



# AMCOST Bulletin

Extraordinary Conference of the African Ministerial Council on Science and Technology (AMCOST)

Published by the International Institute for Sustainable Development (IISD)

ONLINE AT [HTTP://WWW.IISD.CA/AFRICA/AMCOST/](http://www.iisd.ca/AFRICA/AMCOST/)

VOLUME 3, No. 1, MONDAY, 20 NOVEMBER 2006

## EXTRAORDINARY CONFERENCE OF THE AFRICAN MINISTERIAL COUNCIL ON SCIENCE AND TECHNOLOGY: 20-24 NOVEMBER 2006

The Extraordinary Conference of the African Ministerial Council on Science and Technology (AMCOST) will take place in Cairo, Egypt, from 20-24 November 2006. Organized by the African Union (AU) Commission and hosted by the Government of Egypt, the conference will open with an experts meeting from 20-21 November, followed by a ministerial meeting from 23-24 November. It is the third meeting of African Ministers of Science and Technology, with the inaugural meeting held in 2003.

Delegates will consider a range of proposals and reports on African science and technology matters. These include: a proposal to establish an African Presidents' Committee for Science and Technology; the draft report of the High-level Panel on Modern Biotechnology; the African Strategy on Biosafety; a proposal for the African Strategy for Technology Transfer and Acquisition of Domestic Technological Capabilities; the report of the conferences of the Diaspora and of African NGOs on the popularization of science and technology; a proposal for the formation of the Pan-African Intellectual Property Organization; the report of the first AU Congress of Scientists and Policy Makers; options for the African Science and Innovation Facility; and criteria and guidelines for establishing African networks of centers of excellence in science and technology. Delegates worked through these agenda items with a view to preparing inputs for the January 2007 AU Summit of Heads of State and Government (2007 Summit), to be held in Addis Ababa, Ethiopia, which has as its primary theme "Science, Technology and Research for Africa's Development."

In conjunction with the conference, an Inter-Ministerial Dialogue on Building an African Network of Centers of Excellence in Water Sciences and Technology will be held jointly by the Bureaus of AMCOST and the African Ministerial Conference of Water on 22 November. Delegates will consider issues related to criteria and guidelines, financial mechanisms and governance for a network of centers of excellence

This bulletin places the Extraordinary AMCOST Conference in a broader context by providing a history of institutions and processes related to S&T governance in Africa. For reports of the Extraordinary AMCOST Conference and the Inter-Ministerial Dialogue, please visit <http://www.iisd.ca/africa/amcost>.

## AN INSTITUTIONAL HISTORY OF SCIENCE AND TECHNOLOGY GOVERNANCE IN AFRICA

### AFRICAN UNION

The African Union (AU) is the principal organization for the promotion of socioeconomic integration across the continent. It includes 53 African countries as member states, while Morocco has special status. The Heads of State and Government of the Organization of African Unity called for its establishment in the Sirte Declaration on 9 September 1999, as a means to accelerate integration, so that Africa could play a significant role in the global economy, and to address shared social, economic and political problems. Its objectives include: achieving greater unity and solidarity between African countries and the peoples of Africa; promoting and defending common African positions on issues; encouraging international cooperation; establishing enabling conditions for the continent to play its rightful role in the global economy and in international negotiations; promoting sustainable development and integration of African economies; and advancing the continent's development through research in all fields, particularly science and technology (S&T).

The principle organs of the AU include the: Assembly; Executive Council; Commission; Permanent Representatives Committee; Peace and Security Council; Pan-African Parliament; Economic, Social and Cultural Council; Court of Justice; Financial Institutions; and Specialized Technical Committees, which includes the Committee on Industry, Science and Technology, Energy, Natural Resources and Environment. The current AU chair is the President of the Republic of Congo, Denis Sassou-Nguesso.

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The *AMCOST Bulletin* is a publication of the International Institute for Sustainable Development (IISD) <[info@iisd.ca](mailto:info@iisd.ca)>, publishers of the *Earth Negotiations Bulletin* <[enb@iisd.org](mailto:enb@iisd.org)>. This issue was written and edited by Ingrid Bamsley, Amber Moreen and Richard Sherman. The Editor is Laurel Neme, Ph.D. <[laurel@iisd.org](mailto:laurel@iisd.org)>. The Director of IISD Reporting Services is Langston James "Kimo" Goree VI <[kimo@iisd.org](mailto:kimo@iisd.org)>. The Programme Manager of the African Regional Coverage Project is Richard Sherman <[rsherman@iisd.org](mailto:rsherman@iisd.org)>. Funding for coverage of this meeting has been provided by South Africa's Department of Environmental Affairs and Tourism through the IISD/DEAT/UNEP ROA project for IISD Reporting Service coverage of African regional meetings. IISD can be contacted at 161 Portage Avenue East, 6th Floor, Winnipeg, Manitoba R3B 0Y4, Canada; tel: +1-204-958-7700; fax: +1-204-958-7710. The opinions expressed in the *Bulletin* are those of the authors and do not necessarily reflect the views of IISD. Excerpts from the *Bulletin* may be used in other publications with appropriate academic citation. Electronic versions of the *Bulletin* are sent to e-mail distribution lists (ASCII and PDF format) and can be found on the Linkages WWW-server at <<http://www.iisd.ca/>>. For information on the *Bulletin*, including requests to provide reporting services, contact the Director of IISD Reporting Services at <[kimo@iisd.org](mailto:kimo@iisd.org)>, +1-646-536-7556 or 212 East 47th St. #21F, New York, NY 10017, USA.

**AU COMMISSION:** The Commission is responsible for the day-to-day management of the AU. Among other functions, it: represents the AU in intergovernmental forums; elaborates draft common positions; prepares strategic plans and studies for consideration by the Executive Council; and promotes and harmonizes the programmes and policies of the AU and Regional Economic Communities (RECs). The current chair of the AU Commission is Alpha Omar Konare (Mali).

**Human Resources, Science and Technology (HRST) Department:** Within the AU Commission, the HRST Department addresses issues related to education, information technology communication, young people, human resources, and S&T. It provides overall political and policy leadership on implementing Africa's Science and Technology Consolidated Plan of Action (CPA). Its responsibilities include: convening AMCOST meetings and transmitting resolutions for consideration at AU Summits; initiating policy processes to address specific science, technology and innovation (STI) issues; mobilizing financial resources to implement the CPA; leading delegations to international processes on STI issues; liaising with UN agencies; and creating schemes to promote S&T, including engaging the African Diaspora, youth women in implementing the CPA. The current Commissioner for Human Resources, Science and Technology is Nagia Essayed (Libya).

Currently, the HRST Department is implementing its 2004-2007 Plan of Action, which promotes socioeconomic development through human resource development, capacity building and S&T, and which encourages engagement with youth. It includes programmes that, *inter alia*, focus on: ensuring policy harmonization; coordinating education, training, capacity building and S&T; strengthening higher education and research through the establishment of regional centers for excellence; and promoting implementation of the S&T provisions of various continental treaties.

Key decisions on S&T taken at various AU meetings are set out below.

**FIRST ORDINARY SESSION OF THE AU ASSEMBLY – DURBAN DECLARATION AND DECISION ON**

**CAPACITY BUILDING:** The first Ordinary Session of the AU Assembly took place from 9-10 July 2002, in Durban, South Africa. The Assembly adopted the Durban Declaration in Tribute to the Organization of African Unity and on the Launching of the AU, in which Heads of State and Government reiterated, *inter alia*, their commitment to the establishment of the AU. The Assembly also rededicated itself to meeting the objectives of NEPAD, as a programme of the AU, and adopted a resolution on proclaiming a capacity building decade in Africa (ASS/AU/Dec.5 (I)). In the resolution, Heads of State and Government affirmed their determination to ensure that local capacity building features prominently in the development policies of their countries, and agreed to demonstrate greater commitment to capacity building on the continent by pooling resources and capacities, and allowing Africans to take ownership of the development process.

**SECOND ORDINARY SESSION OF THE AU ASSEMBLY**

**– DECISION ON NEPAD:** The second Ordinary Session of the AU Assembly took place from 10-12 July 2003, in Maputo, Mozambique. At this meeting, the Assembly adopted a declaration on the implementation of NEPAD (Assembly/AU/Decl.8 (II)), which provides for the integration of NEPAD into the AU's structures and processes. The Assembly also called on the

Chair of the AU Commission, in consultation with the Chair of the Heads of State and Government Implementation Committee, to:

- establish links between the NEPAD Steering Committee and relevant AU organs;
- enter into a temporary host agreement with the Government of South Africa to provide the NEPAD Secretariat with the legal status of an AU office for three years beginning July 2003 or until the relevant AU structures are fully operational;
- formalize the working relationship between the AU Commission and the NEPAD Secretariat; and
- align and harmonize the NEPAD Secretariat's conditions of service, rules of recruitment and accountability with those of the AU Commission.

**THIRD EXTRAORDINARY SESSION OF THE AU EXECUTIVE COUNCIL – DECISION ON THE DIASPORA INITIATIVE:**

The third Extraordinary Session of the AU's Executive Council took place from 21-24 May 2003, in Sun City, South Africa. The Executive Council adopted a decision on the development of the Diaspora Initiative (Ext/EX/CL/Dec.6 (III)). In the decision, the Executive Council supported the AU Commission's initiative to convene a technical workshop to develop a concept paper and to generate proposals on the relationship between the AU and the Diaspora. The Executive Council decided the proposed workshop would address, *inter alia*: the Diaspora's role in reversing Africa's "brain drain"; development of scientific and technical networks to transfer scientific knowledge from the Diaspora to Africa; and the establishment of a Diaspora database to facilitate networking and collaboration between Diaspora experts and their countries of origin.

**THIRD ORDINARY SESSION OF THE AU EXECUTIVE COUNCIL – DECISION ON BIOSAFETY:**

The third Ordinary Session of the AU Executive Council took place in Maputo, Mozambique, from 4-8 July 2003. The Executive Council adopted a decision on the report of the Interim Chairperson on the Africa-Wide Capacity Building in Biosafety (EX/CL/Dec.26 (III)), which stressed that member states should build the necessary human and institutional capacity to deal with biosafety issues within the framework of implementing the Cartagena Protocol on Biosafety to the Convention on Biological Diversity (Cartagena Protocol). The Executive Council urged member states to use the African Model Law on Safety in Biotechnology for drafting national legal instruments on biosafety while taking into account differing national circumstances, so as to create a harmonized Africa-wide system for regulating the movement of genetically modified organisms (GMOs) in Africa. The Executive Council also requested the AU Commission Chair to convene a meeting of experts and civil society organizations to develop proposals for an African Common Position on Biosafety for adoption by the AU.

**FIFTH ORDINARY SESSION OF THE AU EXECUTIVE COUNCIL – DECISION ON THE FIRST AFRICAN MINISTERS CONFERENCE ON SCIENCE AND TECHNOLOGY:**

The fifth Ordinary Session of the AU Executive Council took place from 30 June to 3 July 2004, in Addis Ababa, Ethiopia. The Executive Council adopted a decision on the report of the first African Ministers Conference on Science and Technology (EX/CL/Dec.117 (V)). In the decision, the Executive Council:

- reaffirmed the fundamental role of S&T in the continent's development strategies;
- endorsed the Declaration of the First Ministerial Conference on Science and Technology, and its priorities, commitments and governance structure, on the understanding that it would function under the AU under an interim arrangement, pending the operationalization of the Specialized Technical Committees (STCs); and
- requested the AU Commission Chair to take all necessary measures to incorporate the NEPAD Science and Technology Programme into the AU Strategic Plan and Work Programme for S&T.

**SECOND EXTRAORDINARY SESSION OF THE AU ASSEMBLY – SIRTE DECLARATION:** The second Extraordinary Session of the AU Assembly, which took place from 27-28 February 2004, in Sirte, Libya, adopted the Sirte Declaration on the Challenges of Implementing Integrated and Sustainable Development of Agriculture and Water in Africa. In this Declaration, Heads of State and Government agreed to:

- promote the strengthening and establishment of centers of excellence and/or networks on crops, animals, forestry, fisheries, range management, water management, desertification, drought, floods and environmental management;
- promote the strengthening of related tertiary and research institutions at continental and regional levels to carry out research in biotechnology, conservation of agricultural biodiversity, biosafety, food storage, and water harvesting;
- strengthen and establish regional genetic resource banks for agriculture and livestock and provide for the registration of intellectual property (IP) rights; and
- develop human resource potential in Africa through education, training, skills development and the exchange of expertise.

**FIFTH ORDINARY SESSION OF THE ASSEMBLY OF THE AFRICAN UNION – DECISION ON IMPORTED SEEDS:** The fifth Ordinary Session of the AU Assembly took place from 4-5 July 2005, in Sirte, Libya. At this meeting, the Assembly adopted a decision on the danger of imported seeds on the African continent (Assembly/AU/Dec.86 (V)), which:

- underscored the need to deal with the challenging conditions for agricultural development and food production in Africa in achieving the Millennium Development Goal (MDGs) on reducing poverty and hunger;
- called for using Africa's material and human potential to establish a sophisticated seed industry that will help achieve sustainable agricultural development and food security in Africa; and
- urged member states to establish genetic resource banks for identifying and preserving indigenous plant genetic resources and for preventing the deterioration of continental plant biodiversity.

**EIGHTH ORDINARY SESSION OF THE AU EXECUTIVE COUNCIL – DECISION ON THE SECOND AFRICAN MINISTERS CONFERENCE ON SCIENCE AND TECHNOLOGY:** The eighth Ordinary Session of the AU Executive Council took place from 16-21 January 2006, in Khartoum, Sudan. In adopting a decision on the report of the second Conference of African Ministers of Science and Technology (EX/CL/Dec.254 (VIII)), the Executive Council agreed that the AU Commission, the NEPAD Office of Science

and Technology and member states should be responsible for mobilizing financial and technical resources to implement the programmes of the CPA. The Executive Council also endorsed the call, contained in the report, for member states to raise their national S&T budgets to 1% of Gross Domestic Product (GDP). The Executive Council further endorsed the establishment of a high-level AU-NEPAD-UN Educational, Scientific and Cultural Organization (UNESCO) Working Group to prepare a comprehensive programme for establishing and funding centers of excellence in Africa as part of implementing the CPA.

**SIXTH ORDINARY SESSION OF THE AU ASSEMBLY – DECISION ON AN AFRICAN EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION:** The sixth Ordinary Session of the AU Assembly took place from 23-24 January 2006, in Khartoum, Sudan. At this meeting, the Assembly adopted a decision on the establishment of an African Educational, Scientific and Cultural Organization (Assembly/AU/Dec.110 (VI)), which requests the AU Commission to consider the issue further.

**NINTH ORDINARY SESSION OF THE AU'S EXECUTIVE COUNCIL – DECISION ON COMMUNICATION TECHNOLOGY AND INFORMATION:** The ninth Ordinary Session of the AU's Executive Council took place from 25-29 June, 2006 in Banjul, the Gambia. The Council adopted a decision on the first AU Conference of Ministers Responsible for Communication and Information Technology (EX.CL/Dec.291 (IX)). In the decision, the Executive Council endorsed the Implementation Framework of the Declaration on Communication and Information Technology in Africa and the Guidelines for Monitoring and Reporting on the Declaration. The Council called upon member states to implement the commitments made in the Declaration, in particular the African Regional Action Plan on the Knowledge Economy. The Council further endorsed the recommendation that the Conference of AU Ministers responsible for Communication and Information Technology be held regularly and that the institutionalization of the conference be carried out in line with the process of establishing the STCs.

#### **NEW PARTNERSHIP FOR AFRICA'S DEVELOPMENT (NEPAD)**

African Heads of State and Government adopted NEPAD at the thirty-seventh Session of the Assembly of Heads of State and Government of the Organization of African Unity (OAU) in Lusaka, Zambia from 9-11 July 2001. The NEPAD policy framework was finalized by the Heads of State Implementation Committee on 23 October 2001. In adopting NEPAD, African Heads of State and Government realized that Africa can only take its proper place in the international community if it gains economic strength, hence the objective of NEPAD is to stimulate Africa's development by bridging existing gaps in priority sectors, which include agriculture, health, education, infrastructure, information and communication technology, environment, tourism, S&T, the African Peer Review Mechanism, and engagement of the private sector and civil society. NEPAD was designed to meet the AU's development objectives and serves as a programme of the AU. NEPAD recognizes S&T as central to the goals of promoting economic recovery, poverty reduction, better human health, good governance and environmental sustainability in Africa. One of NEPAD's overall objectives is to bridge the

technological divide between Africa and the rest of the world. The NEPAD S&T focus calls for the formulation and implementation of measures to:

- promote cross-border cooperation and connectivity by utilizing knowledge available in existing African centers of excellence;
- develop and adapt information collection and analytical capacity to support productive and export activities;
- generate a critical mass of technological expertise in targeted areas that offer high growth potential, especially in biotechnology and natural sciences; and
- assimilate and adapt existing technologies to diversify manufacturing.

Since its adoption, NEPAD has increasingly gained recognition from the international community and Africa's development partners. In November 2002, the United Nations General Assembly passed a declaration (A/RES/57/2) and a resolution on NEPAD (A/RES/57/7), affirming the UN system's support for the implementation of NEPAD and recommending that the international community use NEPAD as its framework to support development in Africa. The Secretary General also established the Office of the Special Advisor on Africa to coordinate the UN's support to Africa, guide reporting on Africa and coordinate global advocacy in support of NEPAD.

The Johannesburg Plan of Implementation adopted at the 2002 World Summit on Sustainable Development, held in Johannesburg, South Africa, recognized that NEPAD provides a framework for sustainable development in Africa. This Plan of Implementation also called on the international community to: promote technology development, transfer and diffusion to Africa; further develop the technology and knowledge available to African centers of excellence; and support African countries in developing institutions and research activities capable of developing and adapting "world-class" technologies.

**GOVERNANCE STRUCTURES:** The highest authority of the NEPAD implementation process is the AU Summit of Heads of State and Government. The AU Heads of State and Government Implementation Committee (HSGIC) reports annually to this Summit and is comprised of 20 states nominated to spearhead the NEPAD process. The HSGIC is chaired by President Olusegun Obasanjo of Nigeria, with Presidents Abdoulaye Wade of Senegal and Abdelaziz Bouteflika of Algeria as Vice-Chairs. The HSGIC meets every four months and is tasked with setting policies, priorities and programmes of action. It also identifies strategic issues that need to be researched, planned and managed at the continental level; develops mechanisms for reviewing progress; and reviews progress in the implementation of past decisions and takes appropriate steps to address problems and delays. A Steering Committee, comprised of the Personal Representatives of the HSGIC, oversees projects and programme development, while the NEPAD Secretariat coordinates the implementation of projects and programmes approved by the HSGIC.

**NEPAD Secretariat:** The NEPAD Secretariat, based in South Africa, is responsible for coordinating the preparation of NEPAD's programmes and projects, mobilizing technical and financial support, and facilitating and supporting implementation of NEPAD programmes. The Secretariat liaises with development partners and multilateral institutions, mobilizes private sector participation, outsources technical work, represents the programme at development fora, and monitors and reports

on progress. The Secretariat is divided into three work streams: project and programme policy coordination; administration and secretarial services; and communications and marketing of NEPAD inside and outside Africa.

**NEPAD Office of Science and Technology:** The NEPAD Office of Science and Technology provides overall technical and intellectual leadership for the implementation of the CPA. Its specific roles include: mobilizing and directing technical expertise, including networks of centers of excellence, for the implementation of programmes and projects; convening meetings of the AMCOST Science and Technology Steering Committee; providing technical leadership for the establishment of the proposed ASIF; providing technical support to the AU Commission's policy processes and activities; monitoring international trends in S&T and making necessary adjustments to the CPA to respond to these trends; and monitoring and reporting on programme and project implementation.

#### ***AFRICAN MINISTERIAL COUNCIL ON SCIENCE AND TECHNOLOGY (AMCOST)***

AMCOST was established in November 2003 under the auspices of the AU and NEPAD. This high-level forum for AU Ministers of Science and Technology seeks to develop policies and priorities on STI for African development. AMCOST also provides political and policy leadership for the implementation of the CPA.

**AMCOST functions through two subsidiary bodies:** the AMCOST Bureau of Ministers and a Science and Technology Steering Committee (AMCOST Steering Committee), which comprises permanent secretaries or their equivalent. The Steering Committee oversees the development and implementation of programme activities, including the formulation of business plans. It is also responsible for reviewing the progress of CPA implementation. In addition to these two bodies, the AU Commission provides political and policy leadership and the NEPAD Office of Science and Technology provides technical and intellectual leadership for implementation of the CPA. The current Chair of AMCOST is Senegal. Bureau members for 2005-2007 are: the Republic of Congo, Egypt, Ethiopia, Nigeria, South Africa and Zimbabwe. Steering Committee members for 2005-2007 are: Madagascar and Rwanda for Eastern Africa; the Democratic Republic of Congo for Central Africa; Ghana and the Ivory Coast for Western Africa; Algeria and Tunisia for Northern Africa; and Mozambique and Malawi for Southern Africa.

**FIRST NEPAD MINISTERIAL CONFERENCE ON SCIENCE AND TECHNOLOGY:** The first NEPAD Ministerial Conference on Science and Technology took place in Johannesburg, South Africa, from 6-7 November 2003, when ministers adopted the "outline" of an action plan to promote the development and application of S&T in Africa. The outline comprises four sections: an overview of challenges that African countries face in developing and applying S&T; proposed flagship programme areas; the establishment of AMCOST, including a governance structure; and funding mechanisms. Ministers agreed that the "outline" would serve as the basis for the formulation of NEPAD's Business Plan on Science and Technology.

Regarding the proposed flagship programmes, the ministers outlined 12 initial areas to constitute the first round of the programmes. These include areas critical to addressing problems of poverty and food security, such as: biotechnology; S&T for manufacturing; energy; information and communication

technologies; post-harvest technology; and water research. In each of these areas, networks of centers of excellence and innovation hubs will be created to promote and develop innovations that will address the continent's socioeconomic challenges, including the development of human resource capacity.

Regarding a governance structure, the key outcome was establishment of AMCOST itself, comprising all AU member states.

On funding mechanisms, ministers recommended the creation of a NEPAD Science and Technology Fund and asked for a progress report within one year. Member states committed to increasing funding for S&T to at least 1% of GDP. Member states also agreed to establish mechanisms to stimulate private sector investment in S&T research and development. Finally, member states committed to promote the use of national, regional and continental expertise before seeking external expertise.

**SECOND AFRICAN MINISTERIAL CONFERENCE ON SCIENCE AND TECHNOLOGY:** The second African Ministerial Conference on Science and Technology took place from 29-30 September 2005, in Dakar, Senegal. At this meeting, ministers adopted the CPA and resolved that the AU should provide the necessary policy and political leadership for achieving the CPA's goals. Ministers also resolved that the AMCOST Steering Committee should monitor and review implementation of CPA programmes and projects.

Ministers further agreed that the AU and NEPAD should explore ways to establish a special African financial and technical facility to ensure sustainable funding for STI programmes, including the proposed African Science and Innovation Facility (ASIF). They rededicated their countries to reviewing their national STI policies and related institutional arrangements, and reaffirmed their commitment to promoting the integration of STI considerations into national development plans, Poverty Reduction Strategy Papers and related frameworks for achieving the MDGs.

Ministers also established an intergovernmental committee to develop and adopt common indicators for surveying and preparing an African STI report. Finally, ministers recommended that the January 2007 AU Summit for Heads of State and Government be dedicated to S&T.

## ISSUES ON THE AGENDA AT AMCOST'S EXTRAORDINARY CONFERENCE

### **CONSOLIDATED PLAN OF ACTION (CPA)**

At its second meeting, AMCOST adopted Africa's Science and Technology CPA, which articulates the continent's commitment to developing and applying S&T. The overall goals of the CPA are to enable Africa to harness and apply science, technology and related innovations to eradicate poverty and achieve sustainable development, and to ensure that Africa contributes to the global pool of scientific knowledge and technological innovations. The CPA outlines five flagship research and development programmes to be implemented between 2006 and 2010: biodiversity, biotechnology and indigenous knowledge; energy, water and desertification; material sciences, manufacturing, laser and post-harvest technologies; mathematical sciences; and information, communication and space science technologies. The programmes and projects outlined in the CPA focus on:

- improving infrastructure and facilities for research and development and promoting the shared use of such facilities;
- creating institutional and policy arrangements that enable African countries to mobilize and share their resources for conducting science and generating technological innovations;
- strengthening the continent's human skills base by increasing the number of scientists, technicians and engineers;
- improving the quality and intensity of regional cooperation;
- building a strong political and civil society constituency for S&T in Africa;
- improving the quality of STI policies of African countries through processes that promote the sharing of experiences;
- strengthening the capacity of regional economic bodies to mainstream S&T into their sectoral programmes and projects;
- promoting the application of S&T to achieve specific MDGs; and
- promoting innovative ways of financing S&T in Africa.

### **STI INDICATORS AND THE INTERGOVERNMENTAL COMMITTEE ON STI**

At its first meeting, AMCOST committed countries to developing common sets of indicators to track the development and functioning of African national systems of innovation. It also agreed these indicators would be part of an African Innovation Outlook, which would report on African STI developments at all levels. The second meeting of the Science and Technology Steering Committee, held from 13-14 July 2004, in Addis Ababa, Ethiopia, resolved that the NEPAD Secretariat should establish an experts' working group to propose a comprehensive programme on indicators.

At its second meeting, AMCOST resolved to establish an intergovernmental committee to develop common indicators for the African Science, Technology and Innovation (ASTI) Report and Outlook. This committee, the Intergovernmental Committee on STI Indicators, is responsible for: agreeing on specific STI definitions, methodologies and indicators; designing and adopting modalities and a workplan for preparing the ASTI Outlook; promoting information-sharing on national STI surveys; developing African manuals for STI indicators; agreeing on modalities for establishing and governing an African Observatory on Science Technology and Innovation; participating in international processes on STI indicators; and reviewing national surveys and proposing common policies for promoting STI activities.

### **HIGH-LEVEL AFRICAN PANEL ON MODERN BIOTECHNOLOGY (APB)**

The Extraordinary AMCOST Conference will consider the draft report of the APB (EXT/AU/EXP/ST/3 (II)).

The AU Executive Council, at its third ordinary session, called for a common African position on modern biotechnology. At its first meeting, AMCOST requested the NEPAD Secretariat to build regional consensus and strategies to address concerns related to new technologies, including biotechnology, and to facilitate Africa's participation in international fora on biotechnology issues.

In response, the AU Commission Chair appointed a 14-member APB in 2005. The APB provides the AU, NEPAD and African governments with independent strategic advice on developments in modern biotechnology and the agricultural, health, trade and environmental implications of the adoption or non-adoption



of modern biotechnology. The APB also considers, *inter alia*: whether and what aspects of the development and regulation of modern biotechnology should be harmonized into a regional and continental regulatory regime; biotechnology development and management; strategic ways of building Africa's capacity for regionally-oriented regulation and management of modern biotechnology; and ways of improving cooperation on modern biotechnology with other regions, including on implementation of the Cartagena Protocol and the Codex Alimentarius Commission's Principles on Risk Analysis of Food Derived from Modern Biotechnology.

In July 2006, the APB released a draft report, entitled "Freedom to Innovate: Biotechnology and Africa's Development," with a view to the future adoption of a common African position on biotechnology and regional cooperation to address modern biotechnology.

#### **AFRICAN MODEL LAW ON SAFETY IN BIOTECHNOLOGY**

Based on challenges in implementing the Cartagena Protocol and gaps in the Protocol's coverage, the OAU developed the draft African Model Law on Safety in Biotechnology (the Model Law) to support member states in biosafety matters. An OAU working group finalized it in May 2001 and the OAU Council of Ministers supported it in July 2001.

The Model Law seeks to harmonize biosafety legislation in Africa by providing a comprehensive framework of biosafety regulations to protect Africa's biodiversity and environment, and the health of its people, from the risks posed by GMOs. The Model Law also aims to assist OAU member states to develop comprehensive biosafety frameworks while taking into account their sovereignty to regulate GMO issues and also their relevant international obligations. The Model Law also addresses areas not covered by the Cartagena Protocol, including: development of domestic GMOs; use in contained systems; approval of deliberate releases into the environment; approval of food consisting of or derived from GMOs; and the labeling of GMO-based food.

In July 2005, the AU and German Technical Cooperation (GTZ), on behalf of the German Ministry for Economic Cooperation and Development, established the "Capacity Building for an Africa-wide Biosafety System" project. This project aims to develop an AU strategy to implement the provisions of the Cartagena Protocol and the African Model Law. In March 2006, the project convened a preparatory workshop for African delegates to the third Meeting of the Parties to the Cartagena Protocol, in Curitiba, Brazil.

#### **AFRICAN STRATEGY ON BIOSAFETY**

The Extraordinary AMCOST Conference will consider the African Strategy on Biosafety (EXT/AU/EXP/ST/4 (II)).

The African Strategy on Biosafety aims to guide modern biotechnology developments at all levels within Africa and to provide guidance on how Africa participates in international biosafety negotiations. It contains six pillars: establishment and strengthening of institutional frameworks; awareness-raising and biosafety information exchange; capacity building and preparedness for negotiations; policy and legal frameworks; international cooperation; and a sustainability mechanism. The Strategy aims to create and strengthen regional centers of excellence in both biotechnology and biosafety, with at least one located in each region of Africa, and notes that they will play

an important role in risk assessment, risk management, capacity building, GMO testing and the provision of other relevant biosafety advice.

#### **PROPOSAL FOR THE ESTABLISHMENT OF THE AFRICAN SCIENCE AND INNOVATION FACILITY (ASIF)**

The Extraordinary AMCOST Conference will consider the proposal for the establishment of the African Science and Innovation Facility (EXT/AU/EXP/ST/11 (II)).

At its second meeting, AMCOST decided to explore the establishment of ASIF as the main institutional mechanism to mobilize resources for implementing the CPA. Through ASIF, donors could be asked to support the complete range of CPA initiatives. To this end, AMCOST mandated NEPAD and the AU Commission to lead an exploratory process into the development of ASIF, and AMCOST's Steering Committee to make recommendations to the AMCOST Bureau on modalities for establishing and governing ASIF.

NEPAD and the AU then appointed a three-member team of science policy experts to explore possibilities for structuring ASIF. In August 2006, the team conducted a three-week consultation. Scientists and policymakers then met in Pretoria, South Africa, from 20-22 September 2006, to discuss the findings of the public consultation. The team's report, which was presented to AMCOST on 10 October 2006, proposes establishing ASIF as a legal entity within the AU. Its proposed mission and objectives follow closely from those articulated in the CPA. ASIF would consist of several bodies: a Governing Council, a Secretariat, a Technical Advisory Board, and Programme Boards for each of the "flagship programmes."

#### **BUILDING AFRICAN NETWORK OF CENTERS OF EXCELLENCE IN SCIENCES AND TECHNOLOGY**

The Extraordinary AMCOST Conference will consider Criteria and Guidelines for Establishing Centers of Excellence in Science and Technology (EXT/AU/EXP/ST/12 (II)).

In the NEPAD framework document, African countries committed to establish networks of centers of excellence to pool together Africa's scientific, technical and financial resources to achieve common goals. At its first meeting, AMCOST instructed the NEPAD Office of Science and Technology to prepare guidelines for establishing such networks of centers of excellence. NEPAD subsequently prepared a background study on developing regional and subregional centers of excellence, the recommendations of which were largely adopted by AMCOST at its second meeting and are now being used to develop networks of centers of excellence on water sciences, biosciences and material sciences. Criteria for identifying centers have also been developed, and some financial resources for designing biosciences and water sciences networks have been secured. The AU, NEPAD and UNESCO are overseeing a US\$3 billion programme, to be implemented through the AU, to develop up to 30 regional centers of excellence in Africa over the next ten years.

**INTER-MINISTERIAL DIALOGUE ON BUILDING AN AFRICAN NETWORK OF CENTERS OF EXCELLENCE IN WATER SCIENCES AND TECHNOLOGY:** At its first meeting, AMCOST decided water sciences and technologies would be one of NEPAD's flagship programmes. This programme is designed to strengthen Africa's capacity to harness S&T to assist in securing clean water and managing the continent's water resources.

From 9-12 May 2005, international experts from Africa and France met in Nairobi, Kenya, to generate recommendations for establishing an African network of centers of excellence in water sciences and technology. The meeting proposed criteria for identifying and designating centers of excellence as well as a process, actions and a work programme for the network. It also identified means for forging regional and international cooperation, emphasizing partnerships between African and French institutions, and appropriate governance structures and instruments for the proposed network. In addition, it considered appropriate financial mechanisms for ensuring the sustainability of the network. The meeting also recommended that the NEPAD Office of Science and Technology and the African Ministerial Council on Water (AMCOW) establish a multi-disciplinary Task Team to prepare specific criteria and guidelines for identifying and designating centers or institutes that would be networked and strengthened to implement specific programmes for water research and related technology development.

A further expert's workshop in November 2005 identified: a proposed process and actions to develop an African network of centers of excellence in water sciences and technology; elements of the work programme for the network; elements of terms of reference for identifying and designating networks; and governance of and financial mechanisms for the sustainability of the network.

**NEPAD/AFRICAN BIOSCIENCES INITIATIVE:** The NEPAD/African Biosciences Initiative (NEPAD/ABI) is a cluster of three of the 12 NEPAD science and technology flagship programme areas, namely biodiversity S&T, biotechnology and indigenous knowledge systems. The NEPAD/ABI focuses on harnessing biological applications in the health, agricultural, environmental and mining sectors. The NEPAD/ABI is being implemented through regional networks of centers of excellence throughout the continent, which complement the plans of action of the NEPAD priority sectors of agriculture, health and environment. This continent-wide business plan provides a framework on which business plans of regional biosciences networks are being developed. The regional biosciences network consists of a hub and several nodes distributed throughout the region. To date, four regional networks have been established; namely: Biosciences Eastern and Central Africa Network; Southern African Network for Biosciences; West Africa Biosciences Network and North Africa Biosciences Network.

#### ***PROPOSAL FOR THE AFRICAN PRESIDENTS' COUNCIL FOR SCIENCE AND TECHNOLOGY***

The Extraordinary AMCOST Conference will consider the proposal for the establishment of the African Presidents' Council for Science and Technology (EXT/AU/EXP/ST/2 (II)).

The AMCOST Bureau has proposed that the 2007 Summit establish an African Presidents' Council for Science and Technology. The proposed Presidents' Council would comprise ten African Presidents, with two from each region of Africa. As proposed, it would: meet at least once a year to consider specific policy and political issues; be advised by an international panel of scientists, policy analysts and engineers; and be provided with administrative assistance by the AU Commission.

On behalf of the AU Summit, the Presidents' Council would:

- review implementation of AU decisions and programmes on STI;

- promote African and international, including South-South, cooperation on S&T;
- receive and consider recommendations from AMCOST;
- promote the integration of STI considerations into national, regional and continental economic development plans, the African Peer Review Mechanism and the African Development Bank;
- provide leadership to ensure Africa's S&T priorities are placed on the agendas of the UN General Assembly and other institutions;
- create specialized advisory panels to address African-wide STI issues; and
- leverage African and international resources, including the resources of the Diaspora, for the advancement of STI in Africa.

#### ***AFRICAN STRATEGY FOR TECHNOLOGY TRANSFER AND ACQUISITION OF DOMESTIC TECHNOLOGICAL CAPABILITIES***

The Extraordinary AMCOST Conference will consider the concept paper on the African Strategy for Technology Transfer and Acquisition of Domestic Technological Capabilities (EXT/AU/EXP/ST/5 (II)).

The concept paper proposes that the Strategy guide member states in their efforts to build robust domestic technological capabilities by providing a dynamic and integrated institutional framework for exploiting and managing technology transfer transactions. The core principles of the Strategy are to: ensure African leadership in the field of technology transfer and acquisition of technological capabilities; promote broad regional, national and local ownership in the field of technology transfer activities (TTA); ensure the equity and inclusiveness of TTA efforts; and consolidate TTA efforts. The proposed strategic framework includes: technological governance; an institutional framework; human resource development; commercialization of research and development outputs; an IP system; and sources of funding for TTA.

#### ***ESTABLISHING A PAN-AFRICAN INTELLECTUAL PROPERTY ORGANIZATION (PAIPO)***

The Extraordinary AMCOST Conference will consider the proposal for establishing a Pan-African Intellectual Property Organization (EXT/AU/EXP/ST/8 (II)).

The meeting of the African Group on Intellectual Property at the World Intellectual Property Organization in May 2006 recommended the establishment of a Pan-African Organization on Intellectual Property. The meeting organized by the World Intellectual Property Organization, the HRST Department and the AU Geneva Office, deliberated on a range of IP issues, and provided a conceptual basis for the AU Commission's proposal for PAIPO. The proposed goal of PAIPO is to provide a broad-based platform for African member states to benefit from a coordinated stock of specialized IP knowledge and services with a view to promote innovation, techno-industrial competitiveness, and economic growth in Africa. The PAIPO proposal will be addressed by the Extraordinary AMCOST Conference, with possible adoption by the 2007 Summit. It is expected that a Steering Committee on IP will be established to oversee the implementation of decisions related to PAIPO.



### **FIRST AU CONGRESS OF SCIENTISTS AND POLICY MAKERS**

The Extraordinary AMCOST Conference will consider the report of the first African Union Congress of Scientists and Policy Makers (EXT/AU/EXP/ST/9 (II)).

The first AU Congress of Scientists and Policy Makers was held in Alexandria, Egypt, from 27-29 October 2006. The Congress was one of the key activities organized by the HRST Department in preparation for the 2007 Summit. The Congress provided policy makers and practitioners with the opportunity to discuss the role of science, technology and research in the socioeconomic development of Africa. It also provided the opportunity for African scientists to share experiences with China and Finland, which have successfully utilized S&T for their countries' economic development. The Congress concluded with the adoption of a declaration, in which policy makers and scientists committed, *inter alia*, to make individual and collective contributions to build and sustain human capital and improve policy and institutional conditions, and to conduct scientific research and advance technological innovation to solve Africa's "pressing problems." The Congress further recommended that the AU Summit, *inter alia*:

- set up national councils for S&T led by Heads of State and Government;
- establish mechanisms, such as an AU monitoring and review committee, to achieve the goal of expenditures of at least 1% of GDP on research and development;
- create favorable conditions for the mobility of scientists, engineers and technicians by introducing measures such as flexible visa arrangements and an AU Mobility Fund;
- declare 2008 the year of S&T in Africa; and
- dedicate future AU Summits to STI issues.

### **CONFERENCES FOR THE DIASPORA AND AFRICAN NGOS ON THE POPULARIZATION OF SCIENCE AND TECHNOLOGY**

The Extraordinary AMCOST Conference will consider the reports Conferences for the Diaspora and African NGOs on the Popularization of Science and Technology (EXT/AU/EXP/ST/6 (II)).

**2006 AFRICANDO HEMISPHERIC SUMMIT ON SCIENCE, TECHNOLOGY AND RESEARCH FOR AFRICA'S DEVELOPMENT:** The 2006 AfriCANDO Hemispheric Summit on Science, Technology and Research for Africa's Development was held from 20-22 July 2006, in Miami, Florida, the United States. The Conference deliberated on how Africans in the Diaspora could contribute to efforts to implement the CPA. Recommendations from the Summit included:

- developing a scientific culture and creating a conducive environment for young people to learn science;
- defining the African S&T "destiny" by bringing together all scientific bodies for meaningful discussions and collaboration;
- ensuring that the African Diaspora participate in the CPA;
- embarking on a Pan-African Health Information Infrastructure with the AU telemedicine programme to improve the decision-making and health status of African patients and populations;
- convening S&T conferences that emphasize partnerships with the Diaspora; and
- establishing an African Diaspora Development Fund to finance small businesses and other projects in the continent.

### **SECOND AFRICAN CONGRESS FOR SCIENTIFIC RESEARCH AND TECHNOLOGY:**

The second African Congress for Scientific Research and Technology was held from 6-8 November 2006, in Cairo, Egypt. The Congress was organized around the theme "popularization and public understanding of the importance of scientific research and technology for Africa's development." The Congress recommended, *inter alia*:

- establishing national steering committees to draw a "scientific road map" at the country level;
- establishing an African Council for Scientific Research and Technology;
- establish an S&T fund to support research and development in Africa;
- establishing mutual cooperation mechanisms among African institutions; and
- enhancing the public understanding of S&T.

### **LIST OF ABBREVIATIONS**

AMCOW	African Ministerial Council on Water
APB	(African) High-level Panel on Modern Biotechnology
APCST	African Presidents' Council for Science and Technology
ASIF	Africa Science and Innovation Facility
Cartagena Protocol	Cartagena Protocol on Biosafety to the Convention on Biological Diversity
CPA	(Africa's Science and Technology) Consolidated Plan of Action
GDP	Gross Domestic Product
GMOs	Genetically modified organisms
HRST	(AU) Human Resources, Science and Technology
HSGIC	Heads of State and Government Implementation Committee
IP	Intellectual property
MDGs	Millennium Development Goals
NEPAD	New Partnership for Africa's Development
NEPAD/ABI	NEPAD/Africa Biosciences Initiative
OAU	Organization of African Unity
PAIPO	Pan-African Intellectual Property Organization
RECs	Regional Economic Communities
S&T	Science and technology
Steering Committee	Science and Technology Steering Committee
STI	Specialized Technical Committees
S&T	Science and technology
STCs	Specialized Technical Committees
STI	Science, technology and innovation
TTA	Technology transfer activities
UNESCO	Educational, Scientific and Cultural Organization