



NEPAD OFFICE OF SCIENCE AND TECHNOLOGY
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REPUBLIC OF SOUTH AFRICA

Science and Technology as a Mechanism of Societal and Economic Transformation

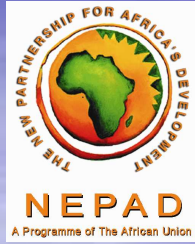
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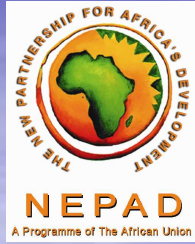
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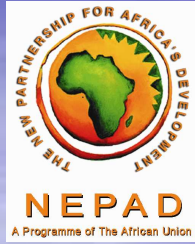
Outline of the presentation

- Global insecurity
- Need for knowledge based economies
- Role of STI in governance in Africa
- Africa's agenda for STI
- The Consolidated Plan of Action (CPA)
- Programmes in the CPA
- Progress, plans and challenges in the implementation of the CPA
- Uganda and the Africa's agenda for STI



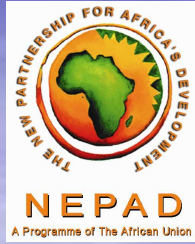
Roots of Global Insecurity

- Global insecurity is not just about crime, conflict, violence and terrorism
- It is also caused by lack of water, food, education, health, energy, clean air and sustainable source of income
- Climate change is exerting additional pressure on the developing economies.



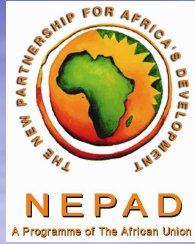
Insecurity in Uganda as of 13/9/07 - The New Vision

- Malaria doubles in flooded areas
- Possibilities of ebola virus reaching Uganda
- Fake seeds
- Politicizing use of DDT to control malaria
- Garbage management in Kampala
- Rolling stones destroying life and property
- Floods devastate Teso and the northern region



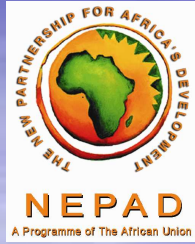
Africa needs knowledge based economies

- One of the central messages emerging from the assessment of Africa's status in the global economy is the need for Africa to emphasize building the capacity to solve its own problems.



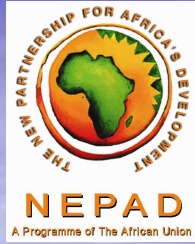
Governance and S&T in Africa

- In the governance of most African countries most political leaders believe that they can govern without having a basis in science and technology.



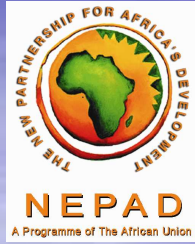
African leadership needs science and technology to govern effectively

- Malaria doubles in flooded areas
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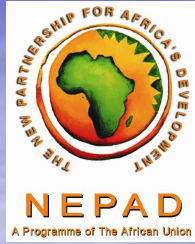
Governance and S&T in Africa

- Every problem enumerated has one or more solutions in the application of science, technology and innovation.
- Science, technology and innovation are not luxuries!!



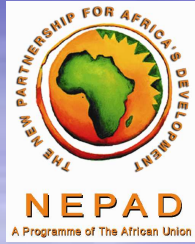
Renewed thinking for S&T for economic transformation

- A continent that harnesses science and related technological innovations for its transformation
- Africa that contributes to the global pool of science and innovations



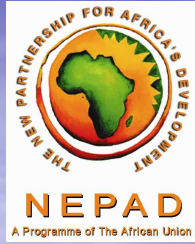
Africa's Science and Technology Consolidated Plan of Action (CPA)

- A plan of action that consolidates science and technology programmes of the African Union (AU) Commission and the New Partnership for Africa's Development (NEPAD).



Pillars

- The CPA is erected on three interrelated pillars:
 - Capacity building
 - Knowledge production
 - Technological innovation



R&D Flagship programmes

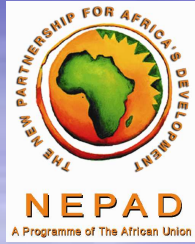
Cluster 1: Biodiversity, Biotechnology
and Indigenous Knowledge

Cluster 2: Energy, Water and
Desertification

Cluster 3: Material sciences, manufacturing,
Laser Technologies and Post-
Harvest Technologies

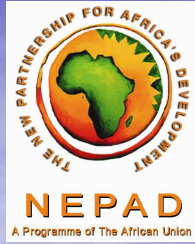
Cluster 4: ICTs and Space Sciences

Cluster 5: Mathematical Sciences*



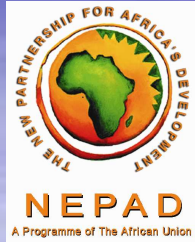
Programmes for Policies

- 1. African Science, Technology and Innovation Indicators (ASTII)
- 2. Regional S&T Cooperation
- 3. Public Understanding of S&T
- 4. Common Biotechnology Strategy and Policy
- 5. Science and Technology Policy Capacity
- 6. Establishing Technology Parks



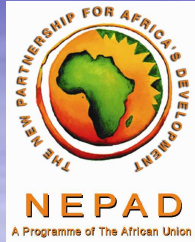
NEPAD Office of Science and Technology

- **Progress, Plans and Challenges**



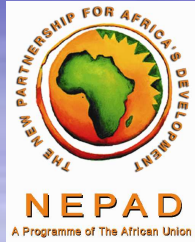
Categories of activities

- R&D flagship programmes (biosciences, laser technology, mathematical sciences (AMINet), water and energy)
- Evidence-based studies (health innovation systems)
- African Science, Technology and Innovation Indicators Programme
- Outreach (e.g. G8, PAP, RECs)



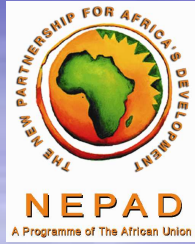
Biosciences

- Hubs and nodes identified: BECA, SANBio, WABNet and NABNet
- CAD\$ 30 million allocated to the hubs and nodes (from \$150,000 to \$8 million per institution)
- Fellowships being provided by hubs to African students to undertake MSc (up to \$30,000)
- Training workshops in bioinformatics and biosafety (e.g. SANBio and BECA courses)
- Research programmes (traditional medicine, livestock diseases, food security, agrobiodiversity conservation)



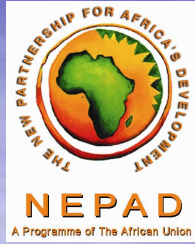
Biosciences (2)

- Mobility across regions—Southern Africa team visit to North Africa to exchange information and develop joint initiatives on traditional knowledge and pharmaceuticals
- Facilities being upgraded (BECA facilities at ILRI campus)
- € 3 Million being negotiated with Government of Finland for SANBIO



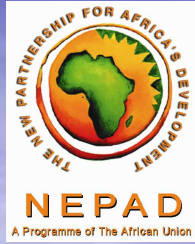
Water Sciences and Innovation

- Task Team of Experts established in 2005
- € 360,000 secured from Govt of France to identify hubs and nodes
- AMCOST-AMCOW ministerial dialogue and criteria for selecting centres of excellence adopted



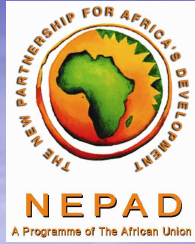
Water Sciences and Innovation (s)

- Call for institutional profiles sent out widely (websites)
- Business plan being revised for AMCOST consideration (€15 million being negotiated with France)
- Launch of water sciences network at AMCOST III



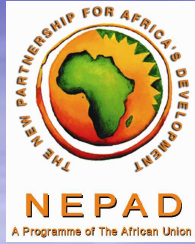
African Mathematical Sciences Network

- AIMS designated centre of excellence at AMCOST 1 in 2003
- AIMS has students from all regions of the continent
- NEPAD provided a grant to AIMS to identify nodes (universities in other countries) to establish AMINet
- AMINet to be launched at AMCOST III



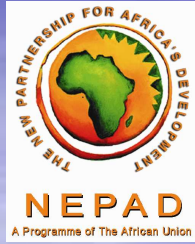
Energy Research and Innovation

- South Africa DST grant to NEPAD through CSIR to develop a draft business plan
- Energy Research and Innovation business plan to be submitted to AMCOST and donors in November 2007



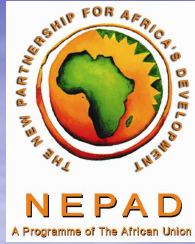
Evidence-based studies

- Secured US\$ 600,000 to commission studies on the role of STI in securing better public health
- Studies commissioned on various aspects of public health, emphasis on how African countries can best harness and apply STI to fight such diseases as HIV/AIDS, malaria, tuberculosis, cholera



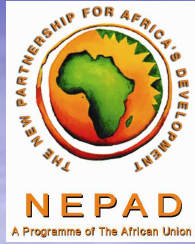
Evidence-based studies (2)

- Other studies on health R&D, access to health innovations
- Inter-ministerial dialogue (S&T and health) to be held before AMCOST



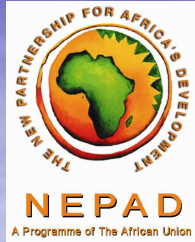
High Level African Panel on Modern Biotechnology

- **The High-Level African Panel on Modern Biotechnology (APB) was established by the AU Commission and NEPAD**
- **The Panel will hold a meeting with RECs to initiate a dialogue on the commitment to develop a 20 year biotechnology strategy.**



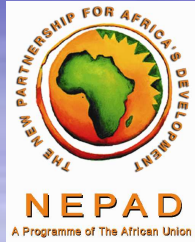
African Science, Technology and Innovation Indicators Programme

- AMCOST I and II resolved that common indicators be adopted for ST&I
- US\$ 3.1 million secured for the implementation of activities including inter-governmental committee on STI indicators, training, national surveys, and production of ASI Outlook by 2009



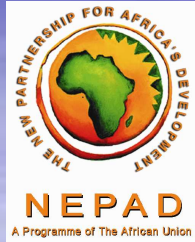
Outreach

- Consultations with PAP committee on S&T and health to get PAP domesticate CPA
- December 2006 consultation with G8 science ministers and advisors (Germany)
- G8-AMCOST workshop on implementation of CPA to be held in Germany in October 2007



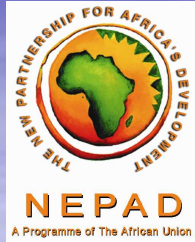
Design of ASIF

- Secured £500,000 to conduct a consultation on ASIF and dissemination of CPA including outreach activities
- Report on ASIF presented to extraordinary AMCOST Cairo 2006
- Recommendations-develop ADB, NEPAD and AU Commission MoU to establish ASIF



Challenges

- African money still far away from African mouths!
- Consistency and sharp focus on CPA (too many new ideas and initiatives being brought on the table)
- Need to build champions for CPA
- AMCOST not strong on the ground



- "I remember making such a pledge, but I am still looking for donors to support the project..."
- "I have not used the money on anything. I do not owe anybody an explanation as to why I have not disbursed the money. It is too early to disburse the money..."
- "... I launched the prosperity programme for all.... Under the programme each household should grow at least two cash crops and two food crops. We also agreed on starting poultry, piggery and carpentry projects..."