

**EAST/NORTH AFRICA REGIONAL STI POLICY REVIEW  
WORKSHOP  
MOMBASA 30 MARCH- 3 APRIL 2009**

**EAST AFRICA REGION SCIENCE, TECHNOLOGY  
& INNOVATION POLICY REVIEW WORKSHOP**



SAROVA WHITESANDS BEACH RESORT & SPA, MOMBASA, 30<sup>TH</sup> MARCH - 3<sup>RD</sup> APRIL 2009

**SUMMARY OF DELIBERATIONS  
AND MAIN ISSUES DISCUSSED**

## INTRODUCTION

Effective Science, Technology and Innovation (STI) policies that harness scientific knowledge are a key to socio economic and sustainable development. Recognizing the role of science policies, a number of African countries have requested assistance from UNESCO to review and reformulate their STI policies so that these take into account the needs of society. UNESCO is working with these individual countries in re-enforcing their national capacity in STI reviews.

In line with developing national capacities in STI reviews, the Ministry of Higher Education, Science and Technology of Kenya, has offered to host a workshop on STI policy reviews for the East and selected North Africa countries in **Mombasa from the 30 March to 3 April 2009**. This meeting will be organized in cooperation with the UNESCO Institute for Statistics (UIS) and the AU/NEPAD. The 5 days workshop had three main components: training on STI statistics and indicators STI; policy reviews; and a Scientific Forum for Parliamentarians.

The first two days (first component, March 30-31), assisted by international STI policy review/reformulation experts were devoted to training country officials on various aspects of STI indicators design and utilization. The two next days (second component, April 1-2) were devoted to the exchange of experiences and lessons learnt in this challenging area of STI Policy Reviews.

Finally, the last day (third component, April 3<sup>rd</sup>) was dedicated to a Forum for Members of Parliament and Parliamentary Scientific Committees for discussion on the role of parliamentarians in promoting STI for Development. This is in line with UNESCO's initiative on Inter- Parliamentary Fora on Science and Technology. The aim of this new agenda item in the STIP Regional Workshop was to strengthen partnerships between legislators and scientists in developing national STI systems, to build the capacity of science parliamentary committees and to raise awareness of members of parliament on the role of STI policies for achieving sustainable economic development in Africa.

## PARTICIPANTS

Fifty one (51) participants representing the following countries and organizations participated in the workshop on Policy Review and STI indicators: Eritrea, Ethiopia, Sudan, Kenya, Uganda, Rwanda, Tanzania, Seychelles, Madagascar, UNESCO, the UN Institute for Statistics (UIS), the African Union Commission, the AU/NEPAD and the Spanish Cooperation Agency.

The same countries, except Seychelles, were represented by Members of their Parliament in the Parliamentarians' Forum. The Members of Parliament were all nominated by their Speaker of Parliament.

## **OPENING SESSION**

The workshop was officially opened by H.E. Asman Kamama, Assistant Minister for Higher Education, Science and Technology of Kenya. He thanked UNESCO and UIS for hosting the workshop in Kenya and recognising that both scientists and policy makers are important actors. He highlighted the importance of STI for socioeconomic development; indicators to be fully embedded in the STI policy to be effective; the African brain drain and the role of MPs in science and technology in decision making. Finally, he expressed the opinion that the poor correlation between investment, industrialization and development, may be due to the image of science being presented as “abstract and elitist”.

On behalf of the present Chair of AMCOST, the Permanent Secretary, Prof C. Kiamba also thanked UNESCO and UIS for holding the workshop in Kenya. Prof Kiamba provided an overview of the AUC and its relation with AMCOST, the role of AMCOST in providing direction in S&T and NEPAD in the collection of data and statistics and the synergies between UNESCO and UIS.

Dr Ahmed Hamdy represented the AUC/HRST and informed the meeting of the AU summit decisions and endorsement of the request from the Republic of Equator Guinea to host the African Observatory for S&T.

The Director of the UNESCO Nairobi Cluster Office, Prof J. Massaquoi represented the Director General, welcomed the participants and underlined the strategic partnerships between the AU, UNESCO and Member States. UNESCO is mobilizing support both within the organization and from outside to assist in the CPA implementation.

On behalf of the Director for Science Policy and Sustainable Development, Dr Jacques Moulot gave a presentation highlighting the history and process of developing a science policy programme in UNESCO in support of member states.

Dr Shamila Nair-Bedouelle presented the UNESCO Plan of Action, and the science policy initiatives and reviews in the African countries.

All speakers gratefully acknowledged financial support from the Spanish International Development Cooperation Agency and the presence of the representative Ms Carmen Maganiros at the workshop.

## STI INDICATOR TRAINING – March 30 to March 31

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### ▪ *Main issues discussed*

During this session, the following issues were highlighted:

- Statistics are essential to monitor national policy and determine whether resources are being used effectively. The international system for science statistics is well developed and centred around the OECD Frascati Manual for R&D, and the OECD Oslo Manual for Innovation Statistics. These can be set beside UNESCO standards for education statistics and human resources. The need to use international standards to make survey development easier and cheaper, to allow comparability and transparency was understood.
- S&T statistics show a wide range of availability and quality across countries. Some countries have quite evolved and comprehensive information, but others have no data at all.
- Problems inhibiting collection of national science data include:
  - Lack of resources;
  - Lack of priority afforded to S&T statistics;
  - Lack of co-ordination between a wide range of agencies involved in science; and
  - Lack of knowledge of key statistical concepts associated with science statistics.
- Enabling strategies that countries might pursue include:
  - Advocacy with key stakeholders;
  - Inclusion of statistical indicators and monitoring strategies in national plans;
  - Involvement of national statistics offices in science statistics and inclusion of science surveys in their annual plans; and
  - Investigation of using alternative ‘cheaper’ data sources such as administrative records.

### ▪ *Challenges and way forward*

The following emerged as key challenges and way forward:

- African countries are making clear progress in science data collection. More and more countries are able to report R&D to UNESCO, while initiatives such as NEPAD’s ASTII are building capacity. High level commitment of the African Union is increasing political awareness of the need for African science data. Considerations of adapting statistical standards such as UNESCO Institute for Statistics’ (UIS) ‘annex’ to the Frascati manual and the development of an African manual on science statistics were discussed. For most of the countries participating at the workshop a set of regular statistics is required before detailed methodological concerns might become apparent. Several countries are looking to

capacity building from UNESCO and partners in order to produce these data. UIS will respond to these demands by providing statistical tools, and by capacity building through its statistical capacity building staff who have been recently appointed to several UNESCO cluster offices in Africa.

## **STI POLICY REVIEWS: April 1<sup>st</sup> to April 2<sup>nd</sup>, 2009**

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This session was attended by statisticians, policy makers and MPs. UNESCO's role and the "lessons learnt from the STIP reviews" and the Latin American experience in STI policy reviews were presented. Participants from the following countries presented the country status reports on science, technology and innovation policy: Egypt, Ethiopia, Eritrea, Kenya, Madagascar, Rwanda, Seychelles, Sudan, Tanzania and Uganda.

The following issues were highlighted:

### *Country status*

- Few countries have a comprehensive STI policy. Most have a STI policy which is either in draft, being reviewed or embedded across different sectors. Certain countries are reviewing their STI policies for the second time. Countries have also identified priority sectors for STI policy interventions. These range from agricultural and rural development, to exploiting indigenous knowledge systems, new and renewable energy.

### *Institutional frameworks*

- Depending upon the country, STI is under the responsibility of different ministries or grouped together with other domains for e.g. Higher Education, Finance and Economic Development. Weak institutional frameworks were often said to contribute to a lack of policy. The cross cutting nature of STI is reflected in the different related policies across the sectors. Thus the overlapping nature and mandate of STI governing bodies complicates coordination, monitoring and evaluation.
- Participants exchanged ideas and best practices on innovation and technology transfer both locally and internationally. One of the challenges faced is the resistance of culture and reforms. The idea that technology is "politically neutral", is misleading, since experience has shown that in transferring technology, disparity between people and nations can increase.
- The representative from the AU informed the meeting that an African policy framework will be developed with the support of UNESCO. The African Lighthouse projects are not exhaustive but rather an indication of projects that contribute to the implementation of the CPA.

### *Challenges and way forward*

The following emerged as key challenges and way forward:

- Countries are fully aware of the need for comprehensive STI policies and its role in socio economic development. There is recognition of the need for a vision to mainstream the application of science and technology into national development plans and harness STI for national prosperity and global competitiveness. However, the participants were concerned that the targets and goals set in the vision should be achievable.
- It was recognised that the capacities of parliamentarians to act as advocates for science and technology should be enhanced through dialogue with scientists.
- The human resource base for science in most countries is limited, posing a challenge for the implementation of policies. More African women scientists are needed.
- Increasing regional and south-south cooperation would provide means for capacity-building and sharing of best practices.
- In the process of mapping of STI framework at country levels, the approach of coupling international experts with national experts provides the opportunity for greater national ownership and facilitates further implementation.

### **FORUM FOR PARLIAMENTARIANS – Friday, April 3<sup>rd</sup>, 2009**

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Members of parliaments of the following African countries - Eritrea, Ethiopia, Kenya, Rwanda, Seychelles, Sudan, Tanzania, Uganda, and Egypt, gathered in Mombasa, at the joint invitation of UNESCO, the government of Kenya, and the UNESCO Institute for Statistics, with the collaboration of the African Union and its NEPAD programme, participated in the two-day session (from April 1st to April 3rd 2009) on Science, Technology and Innovation Policy Review. This was followed by a one-day parliamentary forum. The forum resulted in the adoption of the *Mombasa Declaration for the Establishment of the Parliament for S&T for Development Network for Eastern Africa*.

They resolved to:

1. pursue the creation of a STI committee in the structures of our various Parliaments where it does not exist;
2. increase dialogue with the scientists, public and other stakeholders on scientific issues of general interest brought to parliaments;
3. advocate STI and expedite the adoption of informed legislations promoting the utilization of STI for socio-economic development; and

4. create a network of parliamentarians in support of science and technology for development called “Parliament for Science, Technology for Development (PST4D) Network in Eastern Africa”.

They requested UNESCO and the African Union with relevant Regional Economic Communities to provide assistance, in their different respective capacities, to the sub-regional parliaments to implement the above resolutions.

## **CLOSURE**

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On behalf of the Director General of UNESCO, Prof. G. M. J. Massaquoi thanked the Republic of Kenya for having hosted the East Africa regional STI workshop and summarized the achievement of the meeting. The African Union Commission representative, Mr. Ahmed Hamdy reiterated the African Union’s commitment to this process and to pursue the creation of the Pan-African Parliament for ST4D (P-ST4D) network. In his closing remarks, the Hon. Minister Kilemi Mwiria said that he was satisfied with the outcome of the meeting that was pragmatic and achievable in a near future. The meeting was closed by the Hon. Dr. Kilemi Mwiria, Assistant Minister for education and the Permanent Secretary Prof. C. M. Kiamba, from the Ministry of Higher Education, Science and Technology of Kenya.