

CONFERENCE ON
BASIC SCIENCES FOR
DEVELOPMENT IN
EASTERN AND SOUTHERN
AFRICA

1-3 March 1999
Arusha, Tanzania



THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF SCIENCE, TECHNOLOGY
AND HIGHER EDUCATION



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UPPSALA UNIVERSITY
International Science Programme



COSTECH

DECLARATIONS
AND RECOMMENDATIONS FOR ACTION

Conference on Basic Sciences for Development
in Eastern and Southern Africa

1-3 March 1999
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Declaration
and
Recommendations for Action

On behalf of the Government of the United Republic of Tanzania I wish to acknowledge with appreciation the partnership accorded to us in organising this Conference in collaboration with the Third World Academy of Sciences and the International Science Programme of Uppsala University, Sweden, and with financial support from Sida/SAREC, Sweden, which turned into an epoch making forum. This regional forum from countries in Eastern and Southern Africa was a timely follow up to the International Conference on Donor Support to Development-Oriented Research in the Basic Sciences, held in Uppsala, Sweden, 15 - 16 June 1995.

This was a pragmatic opportunity for the countries of the region to exchange information on the status of the basic sciences in their respective countries, which will in future enable the rationalisation of regional exchange programmes for capacity building in the basic sciences based on available resources enhanced by external partnership programmes.

The ensuing declaration is an expression of our willingness and determination to develop the basic sciences as the foundation for the application of science and technology for accelerated socio-economic development of our nations.

It has been expedient to form an Interim Secretariat as a matter of sheer necessity in order to make a follow up of the implementation of our expression of intention before we meet formally in two years in order to further operationalise our capacity building and utilisation.

We all look forward to meeting again here in Arusha in two years time.

Hon. Dr. Pius Yasebasi Ng'wandu
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SCIENCE AND TECHNOLOGY

May, 1999

**Declaration of the Conference
on Basic Sciences
for Development in Eastern and Southern Africa**

Arusha, Tanzania, 1999

Preamble

This declaration is the result of the Conference on Basic Sciences for Development in Eastern and Southern Africa, which was held at Arusha, Tanzania, 1-3 March 1999. The conference was jointly organised by the Ministry of Science, Technology and Higher Education of the United Republic of Tanzania, the Tanzania Commission for Science and Technology, the Third World Academy of Sciences and the International Science Programme of Uppsala University, Sweden, with financial support from Sida/SAREC, Sweden. The Conference brought together delegates from twelve countries in Eastern and Southern Africa — Botswana, Malawi, Mozambique, Namibia, Rwanda, South Africa, Sudan, Swaziland, Uganda, Tanzania, Zambia and Zimbabwe — participants from an additional six developing countries, and representatives of UNESCO, African Academy of Sciences, Sida/SAREC and organisations promoting basic sciences in the subregion.

The conference was a follow up to the International Conference on Donor Support to Development-Oriented Research in the Basic Sciences, held at Uppsala University, Sweden, 1995. In the declaration from this conference it is *inter alia* noted that:

The basic sciences—biology, chemistry, mathematics and physics—provide a fundamental understanding of natural phenomena and the processes by which natural resources are transformed.

In the Third World, development-oriented research and higher education in the basic sciences have received but a negligible share of total available resources from domestic and foreign sources. One unforeseen consequence of this situation has been that the indigenous base for education and technology has remained precariously weak. Another has been that the scientific communities of the recipient nations have a limited influence on the kind of research being carried out within their own countries.

Conclusions for recommendations

Taking note of these points and the others made in the Uppsala declaration, we, the delegates to this Conference on Basic Sciences for Development in Eastern and Southern Africa:

- **Recognising** the indispensable role that science and technology play in national development
- **Further recognising** that national development depends to a great extent on the application of endogenous science and technology knowledge
- **Realising** that science is a powerful intellectual resource that enables mankind to understand natural phenomena and convert them into usable resources for socio-economic development and a sustainable environment
- **Convinced** that science and its application are major factors for socio-economic development in the subregion and that the future of the development of any one nation in the subregion is more dependent on the generation, dissemination and effective use of scientific knowledge than any other development factor
- **Acknowledging** that basic sciences (biology, chemistry, mathematics and physics) are fundamental to the understanding of natural phenomena, natural and man-made disasters, discovery of new products and techniques and to the application of science and technology for socio-economic development
- **Considering** that the status of basic sciences, education and research capacity in the subregion is inadequate to enable science to play its full role in the national development.
- **Appreciating** that responsibility for improving the status of the basic sciences in the subregion lies individually and collectively with the countries in the subregion.
- **Further appreciating** that international cooperation plays a significant role in the promotion of science and that there already are a number of basic science programmes in existence receiving international support in the subregion

Recommendations for action

Recommend to our governments and national and international partners as follows:

- **Science education**

That each nation initiate and promote science popularisation programmes aimed at cultivating a science culture.

That each nation enhance and adapt, in a specified time frame, science education and research at all levels of the education system with particular emphasis on gender equity.

That each nation establish a conducive environment that will attract talented students into basic sciences, recognise students, teachers and researchers and reward their achievements, and strengthen postgraduate education.

- **Research and development**

That the role of basic sciences education and research be explicitly stated in national science and technology policy documents and included in national development policies.

That, within a specified period, funding mechanisms be established with emphasis on public funding resources, private sector partnership and collaboration with other partners, in order to make available at least an amount equivalent to 1% of the country's GDP for the development of R&D within a decade.

- **Coordination and cooperation**

That systems of coordination be established and nurtured among and between nations in the subregion that will ensure the efficient utilisation of existing and future capacity and capability and provide opportunities for exchange programmes.

- **Information**

That urgent steps be taken by each nation to take advantage of newer and emerging information technologies for the efficient access and exchange of knowledge.

- **Follow up**

That scientists in the subregion individually and jointly have a responsibility to assist in the improvement of the status of the basic sciences.

That the organisers of this conference serve as the Interim Secretariat for the coordination of the existing focal points in science and technology in each country until the next conference is convened in two years' time.

That the current status of basic sciences be clearly defined and documented in each country and the findings widely disseminated. The future achievements and status should be reviewed biennially in follow up conferences to be convened by the Interim Secretariat.

That plans for the improvement of the situation for the basic sciences in accordance with the recommendations above be prepared by the Interim Secretariat and that the secretariat actively lobby within the whole region for these plans to come into reality.

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