sci-Bono Discovery Centre Johannesburg





Unizulu Science Centre Richards Bay





Sci-Enza Pretoria



**SAASTEC- South
African Association of
Science and Technology
Centres**

Some Mission Statements


Unizul Science Centre (USC) is aimed at Science educators and learners in KwaZulu-Natal schools surrounding the University of Zululand.

SciEnza

Our mission is to make science accessible to learners of all ages in a fun and entertaining way and in doing this raise science awareness.

SciBono

To support and enhance the delivery of effective mathematics, science technology and career education in Gauteng schools and to improve awareness of, interest in and engagement with all aspects of science, engineering and technology in youth and the general public.



**6th SCIENCE CENTRE
WORLD CONGRESS**
4 - 8 SEPTEMBER 2011
CAPE TOWN, SOUTH AFRICA
Science, Arts & Culture

CAPE TOWN DECLARATION

At the 6th Science Centre World Congress convened in Cape Town, South Africa, from 4-8 September 2011, 116 delegates from 34 countries assessed the impact of science centres worldwide and for consensus on their role and vision for the future. A declaration that addresses global issues at the interface between science and society. The Congress continued the dialogue from previous world gatherings in: Fribourg (1994), Oslo (1999), Australia (2002), Seoul (2005) and Canada (2008).

Globally, science centres and interactive museums have taken the lead in breaking down barriers to learning and have achieved a high trust rate for the accuracy of the information that they communicate. They focus on promoting dialogue and debate within learning and learning environments rather than presenting answers for important scientific, technological and philosophical. They endeavour to promote mutual understanding across generations and cultures as well as an ethos of lifelong learning.

Each year over 210 million people actively participate in in-house and outreach science engagement programmes organized by over 2 500 science centres in more than 90 countries and administrative regions. These science centres recognize that the three pillars of interactive science engagement are: exhibit knowledge, facilitate education, and dialogue, and the incorporation of experiences with activities and the public.

Science centres also recognize that 'learning play' is one of the most effective ways of learning for people of all ages. Their role is to work beyond the confines of education to the advancement of understanding and wisdom. This wisdom brings about changed attitudes and behaviours that lead to the development of more sustainable life styles. Science centres help people, and therefore societies to maximize their potential.

Science centres are places where contribution of inspiring ideas, plans, and scientific and technological advances are understood in their appropriate contexts. Although it is not in science centres, high science centres are understood to be a multi-disciplinary and interdisciplinary forum for progress for everyone. They want to engage with society and to understand the long term implications of their work. There is thus a need for improved dialogue between scientists and the public during the course of the scientific process that leads to innovation. The Declaration is consistent with the core contributions made by science centres worldwide and outlined in the Science Declaration of 2008. The Cape Town Declaration of 2011 notes that over the past three years science centres have responded:

- Linked their programmes to the Millennium Development Goals of the United Nations especially to promoting universal education, meeting, awareness of HIV/AIDS, and promoting environmental sustainability.
- Served to form collaborative partnerships across cultural, political, economic, and geographical boundaries so as to ensure that the most effective methods of science and technology engagement meet current concerns and communities.
- Celebrated the value of local experiences and the inherent benefits of engaging closely with visitors while making knowledge effective use of well-tested digital media, as well as more timely and virtual media, to engage with their public.
- Celebrated the universality of science while recognizing its multi-cultural origins and the value of indigenous knowledge systems.
- Strongly promoted creativity, invention and innovation.
- Facilitated greater involvement between scientists and the general public so that public opinion on science and technology issues can be heard and debated.

At the 6th Science Centre World Congress, leaders of science centres and museums worldwide agreed to:

- Encourage the establishment of science centres and museums in parts of the world where they are lacking.
- Support a policy of investment in science technology and innovation in response to global economic and financial challenges.
- Continue with formal education, with learning, public, museum and media, where relevant.
- Seek to address inter-generational science and technology related problems that are relevant to local, regional and global communities and to develop programmes that engage the general public to contribute actively to the resolution of these problems.
- Continue to develop programmes that promote awareness of the multi-cultural roots of science and the value of indigenous knowledge systems.
- Continue to develop partnerships to promote science awareness and engagement across cultural, political, economic and geographical boundaries.
- Conduct further research that measures the efficiency and effectiveness of their programmes and to act on the information in order to improve their efficiency and impact.
- Further promote dialogue between scientists and the general public so that public opinion on science and technology can be heard and incorporated into decision-making processes.
- Further promote creativity, invention and innovation that leads to more sustainable life styles.
- Work together to ensure that they share their joint experience and knowledge of the most effective methods of engaging with science and technology with other local, regional, national and international bodies that promote science and technology awareness.

Plans to address these resolutions will be developed on appropriate, national and international levels. At the 2014 Science Centre World Congress to be held at Scheperskop in Maastricht, Belgium, in 2014, science centres and museums shall assess the extent to which they have as individual institutions and collectively, achieved the goals set out here.

**4TH SCIENCE CENTRE
WORLD CONGRESS
CAPE TOWN,
SOUTH AFRICA**
www.6scw.org
4 September 2011

CAPE TOWN DECLARATION ENDORSED BY:
 AISC - Asia Pacific Network of Science and Technology Centres
 ATTC - Association of Science Technology Centres
 Euro - European Network of Science Centres and Museums
 NAFES - The North Africa and Middle East Science centres network
 NCSIP - National Council of Science Museums, India
 RedPOP - Network for the Popularization of Science and Technology in Latin America and the Caribbean
 SAASTEC - Southern African Association of Science and Technology Centres

What we do:

- Capacity building workshops for science centres



What we do:

- Capacity building workshops for science centres



Nine nations came to Canberra

Country	Number	
South Africa	33	
Botswana	1	P
Egypt	1	P
Ethiopia	1	E _s ,P
Ghana	1	P
Kenya	1	E _s ,P
Tunisia	2	E _p ,P
Zimbabwe	1	E _p ,P
Note:		
P=Programs		
E _s = Exhibits	for students	
E _p = Exhibits	for the public	

Well over 1 billion people have no access to a science centre

This gap implies a significant lack of opportunity for African children and families to experience the inspiration, joy, education, and empowerment that accompany an ongoing relationship with STEM through science centres.

WHAT IS NEEDED

Help! to establish:

- A vision for a Centre
- Strong leadership
 - Committed stakeholders
- Reliable income sources
- A development plan

