Capacity Building Through Scientific Exchanges

Experiences of the UN Agencies

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Outline

- Challenges for Africa
- Response by UN Agencies
- Lessons/Recommendations for GSC
Challenges for Africa

- Low capacity/production of S&T professionals
- Brain Drain
- Maintenance of Capacity
Low Capacity/Production

- Colonial systems skewed towards an elite (by definition small)
- Civil service/desk-work/paper pushing/academic – even engineers
- At independence, Zaire had only 23 university graduates – 20 of them priests
Brain Drain

- 200,000 African experts outside
- 100,000 expatriates in Africa, at cost of US$4bn p.a.

Main reasons for brain drain:
- Political turmoil
- Poor pay/working conditions/opportunities
Response by UN Agencies

- UNDP TOKTEN Program
- UNESCO Chairs Program
- IOM MIDA – Migration for Development in Africa
- UNESCO ANSTI – African Network of Scientific and Technological Institutions
- UNECA/OAU Centres of Excellence
UNDP TOKTEN (1)

- TOKTEN – Transfer of Knowledge through Expatriate Nationals
- Started 1976, ended 2003
- Simple Concept: bring back home talented nationals from abroad to help with development
- Key ideological orientation: As patriotic, cost-effective volunteers, not expensive consultants or foreign experts
- Minimal bureaucratic procedures
UNDP TOKTEN (2) - results

- Over 5,000 experts returned (incl. ART)
- Over 49 countries covered globally
- Model adopted and continued/funded by large/serious countries – China, India, Lebanon, etc.
- MIDA – adopted by IOM for Great Lakes (Rwanda/Burundi/DRC) funded by Belgium
UNESCO Chairs Program

- Actually supports a project (training, research etc) at an institution by supporting its leader (local or externally provided)
- Started 1992 to date
- Over 600 Chairs supported in all fields of UNESCO focus
UNESCO ANSTI Fellowship Program

- ANSTI = African Network of Scientific and Technological Institutions
- Visiting Staff Fellowships
- Postgraduate Training Fellowships
- Started 1985 – present
- Over 1,000 Fellowships administered, all international
- Steering mechanism: ANSTI Governing Council + COVIDSET Forum
UNECA Support to S&T

- Technical Assistance in STI Policy and Strategy
- With OAU, sponsored a dozen African Centres of Excellence
  - ARCT, STRC, ARCEDEM, Remote Sensing, ARSO
- Support to NEPAD S&T Action Plan
  - Engineering education, African Green revolution, biotech, Centres of Excellence, brain drain
- Networking with scientific communities
  - AAS, ATPS, ANSTI etc.
- Linking global and African developments in S&T
Direct Benefits of Placements

- Transfer of knowledge/new practices
- Role models
- Institutional improvement
- Initiate new research/projects
- Mobilize resources/donations
- Opportunities for young researchers
- Publications
Lessons/Recommendations for GSC

- Quality of Management
  - Minimum standard: TOKTEN
  - Use UNDP payment system?
  - Steering Mechanism/Forum/Network (ANSTI/dgroups models)

- Quantity/Impact
  - Minimum number of fellowships > 5,000
  - Duration/commitment > 10 years

- Funding/Facilitation Proposals
  - Create African Science Foundation (ASF)
  - Create UN Intellectual Fund for Africa (UNICFA)
  - Create AU Science Visa/Passport?