



Science Initiative Group Institute for Advanced Study

RISE: Opportunity & Responsibility

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RISE Inaugural Meeting
Nairobi, Kenya
October 6-7, 2008

Outline

- Role of Science & Technology
- Context for RISE
- History of RISE
- Implementing RISE
- Expectations/Opportunities/Challenges

Role of S&T in STI

- “Local S&T capacity is essential for using and contributing to the world’s valuable stores of knowledge.”*

*From *Inventing a Better Future*, InterAcademy Council, 2004

Role of S&T in STI, continued

- “A lack of capacity among some developing countries to even access and utilize advances in S&T has prevented them from capturing the benefits of S&T that have become commonplace in the rest of the world... Seen from this perspective, STI capacity is an indispensable tool for promoting sustainable, inclusive globalization.”*
- “STI capacity building is not a diversion from poverty reduction and the MDGs; it is an essential tool for achieving the MDGs and reducing poverty.”*

*From Watkins & Ehst, eds, *Science, Technology, and Innovation*, The World Bank, 2008

Science as a Human Endeavor

- “The culture and values of science are critical for building a global community. Science is not only itself a culture of global dimensions, it induces a cultural current that strongly and positively affects societies in which it flourishes.”*

*From *Inventing a Better Future*, InterAcademy Council, 2004

Context for RISE

- Critical need for trained scientists and engineers to
 - teach in universities
 - use S&T for economic development
- Regional training program

History of RISE

- African VC's and others identify faculty development as #1 priority for Africa's universities
- SIG/MSI/WB experience in science/higher education for development
- Carnegie Corporation: opportunity
- Design
 - Nairobi meeting June 2007
 - Consultations (universities in Africa & US, World Bank, IFS, etc.)
- Selection process

- “In the developing world especially, the need for problem-solvers working together in interdisciplinary and system-level fashion is critical.”*

*From *Inventing a Better Future*, InterAcademy Council, 2004

- “Regional initiatives are an important component of STI capacity building.”*
- “Centers of excellence do not have to be only brick-and-mortar institutions. ...[They] can be virtual institutions, encompassing networks of scientists from different institutions in the same country or even from different countries.”*

*From Watkins & Ehst, eds, *Science, Technology, and Innovation*, The World Bank, 2008

- Though the primary goal of RISE is the training of individuals, this must be accompanied by the allied goal of strengthening departments and institutions. Demand for trained scientists and engineers is so strong that many students are tempted to leave their institutions even before completing their MSc or PhD.

- RISE will prepare PhD-level scientists in sub-Saharan Africa through university-based research and training networks in selected areas. Its primary goals are to prepare new faculty to teach in African universities and allow existing faculty to advance to the PhD level.

Demonstration Program

- Quality
- Networks
- Partnerships
 - African Academy of Sciences
 - International Foundation for Science
 - TWAS
 - The World Bank
 - Global Science Corps
 - Africa-US Higher Education Initiative: USAID, US State Department, NASULGC
 - Partnership for Higher Education in Africa
 - Princeton University, University of Texas-Austin, US university consortia

RISE as Beacon

- Program can be a beacon, leading to additional resources for
 - scaling up existing networks
 - new training/research networks