



Capacity Building Through Scientific Exchanges

Experiences of the UN Agencies

By

Dr Alex Tindimubona

UNECA



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?