Stakeholder Roundtable
Engaging the African Diaspora
In Africa's Capacity Building Efforts

November 12, 2004
International Development Research Centre (IDRC)
Ottawa, Canada

Organized by
Association for Higher Education and Development (AHEAD)
### STAKEHOLDER ROUNDTABLE

**Engaging the African Diaspora in Capacity Building Efforts of Africa**

November 12, 2004

*International Development Research Centre, Ottawa, Canada*

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Association for Higher Education and Development (AHEAD)

[www.aheadonline.org](http://www.aheadonline.org)

ahead@aheadonline.org
Tab 1
## Stakeholder Roundtable
**Engaging the African Diaspora**
**In Africa’s Capacity Building Efforts**

**International Development Research Centre (IDRC)**
250 Albert Street (14th Floor)
Ottawa, Canada
November 12, 2004

### Program

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Location</th>
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<tbody>
<tr>
<td>8:30 A.M.</td>
<td>Registration, Continental Breakfast</td>
<td>Lobby 14th Floor</td>
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<tr>
<td>9:00 A.M.</td>
<td><strong>PLENARY</strong> (Chair: Captain Haile Belai, AHEAD)</td>
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<tr>
<td>9:10-9:25</td>
<td>Opening Statement, Dr. Gilles Forget, IDRC</td>
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<tr>
<td>9:30-10:00</td>
<td><strong>Brain Drain and Capacity Building in Africa</strong></td>
<td>Auditorium, 14th Floor</td>
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<td></td>
<td>Mr. Charles Kwenin, International Organization for Migration</td>
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<tr>
<td>10:00-10:30</td>
<td><strong>The Potential Within: Is the African Diaspora a Response to Africa’s Brain Drain?</strong></td>
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<td></td>
<td>Ms. Ainalem Tebeje, Association for Higher Education and Development</td>
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<td></td>
<td><strong>BREAK</strong></td>
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<tr>
<td>11:00-11:30</td>
<td>&quot;The Diaspora Option: Unleashing the Opportunities, Diagnosing the Challenges&quot;, Dr. Damtew Teferra</td>
<td>Auditorium, 14th Floor</td>
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<tr>
<td>11:30-12:30</td>
<td><strong>Question and Answer / General Discussions</strong></td>
<td>Auditorium, 14th Floor</td>
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<td></td>
<td><strong>LUNCHEON</strong></td>
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<td>1:30-3:00</td>
<td><strong>CONCURRENT WORKSHOPS</strong></td>
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<td></td>
<td><strong>Capacity Building Through Skill Transfer: The Role of the Civil Society</strong></td>
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<td>Auditorium, 14th Floor</td>
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<td></td>
<td>Facilitator: Ms Ainalem Tebeje</td>
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<tr>
<td></td>
<td>This session will discuss the roles of non-governmental organizations in capacity building through virtual participation. The objective is to engage participants in a dialogue on brain drain in Africa, and capacity building through relevant and sustainable skill transfer. Participants will examine existing programs and mechanisms that can be leveraged or will identify potential strategies that can be developed to engage the civil society in capacity building efforts through skill transfer.</td>
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<tr>
<td></td>
<td><strong>Putting Brain Drain on the Development Agenda</strong></td>
<td>Zone II, 14th Floor</td>
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<tr>
<td></td>
<td>Facilitator: Dr. Joseph Manyoni</td>
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<td></td>
<td>This session will discuss strategies to engage the Canadian government in the current dialogue and on-going efforts to bring brain drain to the development agenda. Participants will explore means to bring brain drain to the Canadian public policy process.</td>
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<td></td>
<td><strong>Capacity Building through Virtual Participation: Diaspora Perspectives</strong></td>
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<td></td>
<td>Board Room, 14th Floor</td>
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<td>Facilitator: Mr. Gabriel Seifu</td>
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<td></td>
<td>This session will focus on the role of the African Diaspora in capacity building. By using existing Diaspora models, this session will discuss strategies to mobilize, coordinate and channel intellectual and material capacity from the African Diaspora to assist in institutional capacity building and community development.</td>
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<td><strong>BREAK</strong></td>
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<td>3:30-4:30</td>
<td><strong>WRAP UP</strong></td>
<td>Auditorium, 14th Floor</td>
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<tr>
<td></td>
<td>Rapporteur</td>
<td></td>
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</tbody>
</table>
List of Participants
As of November 12, 2004

Diplomatic Representatives:

ETHIOPIA:
- His Excellency Dr. Berhanu Dibaba
  Ambassador, Embassy of the Democratic Republic of Ethiopia in Canada

GHANA:
- Mr. Charles Agyei-Amoama
  Deputy High Commissioner, Ghana High Commission in Canada

INTERNATIONAL ORGANIZATION FOR MIGRATION:
- Mr. Charles Kwenin
  Country Head, IOM Ethiopia
- Mr. Ahmed Fahim
  IOM Canada

NIGERIA:
- His Excellency Olufemi Oyewale George
  High Commissioner, Nigerian High Commission in Canada
- Mr. Sola Enikanolaiye
  Minster Councilor, Nigerian High Commission in Canada

SOUTH AFRICA:
- Mr. Brian Witbooi,
  South African High Commission in Canada
- Ms. Nowetu Luti,
  Councilor, South African High Commission in Canada

SUDAN:
- Mr. Adil Bannaga
  Chargé d'affaires, Embassy of the Republic of the Sudan in Canada
Organizations:

- **Canadian Bureau of International Education, CBIE**
  
<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
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<tbody>
<tr>
<td>Dalkie, Karen</td>
<td><a href="mailto:KDalkie@cbie.ca">KDalkie@cbie.ca</a></td>
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- **Canadian International Development Agency**
  
<table>
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<tr>
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<tbody>
<tr>
<td>Piggott, Calvin</td>
<td><a href="mailto:CALVIN_PIGGOTT@acdi-cida.gc.ca">CALVIN_PIGGOTT@acdi-cida.gc.ca</a></td>
</tr>
<tr>
<td>Shanker, Rajkumari</td>
<td><a href="mailto:RAJKUMARI_SHANKER@acdi-cida.gc.ca">RAJKUMARI_SHANKER@acdi-cida.gc.ca</a></td>
</tr>
<tr>
<td>Singh, Naresh</td>
<td><a href="mailto:NARESH_SINGH@acdi-cida.gc.ca">NARESH_SINGH@acdi-cida.gc.ca</a></td>
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- **Canadian Reach for Higher Education, CRHE**
  
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<tr>
<td>Elkhazin, Tageldin</td>
<td><a href="mailto:subsaharagroup@rogers.com">subsaharagroup@rogers.com</a></td>
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- **CARE Canada**
  
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<tr>
<td>Seshadri, Paul</td>
<td><a href="mailto:Paul@care.ca">Paul@care.ca</a></td>
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- **Ethiopian North American Health Professionals Association (ENAHPA)**
  
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<tr>
<td>Getu, Haregua</td>
<td><a href="mailto:hgetu@hotmail.com">hgetu@hotmail.com</a></td>
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- **International Development Research Centre**
  
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<tr>
<td>Alma, Eileen</td>
<td>ealma{idrc.ca}</td>
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<tr>
<td>Castets-Poupart, Liliane</td>
<td>lcastets-poupart{idrc.ca}</td>
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<tr>
<td>Deby, Denise</td>
<td>ddeby{idrc.ca}</td>
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<td>Dottridge, Tim</td>
<td>tdottridge{idrc.ca}</td>
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<tr>
<td>Forget, Gilles</td>
<td>gforget{idrc.org.sn}</td>
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<tr>
<td>Gosselin, Claudie</td>
<td>cgosselin{idrc.ca}</td>
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<tr>
<td>Leppan, Wardie</td>
<td>wleppan{idrc.ca}</td>
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<td>Morin-Labatut, Gisèle</td>
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<td>Labatut, Jean Michel</td>
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- **MATCH International Centre**
  
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<tbody>
<tr>
<td>Larbi, Madonna Owusuah</td>
<td>mlarbi{matchinternational.org}</td>
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- **Partnership Africa Canada, PAC**
  
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<tr>
<td>Taylor, Bernard</td>
<td>btaylor{pacweb.org}</td>
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### People-to-People, Canada

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Kidane, Ambaye</td>
<td><a href="mailto:p2p@p2pcanada.org">p2p@p2pcanada.org</a></td>
</tr>
<tr>
<td>Seifu, Gabriel</td>
<td><a href="mailto:Gabriel.seifu@ccra-adrc.gc.ca">Gabriel.seifu@ccra-adrc.gc.ca</a></td>
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### South Africa Rainbow Association

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Jorssen, Vernon</td>
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<tr>
<td>Matshela, Molepo</td>
<td><a href="mailto:mmolepo1021@rogers.com">mmolepo1021@rogers.com</a></td>
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<td>Winchhu, Ken</td>
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### United Nations Association in Canada

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<tr>
<th>Name</th>
<th>Email</th>
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<tbody>
<tr>
<td>Kambites, Sarah M.</td>
<td><a href="mailto:sarah@unac.org">sarah@unac.org</a></td>
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### Voluntary Service Organization

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<tr>
<td>Wigfull, Liz</td>
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### Community Representatives:

#### Eritrean Community

<table>
<thead>
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<th>Name</th>
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<tbody>
<tr>
<td>Berhane, Hedat</td>
<td><a href="mailto:Hedat.berhane@ottawa.ca">Hedat.berhane@ottawa.ca</a></td>
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#### Ethiopian Community

<table>
<thead>
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<tbody>
<tr>
<td>Yitbarek, Selam</td>
<td><a href="mailto:yitbsal@statcan.ca">yitbsal@statcan.ca</a></td>
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#### Ghana Community

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<tr>
<td>Kofi, Kosah-Sarpong</td>
<td><a href="mailto:kasarpon@hotmail.com">kasarpon@hotmail.com</a></td>
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#### Somalian Community

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<tr>
<td>Abdi, Yunis</td>
<td><a href="mailto:abdi@ottawa-worldskills.org">abdi@ottawa-worldskills.org</a></td>
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#### Sudanese Community

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<tr>
<td>Ali, Galal</td>
<td><a href="mailto:galal.ali@sdc-dsc.gc.ca">galal.ali@sdc-dsc.gc.ca</a></td>
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Key Individuals:

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<tr>
<td>Harewood, John</td>
<td><a href="mailto:johnhar@magma.ca">johnhar@magma.ca</a></td>
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<tr>
<td>Hon. MacDonald, David</td>
<td><a href="mailto:davidmacd@sympatico.ca">davidmacd@sympatico.ca</a></td>
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<tr>
<td>Manyoni, Joseph</td>
<td><a href="mailto:Jmanyoni@ccs.carleton.ca">Jmanyoni@ccs.carleton.ca</a></td>
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<tr>
<td>Kiros, Samuel</td>
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<tr>
<td>Martin, Janet</td>
<td><a href="mailto:sechaba@cyberus.ca">sechaba@cyberus.ca</a></td>
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<td>Martin, Philip</td>
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<tr>
<td>Nyamwange, Perez</td>
<td><a href="mailto:fe320@ncf.ca">fe320@ncf.ca</a></td>
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<tr>
<td>Tanya Castle</td>
<td><a href="mailto:tanya_castle@hotmail.com">tanya_castle@hotmail.com</a></td>
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<tr>
<td>Mesfin Mirotche</td>
<td><a href="mailto:mesfin.miroticie@statcan.ca">mesfin.miroticie@statcan.ca</a></td>
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<tr>
<td>Norman Helfand</td>
<td></td>
</tr>
<tr>
<td>June Girvan</td>
<td><a href="mailto:edutrack@trytel.com">edutrack@trytel.com</a></td>
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Association for Higher Education and Development, AHEAD:

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<tr>
<td>Belai, Bathseba</td>
<td><a href="mailto:bbelai@yahoo.ca">bbelai@yahoo.ca</a></td>
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<tr>
<td>Belai, Haile</td>
<td><a href="mailto:h.belai@sympatico.ca">h.belai@sympatico.ca</a></td>
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<tr>
<td>Hailu, Temesghen</td>
<td><a href="mailto:ahead@aheadonline.org">ahead@aheadonline.org</a></td>
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<tr>
<td>Tebeje, Ainalem</td>
<td><a href="mailto:Ainalem.Tebeje@swc-cfc.gc.ca">Ainalem.Tebeje@swc-cfc.gc.ca</a></td>
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<tr>
<td>Yimer, Ibrahim</td>
<td><a href="mailto:Ibrahim.yimer@nrc.ca">Ibrahim.yimer@nrc.ca</a></td>
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Tab 3
Captain Haile Belai is Chief of the ICAO Safety Oversight Audit Section of the Air Navigation Bureau, ICAO, Montreal. He has been involved in the development of the Universal Safety Oversight Audit Programme since its inception and was responsible for the establishment, which has been mandated by the General Assembly in October 1998, to conduct safety oversight audits of all 187 Contracting States by 2001.

Before he was tasked to establish the mandatory safety oversight audit programme, Capt. Belai was serving as Technical Officer in the Personnel Licensing and Training Section, where, among other things, he was responsible for the maintenance of Annex 1, the development of ICAO training and guidance material. In this capacity, he has developed and/or coordinated the development of several ICAO Training Manuals and Guidance Handbooks.

Capt. Belai joined ICAO in 1985, as Technical Officer, Operations and Airworthiness in the Dakar Regional Office until he was transferred to ICAO Headquarters in Montreal in February 1993.

Prior to joining ICAO, Capt. Belai served as a pilot-in command with Ethiopian Airlines where he served for a total of 20 years. Capt. Belai was active both in the Ethiopian Airlines Pilots Association where he served as an Executive Secretary and President for a long period, and in the International Federation of Airline Pilots Association where he served as Regional Vice President, and AFI Advisory Group Rapporteur between 1980 and 1985.

Capt. Belai holds a Bachelor of Science in Commercial and Industrial Economics, a Master of Science in Aviation Management from Western Pacific University, and Master of Business Administration (MBA) from Concordia University.

Capt. Belai is member of the Association for Higher Education and Development (AHEAD).
Dr. Gilles Forget joined IDRC's Health Sciences Division as Senior Program Officer in 1983. He became Associate Director in that division, then Director for Health and the Environment in 1986. In 1997, he was appointed Team Leader of the Ecosystem Approaches to Human Health Program Initiative.

In 2001, Dr. Forget was appointed as Regional Director for West and Central Africa, based in Senegal.

Dr. Forget has a PhD in pharmacology and toxicology from Laval University, and a Master's degree in pharmacology from the University of Sherbrooke, both in Canada.

Presenters:

Mr. Charles Allan Kwenin is Chief of Mission, International Organization for Migration (IOM), Addis Ababa, Ethiopia.

Mr. Kwenin, of Ghanaian nationality, has a B.Sc. in Development Economics from University of Science and Technology in Ghana. He also has a M. Sc. in Public Administration and Management and a Post-Graduate Diploma in Development Policy, both from State University of Antwerp, Belgium.

Mr. Kwenin served as Economic Planning Officer at the Ministry of Finance and Economic Planning in Ghana.

Since 1992, Mr. Kwenin has been with the IOM, as Program Officer in Brussels, Belgium, and as Chief of Mission in Kampala, Uganda from 1996-2001. Between 2001-2004, Mr. Kwenin was the IOIM Regional Program Development Officer for East and Central Africa in Nairobi, Kenya.

Ms. Ainalem Tebeje

Ms. Ainalem Tebeje is the Vice-President of the Association for Higher Education and Development (AHEAD).
A former journalist, Ms. Tebeje was trained in Ethiopia, India and Canada. She has a B.A. in literature from Addis Ababa University, a Post-Graduate Diploma in Mass Communication from the Indian Institute of Mass Communication and a Master of Journalism from Carleton University, Canada.

Ms. Tebeje is Chief of Program Analysis and Development at Status of Women Canada.

**Dr. Damtew Teferra**

Dr. Damtew Teferra is an assistant professor (research) of higher education at the Center for International Higher Education, Lynch School of Education, Boston College and editor-in-chief of the Journal of Higher Education in Africa which he conceived and launched in collaboration with an institution based in Africa.


Dr. Teferra holds a bachelor degree (in biology/chemistry) from Addis Ababa University (Ethiopia), a M. Phil (in scientific publishing) from Stirling University (Scotland), and a doctorate in higher education administration from Boston College (USA).

**Facilitators:**

**Dr. Joseph Roy Manyoni**

Dr. Joseph Manyoni was born in South Africa and has been a Professor of Sociology and Anthropology at Carleton University since 1971.

Dr. Manyoni graduated from the University of South Africa in Anthropology. Upon graduation, he received a British Foreign Office Award to study Local Government Administration in England. He subsequently won a British Council Scholarship to Oxford University to study for a Graduate Diploma in Social Anthropology. During his tenure as a British Council Scholar, he also completed the degree of Master of Letters.

While at Oxford, he won the prestigious Nuffield Sociological Scholarship for research on the "development of Caribbean Plantation Societies, 1625 -1970" for which he was awarded a Doctor of Philosophy degree in Social Anthropology.

Dr. Manyoni was later appointed a Research Fellow at the Centre for Multi-racial Studies at the University of Sussex, England.

In 1971, Dr. Manyoni accepted an invitation to take up a teaching position in the Department of Sociology and Anthropology at Carleton University. In 1994, he was appointed the Jill Nattrass Visiting Research Fellow at the Centre for Social and Development Studies, University of Natal in Durban, South Africa, where he focused on Educational Development and Institutional Partnerships with Canadian universities.

Professor Manyoni has taught Anthropology, Conflict Studies, Race and Ethnic Relations at
universities in England, the Caribbean and Canada, and has lectured widely on the absurdities of the Apartheid policy of the former South African regime.

**Mr. Gabriel Seifu**

Mr. Gabriel Seifu completed his elementary and secondary school education in Addis Ababa, Ethiopia.

Mr. Seifu completed a four year degree program at Anna University in India and a Master’s Program at the University of Toronto in Canada, both in Engineering.

He currently works for Canada Revenue Agency as a Research and Technology Officer.

Mr. Seifu is a Board Member, Public Relations Officer and Member of the Orphan Sponsorship Committee of the People to People Aid Organization Canada.
Tab 4
Your Excellencies,
Honoured Guests
Dear Friends,
Ladies and Gentlemen

It is a great pleasure, indeed an honour for me, to welcome you to this highly important and timely Roundtable organized by the Association for Higher Education and Development (AHEAD) and the International Development Research Centre (IDRC).

Today, we have among us, highly qualified experts, who will be addressing the subject of the Roundtable and specifically the issue of “Brain Drain” which has been plaguing our beloved continent of Africa.

Studies like that recently completed by AHEAD with the support of IDRC, as we once more found out, raise more questions than answers to the problem of brain drain in Africa and to the role of the African Diaspora in Africa’s capacity building efforts.

A frequently asked question with respect to brain drain from the least developed countries (LDCs) to developed countries (DCs) goes “Why?” Well, as AHEAD’s research indicates, this has been a subject of extensive discussion, continuous debate and conflicting interpretations. To quote from the study, “different people view differently the movement of trained professionals from LDCs to DCs. Some see this phenomenon as a ‘brain drain’, a loss of skilled manpower and a waste of investment. This school of thought argues that ‘brain drain’ is a loss of talent much needed for socio-economic development in LDCs. Others see the emigration of trained manpower not so much as a ‘brain drain’ but as an ‘overflow’ of human resources that cannot be absorbed by the economies of LDCs.”
While we fully agree that this question deserves to be answered and the root causes of the problem addressed, I would like to highlight that neither the research conducted by AHEAD nor the objectives of this Roundtable is about this specific question, which needs to be answered in another forum.

Thus, it is not the purpose of Semantics Aside or this Roundtable to examine the causes or implications of the emigration of Africa’s skilled professionals. It is not either intended, in this Roundtable to attempt to identify ways to stop or reverse the emigration of skilled manpower out of Africa. What AHEAD’s research found and by extension, our desire for this roundtable to examine is what the African Diaspora communities can do to assist in the capacity-building efforts of the continent.

The findings of AHEAD’s research can be summarized into two elements. They are:

1. There is a role for the Diaspora in the capacity building efforts of Africa; and,
2. The Diaspora is willing to play its role in this effort.

To this, we can also add the willingness of the States in Africa to welcome the contribution of the Diaspora in their effort for capacity building.

Although this is not the first time that the role of the Diaspora was discussed in similar fora, we can safely state that this is the first time that a specific study have shown the need and the willingness of the parties concerned.

Then, where do we go from here? What would be the appropriate follow-up to the findings of the study and how do we engage the Diaspora in the capacity building efforts of their countries of origin?

This will be the main focus of the presentations by this august panel as well as by the Workshops which will be conducted this afternoon.

To help guide us to focus on the main objective of this Roundtable and also help us to examine the “How” of implementation, I will soon have the pleasure of introducing the members of the Panel. However, before I introduce the Panel, in fact before I invite Dr. Gilles Forget to make the opening statement, I would like to leave you with a quote from our first ever communiqué published in Addis Tribune in 2000, which read:

“The purpose of this article is not about the past. It is about the future. It is not about mistakes; it is about corrections. It is not about who is wrong and who is
right. It is about lessons learned. It is not about failed duties, it is about paying back our country. It is not about brain drain, it is about reversing it. Our long-term objective is to coordinate and channel the resources, expertise and creativity of Ethiopians in the Diaspora toward development efforts in the motherland.”

As members of AHEAD, we believed and we continue to believe in what we have stated over four years ago. Today, I, on behalf of the Members of AHEAD give you my solemn word that, more than at any other time, AHEAD is prepared to implement its stated objectives in order to enable the Ethiopian Diaspora to play its appropriate role in the capacity building efforts of our beloved country.

At this juncture, please allow me to invite Mr. Gilles Forget to make the Opening Statement.
Stakeholder Roundtable

Engaging the African Diaspora in Africa’s Capacity Building Efforts

IDRC, Ottawa, Canada
November 12, 2004

Opening statement by

Dr. Gilles FORGET
Regional Director of IDRC for West and Central Africa
I am extremely pleased to welcome you here, at IDRC, on behalf of Ms Maureen O’Neil, President of IDRC, and all my colleagues. I wish to recognize the initiative of our partners, the Association for Higher Education And Development (AHEAD), in organizing this Stakeholder Roundtable on the Role of the Diaspora in Africa’s Capacity-Building Efforts.

Allow me first to remind you that IDRC is not a “development organization” per se. It funds applied research by researchers from developing countries on the problems they themselves identify as critical to their own communities. In so doing, IDRC contributes to the strengthening of local capacity to undertake research and create innovations. We believe that people from South must take the lead in producing and applying knowledge for the benefit of their own countries.

IDRC also fosters alliances and knowledge sharing between scientific, academic, and development communities in Canada and countries of the South. The Centre works through programs that come under the general areas of environmental management, social and economic policy, and information and communication technologies.

Through these efforts, IDRC seeks to contribute to this emerging Southern expertise and research capacity …and in this regard, it would be short-sighted to neglect the significant expertise and capacities of individuals from Southern countries who are living and working in the North.

This is why IDRC’s Canadian Partnerships program was happy to respond to AHEAD’s proposal for this meeting. The program, established in the early 1990s to broaden the Centre’s relations with the Canadian development community, works with a wide constituency of groups and organizations in Canada that are interested in the contribution of knowledge for development. For this reason, we are particularly interested in following how Canadians of the African Diaspora mobilize in this respect.

This round-table is a direct result of the interest aroused by research done by AHEAD in partnership with a sister organization in Ethiopia, on how the Ethiopian Diaspora might respond to real capacity-building needs of the country. The findings of this research will, I am sure, be reflected in today’s deliberations.

The role of the African Diaspora is attracting greater interest in Canada and other higher-income countries, as immigrant communities establish themselves, grow in number, and begin to reflect on how they can contribute to development in their homeland. Last month for instance, at the fringes of the European Social Forum in London, people of African descent were holding their own conference – and discussing how Africa could benefit from their achievements.

At the international level, these issues are being taken more and more seriously, as witnessed by the launching, almost a year ago, of the Global Commission on International Migration by the UN Secretary General. This agency aims to place the
issue of international migration on the global policy agenda and to examine linkages between migration and other global issues including development.

On the African continent, increasing attention is being paid to the reality and the potential of the contribution of African Diasporas to the development of their home countries. More and more Africa countries have set up ministries and departments in charge of their citizens living abroad. And at the highest level, when the new African Union was drawing up its constitution, it made space for people of African origin: after north, south, east, west and central Africa, the Diaspora was designated as the sixth region of the continent.

I will remind you here as well of the New Partnership for Africa's Development, NEPAD. Tapping into the African Diaspora is one of the centrepieces of its strategy.

There is a change in perspective about the Diaspora, from concern over the loss of human resources in the country of origin (expressed as “brain drain”) to the recognition that these resources contribute significantly to their countries of adoption (“brain gain”) and could, if properly marshalled, participate in important ways in efforts to improve socio-economic conditions in lower-income countries.

Further to the now widely recognised importance of financial flows from the African Diaspora to the continent (estimated at 45 bn $ per year), more people in and out of Africa are emphasizing the role of intellectual and/or scientific Diaspora, now seen as a new resource for African development.

Based on this new awareness, a series of national fora and international conferences have been, or will soon be, held in Africa. For example, the very first Forum of Malians living abroad was organized last year in Bamako. It gathered 400 eminent Malian expatriates who discussed with Malian authorities a number of critical issues such as the mobilization of the Malian intellectual Diaspora for framing national development programs. More recently, the 1st Conference of Intellectuals from Africa and the Diaspora was organized in Dakar under the auspices of the African Union. And I would be remiss not to mention the forthcoming 2004 AFRICA'S BRAIN GAIN Conference which will take place in Nairobi next December, and which will focus on "Facilitating Return of Talents to Africa through Research and Project Collaboration".

All these examples show that Africa is displaying an increasingly strong interest in this topic: this is creating a favourable environment for new initiatives involving the African Diaspora.

At the Conference of Intellectuals from Africa and the Diaspora in Senegal last month, UNESCO’s Deputy Director for Africa, Nouréni Tidjani-Serpos, explained how he believes that, thanks the evolution of information and communication technologies, intellectuals do not need to return home before contributing to continental development. He stated:
"It is now possible for members of the African Diaspora to use their knowledge to serve the continent without being physically present. You can, wherever you are, bring something to Africa."

In the course of this ongoing reflection, Diaspora communities will no doubt want to explore a number of questions, such as:

- how to ensure that their contribution best reflects the priorities and values of the community they will work with, and not only their own perceptions and values;
- can Diaspora organizations be most effective if they work on the basis of national or ethnic origin, or along the lines of substantive interest (such as health, environmental management or urban agriculture), or yet according to their *modus operandi* (for example by sharing technical expertise, supporting specific projects, conducting joint research, etc.)

Enlarging our focus to other regions of the world, it might be very interesting to compare the African, Asian and Latin American Diasporas, to identify factors that influence how they organize in order to contribute to their countries of origin; for example, does a Diaspora consisting mostly of business people rather than intellectuals and professionals make a different type of contribution to its country of origin? Are some models more successful than others? These are only some of the questions that may be addressed in today's deliberations and in other fora.

In terms of mechanisms, the Diaspora organizations will no doubt also want to examine how best to liaise, on one hand with potential partner organizations in their countries of origin, and on the other hand with the Canadian development community (academic institutions, non-governmental organizations and government departments that are already working with African countries). IDRC might be a partner for Diaspora organizations that develop a specific focus on research for development and capacity-building in Africa.

From the early 1980s, IDRC supported research in Africa and elsewhere, on issues related to social and economic aspects of migration in the countries of origin and of settlement. Emphasis was placed on surveys and survey methods to collect reliable data, information management tools, the policy dimensions of integrating refugees and immigrants into the country of settlement, and the effects of emigration on countries of origin. But none of these research projects really focused on the Diaspora’s perspectives on these issues, or on the Diaspora’s views on its own potential contributions to development.

More recently, the Centre’s Regional Office for West and Central Africa, which I have the honour to direct, joined forces with the Economic Commission for Africa and the International Organization for Migrations to organize a Conference in Addis Ababa in February 2000 on *Brain Drain and Capacity Building in Africa*. This was an opportunity
to review the analyses of various actors and stakeholders of the African scientific milieu. In addition, when IDRC organized a regional consultation to design its new Strategic 5-year Program Framework for Sub-Saharan Africa in Dakar last January, a special session was devoted to exploring how to facilitate contributions to development research by the African Diaspora.

At another level, we believe that the various awards offered by the Centre’s Training and Awards Unit constitute a magnet that attracts many students of the Diaspora as well as recent immigrants to Canada. The Centre’s support for research provides an opportunity for awardees to link with their country of origin, or another developing country, and test their interest for development research. This program contributes to capacity building, whether the awardee chooses to pursue a career in Canada or in the South.

I would like also to mention the work of our Evaluation Unit. Our colleagues there are conducting a strategic evaluation to investigate the Centre’s contributions to the development of capacities of those with whom the Centre works. This strategic evaluation focuses on the results of IDRC’s support for the development of capacities of its partners, assessing what capacities have been enhanced, how this was achieved, and how effectively.

Increasingly, capacity development is also seen to be about ownership of the development agenda and process: it is therefore southern individuals and groups, rather than development agencies, who will determine their capacity development. The evaluation will seek to identify the Centre’s contributions to supporting the efforts of individuals and groups to enhance their capacities in ways that they themselves will determine.

The evaluation is in its early stages, but we are convinced that there will be exciting findings to share with organizations such as those you represent. Lessons drawn from IDRC’s three decades of experience could thus benefit Diaspora groups active in this field.

To conclude, I would say that although IDRC is not planning to have a specific agenda or a core support program for research on and for the African Diaspora, I invite you to keep in mind that our teams in Ottawa and regional offices in Sub-Saharan Africa would be very interested in seeing proposals for initiatives such as the one to be presented by AHEAD today.

Therefore, I wish you all a very fruitful roundtable, and assure you that we will pay great attention to your consultation.

I thank you very much.
Brain Drain and Capacity Building in Africa

International Organization for Migration (IOM)

Ottawa, Canada
12 November 2004
OUTLINE OF PRESENTATION

- Effects of Brain Drain (BD) on Africa
- Role of the African diaspora
- IOM Programmes
- Engaging Stakeholders
MAIN FACTORS IN THE BD PROCESS

**Push Factors**
- Poverty
- Lack of opportunity
- Unemployment
- Bad governance
- Political instability
- Conflicts

**Pull Factors**
- Higher salaries
- Professional career development
- Higher standard of living
- Fewer bureaucratic controls

- Insufficient capacity for policy planning, formulation & project implementation to achieve sustainable development

- Lack of qualified professionals
- Under utilization of skills

- Migration within and outside Africa: Brain Drain
MAJOR CHARACTERISTICS OF BD

- Traditional vs. Modern paths
  - **Traditional**: From Africa to former colonial powers
    - Ex: West & North Africa to France, Anglophone Africa to UK, Great Lakes region to Belgium
  - **Modern**: Intra-Africa, to Middle East, Asia or Latin America

- Intra-Africa (Brain Circulation)

- “Feminization”- recent phenomenon
  - Currently women make up ½ of Africa’s migrants

¹ World Migration 2003, p.220
BD DATA

- Difficult to estimate extent of BD because of:
  - Lack of a uniformed system of international record tracking
  - Over- or underestimations
  - Undocumented migrants workers not represented

**Consequence**

*Figures provide only a rough guide to the problem’s magnitude*

*Source: Center for Applied Policy Research (CAP)*
AFRICAN DIASPORA IN CANADA

<table>
<thead>
<tr>
<th>Country</th>
<th>Admitted Immigrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>7,892</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>6,643</td>
</tr>
<tr>
<td>Ghana</td>
<td>4,416</td>
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<tr>
<td>Egypt</td>
<td>3,355</td>
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<tr>
<td>Kenya</td>
<td>3,216</td>
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<tr>
<td>Morocco</td>
<td>3,141</td>
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<tr>
<td>Somalia</td>
<td>2,448</td>
</tr>
<tr>
<td>South Africa</td>
<td>2,220</td>
</tr>
<tr>
<td>Sudan</td>
<td>1,886</td>
</tr>
<tr>
<td>Liberia</td>
<td>1,768</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>1,496</td>
</tr>
<tr>
<td>Togo</td>
<td>1,188</td>
</tr>
</tbody>
</table>

Source: 2002 Yearbook of Immigration Statistics
SUB-SAHARAN AFRICAN DIASPORA IN EUROPE

As of 1st January 2000

UK 249,720

France 274,538

Germany 156,564

Italy 137,780

Portugal 88,956

Spain 39,336

Belgium 18,900

Source: Eurostat 2002
1996 data showed that 49% of the total Ethiopian immigrants to USA were employed in a professional or technical capacity.

About 50% of Ethiopians who went abroad for training have not returned home for the past 10 to 15 years after completing their studies.

Between 1980-91, out of the 22,700 students who went abroad only 5,777 have returned.

More than 1/3rd of Ethiopia’s doctors have left the country.

1Mecra Seton, “International Economic Migration: Creating Incentives to Attract the Skilled Human & Financial Resources to Migration Countries” P.20
238th Annual Medical Association Meeting, 2002
IMPACTS OF BD

- In countries of destination
  - Additional manpower
  - Partly offsets domestic shortages of professionals

- In countries of origin
  - Loss of skills significant for development
  - Dependency on foreign expertise
    - *Ex. African countries spend an estimated US$4 billion every year to employ about 100,000 non-African expatriates*¹
  - Development paradox
  - Reduction of job & wealth creation capacity
  - Slowdown of research & technological innovations

¹Selassie and Weiss, 2002
SECTORS AFFECTED BY BD

- Higher Education Institutions
- Health & Social Services
- Scientific & Technological Development
- Economic Growth
- Governance & Democracy
Public funds spent on higher education inefficiently applied

About 10,000 Nigerian academics are now employed in USA alone

Some 70,000 highly qualified African scholars & experts leave their home countries every year in order to work abroad

HIV/AIDS threatens the coverage & quality of education

Swaziland estimates it will have to train more than twice as many teachers as usual over the next 17 years just to keep the services at their 1997 levels

1 Revisiting the Doctrine of Human Capital Mobility in the Information Age, Damtew Teferra, Feb. 2000
2 The World Bank
Africa spends its’ scarce resources to train health professionals who then go to work for developed countries.

Active recruitment of health personnel by developed countries (ex: an European country recruited an entire graduating nursing class from another African country).

Training of a non-specialized doctor & paramedical personnel in a developing country costs about US$ 60,000 & 12,000/person respectively.

Developing countries “subsidize” developed countries with an annual amount of about US$ 500 million.

Important part of the training of medical personnel in Africa is financed by official development aid.
Between 1985 & 1990, Africa lost US$ 1.2 billions on 60,000 professionals who emigrated\(^1\)

In 1993, over 21,000 Nigerian doctors work in the USA\(^2\)

Beninese doctors number in France far exceeds that in Benin

As many as 18,000 nurses from 1 African country work abroad\(^3\)

Roughly 50% of the total population of doctors in Ghana are practicing in the USA, while the current doctor-patient ration in Ghana is 1:66,000

Between 70 & 100 doctors emigrate from South Africa every year

\(^1\) UNECA 2000: Debate on GATS-The Development Paradox
\(^2\) \(^3\) Ibid
More African Scientists & Engineers working in the USA that in the whole Sub-Saharan Africa

There are currently just 20,000 Scientists & Engineers in the Africa

An estimated million are needed for Africa to attain its’ development goals
ECONOMIC GROWTH

- Limited skilled manpower left restricts an effective public sector to create, maintain & enforce policies necessary for economic growth.

- Limited manpower left to promote & strengthen the private sector’s institutional capacity.

- Human resource depletion due to spread of HIV/AIDS epidemic.
  - UNAIDS reports: the HIV/AIDS epidemic threatens to devastate whole communities in Africa, rolling back decades of progress.
  - In South Africa, the epidemic is projected to reduce the economic growth rate by 0.3-0.4% annually, resulting in 2010 in a GDP 17% lower than it would have been without AIDS, wiping US$22 billion off the country’s economy.
  - In Botswana, the country with the highest per capita GDP in Africa, the next 10 years AIDS will slice 20% off the government's budget, erode development gains & bring about 13% reduction in income of the poorest households.
Lack of human capacity to promote &
implement Governance and Democracy

Wolfensohn, the head of the World Bank, stated
“AIDS is the biggest threat to governance on the African
continent”
ROLE OF THE DIASPORA

While abroad, the diaspora:

✓ Acquires new skill & experience

✓ Maintains backward linkage to home country through:
  - Remittances
  - Skill & knowledge transfer

✓ Stimulates trade between country of origin & host country
The diaspora:

- Is a key strategic asset in building Africa’s capacity
- Is a social, financial, intellectual & political capital
- Is Africa’s biggest aid donor (Remittances)
- Shares a common vision & commitment for Africa’s development
- Transfers its’ skills & resources
REMITTANCES

- Mostly used to support families & only some parts invested into the private sector
- Source of development finance
- Often amounts to more than 5% of the GDP & in some cases even to 20%
- In sum, official & informal remittances exceed other financial inflows such as FDI, ODA, etc.
OFFICIAL REMITTANCES

139.4 billion US$ ≅ 28 % of financial inflows

- 28% Official Remittances
- 9% Official Development Assistance (ODA)
- 63% Foreign Direct Investment (FDI)

Source: Calculations on the basis of World Bank 2002
INFORMAL REMITTANCES

- Informal remittances are sent via:
  - Private money couriers
  - Friends/relatives
  - The migrants themselves
  - “Hawala” system

- Amount of informal remittances increases the total amount of transfers (the unofficial flow is 3 times higher than the official)
OM’s research report finds that:

- Unofficial: An estimated 3.33 billion Birr (US$ 3.9 million)
- Last 5 years remittances = 11.9% of total official transfers both private & public
- Could be 6 times that of the current flow of the country’s approved FDI
- More than double the ODA received in 2001/2002

1National Bank of Ethiopia
2,3[4,5 Ethiopian Economic Association
The concept of return is outdated, it is mobility which must be given priority, benefiting both host & origin countries.
IOM PROGRAMMES

**IOM gained experience in:**

- Managing migration so that it became an effective platform of development

- Designing & implementing programmes aimed at utilizing skills & knowledge of qualified nationals in Latin America, Asia & Africa
RETURN OF QUALIFIED AFRICAN NATIONALS (RQAN)

- Ran under the Lome II, III & IV conventions from 1983 – 1999
- Assisted qualified African nationals to return to their country of origin to work & assist in their country's development
- 2000 professionals & 2,565 fellowship students returned to 12 target & 29 non-target African countries
- More than 90 % continue to live & work in home country more than 2 years after return
MIDA is a demand driven capacity building programme, which mobilises & transfers vital skills & resources of the African diaspora to support the development of their countries of origin.
MIDA (Cont.)

The MIDA programme:

- Launched in 2001 in Liberville, Gabon
- Strengthens the institutional capacities of African Governments
- Forges partnerships between government, private sector institutions, diaspora & donors involved in capacity building programmes in Africa
- Provides flexible eligibility & transfer options of skills & resources
MIDA MECHANISMS

Sequenced/Repeated Visit

Virtual/Tele-Work

How does MIDA work?

Permanent Return

Investment
**MIDA PROCESS**

- **Within participating African countries:**
  - Identify priority skill needs & investment possibilities
  - Compile assignments, job vacancies & investment opportunities
  - Build synergies between all stakeholders

- **Within host countries:**
  - Identify available skills, financial & other resources of Africans in the diaspora
Within IOM:

- Match identified priority skill needs with identified skills, financial & other resources of Africans in the diaspora
- Establish & maintain an updated data bank of identified skill needs in African countries & skills availability in the diaspora
- Manage the transfer of skills & other resources of Africans in the diaspora for development programmes in Africa
- Provide assistance, where required, with travel arrangements (pre-departure), transit & on-arrival reception & post-arrival adjustment
EXPECTED RESULTS

- For countries of origin:
  - Reduction of brain drain & poverty alleviation
  - Mobilization of qualifications of the diaspora
  - Institutional capacities strengthen in both public/private sector
  - Satisfaction of the need for qualified manpower
  - Increase of employment-generating investment
  - Improvement of the national management of capacities by a better allocation of the available human resources
EXPECTED RESULTS (Cont.)

- **For African diaspora:**
  - Increased productivity
  - Economic spin-offs to the benefit of the migrants
  - Participations in the development process of their home country: Ownership

- **For host countries:**
  - Efficiency increase of development cooperation through partnerships & synergies with countries of origin & host countries
  - Introduction or improvement of national migration policies for skill mobility
  - Continuous access to additional qualified human resources to maintain their development priorities
  - Upholding of their production capacity
OAU DECISION


Requested IOM, in partnership with the OAU, ADB & other stakeholders, inter alia, to strengthen their activities in the Continent by promoting specific development programmes in areas predisposed to international migration, & further called upon IOM, to continue to assist African countries to encourage & facilitate the return of their qualified expatriate nationals & promote the initiated programme of Migration for Development in Africa (MIDA).
IMPLEMENTED MIDA PROJECTS

**MIDA Great Lakes**
- **Time frame:** initially 3 years
- **Budget:** 1,392,872 Euros
- **Financed by:** The Belgian Government
- **Target countries:** DR Congo, Burundi, Rwanda, Belgium.
- **Target sectors:** Education, Health, Justice

**MIDA Italy (Pilot Project)**
- **Time frame:** 10 months
- **Budget:** 500,000 Euros
- **Financed by:** The Italian Government
- **Target countries:** Ghana, Ethiopia, Italy

**MIDA Guinea**
- **Time frame:** 18 months
- **Budget:** 100,000 US dollars
- **Financed by:** The US State Department for Population, Refugees and Migration (PRM)
- **Geographical coverage:** Guinea, ECOWAS
- **Target sectors:** Women (in post-conflict areas), micro-credits, micro-enterprises

**MIDA Netherlands (Pilot Project)**
- **Time frame:** 6 months
- **Budget:** 45,720 Euros
- **Financed by:** The Dutch Government
- **Target countries:** Ghana, The Netherlands
- **Target sectors:** Health
IMPLEMENTED MIDA PROJECTS (Cont.)

**MIDA Health**

*In co-operation with WHO*

Time frame: 12 months

**Target countries:** the 46 countries of the WHO Regional committee for Africa (AFRO)

**Target sectors:** Health

---

**MIDA Great Lakes:**

*Involvement of women in conflict-prevention & economic development.*

Time frame: 12 months.

**Budget:** 190,000 Euros

**Target countries:** RD Congo, Burundi, Rwanda

**Target sectors:** Women, conflict prevention, peace and ethnic reconciliation, income-generating activities
In 2002, IOM introduced a strategy paper: “Mobilization of Human and Other Resources from the Ethiopian Diaspora for the Development of their Country of Origin”

A 10 months pilot project implemented from May 2003 to April 2004
MIDA ETHIOPIA ACTIVITIES

- Establishment of the [www.ethiopiandiaspora.info](http://www.ethiopiandiaspora.info) website
- Creation of Ethiopian diaspora database
- Creation of job vacancies database
- Partnership established with stakeholders (professional associations, govt institutions, private sector organizations, media) & Ethiopian diaspora associations worldwide
- Research report on *Skills Inventory & Remittances Flows in Ethiopia*
- Sensitisation workshop: *Mobilisation & utilisation of diasporas remittances for investment in Ethiopia*
- Technical assistance to the Addis Ababa City Government’s Investment Authority
- Information dissemination to stakeholders, Ethiopian networks, association & individuals
- 2 professors from the USA gained lectureship positions at Gondar & Debub Universities in Ethiopia
IOM ADDIS ABABA DATA

**Sex**
- Male: 387
- Female: 87

**Age**
- Total = 474

**Total Years Abroad**
- 0 to 10: 115
- 11 to 20: 158
- 21 to 30: 84
- 31 to 40: 102
- Since Birth: 12
- Not Specified: 3

**Education Level**
- Ph.D.: 120
- MD: 17
- Master: 10
- Diploma: 25
- Bachelor: 195
- Not Specified: 107

**Not Specified**
- 71 to 80: 10
- 61 to 70: 10
- 51 to 60: 21
- 41 to 50: 5
- 31 to 40: 5
- 21 to 30: 2
- 0 to 20: 0
Field of Studies

- Agriculture, Animal Husbandry
- Architecture, Building
- Arts, Humanities and Social Sciences
- Business, Administration, Economics
- Computer Science, Information Systems
- Education
- Engineering, Surveying
- Health
- Law, Legal Studies
- Science
- Veterinary Science

IOM ADDIS ABABA DATA (Cont.)
Return Modalities

- 122 Not Specified
- 158 Investment
- 214 Permanent Return
- 214 Sequenced/Repeated Visits
- 119 1 Time Mission
- 86 Virtual
ENGAGING STAKEHOLDERS

- Many African governments show commitment to engage the diaspora in their development plans & processes.

- For example, the Ethiopian government has introduced various policies to promote the diaspora involvement. *Ex:*
  - SDPRP Annual Progress Report 2002/2003 spells out Government’s commitment to expand the private sector activities by engaging members of the ED.
  - Endorsement of MIDA project by the Government.
  - Diaspora departments & desks established in the Ministry of Foreign Affairs, Ministry of Capacity Building & Addis Ababa Investment Authority.

- IOM partnered with IDRC Africa Regional Office in the organization of the Regional Conference on Brain Drain & Capacity Building in 2000, funded by IDRC HQs.
ROLE OF CANADIAN NGOS & DIASPORA ASSOCIATIONS

- Resource & skills transfers
- Promote knowledge & technology transfer
- Resource mobilization
- Advocacy & governance
- Outreach programs & information dissemination
- Programme implementation
- Home coming link with the country of origin
- Promote North-South Co-operation
- Set up micro, small & medium enterprises
ACTIVE ETHIOPIAN DIASPORA ASSOCIATIONS

- Association for Higher Education & Development (AHEAD)
- Ethiopian North American Health Professionals Association (ENAHPA)
- Bethany Negash Memorial Foundation
- Ethiopian Knowledge & Technology Transfer Society (EKTTS)
- Ethiopian Students Association (ESAY)
- Ethiocorps
- LEM Ethiopia
ROLE OF THE CANADIAN GOVERNMENT

- Facilitate & promote migration as a tool for economic development: MIDA
- Fund diaspora programmes to support CIDA programmes in developing countries
- Policies to facilitate transfer of remittances
- Migration dialogue with sending countries for labour migration
- Assist in strengthening the institutional capacity of the African Governments to implement their development plans such as PRSPs, MDGs & the NEPAD strategy for economic development through the already endorsed MIDA programme
- Assist in strengthening the African countries private sector’s institutional capacity & investment
- Promote private sector development by supporting FDI & joint ventures
WAY FORWARD

- Establish a database of African diaspora in Canada interested in the MIDA programme
- Establish a database of African diaspora associations in Canada
- The African diaspora in Canada to promote resource mobilization for program implementation of MIDA
- Forge partnership between stakeholders
- Stronger partnership between IOM, diaspora associations & the Canadian government
- IOM to establish mechanisms & programs to facilitate skills & resources transfer from the African diaspora & the Canadian government
- The Canadian government to promote & support the funding of the MIDA programme
The Potential Within
Is the African Diaspora
a Response to Africa’s Brain Drain?

Stakeholder Roundtable
Engaging the African Diaspora
in
Africa’s Capacity Building Efforts

International Development Research Centre
Ottawa

Ainalem Tebeje
Association for Higher
Education and Development
November 12, 2004
Overview

1. Purpose of Presentation
2. Context
3. Semantics Aside: A Study by and about the African Diaspora
4. The African Diaspora in Dialogue
5. In the Eyes of Africa
6. Observation
7. Conclusion: The Missing Link
1. Purpose of Presentation

➢ To present the findings of *Semantics Aside, the Role of the African Diaspora in Africa’s Capacity Building Efforts*
2. Context

International Economy:
- From industry-based to knowledge-based economy
- Economic returns of natural resources diminish as need for skilled labour force grows

Development Paradigm:
- From resource mobilization to capacity development and capacity building

Africa is building, but unable to retain its human capital
- Little returns from investment in higher education

The Diaspora Option:
- Recognition of the role of African Diaspora in capacity building
- Improving relations: From subversive and dangerous to the Sixth Region
3. Semantics Aside

Objective
- To examine whether Diaspora engagement contributes to Africa’s capacity building efforts
- To contribute to current scholarship/discourse
- To raise awareness

Scope: Ethiopia - case study with research in Canada and Ethiopia

Focus:
- Not a debate about brain drain vs. skill overflow
- Not examination of why they leave and how to bring them back

Findings
- Shows emerging Diaspora movement
- Provides Diaspora perspectives
- Provides a general picture of continent
4. The African Diaspora in Dialogue

Is the African Diaspora ready for Virtual Participation?
- Unanimous “Yes!!”
- Disengagement no longer an option or a strategy
- Paying the Debt: investment made in our education
- It is a question of moral responsibility
- We have resources/expertise that can be used for development
- “A distant dream” - we can no longer wait for a positive political climate
- Enablers: civil society, NEPAD, IOM initiatives
- Government Initiatives: some encouraging positive signs
4. Diaspora Dialogue (2)

Capacity Issues:

- poor organizational skills
- lack of mechanism
- Division on political, ethnic lines

Relevance:

- Can we really respond to Ethiopia’s complex development needs?

Impeding Factors:

- Bureaucracy too complicated to navigate
- suspicious governments
- marginal Diaspora community

Facilitators:

- civil society, technology, NEPAD, Canadian govt.
4. Diaspora Dialogue (3)

Emerging Diaspora Movement
- Ethiopian-North American Health Professionals Association (health)
- AHEAD (higher education)
- P2P (AIDS)
- FANA (higher education)
- ATCB (technology)
5. In the Eyes of Africa

How is the African Diaspora Engagement Perceived?
- Welcome
- necessary
- possible

How will the African Diaspora contribute?
- Skill transfer
- Resource Mobilization
- Transfer of technology
- Strengthen civil society
- Complement foreign aid
- Lobby on behalf of Ethiopia
5. *In the Eyes of Africa* (2)

Skill transfer:
- most relevant, but not if treated as a one time activity

Bursary Program:
- critical for individual students

Information technology:
- good investment only if complemented by training, systems, software

Medical supplies:
- can revive dying health services if channeled to the right place

Book shipment:
- Major issues
5.  *In the Eyes of Africa (3)*

**Principles:**
- work with us, do not decide for us

**Results:**
- Identify areas where you are most effective

**Partnership:**
- mutual respect and trust

**Stay the course:**
- Do not leave us half way

**Small is beautiful:**
- big organizations with flashy programs did not deliver

**Coordination:**
- Avoid duplication
6. Observation

Semantics Aside:
- Brain drain vs. skill overflow
- Good or bad for Africa

The Question of Remittances:
- Rich families but poor institutions

Africa must continue to build its human capital
- The African Diaspora is not and must not be a substitute for local talent.

Real Solutions
- VP not a panacea
- The search for different solutions must continue
7. The Missing Link

1. Virtual Participation (VP) has a great potential for skill transfer and resource mobilization.

2. For VP to work, the right programs and mechanisms must be identified, tested and implemented.

3. Invest in VP: VP cannot be run by volunteers, funded by donations. Momentum will wane, fatigue will set in, resources will run out.

4. Partnership: key stakeholders should work together (NEPAD, IOM, African governments, civil societies)

5. Bring the African Diaspora to the table
The Diaspora Option
Unleashing the Opportunities,
Diagnosing the Challenges

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The purpose of this article is not about the past.
It is about the future.
It is not about mistakes.
It is about corrections.
It is not about who is wrong and who is right.
It is about lessons learned.
It is not about failed duties.
It is about paying back our country.
It is not about brain drain.
It is about reversing it.
Our long-term objective is to coordinate and channel the resources, expertise, and creativity of Ethiopians in the Diaspora toward development efforts in the motherland. (AHEAD, 2000)
The Ethiopian North American Health Professionals Association (ENAHPA) in collaboration with the School of Pharmacy, Addis Ababa University in Ethiopia and several U.S. institutions, conducted a six weeks course, via videoconference on Advanced Pharmacology of Antiretroviral Drugs for Practicing Pharmacists in Ethiopia from June 25 to July 30, 2004. This course was designed as a collaborative effort by pharmacists and HIV specialists in both Ethiopia and the United States. Personnel from Universities of Howard, Maryland, Columbia, Kennesaw State and Bethany Negash Memorial Foundation, and Mayo Clinic participated in a setting conducted from John Hopkins University. More than twenty Clinicians participated in the course and successfully passed the exam in which they all received a certificate of "HIV Expert, Training of the Trainer".
I cannot believe the foreign minister is one of the distinguished guests at the conference. I am sure this is a sad day for many doctors who are serving our people under difficult situations and who left the country, like me, when the hardship reached the point that could not be tolerated any more. Just a few years ago many of our colleagues were dismissed, the country follows the principle of loyalty, not the value of good education. So, is [the Diaspora organization] trying to be loyal to the government? Is it becoming the new wing of the political system? Is it not possible just to focus on the medical diseases and leave politics for others? What is it trying to achieve?
I do not think it is logical to stay away and criticize. I speak of myself and I know that I have no political interest and I am a professional who has a burning desire to contribute my share in addressing some of our people's health issues. Thank God that I make a good living here in the US and have no intention to be compensated in any way or another for my contributions by any party.
Across the world over when independent institutions attempt to do what they hold dear to their heart, labeling and criticism are commonplace. It is naive to think that you can EFFECTIVELY operate in a country without the goodwill and blessing of an incumbent government. One has to remember that they have all the power to do what they deem is right—and to their best interest—within their jurisdiction; and for all we know they are capable of doing that. This is a lesson that is overlooked by many critics and skeptics of Diaspora alike. For politicians there is a political forum to unseat incumbents; for others, they have to always find the operating space and culture of governments—of today and tomorrow.
I have spoken to President Obasanjo and he is aware of my capabilities, but some suggestions I gave him were channeled to people who were supposed to implement the next step, but did not....There are many Nigerian experts in different fields in the Diaspora, who are willing to offer their expertise. I had offered mine freely, but there are too many red tapes; there are so many people who feel threatened by our presence.”

_(emphasis mine) (Teferra, 2004)_
They deserted us living behind their institution that invested in them; and now they are gesturing the possibility of working together. What they really want is not really a genuine relationship and cooperation; just to aggrandize their academic stature in their host institutions. (Teferra, 2003).
The Society has made significant and highly visible contributions and activities in promoting science and technology in the country. It had launched joint activities with home institution and also honored several professors at home institutions. The Society’s activity with the local chapter came to an end over serious disagreement in honoring, what the Society considers, non-deserving individuals at home as its awardees. The local chapter went ahead with honoring the controversial individuals which led to the severing of the relationship. (Teferra, 2003)
If the starting point to anything you want to share [in terms of contributing towards the development of the country] is Dr. Tadesse’s* article, then you are counting out everyone below age 40. I should reply to Tadesse himself but since you raised the issue I do not personally care what went wrong during the 60s or 70s. In my view all of Tadesse's articles and essays are fixated at the wrong doings of the students of the 60s and 70s. Today is a new day and today's Ethiopia belongs to a new generation.... Having said that I respect your decision to go about achieving whatever good you intend for our country, because I think that all of us have to do what we know best on how to succeed on what ever we believe in.
We want to place on record the flow of information which has taken place between us since our joint effort started. Although there have been glitches and slips here and there, overall, we are broadly satisfied. On account of the glitches and slips that occur on both sides of the information traffic, we feel it is not appropriate to assume that “silence” from either party means consent; indeed, in a partnership of this nature, a balance has to be struck between the necessary speed that has to be built and the inevitable investment, sometimes time-consuming, that needs to be made in partnership building.
~ Gauging Capital
~ Mobilizing Platforms
~ Government Commitment
~ Perception of Home Communities
~ Inherent Ecology
~ Technical and Logistical Issues
~ The Host Factor
By Way of Conclusion:

No amount of brain circulation—Diaspora option—would compensate for what is lost for brain drain. And yet a great many successful initiatives—through Diaspora option—that address many social, economic, academic, cultural, and political issues that confront home countries can be effectively mounted.
In order to realize these, all the stakeholders—national governments, bilateral and multilateral agencies, NGOs, home-based institutions and their personnel, and private individuals—need to be carefully mobilized to actively nurture and strategically support the Diaspora option.
Tab 5
Brain Drain in Africa

Facts and Figures

"The emigration of African professionals to the West is one of the greatest obstacles to Africa's development."

United Nations Economic Commission for Africa (ECA)

"African governments have a great responsibility to ensure that brains remain in the continent; otherwise, in 25 years' time, Africa will be empty of brains."

Dr. Lalla Ben Barka
Deputy Executive-Secretary, ECA

"[By] failing to offer greener pastures for its own intelligentsia, [Africa] is committing suicide."

Professor Edward Ofori-Sarpong
Pro-Vice Chancellor, University of Ghana at Legon

The exodus of highly trained manpower from developing countries to industrialized nations is not a new phenomenon; however, the magnitude of the problem in Africa and its alarming increase presents a growing urgency for action as the consequences of brain drain threaten to stunt the overall development of the continent.

The Brain Drain in Figures—a Bleak Picture

Statistics on the brain drain from Africa are scarce but troubling.

According to the International Organization for Migration (IOM), Africa has already lost one third of its human capital and is continuing to lose its skilled personnel at an increasing rate, with an estimated 20,000 doctors, university lecturers, engineers and other professionals leaving the continent annually since 1990.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Average Annual Rate</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960-1974</td>
<td>1,800</td>
<td>27,000</td>
</tr>
<tr>
<td>1975-1984</td>
<td>4,000</td>
<td>40,000</td>
</tr>
<tr>
<td>1985-1989</td>
<td>12,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Since 1990</td>
<td>20,000</td>
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</table>

There are currently over 300,000 highly qualified Africans in the Diaspora, 30,000 of which have PhDs.

At the same time, Africa spends US$4 billion per year (representing 35% of total official development aid to the continent) to employ some 100,000 Western experts performing functions generically described as technical assistance. For example, 90% of private firms in Gabon are managed by expatriates.
Sources


Africa as a whole counts only 20,000 scientists (3.6 % percent of the world total) and its share in the world’s scientific output has fallen from 0.5% to 0.3% as it continues to suffer the brain drain of scientists, engineers and technologists.

The problem of brain drain has reached quite disturbing proportions in certain African countries, with Ethiopia ranked first in the continent in terms of rate of loss of human capital, followed by Nigeria and Ghana.

Over the past 10-15 years, about 50% of Ethiopians who went abroad for training did not return after completing their studies. According to the IOM, Ethiopia lost about 74.6% of its human capital from various institutions between 1980 and 1991. While Ethiopia has 1 full-time economics professor, there are more than 100 Ethiopian economists in the United States.

According to the estimates of the Presidential Committee on Brain Drain set up in 1988 by the Babangida administration, Nigeria, between 1986 and 1990, lost over 10,000 academics from tertiary education institutions alone. Total estimates, including those who left public, industrial and private organizations, are over 30,000. 64% of Nigerians in the United States aged 25 and older have at least a bachelor's degree.

In 1997 only, more than 1,000 professionals left Zimbabwe. The Zimbabwe National Association of Social Workers estimates that 1,500 of the country's 3,000 trained social workers left for the United Kingdom over the past 10 years.

Basically, African countries are funding the education of their nationals only to see them end up contributing to the growth of developed countries with little or no return on their investment. In Kenya, for example, it costs about US$40,000 to train a doctor and US$10,000-15,000 to educate a university student for 4 years.

Health Services: a Particularly Dire Situation

As serious as the consequences of brain drain are for the overall development of the African continent, the health sector is particularly affected; indeed, the desperate shortage of health professionals is the most serious obstacle as Africa tries to fight AIDS and support other health programs.

In several countries, including Kenya and Ghana, the brain drain of medical professionals is threatening the very existence of the countries' health services.

| The minimum standard set by the World Health Organization (WHO) to ensure basic healthcare services is 20 physicians per 100,000 people. While Western countries boast an average of 222, 38 countries in sub-Saharan Africa fall short of the minimum standard and 13 of these have 5 or fewer. |

Kenya loses an average 20 medical doctors each month.

Ghana lost 60% of its medical doctors in the 1980s and between 600 to 700 Ghanaian physicians are currently practicing in the USA alone, a figure that represents roughly 50% of the total population of doctors in Ghana.

The 1993 UNDP Human Development Report indicated that more than 21,000 Nigerian doctors were practicing in the United States alone while Nigeria suffers from a shortage of doctors. If we were to add
Until recently, African governments had expressed little concern about the loss of skilled people, while development lending agencies often compounded the problem by obliging recipient countries to hire foreign expatriates, as part of the conditions attached to those loans. Moreover, politicians often portrayed countrymen who opted to work and live abroad as unpatriotic. But the African continent has witnessed a growing political will to formally include the Diaspora in its development efforts.

Thus, in July 2001, the Organization for African Unity – the forerunner to the African Union (AU) – adopted a resolution urging member States to “to develop strategies for utilizing the scientific and technological know-how and skills of the African Diaspora” for the development of the continent.

The AU went one step further by calling for the Diaspora to be considered the sixth region of Africa, after North, South, East, West and Central Africa. Heads of state who met for the African Union extraordinary summit in February 2003 agreed to amend the organization's charter to “encourage the full participation of the African Diaspora as an important part of the continent...”

The New Partnership for Africa's Development (NEPAD) calls for the establishment of a reliable, continental database to determine the magnitude of the problem of brain drain and promote collaboration between Africans abroad and those at home. An important NEPAD priority is to develop Africa's human resources and reverse the brain drain. Under NEPAD, African leaders explicitly call for the creation of the "necessary political, social and economic conditions that would serve as incentives to curb the brain drain..."
the number of Nigerian doctors in Saudi Arabia and the Gulf states, Europe, Australia and those in other African countries, the figure would be close to 30,000.

One third of Ethiopian medical doctors have already left the country. According to Randall Tobias, the United States Government's global AIDS coordinator, there are more Ethiopian-trained doctors practicing in the city of Chicago alone than in Ethiopia.

In Zambia, the public sector only retained 50 out of 600 doctors trained in the country's medical school from 1978-1999.

The flight of health professionals is not limited to doctors and affects nurses, pharmacists and social services personnel as well.

The loss of nurses, in particular, is a growing phenomenon, fueled principally by the shortages in developed countries. The United States has 126,000 fewer nurses than it needs and government figures show that the country could face a shortage of 800,000 registered nurses by 2020. Because of such shortages, industrialized nations have embarked on massive international recruitment drives, offering African nurses the opportunity to earn as much as 20 times their salaries.

<table>
<thead>
<tr>
<th>Causes of Brain Drain</th>
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<tbody>
<tr>
<td><strong>Push Factors</strong></td>
</tr>
<tr>
<td>Low and eroding wages and salaries</td>
</tr>
<tr>
<td>Unsatisfactory living conditions, lack of transport, housing, etc.</td>
</tr>
<tr>
<td>Under-utilization of qualified personnel; lack of satisfactory working conditions; low prospect of professional development</td>
</tr>
<tr>
<td>Lack of research and other facilities, including support staff; inadequacy of research funds, lack of professional equipment and tools</td>
</tr>
<tr>
<td>Social unrest, political conflicts and wars</td>
</tr>
<tr>
<td>Declining quality of educational system</td>
</tr>
<tr>
<td>Discrimination in appointments and promotions</td>
</tr>
<tr>
<td>Lack of freedom</td>
</tr>
</tbody>
</table>
Impacts of Brain Drain

**Negative**

- Reduces the already low quantity of skilled manpower available in African countries and needed for their development
- Reduces numbers of dynamic and innovative people, whether entrepreneurs or academics
- Increases dependence on foreign technical assistance
- Slows the transfer of technology and widens the gap between African and industrialized countries
- Negatively affects the continent’s scientific output
- Money lost in income tax revenues and in potential contributions to gross domestic product

**Positive**

- Contribution of new skills when migrants return
- Remittances from skilled migrants boosts household welfare
- Remittances support the balance of payments

Best estimates suggest that Africans working abroad send home some US$45 billion a year. While the importance of remittances for developing countries is not disputed, it does not make up for the social costs and adverse effects on developing economies of the outflow of skilled personnel in the form of brain drain.

**The Diaspora Option**

Strategies used in the past to attempt to reverse the brain drain include retention and the return of skilled migrants to their countries of origin. However, many African countries have acknowledged that efforts either to stem the emigration of highly skilled people or to attract them back to the home country are not always effective.

The Diaspora option (or, “virtual participation”) which encourages highly skilled expatriates to contribute their experience to the development of their country without necessarily physically relocating emerged in the early 1990s as a more realistic strategy to alleviate the consequences of brain drain.

There are some 41 expatriate knowledge networks in the world with the explicit purpose of interconnecting the expatriates themselves and with their country of origin, 6 of which are linked to countries in Africa, including the Association of Kenyans Abroad; the Moroccan Association of Researchers and Scholars Abroad; the Association of Nigerians Abroad; the South African Network of Skills Abroad; and, the Tunisian Scientific Consortium.
Tab 6
Revisiting the Doctrine of Human Capital Mobility in the information Age

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Regional Conference on Brain Drain and Capacity Building in Africa
Conférence Régionale sur l'Exode des Compétences et le Développement des Capacités en Afrique
22-24 /02/2000
Addis Ababa, Ethiopia
Revisiting the Doctrine of Human Capital Mobility in the Information Age

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Prologue
And what for I, with my brains and talent, was born in Russia?

Alexander Pushkin, the famous Russian poet of the 19th Century

Coming back to my native Pakistan in 1951 after taking my Ph D in theoretical physics at Cambridge and after a research period at the Princeton Institute for Advanced Studies, I began to teach at the Lahore Government College. In this position, I found myself desperately isolated. As the only theoretical physicist in the country, I had no one in my vicinity to talk to, to discuss or share ideas with. The academic climate was not stimulating at all. After three years, I realized that staying any longer would not make sense; my work would deteriorate, the harvest of my achievements in physics would go to waste and I would be of no use to my country…. I reluctantly decided to return to Cambridge.

Abdus Salam, Founder of the Trieste Center for Theoretical Physics, Italy

I feel frustrated when I want to do a piece of work but fail because of lack of basic facilities to do the job. Sometimes I look for a sabbatical leave to go and do research in a more sophisticated laboratory so that I can publish a standard paper.

A Tanzanian Chemist (1999)

I feel somehow isolated because of lack of appropriate research facilities.

A chemist at University of Dar es Salaam, Tanzania (1999)

Salaries of Third World continuously remain low, thus some people are tempted to look for better salaries elsewhere, thus Africa will become a brain-drained continent.

A Geologist at University of Botswana (1999)

Introduction
The movement of scholars from one country to another is known by numerous synonyms—Brain drain, brain hemorrhage, and euphemistically as brain circulation. The controversy over the concept has been
such that some refute concerns over the issue as emotional nationalistic nonsense (Das, 1974) while others urge for a serious commitment by some developing countries, particularly Africa, to staunch the serious outflow of their trained personnel (Sattaur, 1989). While one school of thought treats such movements as an extreme form of institutional nomadism (Hountondjii, 1990) another views it as a circulation of skilled labor in the emerging interdependent global economy (North, 1992).

As much as the terms to describe the phenomenon of skilled labor mobility are used interchangeably, their particular use often connotes the magnitude of the net flow and the perceived impact the movement has caused on losing countries. It is appropriate to state as well that the terms coined to express the events in a particular country at a particular point in time evolve as the overall state of that country shifts. While this article favors the term “brain mobility” owing to the current technological, economic, demographic, and social developments in the world and the complexity of the phenomenon, it, however, uses existing terms flexibly and interchangeably largely based on the premise they were initially conceived.

The international migration of scholars is a phenomenon as old as universities themselves—and therefore not peculiar to developing countries. Generally perceived to be a constructive dynamic, the movement of teachers and researchers from one national setting to another—ranging from permanent relocation to short-term visits or exchange programs—facilitates the dissemination of knowledge and the broadening of cultural horizons. However, when one nation becomes a substantial net exporter of academic (or other intellectual) talent, a “brain drain” condition is said to occur. The presence of this condition suggests that the sender nation is at risk of depleting its natural supply of intellectual talent (Schuster, 1994).

Brain drain emerged as a concept in the 1960s during massive migration of mainly British scholars to the US. After the culmination of the Second World War, “between 1949 and 1965 about 97,000 high-skill scholars emigrated to the USA, mainly from Great Britain, Germany and Canada.” Since the mid-1960s and in particular during the 1970s the geographic structure of the brain drain process noticeably changed, the developing countries becoming its “nutrient medium” (Simanovsky, et al 1996). With worsening economic hardships, social unrest, political turmoil, and declining work and living conditions at home, the volume of this nutrient medium has expanded, consequently intensifying the outflow.
Some statistics to indicate the current wave is in order. In 1998 nearly 120 doctors were estimated to have emigrated from Ghana and between 600 to 700 Ghanaian physicians are practicing in the USA alone. This represents roughly 50 percent of the total population of doctors in the country. It is estimated that about 10,000 Nigerian academics are now employed in USA alone and more than 1,000 professionals left Zimbabwe only in 1997. The estimates for Ethiopia indicate that about 50 percent of the Ethiopians who went abroad for training have not returned home for the past 10 to 15 years after completing their studies. Between 1980-91, a total of 5,777 students have returned from studies abroad out of the 22,700 students who went abroad—which is a mere 39 percent (Sethi, 2000).

Some specific figures may probably tell the story even better. In Addis Ababa University, Ethiopia—where the author worked for over 10 years —, of about 20 faculty members of the physics department who left for Ph. D. studies—almost all to the United states—none returned (Teferra, 1997). The same holds true for Mathematics department at the same university where the extent of non-returnees continues to force the department to employ fresh graduates regularly.

Corpuses of literature on skilled labor mobility list a variety of pros and cons of the phenomenon. The major perceived negative impact of brain mobility that are often stated includes the erosion of the national scientific and technological potential of the losing country, cost of education of emigrants in the home country, and lost investment and benefits due to departure of specialists needed for the country. On the other hand the following are considered as major positive developments: better opportunity and personal development for the immigrant, financial benefits (by way of remittances) to home country, and serving as “safety net” for excess expertise produced. It is important however to stress that the pros and cons of the migration of skilled labor is far more complex and complicated than outlined here that necessitated a brief discussion later in the chapter.
Brain Mobility in the Emerging Virtual World

The motivation of scholars to immigrate or their decisions to stay abroad is a product of a complex blend of economic, political, social, cultural, and personal matters. The impact and chemistry of each factor varies from country to country, from individual to individual, and fluctuates from time to time.

Despite some economic and social success stories, most African countries constantly face economic hardships aggravated by political turmoil and social instabilities making it difficult for scholars to return home—while at the same time prodding those at home to migrate. Depressing news from home on suppression of dissident scholars by national governments furthermore discourages potential returnees, consequently frustrating the various efforts to contain the overflow of skilled personnel out of Africa.

Most African institutions perpetually face the arduous task of ensuring a healthy working environment to keep their scholars contented, up to date, and integrated with the rest of the world scholarly community. The prologue—excerpts at the beginning—vividly attests to this reality. It is not my intention to dwell on the concerns reflected by the excerpts heretofore, but rather particularly underscore the significance of the conference theme.

The main thrust of this article is to emphasize on the latency of skilled labor circulation—both in the traditional physical form as well as virtual mode—and the mechanism to tap its fluidity and power as enhanced by unprecedented and profound developments in information and communication technologies (ICTs). As much as the effort to regulate the impact of skilled personnel mobility relies on managing physical movement, the endeavor to exploit their potential in their place of residence has been apparently limited. It is the purpose of this article to underscore this domain that has been poorly exploited.

It has now become a cliché to state that we live in an information age and the world has grown into a small village. The ramifications of these developments are however beyond the comprehension of many ordinary citizens of the world. In particular, numerous economically less developed countries that live at the backwaters of science and technology watch helplessly while the information high train speeds away. The urge to board this speedy train is tremendously intense and this is particularly so for the elite in these countries who follow up innovations and developments earnestly and jealously. African scholars make up the large proportion of this group.
A few Africans however have managed to break the isolation iceberg owing largely to developments in ICTs through the Internet and email. They communicate with their colleagues internationally, locally, and regionally on scholarly, administrative, and personal matters; and this has helped to minimize the chronic problem of isolation many Africans still continue to face. The prologue and epilogue in this article testify to that effect.

In 1994, the world map of the Internet connectivity showed only two countries in Africa having full Internet connectivity—South Africa and Egypt. To date, there is hardly any country in Africa without some form of connectivity to Internet and almost all countries in Africa can be reached by email. Now the question is no longer whether or not Africa will ever get access to the Internet. Instead inquiries are about what African organizations and institutions will do with the technology (Dzidonu, 1999).

The contribution and impact a technology can make largely depends on the existence of an enabling environment and critical mass of expertise that can exploit it, and the concern and consciousness to employ it in solving problems as well as exploring ways and means to reach new frontiers. Developments in ICTs—such as the World Wide Web and the Internet—have enabled to reach many frontiers that were just impossible some years back. It is hoped that these developments in technology can help to maximizing the exploitation of the brain mobility potential.

The effort to enhance the contribution of native experts settled elsewhere in nation building in general and capacity building in particular—as well as to counteract the challenges of brain drain—has been hitherto focused on resettling the scholars back to their respective countries. The success of the various programs that are generally based on physically moving native experts has been however mixed. This is because the pull-push factors in the mobility process are so complex that they continue to frustrate many of these programs.

Studies show that many immigrant scholars—particularly from Asia and Latin America—contribute tremendously to their native countries. Their contributions are not only through foreign currency remittances but serving as visiting scholars, creating virtual networks, and generally shaping the direction of the scholarly environment and capacity building.

There are networks of ties that professionals working abroad often maintain with their home countries. Many Taiwanese scholars and scientists living in the US, for example, have maintained ties to colleagues in Taiwan, providing expertise, contacts with the Western scientific community, and in
general providing a means of communication. Some return home to serve as consultants or visiting professors. A few have invested money in Taiwanese high-tech and other companies. Indians who have emigrated to the US have been active in the growing software industry in the Silicon Valley in California. They maintain contact with colleagues at home, often investing in the Indian companies or assisting in joint ventures between American and Indian firms in the computer industry. This pattern of contributing to scientific and technological development is repeated for many Third World countries, though not so for most of Africa yet (Altbach, 1991).

Government policies of some of these countries also actively promote and strategize the manner in which nationals contribute to their native countries. A particular case in point is Thailand that promotes brain mobility virtually—on the Internet. Under a very attractive banner on a web site that reads “The Reverse Brain Drain Project,” it states dual missions. Of the two missions, the “high priority” is not to “promote and facilitate the return of Thai professionals overseas to work in government agencies or in the private sector [in Thailand].” It is rather to “identify and attract experienced high-level Thai professionals living overseas to participate in mission-oriented projects, and promote development of core teams led by the respective Thai professionals.” In fact, the mission explicitly acknowledges de-emphasis on the permanent return program. It should be emphasized that the primary and major objective of the whole initiative is to make the immigrant nationals become part of the nation building process without uprooting them from their bases elsewhere.

Philippines is a country where both “brain drain” and “brain hemorrhage” play themselves out at the same time. Gonzalez (1992) holds that this is a consequence of mismatch between the manpower needs of the country and the output of higher education—which he describes it as interlocking conflicts in policy and practice that produced both oversubscribed and undersubscribed expertise. Incidentally such mismatch is a very common phenomenon in numerous African countries where they
suffer from lack of highly trained experts while at the same time many of their highly trained personnel remain unemployed and underemployed.

Gonzalez holds that no uniform solution is possible, as the nature of the problem is different for each area. For oversubscribed professionals, he proposes overseas employment as a viable option; it is a source of foreign exchange and a natural way of population control. For undersubscribed professionals a system of incentives tied to a period of mandatory service, after which the beneficiary may exercise his/her options. Some lesson can be learned from this Asian experience.

Certain government policies in Africa as well do not consider the movement of its scholars as brain drain—rather the contrary. Egypt, for example, considers its Diaspora as its treasures kept abroad. It is vital to affirm that these unclaimed treasures can potentially serve as another window to the industrialized world, as another bridge in knowledge transmission and exchange, and as another catalyst in fostering knowledge creation and utilization. It is apt to remark, therefore, that the Diaspora is a vital and influential community of “undercover” ambassadors—of their home countries and regions—without formally designated portfolio.

Some African Diaspora communities have taken it upon themselves to contribute in the development of their home countries, among others, by establishing knowledge networks that span across the world. The Ethiopian community in Diaspora, for example, has established several virtual communities that discuss various social, political, ideological, economic, developmental, scientific, and technological issues. The recently established Association for Higher Education and Development (AHEAD) that is concerned about the migration of expert Ethiopians is an interesting case in point. In its recent communiqué, the authors succinctly wrote, “The purpose of this article is not, however, about the past. It is about the future. It is
not about mistakes; it is about corrections. It is not about who is wrong and who is right. It is about lessons learned. It is not about failed duties, it is about paying back our country. It is not about brain drain, it is about reversing it.” It goes on to say “Our long-term objective is to coordinate and channel the resources, expertise and creativity of Ethiopians in the Diaspora toward development efforts in their motherland. This means developing and operating a program that will facilitate the identification, selection and assignment of Ethiopian professionals to various voluntary activities in Ethiopia. It also means coordinating the Ethiopian community to establish a foundation to support Ethiopian higher education institutions and students” (AHEAD, 2000).

With the expansion of online capabilities and access, many such virtual and “real” institutions have multiplied rapidly by many committed and concerned Africans in Diaspora. The impact, scope, and significance of such institutions, however, remain to be investigated.

If the main purpose and objective of reversing brain flow is to build capacity of those countries that export and continue to export their experts—unwillingly or otherwise—the approach to moderate the flow should not therefore adopt one single strategy that predominantly leans toward repatriation. It is important to realize that skilled labor has propensities to mobility and appears futile to attempt to control it. Even numerous Western scholars whom we most of us trust as enjoying a far better autonomy and academic freedom and working and living conditions than their counterparts in the Third World, and especially Africa, crave for even more greener pastures elsewhere.

A study made by Schuster (1994) that surveyed British faculty shows that 40 percent of all surveyed replied that they had “seriously” considered making a
permanent move abroad. The study also shows that roughly twice as many faculty whose primary interest is "research" are emigration-prone compared to those whose primary interest is "teaching." Recalling that 40 percent of all university faculty say they have seriously considered moving abroad, the proportion climbs to 47.3 percent among the "researchers" but slips to 23.8 percent among the "teachers."

Such studies urge that the traditional discourse to manage skilled labor mobility that predominantly leans on physical movement of experts be revisited. It should be noted as well that, what at one time was a "one way street" in which Third World professionals migrated to the West, maintaining few contacts at home, has been transformed into a complex set of relationships in which emigrant professionals contribute significantly to a growing world economy and to the flow of expertise—and sometimes capital—from the industrialized nations to many Third World and newly industrialized nations (Altbach, 1991).

Because the mobility of skilled labor is a complex process, it is imperative to adopt various strategies and approaches to address it. Even the variety of strategies and approaches that are often adopted have to be reexamined in the face of changing social, economic, political, demographic, and technological paradigms. The economic paradigm of the twentieth century that was largely dependent on natural resources has now shifted to an information-dominated one driven by knowledge creation and dissemination. On the technological front, unprecedented developments in ICTs have opened the world of opportunities that were not even imagined a couple of years ago. In the political front, the culmination of the Cold War brought about a massive movement of people across the strategic divide. These snapshots of developments therefore underscore the point that strategies and approaches to address the brain mobility issue take heed of these global dynamics. As a matter of fact, the global
dynamics that currently spins on information and knowledge platforms brings a whole lot of meaning to the philosophy and doctrine of the movement of skilled labor force that creates, consumes, manages, and distributes information and knowledge.

It is, therefore, pertinent to underscore that the national and international endeavor, like the current one to address the issue of African skilled labor mobility, should as well focus on fostering the utilization, contribution, and exploitation of the brain power of native immigrants wherever they reside.

It is therefore crucial that the doctrine of human capital circulation—dominated by physical movement of skilled personnel—be dutifully reformulated to accommodate and mobilize the growing potential of immigrant African scholars to participate in nation building virtually as well. Virtual in this particular context is used to signify skilled immigrant participation in nation building without physically relocating them into their native countries where their expertise is sought.

**Capacity Building in the Realm of Major Educational Policy Shift**

There is high optimism in the air as regards to special role and contribution of highly trained citizens in this era of information that advances on highly skilled labor force. The current shift in educational policy—that reaffirms the impact of skilled human labor in the information age and the ever importance of higher education—by major and influential institutions will have a very positive role to play in the effort to building capacity in Africa in general and brain mobility in particular.

The policy affirms that the participation in this revolutionary world requires a new set of human resources: trained to higher qualifications, capable of greater intellectual independence, and possessing the flexibility and capacity for lifelong learning—better human capital. It goes on to warn that not to participate means falling behind, enduring intellectual and economic marginalization and isolation,
and continuing, if not rising, poverty. It reaffirms that the main practical sources of supply for the newly required human resources to be found in higher education. It emphasizes that the role of higher education was not suggested as insignificant before the current knowledge revolution, but it is to affirm that higher education has never been as important to the future of the developing world as it is right now (World Bank, 1999).

It appears that the era of education policy, which was grounded on narrow econometrics of rate of return that resulted in measures that disfavored higher learning in the Third World, specially Africa, is over. The current discourse in education policy strongly affirms the pivotal role of higher education in the 21st century that passionately recommends more emphasis and attention to higher learning institutions. This policy shift has a lot of meaning on the lives of most African higher learning institutions that are often poor, derelict, and alarmingly deteriorating.

Should the new policy guidelines become important maps that direct the education sector, it is hoped that, they will play a positive role in higher learning institutions that affect the lives of students, faculty, researchers, and, administrators which in turn impacts the lives of many others in the nation. The role this policy therefore plays in terms of capacity building in Africa and the decisions of brain mobility—that are often associated with poor working and living conditions—should not be underestimated.

Higher learning institutions are vital for training and graduating highly skilled labor force. Unlike the Western World, Africa and the developing world heavily rely on these institutions to produce skilled labor force. The contribution of higher learning institutions in these countries to producing highly skilled labor
force, therefore, is of paramount significance that entails the commitment and attention to strength and rebuild them.

Numerous other developments in various fronts will continue to influence the status quo in the higher learning landscape. In the current market-driven world economy, most policies are launched on profit platforms that often spare almost no institutions. Education has not been the exception either. While the debate—on whether or not higher learning is a public or a private good—continues to rage, private postsecondary institutions are flourishing and diversifying all across the world. In Africa, for example, private postsecondary institutions are the fastest growing tertiary educational institutions that cater to a huge potential market.

On the distance education front, numerous attempts are underway to reach the millions of people that are desperately seeking higher education in many developing countries and Africa. Notwithstanding several challenges, developments in ICTs have made this educational approach ever more a reality. As much as these two developments stated heretofore play an important role in addressing the thirst for skilled labor and higher learning, they lack most elements that directly nurture the development of national capacity building. Most private institutions understandably shy away from important, but less profitable, disciplines, such as the hard sciences and the humanities. As much as distance education promises to deliver to the vast market, its significance on building national capacity remains to be seen in African environment.

While national governments should vigorously promote the expansion of private postsecondary institutions and distance learning, they have to make a serious effort and commitment to improve the state of traditional higher learning
institutions—notably universities—that produce the vast majority of African highly trained labor force. It is important to affirm that this force is a vital asset that enables Africa to compete in the emerging knowledge- and information-driven world. It will be a serious policy flaw to forsake the development of capacity building either to market forces—driven by private institutions—or distance learning that yet have to take off. The major platform to launching the development of capacity building should remain with national universities—and national research institutions—and the momentum that is gathering in favor of higher learning should be directed towards them. The strengthening of major regional higher learning and research institutions should as well be seen in this light.

Earlier experience in the development of African higher education vividly reminds us how excellent and highly regarded institutions were built in the 1960s through a concerted effort by governments and nongovernmental agencies notably—the foundations. Though various other factors conspired, these institutions however regrettably declined in a matter of years as emphasis on higher education came out of vogue.

What experience can be drawn from this scenario? If past is of significant value to advance ideas to the future, initiatives should focus not only to take effective advantage of the momentum created by current environment to ensure better quality teaching and research in African higher learning and research institutions. It is also extremely important to make an indelible mark of this momentum on these institutions long after this momentum gets attenuated. Introducing the concept of sustainability to see these institutions through difficult times—like the one most African institutions currently find themselves—will be
a very pragmatic one. Endowing African universities, among others, to ensure a sustained, competent, and recognized level of academic achievement is one major pioneering initiative Africa has to vigorously experiment with while the momentum is in its favor.

The Way Forward

The reformulation of the mobility paradigm calls for the reassessment of the responsibility and duties of existing infrastructure. It also requires that new bodies that may have to be institutioned conform to the new paradigm. What does the shift in paradigm therefore entails?

First, it requires that all the stakeholders in the issue of skilled labor mobility trust that alternative ways exist to mobilizing the expertise without necessarily relocating them. It has been acknowledged that, the attempt to return African scholars to their respective native lands has been an uphill struggle. While the decisions of the scholars to immigrate—or not return—and the social, political, and economic fabrics of a country cannot be altered by these institutions committed to addressing the problem—at least directly and immediately —, it is however pragmatic to deal with the situation in a manner that exploits the status quo. These entails therefore that concerned bodies—be it governmental or nongovernmental—should also act as positive catalysts in mobilizing the skilled labor force for African capacity building wherever it exists in various frontiers, for example, by employing virtual fora.

Second, bodies with clearly and pragmatically defined missions, objectives, and plan of action that explore and coordinate should be set up. This may only require a reorganization of existing bodies to help capitalize on current developments. For example, given the unprecedented developments in ICTs, the establishment of bodies that create, maintain, and foster virtual scholarly community is an important and timely approach; if these bodies exist they should be strengthened and upgraded.

Third, the impact, contribution, and significance of the approach to the new paradigm shift in addressing the mobility issue could be positively and negatively influenced by the amount of resource at its disposal. Bright ideas and initiatives not complemented by commensurate resources are often doomed to failure. It is therefore important to consider seriously, either in the reorganization of existing infrastructure or the creation of one, to ensure comparable financial and technical resources for such initiatives.
The collaboration and cooperation of the stakeholders are vital for the success of this initiative. It is believed that all the stakeholders have their share of contribution and the effort should focus on complementing and integrating the commitments and contributions. International organizations, for example, have the financial and technical resource, experience and expertise in coordination and administration, and enjoy better credibility and prominence. National governments provide a platform upon which initiatives are launched and their role is deservedly paramount. In the absence of full commitment by governments and their officials, such initiatives may find it difficult to take off. Gathering the support and the commitment of national bodies is vital for the success of such initiatives. Various institutions may have to be approached and engaged to implement such initiatives and most notably scholarly and academic institutions. By their very nature, scholarly institutions, in particular, often tend to be very conservative and change-resistant that have a potential to attenuate such initiatives. Even if national governments consent to a particular initiative without the approval, participation, and engagement of these institutions and their scholars, chances are that they will be thwarted by the various local institutions at different level.

Summary

A lot has been written on the underlying causes for flight of scholars and various ways to regulate it. Numerous African governments have taken measures to attract their scholars living abroad by providing free housing, duty-free status, tax-relief, and various other benefits. Such traditional approaches to contain the excessive outflow of the skilled human capital, have apparently had limited outcome.

Unless scholars become confident that they have better living and working conditions for themselves and their dependents, bright future to their career development and accompanying financial remuneration, relatively free, stable, and autonomous academic environment, the effort to address the human capital movement—based on the strategies that have been adopted hitherto—will continue to be frustrated. Vast earlier experience from countries such as India, Taiwan, and South Korea could serve as vital reference for remodeling the brain mobility paradigm in Africa.
Approaches to address the movement of scholars in whatever form—brain drain, brain hemorrhage, brain circulation—should seriously consider the complexity of the issue, the technological developments in the world, and the idiosyncrasies of international, regional, and national political, social, and economic realities. Given the world that made physical mobility ever more easy and simple and at the same time ever more redundant, the policies that may be formulated to address the movement of brain capital should seriously take in to account the patterns of these developments and their ramifications.

ICTs continue to make profound impact practically on all walks of life. Networks made possible through virtual fora that dwell on every conceivable topic have flourished over the last couple of years. Concerned institutions should take advantage of these developments by actively participate and involve in the creation, maintenance, promotion, and moderation of effective networks that make possible the invention, transfer, and exchange of knowledge between scholars in Diaspora and their colleagues at home. If effectively exploited, the Diaspora could help make a difference in bridging the widening digital divide between the industrialized world and developing countries. Such non-traditional pragmatic approaches will bring the brain power back in to the circulation to help in capacity building and nation building. It is thus important that the attempt to address the issue of the flow of expertise—reversing the brain drain—focus on capitalizing and exploiting these fora that became possible through ICTs to help build capacity and redress the damage sustained from excessive outflow of experts.

The re-conceptualization of educational policy at the highest level currently favors higher education owing largely to the shift from the resource-based economy to knowledge- and information-driven one. African governments, institutions, and
scholars and concerned non-governmental institutions should take a major and active
lead to take advantage of the current momentum in their favor to build their higher
learning institutions.

It is hightime that the philosophy and the strategy to address the flow of
expertise be reformulated given the social, economic, ideological, and technological
developments around the world. It is vital that the strategy to build capacity in Africa
and the approach to addressing the issue of brain mobility should as much focus on
tapping the Diaspora wherever they exist. The developments just referred heretofore
dictate a paradigm shift in the way brain mobility should be conceived, addressed, and
tapped.

Whatever approaches should be eventually adopted to address the issue of
brain mobility and capacity building by organizations, governments, and other
contcerned institutions, the strategies should be as complex and diverse as the problem
itself. It is wise to blend the effort with a tinge of indebtedness, nationalism and
patriotism, responsibility and duty, envy and zeal.
Epilogue

One of the objectives of the Association is “to create linkages between the medical faculty [in Ethiopia] and the Ethiopian Community in Diaspora.”

Association for Higher Education and Development (2000)

Forty-one expatriate knowledge networks have been identified around the world to date. What is disturbing, however, is that of these 41 networks only six are linked to African countries compared to other world regions like Latin America and the Middle East.


The revolution represented by electronic media nowadays is that a small institution in a remote village in Africa has the possibility of posting its priorities and findings in a medium that is accessible to anyone else on earth with a phone line and electricity (and a computer, of course). This is in turn would enable small communities dispersed around the world and individually unable to pursue their goals to pool their resources and bring together strategies to, together, support a common goal. At least that’s the dream.

Development/Public Policy Expert (2000)

We do not feel isolated now. Because we are communicating with the rest of our colleagues everywhere thanks to email and the Internet.

An Ethiopian Biologist at Addis Ababa University, Ethiopia (2000)

The Internet has optimized communication which makes collaboration with other institutions abroad more viable. Certain analyses are done abroad and communication about this is fast thanks to Internet. This communication leap has also increased the scientific credibility of African Scientists.

A chemist at University of Dar es Salaam, Tanzania (1999)
Acknowledgments

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The Brain Drain:
The concept of brain drain first emerged in the 1960’s when it was used to describe the migration of British intellectuals and scientists to the United States (Gaillard and Gaillard:1997:201). Traditionally the discussion around the brain drain has been from the perspective of human capital approaches identified by Gary Becker in the 1960’s (Fourie and Joubert:1998). The Human Capital Approach holds that the educational qualifications, abilities, skills and competencies that an individual possesses represent his/her human capital. Governments invest in this human capital through training and education and expect a return on their investment when the individual becomes economically active and start paying taxes, etc. (Rosenbaum et al:1990:267). Within this perspective migration of highly skilled human resources present a “loss” to the sending country, because they lose out on the returns on the capital they invested in the individual. In the light of this countries have implemented various strategies to counteract the brain drain: According to Meyer et al, these strategies can be divided into two approaches (1997:286). The first approach sees the brain drain as a loss and these strategies are designed to counteract this loss. These strategies include:

- **Restrictive policies**- Designed to make migration more difficult e.g. compulsory national service

- **Incentive policies**- Designed to make emigration less attractive- e.g. offering highly skilled workers incentives to remain in the home country

- And **compensatory policies** as proposed by Bhagwati – whereby either the receiving country or the individual migrant gets taxed in order to compensate the sending country for the loss of human capital (Bhagwatti:1977). These policies however were
not very effective, because: restrictive policies are only temporary and not permanent deterrents for migration. Incentive policies are also not very effective, because developing countries are not in a position to offer highly skilled professionals salaries and infrastructure comparable to that they would have access to in developed countries. Compensatory policies on the other hand are also problematic because it is difficult to measure exactly the loss to the country of origin in monetary terms. The measure that is usually used is the investment in education, however in many cases especially in the case of student migrations, where the migrant leaves the home country to study abroad, the receiving country bears some of the cost of his/her education, the question is then, should this be included in the equation? This has given rise to a new thinking around the brain drain issue which recognises the potential that a country’s highly skilled expatriates present to its development process. The second approach to the brain drain involves two strategies, referred to as “brain gain strategies”: the return option and the diaspora option.

The return option was first implemented in the 1970’s through to the 1980’s and 1990’s and it involves attempts made by countries to encourage their highly skilled expatriates to return home. However, only a few countries mostly newly industrialised countries like India, South Korea, Hong and Taiwan have been able to implement this strategy effectively (Meyer et al:1997:287). For the return option to work, home countries have to be in a position to offer the expatriates they want to attract back, salaries and infrastructure comparable to that in the countries in which they work. Developing countries are not in a position to compete with the industrialised countries in which their highly skilled expatriates are often located. This has lead to the introduction of a new and different approach to the brain drain, the diaspora option.

The Diaspora Option:
The “diaspora option” represents a different approach to the brain drain. It takes a fundamentally different stance to traditional perspectives on the brain drain in that it sees the brain drain not as a loss, but a potential gain to the sending country. Highly skilled
expatriates are seen as a pool of potentially useful human resources for the country of origin, the challenge is to mobilize these brains.

The diaspora option is based on network approaches where a network can be defined as a regular set of contacts or similar connections among individual actors or groups (Granovetter and Swedberg:1992:9). These networks of highly skilled expatriates are referred to as expatriate knowledge networks. The main feature of the diaspora option is that it tries to set up connections/linkages between highly skilled expatriates and between them and the country of origin. This allows for information and knowledge exchange between expatriates and between them and the country of origin, it allows expatriates the opportunity to transfer their expertise and skills to the country of origin, without necessarily returning home permanently. In this way, the country of origin has access to the knowledge and expertise of the expatriate, but also the knowledge networks that he/she forms part of in the host country.

A crucial element of the diaspora option is an effective system of information to facilitate the transfer and exchange of information between network members and between them and their counterparts in the country of origin. Another element highlighted by theorists like Callon, necessary in any network are intermediaries or incentives necessary to “cement” the linkages between actors in the network; network members must reap certain benefits from their participation in the network (Callon in Murdock:1995:747).But how do these networks work?

**Intellectual/Scientific Diaspora Networks**

Forty-one expatriate knowledge networks have been identified around the world to date. These only include networks with the explicit purpose of connecting the expatriates amongst themselves and with the country of origin. These expatriate knowledge networks are tied to 30 different countries and two world regions, some of which have more than one network. What is disturbing however, is that of these 41 networks only six are linked
to African countries compared to other world regions like Latin America and the Middle East.

Expatriate Knowledge Networks that were identified are classified into five categories: student/scholarly networks, local associations of skilled expatriates, expert pool assistance through the Transfer of Knowledge Through Expatriate Nationals (TOKTEN) programme of the UNDP, developing intellectual/scientific diaspora networks and intellectual/scientific diaspora networks. The latter group is particularly interesting, because it is more comparable to South Africa’s own initiative to mobilize its highly skilled expatriates, the South African Network of Skills Abroad. The next section will focus exclusively on intellectual/scientific diaspora networks.

These intellectual/scientific diaspora networks share a number of characteristics. They were all initiated recently, in the late eighties and early nineties. They emerged very spontaneously and independently of each other. They all appeal to the loyalty and commitment of highly skilled expatriates living abroad to the country of origin. Most of the membership of scientific/intellectual diaspora networks consists of nationals of a particular country living abroad. However networks such as the Colombian Caldas network and the South African Network of Skills abroad consist of members who are not necessarily of Colombian or South African origin, but are simply interested in the development of these countries. Almost 7% of Caldas network members are not of Colombian origin while fifty-seven nationalities are represented in the SANSA network (see figures 1 and 2). This shows that loyalty to ones country of birth might not be the single most important factor which motivates highly skilled people to join these networks, but other incentives also play a role.

**Figure 1:**

![Figure 1](image_url)
Their membership is highly skilled and highly qualified. For example 57.2% of the network members of the Philippines Brain Gain network hold advanced degrees (masters and doctorates) (see figure 3). 49% of the South African Network of Skills Abroad (SANSA) members hold a masters degree and 30% a doctorate (see figure 4). The percentage of people with a doctorate degree living abroad is almost double the percentage of doctorate degrees in South Africa (Kaplan:1997).

Figure 2:

![Bar Chart: Major Nationalities of SANSA Members](image)

Figure 3:

![Pie Chart: Percentage of Advanced Degree Holders in Philippines Network](image)
Members are highly dispersed, for example the members of the Red Caldas of Colombia are located in 23 countries and six main world regions with the majority of them in the United States, United Kingdom and Spain (see figure 5) (Charum and Meyer:1998). Other networks like ATPAC, ATPER and ATPIJ are more regional. SANSA members are located in 68 countries on the five main continents. Figure 6 shows the six main countries in which SANSA members are located.
Members of most of the networks are active in the fields of science and technology, except SANSA and the Philippines Brain Gain Network (BGN) which are more multidisciplinary. (see figures 7 and 8)
The networks are also similar in terms of their organisation and administration. They all have a website which is the initial entry point for potential members as well as an on-line registration form which interested individuals can fill in. All the networks have a database in which members’ data is stored and which also serves as an information tool where members can look for potential partners and network members in similar fields and geographical locations.

All the networks studied consider themselves as independent, non-political and non-profitable organisations. Some of them like the Polish Scientists Abroad, the Association of Thai Professionals in North America and Canada, the Iranian Scientific Information Network, the Tunisian Scientific Consortium, the Philippines Brain Gain Network, the Arab Scientists and Technologists Abroad and the SANSA network all have links to some governmental institutions like the Department of Science and Technology or the Ministry of Education. This suggests that although these networks would like to maintain an independent character, some institutional support is necessary in order to generate action and concrete, purposeful activities to enable networks to fulfill their goals.

Members are often enthusiastic and excited about contributing their skills and expertise to the country of origin, in fact in many cases like the BGN, expatriates are the main initiators and administrators of the network. The purpose of all these networks is to mobilize their membership to contribute their skills and expertise to the economic and social development of the country of origin through setting up linkages and connections.
between network members and between them and their counterparts at home. To this end, very specific activities are organized, such as newsletters for sharing information, conferences and seminars dealing with issues of importance to the country of origin, e.g. ASTA organizes an annual Water Conference, Environmental Conference and the International Energy Conference, BGN organize focus groups focussing on issues such as opportunities for software development, integrated circuit design, public policy for technology transfer and alternative forms of power generation in the Philippines. The Association of Nigerians Abroad for example has a number of committees dedicated to specific areas of concern to Nigeria and each member on joining the network has to indicate on the membership application form which committees he/she wishes to join and become involved in. These include and Education Committee, Technology Committee, Public Relations Committee, Finance Committee, Rules Committee, Election Committee, Fundraising Committee, Political Affairs Committee and a Health Committee. The network members thus organise purposeful actions and activities aimed at meeting the goals of the network.

Members of the Caldas network are encouraged to initiate joint research projects. Two such projects are the Bio2000 project and a project on the transfer of technology in the area of robotics. The Bio 2000 project is a multinational, collaborative research project between research groups from four European universities and five Latin American universities. The aim of the project was to apply instrumentation, developed for physics and engineering to the fields of biology and science (Granes et al:1997). The second project is a joint venture between the University of Valle and the University of Evry Val D’essone in France. The project involves robotics, automation and industrial networks and aims to design and construct a multi-purpose industrial robot (ibid). These projects were all initiated by expatriate Colombian scientists and are concrete examples of the role that highly skilled expatriates can play in the transfer of knowledge from the more industrialised countries they work in to their home countries.
Conclusion

Forty-one expatriate knowledge networks have been established around the world today, at least fifteen of them with the explicit purpose of mobilising highly skilled expatriates to contribute their skills and expertise to the development process in their country of origin. All these networks emerged spontaneously and independently of each other, yet they share a common purpose, structure and many other characteristics. This points to a realisation by countries around the world that their highly skilled expatriates are valuable and useful resources for the country to tap into. Also it points to the realisation that emigration does not necessarily have to mean that the skills and expertise embedded in an expatriate are lost to the country of origin.

Often, an expatriate acquires new skills and expertise that he/she might not have had access to in the country of origin. The diaspora option allows the country of origin access to not only the skills and expertise of the expatriate, but also the knowledge networks that he/she forms part of in the host country. It also allows for the transfer of information and technology from more industrialised countries to developing countries. In short, it allows for the brain “DRAIN” to be turned into a brain “GAIN”.

Although some networks generate more activities than others, examples of projects and activities that the members of the above-mentioned networks engage in, illustrate the enormous possibilities that these networks present. However, what is needed is an effective system of information which allows for the connection and transfer of knowledge and information among networks members and between them and the country of origin. The Internet plays an important role in making the connections between network members and the country of origin possible in the networks described above. Another important element is an effective incentive scheme which would ensure the continued commitment of network members to the network and ultimately the sustainability thereof. Some institutional support from governments and other institutions in the home country would also aid in the generation of projects and activities.
The diaspora option might not be a magical “solution” to the brain drain problem. However it goes beyond traditional approaches in that the brain drain is not seen as a “problem” only, but it gives developing countries an opportunity to capitalise on the very characteristics inherent to the “brain drain” through the remote mobilization of its highly skilled human resources.
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<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Ireland</td>
<td>The Irish Research Scientists’ Association (IRSA)</td>
<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Japan</td>
<td>Japanese Associate Network (JANET)</td>
<td>Student/Scholarly Network</td>
</tr>
<tr>
<td>Kenya</td>
<td>Association of Kenyans Abroad (AKA)</td>
<td>Developing Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Korea</td>
<td>Korean Scientists Engineers Association of Sacramento Valley</td>
<td>Local Association of Expatriates</td>
</tr>
<tr>
<td></td>
<td>The Global Korean Network</td>
<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Latin America</td>
<td>Asociation Latino-americaine de Scientifiques (Latin American Association of Scientists) (ALAS)</td>
<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Lebanon</td>
<td>TOKTEN for Lebanon</td>
<td>TOKTEN Programme</td>
</tr>
<tr>
<td>Morocco</td>
<td>Moroccan Association of Researchers and Scholars Abroad (MARS)</td>
<td>Student/Scholarly Network</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Association of Nigerians Abroad (A.N.A)</td>
<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Norway</td>
<td>Association of Norwegian Students</td>
<td>Student/Scholarly Network</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Return of Qualified Expatriate Nationals to Pakistan</td>
<td>TOKTEN Programme</td>
</tr>
<tr>
<td>Palestine</td>
<td>Programme of Assistance to the Palestine People</td>
<td>TOKTEN Programme</td>
</tr>
<tr>
<td>Peru</td>
<td>Red Cientifica Peruana (Peruvian Scientific Network)</td>
<td>Developing Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Philippines</td>
<td>Brain Gain Network (BGN)</td>
<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Poland</td>
<td>The Polish Scientists Abroad</td>
<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Romania</td>
<td>The Forum for Science and Reform (FORS)</td>
<td>Developing Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>South Africa</td>
<td>The South African Network of Skills Abroad (SANSA)</td>
<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Thailand</td>
<td>The Reverse Brain Drain Project (RBD)</td>
<td>Developing Intell/Scien. Diaspora Network</td>
</tr>
<tr>
<td></td>
<td>Association of Thai Professionals in America and Canada (ATPAC)</td>
<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td></td>
<td>The Association of Thai Professionals in Europe (ATPER)</td>
<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td></td>
<td>The Association of Thai Professionals in Japan (ATPIJ)</td>
<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Tunisia</td>
<td>The Tunisian Scientific Consortium (TSC)</td>
<td>Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Uruguay</td>
<td>Red Academica Uruguay (Uruguayan Academic Network)</td>
<td>Developing Intell/Scien Diaspora Network</td>
</tr>
<tr>
<td>Venezuela</td>
<td>In Contact with Venezuela</td>
<td>Developing Intell/Scien Diaspora Networks</td>
</tr>
<tr>
<td></td>
<td>El Programa Talento Venezolano en el Exterior (Program of Venezuelan Talents Abroad) (TALVEN)</td>
<td>Developing Intell/Scien Diaspora Networks</td>
</tr>
</tbody>
</table>
* We are aware of the existence of an Ethiopian network, a Croatian network and a Hungarian network. However the information on them is very limited, thus they were not included in the above list.

**Acronyms and Abbreviations**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALAS</td>
<td>Latin American Association of Scientists</td>
</tr>
<tr>
<td>ANA</td>
<td>Association of Nigerians Abroad</td>
</tr>
<tr>
<td>ASTA</td>
<td>Arab Scientists and Technologists Abroad</td>
</tr>
<tr>
<td>ATPAC</td>
<td>Association of Thai Professionals in America and Canada</td>
</tr>
<tr>
<td>ATPER</td>
<td>Association of Thai Professionals in Europe</td>
</tr>
<tr>
<td>ATPIJ</td>
<td>Association of Thai Professionals in Japan</td>
</tr>
<tr>
<td>BGN</td>
<td>Brain Gain Network</td>
</tr>
<tr>
<td>CESASC</td>
<td>Chinese American Engineers and Scientists Association of Southern California</td>
</tr>
<tr>
<td>CHISA</td>
<td>Chinese Scholars Abroad</td>
</tr>
<tr>
<td>FORS</td>
<td>Forum for Science and Reform</td>
</tr>
<tr>
<td>IRSA</td>
<td>Irish Research Scientists’ Association</td>
</tr>
<tr>
<td>JANET</td>
<td>Japanese Associate Network</td>
</tr>
<tr>
<td>MARS</td>
<td>Moroccan Association of Researchers and Scholars</td>
</tr>
<tr>
<td>RBD</td>
<td>Reverse Brain Drain</td>
</tr>
<tr>
<td>SANSA</td>
<td>South African Network of Skills Abroad</td>
</tr>
<tr>
<td>SIPA</td>
<td>Silicon Valley Indian Professionals Association</td>
</tr>
<tr>
<td>SCBA</td>
<td>Society of Chinese Bioscientists in America</td>
</tr>
<tr>
<td>TOKTEN</td>
<td>Transfer of Knowledge Through Expatriate Nationals</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>United States of America</td>
</tr>
</tbody>
</table>
Perspectives on Labour Migration

5 E

Policy responses to skilled migration: Retention, return and circulation

Piyasiri Wickramasekara

SOCIAL PROTECTION SECTOR
INTERNATIONAL MIGRATION PROGRAMME
INTERNATIONAL LABOUR OFFICE  GENEVA
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Summary

With globalisation trends, the emigration of highly skilled persons from developing countries has significantly increased. The implication of this movement of skilled labour (termed as “the brain drain”) has emerged as an important issue of international debate in recent years. The objective of the paper is to look at different possible policy responses which can minimize its adverse effects, and which can promote the sharing of gains between source and host countries. The paper focuses on three policy approaches: retention, return and circulation of skills. It argues that the best strategy to deal with the problem of loss of skilled labour is one based on the concept of circulation of skills, which yields mutual benefits for both sending and host countries. The paper highlights several measures that can facilitate the process of circulation, including greater cooperation between countries of origin and host countries than observed at present.

1 Presentation to the Meeting on skilled migrations organised by the Institut de Sociologie de l’Université de Neuchâtel and the Forum suisse pour l’étude des migrations et de la population, Neuchâtel, Switzerland, 7-8 November 2002.
Introduction

Recent years have seen increasing mobility of highly skilled persons from developing countries, popularly known as the “brain drain”, reflecting globalization trends, and associated developments in technology. Does this increased mobility reflect a ‘drain’ on developing countries in the traditional sense? Have globalization trends unleashed forces that counteract the expected negative impacts? Should this movement be completely left to market forces or are some interventions required? If so, what are the range of feasible options? These are some of the issues addressed in this paper. The treatment is selective given that some issues have been dealt with in greater detail in other presentations – such as the diaspora options discussed by Professor Meyer. The objective of this paper is to review selected policy options and their relevance, especially to sending countries. Following some general comments on the evolution of the debate, I shall highlight key trends in regard to skilled migration and the factors, which condition the extent of gain or loss. I have selected three policy responses – retention, return and circulation – for special attention. The main hypothesis is that a policy of circulation would contribute to mutually beneficial gains for both source and host countries. I shall argue that there is a large unfinished agenda in achieving this potential.

1. What is the brain drain?

1.1. Brain drain debates have a long history

The concept of the ‘brain drain’ in the context of developing countries generally refers to the permanent or long-term international emigration of skilled people who have been the subject of considerable educational investment by their own societies. The available literature points out that the implied transfer of skills and knowledge from the country of origin to the host country is a serious loss for the source country given the crucial role of human resources in the growth of these countries. Recent discussions have increasingly referred to migration or mobility of “highly skilled persons”, which does not imply a pre-conceived view (‘drain’) on the impact of the movement. (Cornelius, Thomas J. Espenshade et al. 2001; Lowell and Findlay 2002; OECD 2002). OECD has used the term HRST – Human Resources in Science and Technology – interpreted broadly to encompass a wide range skills in disciplines including the physical and life sciences, engineering, the social sciences, health, education and business”(Auriol and Sexton 2002).

The brain drain debates have a long history spanning about four decades. We can distinguish two phases: a) the sixties and the seventies when movements of highly skilled persons from the developing countries (South) to the developed world (North) received considerable emphasis; b) the current phase of globalization. In the first phase, there was extensive discussion among academics, researchers, and UN agencies on the consequences of the brain drain and means of compensation (UNCTAD 1975; Bhagwati Jagdish 1976; UNCTAD 1979).

The second phase of interest in skilled labour migration starts from the early 1990s with rapid advances in globalisation and phenomenal growth in information and communications technologies (ICT).

However, there are some differences in the context of this debate between the two periods. First, the current mobility of skills occurs in a context of globalisation and proliferation of
information technology. Second, the later period coincides with the transition to market-oriented economies in most parts of the world, dramatically so in the case of the former Soviet bloc. Third, modern movements are primarily in the area of temporary or contract or circular migration whereas concerns in the earlier brain drain debate related to permanent or settler migration. Finally there is a shift in the current phase in the composition of skill mobility with emphasis on IT workers and knowledge workers.

It must be stressed that the brain drain is not confined to developing countries only. It can occur at different levels within the developed world also. There is an extensive literature on the brain drain from Canada to the US, which has caused serious concern to the Canadian authorities. Movements from third countries to Canada, particularly from developing countries, are making up for this loss. Similarly Europe, particularly the UK, has long been losing skills to the USA. The magnet or the epicentre of movement has been the USA (Straubhaar and Wolberg 1999). New Zealand has consistently been losing skills to Australia, which in turn is losing professionals to the USA and Europe. In this paper however, I shall deal mainly with the outflow from the developing countries.

1.2. Reliable data on skilled mobility is scarce

It is a fact that no country has a comprehensive system for recording or monitoring skilled migration flows at the international level. Sending countries rarely keep track of loss of talent (Lowell and Findlay 2002). Developed host countries generally possess more comprehensive and reliable information on skilled migration than sending countries. Still there are serious limitations in data on skilled migration even in developed economies (Carrington and Detragiache 1998; Findlay 2002). In general, the data in both countries of origin and countries of destination need considerable improvement. Few countries have any system for recording return migration unless returns are associated with special programmes.

Moreover, mere counts of inflows and outflows do not reflect the extent of loss or the quality of manpower lost. Student migration is obviously less painful than migration of professionals with long experience. In Least Developed Countries where numbers of highly qualified persons are much smaller than in the OECD countries, even a minimal loss of skills can make a critical difference (Meyer 2001).

How does one define skills? A major issue in regard to mobility of skills is how to define skilled workers. In general, researchers have treated all tertiary educated migrants as among the skilled. Occupations or jobs currently or previously held by the migrant workers are also treated as an indicator of acquired skills. There is also a distinction between highly skilled (highly qualified) and skilled (qualified) persons. Recent brain drain concerns have extended to middle level professionals such as nurses, teachers, etc. It is difficult to consider them at the same level as highly skilled professionals or high tech skills.

Researchers on skilled migration recognize that student mobility is an integral part of skilled migration. According to the OECD (OECD 2002) : “Student mobility is a potential flow of qualified workers, either in the course of their studies or through subsequent recruitment….Student flows represent a form of migration of qualified labour and also a precursor of subsequent migrations, mainly of HRST”.
2. How big is the brain drain?

The paucity of data mentioned above seriously hampers the assessment of the dimensions of the brain drain from developing countries. There is wide agreement (Beine, Docquier et al. 2002; Lowell and Findlay 2002) that the only reliable global estimates on the brain drain are from the 1998 IMF study on the movements of skilled workers for the year 1990 (Carrington and Detragiache 1998). This study estimated the brain drain defined as “the percent of highly educated persons from a given developing country who emigrated to OECD countries” from Africa, Asia and the Pacific, North, and South America. However, the reference year was 1990 which reflects the pre-globalization period in the 1980s rather than the more relevant period of the 1990s.

2.1. Some highlights on the extent of the brain drain

The main highlights of the IMF study are:

- The total brain drain from less developed countries to OECD countries stood at 12.9 million persons comprising seven million to the US and 5.9 million to the rest of OECD countries including Europe.
- The very well educated (defined as those with tertiary education) were the most internationally mobile group. The migration rate is highest for tertiary educated people in most developing countries, amounting to about 30 per cent or so.
- According to regions, the cumulative “loss of brains” in 1990 is estimated as follows: Central America –15 per cent; Africa - 6 per cent; South America – 3 per cent; and Asia, 5 per cent.

They conclude: “Our estimates show that there is an overall tendency for migration rates to be higher for highly educated individuals. With the important exceptions of Central America and Mexico, the highest migration rates are for individuals with a tertiary education. A number of countries—especially small countries in Africa, the Caribbean, and Central America—lost more than 30 percent of this group to migration. We have also found a sizable brain drain from Iran, Korea, the Philippines, and Taiwan Province of China. These numbers suggest that in several developing countries the outflow of highly educated individuals is a phenomenon that policymakers cannot ignore.” (Carrington and Detragiache 1999)

2.2. Africa shows high outflows with limited returns

Africa is hard hit by the brain drain. The following figures have been cited at the UN ECA Regional Conference on Brain Drain and Capacity Building in Africa, Addis Ababa, 22 - 24 February 2000 (Lalla Ben Barka 2000).

- Africa lost 60,000 professionals (doctors, university lecturers, engineers, etc.) between 1985 and 1990.
- There were more than 21,000 Nigerian doctors practising in the United States alone while Nigeria’s health system suffers from an acute lack of medical personnel (UN HDR 1993);
- 60 per cent of all Ghanaian doctors trained locally in the 1980s had left the country, while in Sudan, 17 per cent of doctors and dentists, 20 per cent of university lecturers, 30 per cent of engineers in 1978 alone had gone to work abroad.
2.3. ILO studies show diverse impacts of the brain drain

ILO carried out a research project titled “Skilled Labour Migration (‘the Brain Drain’) from Developing countries: Analysis of impact and policy issues” for the Department of International Development, UK, during 2001/02. The ILO research reviewed the experience of the USA and the UK, and also commissioned a series of studies in selected source countries in different regions: Bulgaria, Argentina and Uruguay, Jamaica and the Caribbean, India, Philippines, South and Southern Africa and Sri Lanka. Some key features of ILO studies on skilled migration for selected countries are shown in Table 1 below. They confirm the general findings cited earlier.

Table 1: Brain drain profile in selected countries

<table>
<thead>
<tr>
<th>Features</th>
<th>India</th>
<th>Philippines</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent</td>
<td>High in absolute numbers but low in relation to national stock</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Sectors</td>
<td>Scientists, IT workers, health workers</td>
<td>IT Workers Health workers</td>
<td>Health workers, academics, teachers</td>
</tr>
<tr>
<td>Domestic supply response of human capital</td>
<td>High: large tertiary education infrastructure and output; Local demand for IT workers projected to exceed supply</td>
<td>High, especially in the private sector</td>
<td>Low elasticity of supply; increases in different disciplines; possibility to recruit from the region</td>
</tr>
<tr>
<td>Perceptions</td>
<td>Necessary aspect of globalisation; migrants eventually return.</td>
<td>Govt. promotes migration; health services suffer</td>
<td>Media and politician concern; blame UK, Canada, etc. for drain</td>
</tr>
<tr>
<td>Strengths</td>
<td>Reasonable levels; persons with experience and capital</td>
<td>Mostly return of temporary workers from the Middle East</td>
<td>Low returns of skilled professionals</td>
</tr>
<tr>
<td>Return</td>
<td>Diāpora investment in govt. bonds, etc; high tech parks in Bangalore, Karnataka tap diaspora; Liberalization policies not limited</td>
<td>Remittances very high; Diaspora contribution not clear; unstable economic and pol. situation not conducive to circ.</td>
<td>Much hope on diaspora; SANSA about 2000 members; yet tangible impact to be seen.</td>
</tr>
<tr>
<td>Sources</td>
<td>(Khadria 2002)</td>
<td>(Alburo and Abella 2002)</td>
<td>(Bhorat, Meyer et al. 2002)</td>
</tr>
</tbody>
</table>

Considering the losses of 10 to 30 percent of the tertiary educated subpopulation in some countries, the ILO review (LoweIl and Findlay 2002) concludes: “There is little doubt that blanket statements about brain drain are not warranted, but that there is equally little doubt that the problem may well be faced by many developing countries”.

3. Consequences and impact of skilled migration

Some researchers have posed the brain drain issue in extreme positions such as ‘curse or boon’ (Commander, Kangasniemi et al. 2002) or ‘winners and losers’ (Beine, Docquier et al. 2002). In the real world, the truth is somewhere in-between. Benefits and losses from skilled migration are never one way flows; they tend to be shared in some degree between the sending and receiving countries.
3.1. Summary of impacts of skilled emigration

Table 2 attempts to summarise in a highly simplified manner the main benefits and losses to sending countries, based on review of recent literature.

Table 2: Brain Drain Balance Sheet: Sending Countries

<table>
<thead>
<tr>
<th>Positive effects</th>
<th>Negative effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides rewarding opportunities to educated workers not available at home.</td>
<td>Net decrease in human capital stock, especially those with valuable professional experience</td>
</tr>
<tr>
<td>Inflow of remittances and foreign exchange</td>
<td>Reduced growth and productivity because of the lower stock of human capital</td>
</tr>
<tr>
<td>Induced stimulus to investment in domestic education and individual human capital investments</td>
<td>Fiscal loss of heavy investments in subsidized education</td>
</tr>
<tr>
<td>Return of skilled persons increases local human capital, transfer of skills and links to foreign networks</td>
<td>Remittances from skilled migration may taper off after some time.</td>
</tr>
<tr>
<td>Technology transfer, investments and venture capital by diasporas</td>
<td>Reduced quality of essential services of health and education</td>
</tr>
<tr>
<td>Circulation of brains promotes integration into global markets (India, Taiwan, China).</td>
<td>Students educated at government expense or own resources in foreign countries imply further drain</td>
</tr>
<tr>
<td>Short term movements of service providers (GATS Mode 4) generate benefits for both receiving and sending countries.</td>
<td>Opportunities for short-term movement of natural persons is seriously constrained by immigration policies of developed countries.</td>
</tr>
<tr>
<td>ICT allows countries to benefit from diasporas.</td>
<td>Causes increasing disparities in incomes in country of origin.</td>
</tr>
</tbody>
</table>

3.2. Selected impacts

I shall elaborate on some of these points below, especially positive ones.

*Possibility of emigration promotes higher investment in human capital in countries of origin*

The possibility of emigrating to higher wage countries may stimulate persons to pursue higher education in anticipation of pursuing higher paying work abroad. (Mountford 1997; Reichling 2000). If emigration is possible for some people, and not for everybody, then it may spur individuals to pursue education in the hope of emigrating to increase their expected earnings. As the incentives to pursue education in the source country are enhanced, average human capital is increased which contributes to stimulating overall growth. Beine et al. (Beine, Docquier et al. 2002) have found some empirical support for this in their research.

*Remittances are important, but there is uncertainty on continued remittances from skilled persons*

It is well established that remittances constitute the greatest benefit from migration with total reported remittances to developing countries around $60 billion annually (Gammeltoft 2002). If informal remittance flows are added, the total may be even higher. Given the global communications system, even remittances from banks in developed countries may reflect earnings originating elsewhere. No country has a breakdown of remittances by skill profile. On the one hand, highly skilled workers can be attracted to home country investments through incentives. India has a long record of special programmes for NRIs (Non-resident Indians), which broadly conform to those permanently settled abroad. Likewise many countries studied in the ILO project on skilled migration have reported special provision for foreign currency accounts with premium rates of exchange and prime/assured interest rates. The Non-Resident
Foreign Currency Scheme (NRFC) in Sri Lanka is an example. It is usually the more educated migrants who would make use of such schemes. Unskilled workers tend to send money through informal channels such as the ‘Hundi’ system popular in the subcontinent of India. Skilled emigrants usually migrate with their families, and over time, their remittances may decline. Moreover, they are highly sensitive to economic and political developments at home and may prefer to keep their savings abroad. Thus there are both positive and negative effects, and the net result is not clear. This is an area which obviously requires further research.

**Return migration and brain circulation**

There is a considerable amount of literature on the beneficial effects of return migration and “brain circulation.” The idea is that returnees bring back human, financial and social capital, and can thereby positively contribute to development of home economies. This issue of return migration is discussed further in section 4.3. Even if people do not permanently return, their frequent contacts and movements back and forth can contribute to growth.

**Diasporas networks and linkages**

In recent times, there has been increased emphasis on tapping the potential of overseas diaspora for home country development. The diasporas have been seen as investors, welfare providers, knowledge communities and technology harbingers to the home countries. (Meyer and Brown 1999; Devan and Tewari 2001; Lowell 2002; Lowell and Findlay 2002) (West African Regional Ministerial Meeting 2000). Devan and Tewari :(Devan and Tewari 2001) state: “Governments shouldn't view emigrants as entirely lost resources, however, for they can be used to promote economic growth. The emigrants' technical and business skills, commercial relationships, and financial capital can all be harnessed to make long-distance economic contributions through foreign direct investment, venture funding, financial investments, and commercial and educational exchanges.” The inflow of vast amounts of FDI to China and India from their overseas diasporas are often cited as examples (Devan and Tewari 2001). In addition to capital, they can also mobilise transfer of technology and know how. The Thai Reverse Brain Drain project and the South African Network of Skills Abroad (SANSA) are based on these assumptions. The Internet has played a key role in this regard, and SANSA is said to comprise an active network with more than 2000 members (Bhorat, Meyer et al. 2002).

4. **Benefiting from the brain drain: Selected policy options**

The previous sections highlighted the dimensions of the outflow of skilled migration and argued that it can remain a serious threat to certain countries. The main debate has been on how to minimise the adverse impacts of the brain drain or how to create a mutually beneficial situation for both sending and receiving countries. Many prescriptions have been made since the 1960s to combat the brain drain.

4.1. **The six R’s**

In the early 1990s, Papademetriou and Martin (Papademetriou 1991) identified three areas (3 R’s) as critical for analysing the development impact of migration: recruitment, remittances and return. The ILO synthesis report (Lowell and Findlay 2002) has categorized the possible policy responses into six convenient categories under the rubric “Six Rs”.
1. Return of migrants to their source country
2. Restriction of international mobility to own nationals and foreign workers
3. Recruitment of international migrants
4. Reparation for loss of human capital (compensation)
5. Resourcing expatriates (Diaspora options)
6. Retention: through educational sector policies and through economic development

In my view, retention and return may not be clear options for developing countries in the current context. Therefore, it is important to focus on the issue of brain circulation, which is implicit in policy options 1 and 5. Return does not need be on a permanent basis and diaspora options could involve continuing contacts or visits. In this paper, I shall only focus on three policies – retention, return and circulation. Lowell and Findlay (Lowell and Findlay 2002) and Wickramasekara (Wickramasekara 2002) discuss a wider range of policy options.

4.2. Retention: Keeping Skills at Home

If skilled persons voluntarily decide to remain in the home country, it can be regarded as the best policy in the long run. International experience highlights that several conditions need to be fulfilled for this to be achieved depending on the root causes of emigration.

There is clear evidence that rapid economic growth is a primary condition for attaining this. It will create adequate and rewarding opportunities to remain at home. Even if students and skilled persons may leave for professional advancement, they are more likely to return.

This is partly because rapid growth reduces the income gap between the source and host countries thereby affecting the motives for emigration. The migration transitions observed in the case of a number of countries – the Republic of Korea, the Taiwan province, and the new immigration countries of Europe (Ireland, Italy, Greece, Spain and Portugal) – may support this conclusion.

Rapid economic growth also makes it possible for countries to create an overall conducive environment for research and development which is considered quite important in stemming the outflow of professionals. Many African expatriates mention this as a major factor for staying overseas – the lack of any research facilities or exchange facilities to upgrade or keep their skills up to date. Lucas (Lucas 2001) finds evidence of efforts made by some countries to create an educational infrastructure that can keep skilled graduates at home. He notes that China, the Republic of Korea, and India have consciously expanded graduate technical training during the 1990s as reflected in the fact that these countries had more engineering doctorates in 1997 than the total earned by Asians in the US. At the same time, incentive schemes have been launched to encourage the return of the highly skilled diaspora.

Investment in primary or tertiary education?

A major policy issue is the relative emphasis to be placed on primary education versus tertiary education. Improving tertiary education, the brain drain may increase in the short term as the marketability and mobility of graduates is also increased.

Khadria (Khadria 1999), on the other hand, argues that investment in primary health care and primary education is the best option to raise the average productivity of the poor.
It is also important to avoid the internal brain waste – where qualified nationals cannot find opportunities in their fields of specialization. The Indian civil service is an example which draws engineers, medical doctors and scientists where they do not have the opportunity to use the special skills acquired.²

Retention policy: is it a vicious circle trap?
Devan and Tewari ((Devan and Tewari 2001) correctly point out:

“… the hard reality is that few emerging markets have any hope, in the foreseeable future, of creating the type and volume of economic opportunities needed to reverse or even substantially slow the brain drain.”

In this sense, it can be regarded as a vicious circle. Developing countries cannot stem the outflow of skills until they develop rapidly: but the loss of skills itself acts as a major constraint on achieving growth.

The ILO Philippines study (Alburo and Abella 2002) has shown the potential of the internet in generating virtual mobility and keeping people at home.

“The pervasive use of the internet as real time communications media has effectively closed the gap between users and suppliers of high skill work without actual physical dislocation. In particular, programming and software services are being transacted through the internet without the necessity of worker migration. This has had notable experiences in India and even in the Philippines. This has been enhanced by the ready availability of broadband services and communications backbone. Aside from this, the development of labor services in this area has had ripple effects on other related and ancillary service”.(Alburo and Abella 2002).

The widespread exploitation of these opportunities should support the retention option because it minimizes the sacrifices involved in migration to another country.

4.3. Return of skilled emigrants to the home country

Traditionally, return migration has been viewed as a popular strategy to ‘reverse the brain drain’. There has been considerable interest in return migration of skilled professionals as a major positive or beneficial factor for the development of source countries. (King 2000; Ammassari and Black 2001; Olesen 2002) Many initiatives by national and international agencies have been directed at encouraging return migration – especially of the highly skilled (Ghosh, 2000b). It is logical to assume that return of skills will compensate for the outflows.

The right to leave a country including the country of origin and the right to return to the country of origin is a basic human right of migrant workers recognized in international Conventions. Of course, there is no corresponding right of entry or right of admission to other countries, which is governed by a complex set of immigration laws and regulations in host countries.

² Author’s discussions with Profs. Suresh Tendulkar and K. Sundaram, Delhi School of Economics.
Benefits of return migration are not clear-cut

There is extremely limited data on return migration except when it is on an organized basis because no country has a monitoring system to capture return of nationals who have been employed abroad.

Benefits of return depends on a number of factors such as the type and nature of return migration, which obviously affect the impact. (King 2000)

- Motives or intentions: Cerase (Cerase 1974) in his analysis of Italian return migration from the USA listed four categories of reasons: a) failure; b) conservatism; c) retirement; and d) innovation. The last group – return of innovation - is the one most relevant to development of the home country.
- Time pattern: occasional returns, seasonal returns, temporary returns and permanent returns (King, 2000).
- Timing of return: The timing of return is crucial for several reasons. If people return after a reasonable period of time, they are better equipped because of additional qualifications and skills, work experience, accumulated resources, and social capital (networks and linkages with those back in the host country). A person who returns after a brief spell abroad may not be able to offer much benefits to the home country in the form of diverse forms of capital (human, financial and social).
- Nature of return - assisted or voluntary.

Special return programmes: are they sustainable?
Given the belief in the high potential of return migration, a number of countries have implemented programmes to attract their expatriates back (Ghosh 2000). Turkey, the Republic of Korea and the Taiwan province of China have been pioneers in this respect initiating such programmes since the 1970s.

Along with this, a number of development agencies have also supported similar programmes to facilitate return of migrants to their home countries. These can be described as “Assisted Return” programmes. The International Organization for Migration has been involved in such programmes for a long time where its expertise in migration logistics has proved to be an asset. The programmes have been sponsored by concerned source country governments, the UNDP, EU and several European countries. The UNDP TOKTEN programme (Transfer Of Knowledge Through Expatriate Nationals) is one good example. The appeal of such programmes lies in the possibility of replacing expensive expatriate workers by nationals with similar of better qualifications.

The IOM has implemented return of talent programmes for several regions: Africa (Return of Qualified African Nationals), Latin America (Reintegration of Qualified Latin American Nationals (RQNL), Return of Talent Programme in Jamaica, among others. It established the Return of Qualified African Nationals (RQAN) Programme in 1983 with the main objective of mobilizing and promoting the utilization of highly qualified, qualified and skilled personnel in the development of African countries through voluntary migration. (IOM 2000). The RQAN is currently used by 10 African governments and has succeeded in returning and integrating 1,500 skilled Africans to fill positions in important sectors of the economy.

Yet there are several problems with these special programmes: limited numbers assisted, high unit or per head costs, sustainability and equity issues. At the same time, there has been limited evaluation. For instance, the RQAN was evaluated only in the third phase of the
programme. Equity criteria should also be considered because special incentives and facilities are provided only to those who left whereas those professionals who stayed back and continued their contributions to the home country are not given similar assistance. Thomas-Hope (Elizabeth Thomas- Hope 1999) also found no strong evidence of the benefit of the programme for Jamaica.

A major problem has been the lack of sustainability given the absence of ownership of the programme by governments. To quote from IOM: “The ‘ownership’ of the programme by governments is almost non-existent, although the benefits are understood and welcomed. There is almost no evidence that the activities of the programme itself will be continued by the governments of the countries concerned, in spite of efforts to provide exposure and training” (IOM 2000).

IOM has now replaced this programme for Africa with MIDA (Migration and Development for Africa). The major difference is that it no longer stresses the systematic return of migrants, but instead tries to encourage mobility of people and resources (IOM 2002).

*Experiences of the Taiwan province of China and the Republic of Korea.*

The experiences of the Republic of Korea and the Taiwan province are instructive in this respect. They established active programmes combined with incentives from the early 1980s – well before the current wave of globalization. The lessons from their experiences are several.

- Rapid growth of the local economy was crucial in attracting back skilled persons.
- Active government policies and special incentives under particular political regimes were important.
- In the Republic of Korea, the emphasis was on return whereas investments and brain circulation was given more priority in the case of Taiwan (China). The establishment of parallel Silicon valleys, especially in Taiwan (China) was very important: e.g. the Hsinchu industrial Park, Taipei.
- The emigration was mostly of students, and a large proportion of the returning migrants were seasoned experts with 10-15 years’ experience abroad. In both cases, high priority was given to Research & Development at home.
- There was major involvement by private sector industry which went “head-hunting” for talent in developed countries.

### 4.4. The case for brain circulation rather than one-way return migration?

Yet there are several arguments against expecting much from return. First, it is very clear that few developing countries can create conditions conducive to return and retention in the short and medium term. Second, there is a potential or actual conflict between return and remittances. The more people return the lesser will be the volume of remittances. Moreover, there is no guarantee that people will send more remittances, as they stay longer according to the ILO research.

Ammassari and Black (Ammassari and Black 2001) in their analysis of West Africa believe that there is much uncertainty about the impacts of migration and return on development. “…policies to support the return of migrants have often been seen as disappointing at best …, or worse, motivated primarily by exclusion from the north, rather than a commitment to development in the south”.
This may obviously be too pessimistic a view. In the case of India, author’s discussions with Indian groups (early 2001) revealed a feeling that the typical cycle for some Indian expatriates is to return after 10-15 years, who are thus able to contribute to the home economy more effectively.

The main argument against the concept of return is that it indicates the ‘closure of a migration cycle’ (King 2000). Yet current globalization trends mean that there are many types of return and circulation. As Russel King (King 2000) rightly observed “Transnationality should replace the fixedness of emigration and return”. Circulation and recirculation have many obvious linkages with the diaspora options, but are not exclusively confined to it. There should be conducive factors at both sending and receiving ends such as good infrastructure at home and circulation-friendly migration policies at both ends.

There are several types of circulation of skills:

*Transnational entrepreneurs*

Saxenian’s research has emphasised the importance of this development. (Saxenian 2000). The emergence of parallel Silicon valleys in cities such as Bangalore, Bombay, Beijing, Shanghai, and Taipei has been primarily facilitated by expatriate scientists in the US Silicon Valley. (Saxenian 2002) Instead of draining their native economies of human skills and resources, these “circulating” immigrants have brought back valuable experience and know-how to local economies. It is different from brain exchange in that the same skilled persons are commuting back and forth between source and destination countries. A recent survey of Silicon Valley emigrant professionals found that 80-90 per cent of Chinese and Indians having business relations in their home countries travel more than 5 times a year to their countries (Saxenian 2001). Box 1 provides a case study of brain circulation in the Taiwan province of China.

*Scientists/ academics networks*

There are several established diaspora networks which promote active circulation of scientists to help the home economy. Meyer and Brown (Meyer and Brown 1999) describe a number of promising initiatives including the South African Network of Skills Abroad, the Thai Reverse Brain Drain project, and the Colombian experience. The Thai RBD encourages exchanges of scientific personnel and contribution of expatriate scientists to return for short periods to promote knowledge in the home country.

Devan and Tewari (Devan and Tewari 2001) admit that most developing nations have done little to strategically leverage their expatriate talent. They propose three strategies: the creation of networks of emigrants, an infrastructure that allows them to exchange information easily with people in the home country, and targeted incentives that generate productive business investments there.

Networking with expatriate intellectual and scientific diasporas can mobilize their resources while still abroad for home country development. On the basis of the Indian experience, Khadria argues that these arrangements work best when expatriates are well established in their careers abroad and have already accumulated adequate capital. Meyer and Brown (Meyer and Brown 1999) also argue that source countries can benefit both from the embodied human capital of its skilled emigrants, and also from their social capital in being part of new
social and economic networks in their host society. They identify 41 expatriate knowledge networks that explicitly exist to exchange or promote the exchange of skills and knowledge in order to assist with the development of their country of origin. But there exists only limited evidence of the success of such networks in generating real net economic gains (Khadria, 1999).

Saxenian (Saxenian 2002) argues that while the Taiwan province of China, and China have managed to produce a class of transactional entrepreneurs through active state support, India has failed to exploit this and remains a low value added producer in the global chain.

**Service providers (GATS Mode 4: movement of natural persons)**

The GATS agreement from the Uruguay round represents the first multilateral and legally enforceable agreement on the international trade in services. Its central objective is the progressive liberalization of trade in services.

In our view, GATS mode 4 seems to provide the best of both worlds for promoting circulation at least in theory. On the one hand, developing countries have surplus skills in the service sector, and GATS provides an opportunity for them to earn higher rewards in developed countries. On the other hand, the strictly temporary movement of GATS allays developed country concerns about permanent settlement. As OECD (OECD 2002) has pointed out, “the combination of a range of factors – increased trade and investment, global business networks, skills shortages in developed countries, development of export capacity of skilled labour by developing countries – has meant that interest in greater freedom of mobility is now shared to varying degrees by a wide range of WTO members.”

Yet developing countries have found a number of obstacles in exploiting GATS provisions. First, the limited commitments by developed countries are a major obstacle to GATS benefits for developing countries. Developed countries have more commitments in GATS under other modes than under mode 4 (movement of natural persons). Developing countries rightly feel that the system is biased against them, and in favour of multinationals. In fact MNCs have been at the forefront of the fight for greater liberalization of GATS as seen from initiatives of the European Services Forum (Hatcher 2001). There is a definite bias towards MNCs and related intra-company transferees against independent service providers from developing nations.

Second there are extensive immigration barriers in developed countries against service providers from developing countries. As OECD (OECD 2002) has rightly pointed out, this is due to an unfortunate confusion in the public debate over mode 4 migration with longer term migration needs. GATS migration should be treated quite separately from permanent migration. In general, there is a need for movement from a migration to a trade framework (OECD 2002).

There are several areas where tangible improvements can be made including standardising and expanding occupations or market access. Developing nations, particularly India, have been lobbying for expansion of Mode 4 service definitions. The European Service Forum has recommended the simplification of administrative procedures through a special GATS visa (Hatcher 2001).
Box 1: Brain circulation: Case study of Taiwan Province

Within two decades since 1960 or so, Taiwan (China) had transformed itself from a source of cheap labour economy into an industrialised economy engaged in high tech manufacturing.

Over the years, Taiwan (China) has experienced a sizeable ‘brain drain’, as more than 80% of its students who completed their graduate studies in the United States have failed to return. Instead, they obtained jobs in American universities and colleges, in various research organizations and industries. Chang (Chang 1992) argues that Taiwan’s (China) brain drain into the United States is primarily a case of ‘education and migration’. “It is an outflow of college graduates, not an exodus of trained scientists and engineers; therefore, Taiwan’s manpower loss in the short run is not as serious as the case where mature and experienced scientists and professionals leave.”

How did Taiwan (China) reverse this situation?

State support was very important. Saxenian (Saxenian 2000) highlights that policymakers played a key role in creating a bridge between Taiwan and overseas workers in the 1970s and 80s. “State policymakers, many of whom were Ph.D-level engineers educated in the U.S. themselves, established ties with Taiwanese working in Bell Labs and IBM on the east coast, for example, and, more importantly, with those working in big Silicon Valley companies on the west coast. The Taiwanese technocrats sought policy advice from overseas workers and consequently steered industry away from Asian-style developmental state models and towards American-style market-oriented models.”

The state also facilitated more industrial growth by setting up a venture capital industry in 1985 (long before other regions in Asia), launching the Hsinchu Science-Based Industrial Park, and investing in research and education. As the economy picked up there were voluntary returns as well as aggressive recruitment by various local agencies for talents. This resulted in a reverse brain drain in the late 1980s and 90s, which reversed the flow of “brain drain.” Saxenian points out that while many returned and started investments at home, some began to commute frequently between Taiwan and the U.S. exchanging information, technological skills, and human resources, between the Silicon Valley and Taiwan. Over half of the companies in the Hsinchu Science-Based Industrial Park have been started by Silicon Valley returnees. This new phenomenon of “brain circulation” has contributed much to the high tech success of Taiwan, China.

5. Sharing of gains: What can be done to promote mutually beneficial brain circulation?

While globalisation has promoted labour mobility, all countries have not been able to exploit the opportunities to their advantage (Stalker 2000). Receiving countries have generally taken a laissez-faire attitude and allowed market forces to dominate the outcomes. The USA policy has shown little concern at the official level on the impact of skill losses on sending countries. A recent UK government White Paper on International Development, “Eliminating World Poverty: Making Globalisation Work for the Poor”, (DFID 2000) has correctly drawn attention to the need on the part of developed countries to be more sensitive to the impact of the brain drain on developing countries. At the same time, labour-losing countries also have to maximise benefits from migration.

The ILO synthesis report (Lowell and Findlay 2002) concludes that: “International migration is in the best interest of developing countries. The immigration policies of developed countries should facilitate movement; yet, they should incorporate mechanisms that encourage developing country economic growth.” The same study suggested a number of ways in which this could be done.

The discussion up to now suggests the need for policies based on the following principles:
Policies that are circulation-friendly;
- Policies that leverage the diaspora contributions through transfer of remittances, investments and technology
- Policies that promote human capital formation in skill-losing countries
- Targeted aid and trade policies which help promote development and reduce migration pressures in the source countries.
- Specific policies to deal with at-risk countries

Table 3 has compiled a list of Do’s and Don’ts in this regard. I shall briefly comment on some of the components below.

**Elements of a circulation-friendly policy package**

The need for promoting temporary and circular migration is clear. Findlay (Findlay 2002) has argued that the UK should issue work visas with the clear message that return is required after a given period of stay. This will help maximise gains for both source and host countries. The U.S. “cultural exchange” visa (J) issued for varied durations of stay to work in a variety of disciplines for the purpose of fostering international exchange and experience has been suggested as a good practice model in this respect.

The GATS Mode 4 on the natural movement of persons which supports the idea of circular and short term work visas is a clear choice in a circulation-friendly policy package. The vast potential of this option is hardly tapped as pointed out above. EU and other receiving regions and countries should make a concerted effort to expand commitments to liberalizing the trade in services to benefit source countries.

At present, the immigration laws and visa regimes of developed receiving countries act as major barriers to the concept of circulation of skills. Some elements in the French Immigration Law of 1998 have tried to rectify these gaps. But much more remains to be done, especially in GATS mode 4. Source countries should also attempt to promote short term movements. One option is to actively lobby for GATS commitments.

**Leveraging the Diaspora**

There is mounting recognition of the potential role of the diasporas in source country development. As argued by the African Foundation for Development (AFFORD 2000), host countries can mobilize them in technical cooperation programmes directed at source countries. The DFID White Paper on International Development, *Eliminating World Poverty: A Challenge for the 21st Century*, DFID committed the British government to build on the skills and talents of migrants and other members of ethnic minorities within the UK to promote the development of their countries of origin. AFFORD (2000) has pointed out that this has not happened in practice.

Source countries have to promote linkages with nationals abroad in cooperation with receiving countries. Dual citizenship and arrangements for diaspora recognition and according them special status would also contribute to more return and circulation. They also have to improve domestic policies to encourage diaspora interest and contributions through improvements in governance, democratic procedures, and transparency in the local economy.
The brain waste which results from monopolistic practices of professional associations in host countries minimizes gains for both source and host countries. Skilled emigrants are not able to contribute to the host economy on the basis of their expertise, and also cannot develop capacity to contribute to home country development.

Table 3: Check list of Do's and Don'ts in skilled emigration

<table>
<thead>
<tr>
<th>Do's</th>
<th>Receiving countries</th>
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<tbody>
<tr>
<td>➢ Incentives to remain and return</td>
<td>➢ A brain-circulation friendly visa regime</td>
</tr>
<tr>
<td>➢ Promote linkages with nationals abroad: promote diaspora networks</td>
<td>➢ Promote networking with home countries and support diaspora for source country development</td>
</tr>
<tr>
<td>➢ Promote short term movements of professionals using GATS Mode 4 and other means</td>
<td>➢ Reduce student fees especially from major source countries</td>
</tr>
<tr>
<td>➢ Attain fast growth and diversified economy</td>
<td>➢ Follow ethical recruitment practices and regulate recruitment companies</td>
</tr>
<tr>
<td>➢ Targeted investments in human capital to compensate for losses experienced</td>
<td>➢ Honour and promote GATS commitments</td>
</tr>
<tr>
<td>➢ Dual citizenship and diaspora recognition arrangements</td>
<td>➢ Encourage temporary movements of qualified staff</td>
</tr>
<tr>
<td>➢ Greater emphasis on R&amp;D and creation of centers of excellence with support from receiving countries</td>
<td>➢ Divert technical assistance to education and training fields</td>
</tr>
<tr>
<td>➢ Incentives to attract expatriate investments</td>
<td>➢ Support diaspora arrangements</td>
</tr>
<tr>
<td>➢ Information about opportunities at home</td>
<td>➢ Awareness-raising of nationals on the contribution of skilled migrants to the host country.</td>
</tr>
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<table>
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<tr>
<th>Don'ts</th>
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<tbody>
<tr>
<td>➢ Excessive reliance on administrative controls</td>
<td>➢ Restrictive visa practices which discourage temporary departures or brain circulation</td>
</tr>
<tr>
<td>➢ Suppress democratic and human rights</td>
<td>➢ Brain waste through monopolistic practices of professional associations</td>
</tr>
<tr>
<td>➢ High taxation of returnees</td>
<td>➢ Mass recruitment campaigns in at-risk countries.</td>
</tr>
</tbody>
</table>

Specific policies for at-risk countries

Control of recruitment from at-risk countries: Recent experiences have suggested that some sectors (education and health) or some countries are especially vulnerable to skill exodus. Receiving nations should therefore, manage recruitment only in close consultation with the countries concerned. Bilateral agreements provide a broad framework for such labour movements. The UK Department of Health of Guidelines on the International Recruitment of Nurses produced in 1999 is an example of good practice (UK Department of Health 1999). The Department of Health’s Code of Practice for NHS Employers involved in the International Recruitment of Healthcare Professionals clearly states that developing countries should not be targeted for the recruitment of healthcare professionals (UK Department of Health undated). The Department has produced a definitive list of developing countries and countries that should not be recruited from in consultation with the Department for International Development. The list also includes a number of countries with whom the UK has agreed not to actively recruit from. The economic status of the countries and their relative position with regard to numbers of health personnel have been used as criteria in drawing up the list. The Commonwealth Secretariat also has produced a code of practice for international recruitment of health workers (Commonwealth Secretariat 2002).

The above codes of practice accept the principle that international recruitment agencies should be regulated and expected to follow ethical guidelines or code of practice in recruitment. Mass recruitment campaigns in at-risk countries should especially be avoided.
It is also a contradictory policy to levy excessive education fees on students from source countries, and then employ them in receiving countries. This acts as a double drain on sending countries.

6. Concluding remarks

The analysis up to now has argued that the movement from a ‘brain drain’ approach to a more broad based view of ‘brain exchange and circulation’ is a step in the right direction and in current parlance, – means a ‘win-win’ situation. The sending countries can reap benefits from continuous circulation, and do not suffer a one-way loss, while the receiving countries also benefit because the talents basically remain the host country. But it must be stressed that this has up to now largely remained a potential to be realised.

Extended cooperation between skill-sending and skill-receiving countries is essential in realising this potential. At the moment, there seems to be limited evidence of such cooperation. Some concerned departments or agencies in receiving countries have developed voluntary codes of conduct, and some diaspora networks have been promoted on an ad hoc basis. The overall impact of such initiatives has been limited.

There is need for intensive research and debate on mechanisms for sharing of the gains of skilled migration between host- and source-countries and evolving circulation-friendly policies. While compensation or taxation for the brain drain was a popular policy prescription and topic of debate in the sixties and the seventies, there has been little discussion of such options in recent years. Yet the scale of current skilled migration flows highlights the need for reviving the debate.
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AN ACTION PLAN TO PREVENT BRAIN DRAIN: Building Equitable Health Systems in Africa

A Report by Physicians for Human Rights
I. EXECUTIVE SUMMARY

The nations of the world are setting ambitious health and development goals, including the World Health Organization (WHO) target of providing AIDS treatment to 3 million people by 2005 and health-related UN Millennium Development Goals. Unless greater attention by donors and governments is given to developing human resources, these goals almost certainly will not be met.

Many of the countries in sub-Saharan Africa, the region that will be the focus of this report, are experiencing severe shortages of skilled health care workers. There are multiple causes, the significance of which varies by country, but one of the most important factors is brain drain. Brain drain is defined in this report as the exodus of health care workers from developing nations to the wealthier countries of the North. Brain drain is largely a symptom of other health system deficits. Many health professionals who have the opportunity to leave are rejecting these substandard, second-class health systems that their countries and the international community have been too slow to upgrade.

The causes of brain drain are complex and interrelated, involving social, political, and economic factors. The necessary responses will therefore be varied and cover an array of areas. Drawing on growing interest and scholarship, Physicians for Human Rights (PHR) proposes this plan of action for addressing brain drain and the unequal distribution of health personnel within countries, recommending actions by high-income countries, African governments, WHO, international financial institutions, private businesses, and others.

PHR seeks to mobilize governments and pertinent organizations to direct their resources and energies to a specific series of actions needed to build equitable health systems. PHR highlights and hopes to gain increased recognition for broad principles about what this goal requires. Building equitable health systems requires a massive infusion of resources, far more than donors or low-income countries have been thus far willing or able to spend. Any serious response to brain drain, a response that is intended to be more than a temporary, partial fix, will entail significant new investments in the health sector, directed, in large part, to health systems, not specific disease programs. Much more than money is needed to improve health systems – policies must be reformed and certain priorities newly emphasized. Within the health sector, systemic changes are needed, including in the priority given to equity, management, and human resources. Systemic changes must extend beyond the health sector to economic policies that provide a framework for government spending that recognizes the importance of ensuring the health and human rights of citizens.

If governments and international organizations take as one of their own guiding principles the integral role that investments in health systems have in the development process, including to economic growth, they should be willing to make the corresponding investments. Good health is needed for economic development. This reality, while always true, takes on special significance in light of the AIDS pandemic. Governments and international development and financial organizations must factor this understanding into their policies and priorities.

Brain drain is part of a series of internal and international migrations of health personnel to areas deemed more favorable, including rural to urban areas and less developed to more developed countries within the developing world. Brain drain can exacerbate the shortage in rural areas, as rural health personnel move to urban areas to fill vacancies created when urban health professionals emigrate.

While the health sector human resource crisis would exist even without HIV/AIDS, the AIDS crisis is central to the shortages of health professionals. Many health workers die of AIDS and HIV/AIDS is increasing the workload at health facilities. Meanwhile, efforts in countries that have begun to significantly scale-up AIDS treatment, such as Botswana and South Africa, are being hampered by the dearth of health professionals.

This report focuses on responses that involve or are closely related to the health sector. Those dealing with broad issues such as development and governance are generally beyond PHR’s scope here, though they must also be addressed. Some of the responses are narrow solutions to brain drain, and in many cases can be implemented relatively quickly. Others implicate broad issues of health system development and could take many years to fully implement, though the work can and must begin right away. Significantly reducing brain drain requires deep and sustained commitment.
Scope and impact of brain drain and shortage of skilled health personnel

Health systems cannot operate without the people who run them. As WHO states, health personnel are the people “who make health care happen.” Without adequate numbers of trained health personnel, both the quality and quantity of health services that a health system can deliver are reduced, limiting the number of people who receive care, and diminishing the quality of care for those who are able to receive it.

About 38 of the approximately 47 countries in sub-Saharan Africa do not meet the WHO recommended minimum 20 physicians per 100,000 population; about 13 sub-Saharan countries have five or fewer physicians per 100,000 population. WHO recommends at least 100 nurses per 100,000 population for the least developed countries; about 17 sub-Saharan countries have 50 or fewer. Shortages in health management posts can hamper the ability of health ministries to develop and implement strategies necessary to improve health services. Donor preferences for vertical, single-disease programs can contribute to the shortage of personnel with the management skills required to run a health system by focusing training on clinical skills instead.

Even health professionals that are practicing are often unable to work full-time, as they must care for family members with HIV/AIDS, attend funerals, and address their own health needs. Further, many public sector health professionals supplement their income with private sector work.

Health professional shortages are the most severe, by far, in rural and other poor areas. For example, in the early 1990s in Southern Africa, the richest districts had about twice the number of nurses, more than six times the number of doctors, and 11 times the number of pharmacists as the poorest districts. The primary causes for the rural/urban inequities are the worse health infrastructure and less favorable living conditions in rural areas.

Data from the American Medical Association (AMA) reveal that 5,334 non-federal physicians trained in African medical schools were licensed to practice medicine in the United States in 2002. Other figures suggest that there are significantly more African physicians in the United States, though perhaps not licensed to practice medicine. For example, the Ghana Medical Service estimates that 1,200 Ghanaian physicians are in the United States, whereas data from the AMA indicates 478 physicians from Ghanaian medical schools are licensed to practice in the United States.

Brain drain is not limited to doctors. Nurses have been migrating to practice in high-income countries like the United Kingdom and the United States. Figures in both those countries indicate an increased influx of foreign-trained nurses, although the latest data available from the United States does not indicate that the numbers from Africa, in particular, are increasing. The number of African nurses migrating to the United Kingdom, however, has accelerated greatly in recent years. Pharmacists are also emigrating from African countries in sizable numbers.

Shortages of health personnel limit the number of people able to receive care, and diminish the quality of care for those who are able to receive it. Some health facilities, especially in rural areas, close because they have no one to run them. Often, facilities are staffed with unqualified personnel. Even patients who see qualified health workers face risks generated by the shortage. Health professionals who have many patients will have less time to spend with each, limiting their ability to fully probe a patient’s condition, which may lead to a misdiagnosis. Other effects of the shortages include loss of institutional memory, inadequate supervision, and long waits at health facilities.

Health personnel shortages can prevent a country from scaling up interventions to achieve certain health goals, including AIDS treatment targets and the Millennium Development Goals. Health personnel shortages are limiting many countries’ ability to meet tuberculosis targets and immunization coverage targets, and are directly related to high infant and child mortality. Vertical AIDS programs may lead to health personnel being diverted from performing other health services, thus undermining existing health systems.

Shortages of health personnel result in more shortages. Increased workload may contribute to health professionals’ decisions to leave, and faculty shortages at health training institutions limit their capacity to train new health professionals.

Brain drain takes a huge financial toll on African nations. They lose their investments in the expensive education of health professionals, and the lost worker productivity associated with worsened health contributes to further economic loss. The losses of brain drain are offset slightly by remittances that migrated health professionals send to family members back home and by the skill gains of emigrated health professionals who return to Africa temporarily or permanently.

GUIDING PRINCIPLES

In order to tackle the problem of brain drain, all actors—from governments to NGOs and training institutions—must launch systematic, sustained efforts. These efforts should be based on a set of ethical and pragmatic directives, outlined below.
The primary response to brain drain must be to redress second-class health systems that reflect widespread violations of the right to health and other rights.

The response must include significantly increased funding to the health sector from domestic and international sources, including debt relief.

The response to brain drain must incorporate the broader effort of addressing the unequal distribution of health professionals within countries, including particularly severe shortages in rural areas.

Low-income countries that are the source of health professionals who migrate to wealthy nations should be reimbursed by those nations.

Solutions to brain drain must be locally determined, with participation from representatives of poor and rural communities, health care workers, and civil society.

Foreign assistance must be structured to promote and enable sound policies on human resources for health.

The rights of health professionals and their desire to seek a better life must be respected given the constraints and demands of a global public health crisis.

Countries must adhere to ethical recruitment principles, including not recruiting from developing countries absent an agreement with them.

High-income countries must address their own inadequate production and retention of health professionals.

Measures to promote macroeconomic policy aims must be consistent with human rights.

Along with increasing retention of skilled health workers, more health professionals must be recruited and trained.

Capacity-building for health sector human resources management should be a priority.

Members of the African health professional diaspora can make an important contribution to health care in Africa.

**PLAN OF ACTION: PREVENTING BRAIN DRAIN**

Much has been written on the basic parameters of what needs to be done to curb brain drain. Steps are needed to address both “push” and “pull” factors. Push factors encourage health professionals to leave their countries, and include low salaries and benefits, unsafe working conditions, inadequate human resources for health management policies, degraded health care infrastructure, and insufficient professional development opportunities.

Pull factors draw health professionals to other countries, and include the shortages of health professionals in and their recruitment to high-income countries.

Human resource planning and management capacity must be enhanced. More health workers, both professionals and other cadres of personnel, must be trained, and the training institutions that are losing staff to brain drain must be supported. The needs of the areas that suffer most from the crisis, primarily rural areas, must receive special attention. And economic policies that result in limits on the number and payment of health workers must be addressed.

Ideally, factors beyond the purview of health systems and the scope of this paper, such as crime and poor governance, would also be addressed as part of a comprehensive response to brain drain. They, too, help drive away health professionals.

PHR proposes the following plan of action to help stop the outflow of health professionals from Africa and more generally nourish the human resources for health in Africa.

### PUSH FACTORS

#### Salaries and benefits

Low salaries are often an important factor in many professionals’ decision to migrate.

**Recommendations**

- Donors should help African countries increase salaries and benefits, within a context of fair salary structures. Health ministries and health professional associations should work with civil service commissions and finance ministries to determine how to increase salary and benefits for health professionals.
- African countries should consider applying to the Global Fund to Fight AIDS, Tuberculosis and Malaria for costs of increased salary and benefits.
- The United States should remove legislative and administrative obstacles on providing payment to foreign government employees, including health workers. Other donors should take comparable steps.

#### Health worker safety and well-being: fear of occupational infection

Working in health facilities where half or more of patients may have HIV/AIDS, and other infectious diseases are rife, many health workers fear contracting dangerous infections while at work. To address their safety, a variety of measures must be taken on a large scale.
Recommendations

• Countries in Africa and elsewhere should develop policies that ensure health facilities have adequate levels of essential supplies for infection prevention and control. Strategies may include placing such items on an essential medicines and supplies list.

• The United States and other donors should help ensure that African and other AIDS-burdened countries have funds to purchase gloves and other supplies needed for infection prevention and control.

• The United States and other donors should offer logistical support to low-income countries in Africa and elsewhere – including in the areas of product selection, forecasting, procurement, inventory management, transport and distribution, and supervision – to ensure adequate levels of supplies are always available.

• Low-income countries should conduct infection control assessments to determine the precise gaps in infection prevention and control. Infection prevention and control policies should be developed or revised accordingly. The United States, WHO, and other countries or organizations should provide technical assistance.

• All countries should incorporate infection prevention and control into pre-service curricula at health training institutions and provide in-service training on infection prevention and control as needed.

• AIDS-burdened countries in Africa and elsewhere should consider applying to the Global Fund for AIDS, Tuberculosis and Malaria for grants to assist in purchasing supplies for and providing training on infection prevention and control procedures.

• Donors should incorporate universal precautions into all health programs they or their contractors operate.

• HIV-positive staff should receive hepatitis B vaccinations, and isoniazid preventive therapy and cotrimoxazole preventive therapy to protect against tuberculosis and other opportunistic infections. Post-exposure prophylaxis should be available to all health workers exposed to HIV in the occupational setting.

• African countries, as well as both high- and low-income countries elsewhere, should introduce flexible working schemes, long-term sick leave, early retirement, and other employment packages to meet the needs of their health personnel.

• Countries that establish AIDS treatment programs should conduct outreach to health workers to ensure that they are aware of and able to access these programs.

• Establish and progress towards the goal of using syringes and other medical sharps that have safety features to protect health workers.

Health worker safety and well-being: occupational stress

Many African health care workers suffer from occupational stress. This is an expected reaction to the death and disease they face, fear of occupational infection, new tasks such as HIV counseling for which they might not be trained, and immense workloads. Governments, with the help of donors if necessary, should offer psychological support to health workers. Psychological support should be part of a holistic plan to support health professionals.

Physical health infrastructure and health systems management

Health professionals are trained to heal people, but often find that lack of medicines, equipment, support, and other necessities impedes their ability to effectively care for patients, a terribly demoralizing situation. Health professionals need the tools to be able to do their job.

Recommendations

• The United States and other donors should assist African countries in rehabilitating health facilities. All health facilities should be ensured phone service, electricity, and a constant supply of safe water. Upgrades should also begin to make Internet service available. Technologies such as solar panels, electric generators, and satellite-based phones make it possible to provide these utilities to even remote health facilities quickly and at relatively low cost.

• The United States and other donors should assist African countries in ensuring that health facilities have the necessary drugs, supplies, and equipment.

• The United States and other donors should also provide funds and technical assistance to help African countries: improve drug distribution systems, through training and possible implementation of the stock management system; purchase and maintain ambulances and communications equipment needed to strengthen referral systems, and; invest in computer systems, programs, and training to enhance health information management.

• The United States and other donors should assist African countries in providing quality and consistent supervision. This support should include technical assistance and funds to train supervisors and to purchase and maintain vehicles.
**Pre-service training**

Pre-service training that African health professionals receive often fails to adequately prepare them for the conditions in which they will actually practice. The training, particularly for physicians, focuses excessively on practice in tertiary facilities and on the use of advanced technology that will rarely be available in the settings in which they end up practicing. The result is frustration at not being able to practice the type of medicine for which they were trained.

**Recommendations**

- African health training institutions should adjust their curricula to prepare graduates for the conditions in which most will practice in Africa, including an emphasis on primary health care and common health problems.
- African and other developing countries should include AIDS care and treatment, including anti-retroviral therapy, in the curricula of their health-training institutions.
- Teaching methods in African health-training institutions should be re-oriented to include critical thinking and problem-solving.

**Research and graduate training opportunities**

Inadequate research possibilities and lack of opportunity to keep up-to-date with information in their field can reduce the morale of African health professionals. Meanwhile, many African physicians attend graduate medical education programs abroad, where they become attracted to medical practice conditions not available in their own countries. All relevant actors should encourage greater opportunities for African health professionals to advance their knowledge while in their home countries.

**Recommendations**

- African health ministries should enhance the quality of continuing education they provide health professionals.
- The United States and other donor governments should assist African countries in providing Internet connectivity to all health facilities. Computer and related corporations should assist in providing equipment and services at no or reduced cost.
- The United States and other donor governments should assist African libraries, including medical libraries, obtain up-to-date materials and maintain up-to-date collections. Health training institutions in the United States and other high-income countries should also assist African health sciences libraries.
- Medical and other health-related journals should be made available for free or at a nominal cost to health professionals in Africa and other parts of the developing world.
- African countries should consider initiating or improving upon existing medical graduate training programs. The United States and other donors should provide financial and technical support, as should graduate training programs in high-income countries.
- Nationwide or facility-based committees should be established in African countries to review the quality of graduate training, including residency programs and specialty training, particularly to address concerns of students and resident physicians. Students and resident physicians should be on these committees.
- The United States and other donors should consider funding research opportunities in African countries for African health professionals.

**Medical school culture**

Some medical schools in Africa have a culture that encourages graduates to practice abroad. Where a culture of medical migration exists, African countries should seek to persuade faculty to encourage students to remain in country. When hiring new faculty, those who are likely to encourage students to practice in the country should be favored. Particularly where such a culture of medical migration exists, health-training institutions should develop strategies to promote the attractions of remaining in country.

**PULL FACTORS**

In addition to the factors that are pushing African health professionals out of Africa, conditions in and practices of high-income countries encourage them and contribute to their ability to work abroad.

**Shortage of health professionals in developed countries**

High-income countries are increasingly looking abroad to meet their health personnel needs, due to significant shortages of health professionals in these countries. This is faster and less expensive than nurturing their own workforces.

**Recommendations**

- The United States and other wealthy nations should develop strategies to address domestic health professional shortages that minimize their reliance on foreign health professionals. These countries should share their experiences using these strategies.
• Wealthy nations should increase efforts to place domestically trained health professionals in underserved areas. In the United States, efforts could include expanding the National Health Service Corps. Strategies could also include reforms in health training institutions, such as increased training in and exposure to rural health and favorable loan repayment programs for those who work in underserved areas.

• The United States and other wealthy nations should increase retention of nurses and other health professionals for whom shortages exist by ensuring decent wages and safe working conditions, and by implementing flexible working strategies. Wealthy countries should also increase graduates from nursing training institutions, as well as other health-training institutions as necessary.

Recruitment of health professionals from Africa
While data is lacking on the exact extent to which recruitment of African health professionals contributes to brain drain, the increasing levels of recruitment, particularly for nurses, is widely acknowledged. PHR appeals to entities involved in recruitment to recognize their role in brain drain and participate in finding and implementing solutions.

Recommendations
• Developing countries and organizations in developing countries should explore possibilities of limiting recruitment from abroad.

• The United States and other recruiting countries should end active recruitment of health professionals from developing countries, absent agreement with those countries. This can be accomplished through legislation or other government mandates, or where that is not possible, through codes of practice.

• An international strategy on ethical international recruitment of health professionals, grounded in human rights principles, must be developed and adopted at the national level.

• High-income countries should review their immigration policies to determine whether they contribute to brain drain.

• The effects of offering high-income country medical or nursing licensing exams for foreign health professionals in or near their home countries should be monitored for its impact on migration.

Reimbursement
Wealthy nations should reimburse developing countries for the training costs and health impact of health professionals who migrate from developing to developed countries.

HUMAN RESOURCES PLANNING AND MANAGEMENT

Human resources planning
Changes in human resources policies must be built on sound information, yet in much of Africa, that information is lacking.

Recommendations
• African countries should undertake comprehensive and detailed surveys of their health infrastructure to better understand the infrastructure needs and how to best meet those needs. Donors should provide technical and financial assistance as required.

• African countries should develop national maps and databases of their health workers. The maps and databases should be regularly updated. Donors should provide technical and financial assistance as required.

• Low-income countries should study what health workers require to keep them in the country and public sector, and what incentives or policies would encourage them to work in rural areas.

• WHO efforts to develop an international human resources database should receive the full support of the international community.

• African countries should develop or, if necessary, revise national plans on human resources for health. The plans should be designed to produce and retain the numbers of health personnel, in the appropriate skills-mix, required to meet the health needs of the population, including anti-retroviral therapy and scale-up of other health interventions. Special care should be taken to ensure that the plans will meet the health needs of rural and other underserved populations.

• WHO should develop and disseminate good practices in health sector human resources planning and management. Wealthy WHO member states should provide WHO the necessary financial support to carry out this and other WHO activities that are part of the organization’s promotion of human resources and health systems development.

Human resources management
Good human resources management has the potential to significantly increase staff morale by establishing well-defined career paths and job descriptions, supporting supervisors, and lessening workloads through staff reallocation. Strong human resource management will also be needed to effectively implement changing health sector human resource policies.
Recommendations

- African countries should strengthen their health ministries’ capacity for human resources planning and management. Donors should provide technical and financial assistance as required, including loaning health ministries personnel if necessary.

- African health training institutions should incorporate human resources for health into their pre-service training curricula.

- African health ministries should assess and revise their human resource policies.

- African countries should avoid committing themselves to liberalizing trade in health services, in particular the services of doctors, nurses, midwives, and other health personnel, under the General Agreement on Trade in Services (GATS). The World Trade Organization (WTO) Secretariat should educate trade officials from developing countries on the potentially negative consequences of committing to the GATS regime for these services.

- Where possible, health facilities in Africa should employ managers trained in human resource management.

- African countries should ensure that they have efficient recruitment and placement procedures for posts in the public health system.

- Donors should maximize coordination so as to minimize unnecessary work for health system managers.

SOURCES FOR MORE HEALTH CARE WORKERS

African countries, NGOs, donors, and health institutions should collaborate in bringing more people into the field of health care. This can be accomplished through increasing support for African health training institutions, increasing responsibilities of nurses, increasing the use of mid-level cadres and community health workers, and facilitating the use of foreign health professionals.

Supporting health training institutions

Recommendations

- The United States and other donors should provide funding for salary support and other incentives to educators at medical, nursing, public health, pharmacy, and other health training institutions to promote recruitment and retention of trainers at these institutions.

- Health training institutions in the United States and other high-income countries should develop partnerships with health training institutions in Africa and other regions of the developing world that are facing faculty shortages and offer trainers (professors) on a per semester or annual basis. Governments of high-income countries should, as needed, facilitate these partnerships or separately support trainers through their own programs.

- The United States and other donors, in collaboration with American and other high-income country health training institutions, should support distance learning, which typically involves telecommunications technology, in health training institutions in African countries and other parts of the developing world.

- The United States and other donors should assist African countries in increasing investment in their health training institutions to enable them to increase the numbers of health professionals they graduate annually.

- Countries in Africa and elsewhere that have few or no medical schools should evaluate whether they can meet their human resources for health needs with their current health training institutions and through foreign institutions at which their nationals train. Where they cannot, the United States and other donors should assist in funding new training institutions.

- African countries, with the support of the United States and other donors, should enhance investment in secondary education, especially science and math programs, to increase the pool of students prepared to enter health training institutions.

- A portion of donor funding for in-service training should be shifted to pre-service training, which is more sustainable, inclusive, and cost-effective than in-service training, and less disruptive as well.

- African countries should consider reducing the length of professional training programs to speed the production of health personnel. This should be done only if it can be accomplished in a manner that will ensure that graduates still have the skills and experiences they require to be competent, well-trained health professionals.

- African countries should reach out to retired and inactive health professionals.

Increasing roles of nurses, mid-level cadres, and community health workers

Recommendations

- African countries should increase the responsibilities and numbers of mid-level health cadres consistent with these workers’ training and ability, the country’s...
public health needs, and the number of physicians and registered nurses in the country.

- African countries should promote advanced practice roles for nurses, including the ability to prescribe and dispense medication. The increased responsibility should occur in concert with increased salary and benefits, training, and supervision to enable nurses to meet these new responsibilities.

- Low-income countries facing health worker shortages should explore the possibility of training community health workers to carry out specific tasks, including but not limited to supporting anti-retroviral therapy.

Foreign health professionals

Recommendations

- Through programs sponsored by high-income country governments, partnership programs with health institutions in high-income countries, and independent volunteer programs, high-income countries should develop strategies to send their health professionals to low-income countries, in Africa and if needed elsewhere. These programs should be designed to build local capacity and, where appropriate, meet critical clinical service needs in low-income countries.

- African countries that could benefit from the services of foreign health workers should minimize immigration restrictions that hinder their ability to enter and work in those countries.

INCREASING NUMBER OF RURAL HEALTH WORKERS

Given the severity of the shortage of trained health personnel in rural areas, increasing their numbers must be a priority. Along with encouraging rural students to enter professional health training and providing extra incentives to professionals working in rural areas, foreign health professionals will sometimes be necessary to help fill the gap.

Recommendations

- African countries, with assistance if necessary from the United States and other donors, should provide extra pay to health workers who take posts in rural or other underserved areas. Health professionals working in especially remote or otherwise unpopular facilities should be eligible for extra incentives.

- African countries should consider policies, such as a community service requirement, that will encourage health professionals to practice in rural and other underserved areas.

- Health training institutions in Africa should initiate programs, which may include courses, speakers, field trips, and rural health tracks, to encourage students to practice in rural and other underserved areas.

- Health training institutions in African countries should make special efforts to recruit students from rural and other underserved areas.

- The United States and other donors should consider funding scholarship programs for students from rural and other underserved areas and less privileged backgrounds.

- African countries and donors should focus resources on physical infrastructure and other forms of health system development in rural and other underserved areas.

- African countries should consider hiring staff expressly for rural and other underserved areas.

AFRICAN HEALTH PROFESSIONAL DIASPORA

Brain drain has resulted in tens of thousands of doctors, nurses, and other health professionals practicing abroad. Many have an interest in using their professional skills to assist their countries of origin. They must have the information and support to enable them to do so.

Recommendations

- Immigration reforms should be enacted to promote the temporary or permanent return of members of the African health professional diaspora. African countries experiencing the loss of health professionals should permit dual citizenship. The United States should enact special provisions in its immigration law to permit health professionals from countries suffering from brain drain to return to the health sector in their native countries without having the time spent away from the United States prejudice them in the naturalization process. Other high-income countries should take similar measures.

- African countries should reach out to health professionals who have migrated.

- Working through the International Organization of Migration (IOM) and others, African and other countries suffering from the emigration of health professionals should maintain a database of job openings that could be filled by members of the health professional diaspora, as well as a database of diaspora health professionals interested in working in Africa. The IOM and networks of health professionals from African countries living abroad should help publicize these job openings.
• The United States and other high-income countries, as well as professional associations in these countries, should support the IOM and other organizations and initiatives that facilitate visits to Africa by members of the African health professional diaspora and that promote knowledge transfer through alternate means, such as the Internet and other technologies.

• African countries, with assistance from the United States and other donors as needed, should establish top-quality “centers of excellence” in African countries, particularly in rural or other underserved areas, to encourage diaspora health professionals to return.

• Health training institutions in countries experiencing brain drain should maintain a database of alumni, and encourage alumni to contribute their time or financial or material resources to the training institution or other health services in the country.

**MACROECONOMIC POLICIES**

Policies driven by macroeconomic concerns are interfering with the ability of many African and other countries to increase their health sector spending, including urgently needed funds for HIV/AIDS and human resources. The policies include ceilings on countries’ overall spending, resulting in caps on health sector spending, and restrictions on the civil service budget, which may lead to freezes in health worker hiring and salaries. The ceilings may limit the ability of countries to accept large amounts of financial assistance, especially unexpected assistance. The overall budget ceilings are aimed at ensuring macroeconomic stability, including through low budget deficits, low inflation, and stable exchange rates.

**Recommendations**

• The International Monetary Fund (IMF), World Bank, and other donors must not withhold loans or grants, suspend or cancel programs, or otherwise penalize countries that break overall spending ceilings because of increased spending in health, education, and other sectors and activities needed to promote human development, including to enhance salary and benefits to health staff or to hire new health personnel. The IMF and World Bank should immediately issue joint or separate statements announcing this policy. These statements should reiterate their support for additional spending in these sectors, including on human resources. To that end, they should encourage flexibility in budget ceilings in these sectors, as well as a moratorium on any restrictions on hiring, salary and benefits in these sectors. Staff of international financial institutions should actively share the statements and policy with key government officials, including in finance ministries.

• The IMF, ministries of finance, and their partners should ensure that macroeconomic constraints do not limit the effective and productive spending of developing countries on health, education, and related sectors. The changed policies should be publicized among all stakeholders, including finance, health, education, and other national ministries.

• WHO and the World Bank should collaborate to educate finance ministries on the economic benefits of investing in health. Health ministries should also receive this information.

• African countries and any other developing countries with formal or informal freezes on hiring or salaries and benefits of health personnel should end those freezes.

• The IMF, World Bank, and finance ministries should publicize the precise nature of existing economic restraints that may limit substantially higher country spending on health and other social sectors, and create mechanisms for on-going transparency of macroeconomic policies and how they impact the health and education sectors. Such mechanisms should welcome NGO input. The Poverty Reduction Strategy Paper process, a form of coordination between low-income country governments and development partners that includes NGO participation, is one possible forum.

• The US Congress should hold hearings and/or request a report from the General Accounting Office to explore the nature and extent of economic policies or practices that discourage countries from increasing spending on health and other social sectors, as well as the role of the IMF and other international financial institutions in promoting these policies.

• The US Congress should require that the Treasury Secretary direct the US Executive Director at each international financial institution, including the IMF, to advocate for changes in the policies of international financial institutions so that macroeconomic concerns no longer limit spending on health and other social sectors, whether domestic spending or international assistance. Other G8 countries should take similar actions.

• Donors should provide long-term commitments of foreign assistance for health systems to ensure a sustained and predictable aid flow.
CONCLUSION

There are still important details to learn about brain drain and the health sector human resource crisis in Africa. What are the most important causes of brain drain in Namibia or Swaziland? How high does remuneration need to be to help recruit and retain health professionals, and what is the best form of that remuneration? Will South Africa’s certificate of need promote more equal access to health services, or will it speed brain drain of angry doctors out of South Africa? How significant a role will community health workers be able to play?

But much is clear. Brain drain is happening, and for nurses, the backbone of health care in Africa, it is accelerating. Distribution of health personnel within African countries – and to a lesser extent, high-income countries as well – is highly inequitable, with rural areas in particular suffering from a huge deficit in services. The effects of this crisis are already being felt throughout Africa, whether for the patient who travels to a rural clinic only to find no skilled health workers to attend to her, or for the hospital in Eastern Cape, South Africa, that is unable to provide more than minimal AIDS treatment services because it has too few doctors. As more countries seek to scale up AIDS treatment or other health services, they will find, as they are already finding, that human resources are the major constraint.

Further, even if some important details need to be subjected to further examination, the basic elements of building human resources for health are now well-known. They include increased salaries and investment in physical health infrastructure and infection control, an end to ceilings on health sector spending and freezes on hiring and payment for health professionals, and efforts by high-income countries to meet their health needs through domestically trained health workers.

If all are guided by principles of human rights and equity, and commit to policies and investments that will end inequitable health systems, with rich people and rich countries on the one hand, and poor people and poor countries on the other, then Africa and the world will overcome this deepening disaster. Enough is known about the problems to demand a solution. Enough is known about solutions to demand action.
From Brain Drain to Brain Gain
Africa’s agenda for training, retaining and using its human resources effectively

Regional Conference on Brain Drain and Capacity Building in Africa

22-24 February 2000
United Nations Economic Commission for Africa
Addis Ababa, Ethiopia
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INTRODUCTION

African countries continue to lose a significant proportion of their human capital to industrialized countries through various forms of migration generally known as brain drain. In this light, the United Nations Economic Commission for Africa (ECA), in collaboration with the International Organization for Migration (IOM) and the International Development Research Centre (IDRC), organized a Regional Conference on Brain Drain and Capacity Building in Africa in Addis Ababa, Ethiopia, on 22-24 February 2000.

About 130 people attended the conference, including four African Ministers of Education, education policy makers from 29 ECA member states (among them representatives of 11 universities and 12 institutions of higher education), 7 non-governmental organizations and senior representatives of development agencies. Also in attendance were specialized agencies of the United Nations and African inter-governmental organizations and institutions.

The conference aimed to:

- Review approaches and experiences in capacity building in the context of human capital flight
- Develop a comprehensive approach to the effective utilization of Africa’s human resources
- Make recommendations and disseminate to African policy makers practical methods of stemming and reversing the brain drain and building capacity at national and regional level
- Propose concrete activities to strengthen capacity building and the return of qualified Africans to the continent.

After three days of discussion, the conference selected the following three areas for priority action to build capacity in Africa and stem the brain drain by 2002:

1. Establish a database on brain drain and capacity building.

   Supporting capacity building efforts in Africa and limiting the negative impact of the brain drain must be based on concrete data and information. Developing an appropriate database will centralize information from different sectors on the impact of brain drain on socio-economic development. This database will be a vital instrument for policy makers. The lead agency for this activity is ECA, working closely with the International Organization for Migration (IOM), International Development Research Centre of
Canada (IDRC), Organization of African Unity (OAU), South African Network of Skills Abroad (SANSA), African Foundation for Development (AFFORD), African Capacity Building Foundation (ACBF), Organization for Social Sciences Research in Eastern and Southern Africa (OSSREA) and Femmes Africaines et Solidarité (FAS).

2. Creating knowledge blocks. To complement national efforts to address deficiencies in education and training and to use existing capacity effectively, countries should set up “knowledge blocks” comprising networks of training and research institutions, centres of excellence in the regional economic blocs and collaborative programmes between institutions of countries of the North and South. The lead agency for this activity is IDRC, working with the Secretariat for Institutional Support to Economic Research Centres (SISERA), ECA, OAU, International Institute for Capacity Building for Africa (IICBA), ACBF, Association of African Universities (AAU), IOM, OSSREA and the African Development Bank (ADB).

3. Forging partnership with the Diaspora. This activity aims to facilitate access to and mobilize the skills and expertise of highly qualified Africans in the Diaspora and also to tap into the knowledge networks to which they belong. The lead agency for this activity is the IOM, working with SANSA, AFFORD, AAU, FAS and ADB.

The following document is a synthesis of the papers prepared for the conference.

***********************
Section I
What is Brain Drain?

One of the major challenges facing Africa is the lack of systematic action towards training, utilizing and retaining the expertise needed to sustain growth and development. This action is generally known as “capacity building,” though the term is much used but seldom well defined. It describes the activity of training and otherwise nurturing people who can plan, implement, manage, monitor, evaluate and continuously adapt as needed the policies, programmes and instruments (scientific, technical, legal, etc) that promote sustained improvements in socio-economic conditions within a country. Put simply, it is the capacity to develop a nation’s human and material resources for a higher quality of life. Individuals and institutions are repositories of national capacity. National capacity, therefore, refers to the combination of human knowledge, skills and institutional resources in the public, private and voluntary sectors.

Compounding Africa’s situation is the fact that much of its existing, indigenous capacity is either underpaid and overstretched or underutilized and misapplied. Some are suffering a demoralizing combination of the four conditions. Significantly, a substantial part of this capacity is no longer physically present within African countries. Skilled and trained Africans have been leaving the continent ever since the early years of independence through a phenomenon known as brain drain. Deteriorating economic and social conditions in many African countries have in fact prompted the massive exodus of all categories of workers – not only students, academics and other professionals – many of whom are among the most dynamic people in their category.

In this light, Africa’s need to retain and properly utilize indigenous capacity can be seen as the other face of the brain drain problem. Recognition of the brain drain is not new, but the problem is increasingly acute. The public and private sectors in African countries continue to face serious capacity constraints, and as a whole, the continent suffers the highest
mortality and morbidity rates in the world while generating the lowest economic output of any world region. Yet the region is endowed with skilled human resources as well as abundant natural resources.

Human capital has been shown, theoretically and empirically, to be an important variable for determining economic growth, with higher levels of education strongly correlated with faster growth. There have been numerous consultant and technical assistance reports for capacity building and civil service reform citing the low availability of skills as an important constraint to development. Yet, to date, no systematic attempts at developing an assessment of needed skills in developing countries have been undertaken.

Definitions

By one definition, brain drain is “the international transfer of resources in the form of human capital that is not recorded in the balance of payments.” Brain drain generally refers to the departure from one country or world region to another of the advanced, professional and technical skills possessed by scientists, academics, doctors, engineers and others with university training. The concept is particularly meaningful where skilled professionals with accumulated experience and knowledge are relatively scarce. As these skills require considerable investment to produce in a situation of limited resources, they are, therefore, not easy to replace. As the direction of migration tends to be from developing to industrialized countries, brain drain is often characterised as the one-way, long-term or permanent migration of skilled people mostly from the least developed countries (LDCs) to more economically developed countries.

These professionals may be underutilized or overutilized in the home country. They may also be forced into work areas in which they were not originally trained for economic, administrative or other reasons. When such people emigrate, or in the case of students failing to return home from studies abroad, it has been argued that this does not necessarily constitute brain drain unless it can be shown that the economy of their country of origin is able to absorb them fully. In event of their being required by the country, if they fail to come, they then constitute part of the brain drain.

However, the prevalent approach to brain drain has been to present as “human capital” the educational qualifications, abilities and skills that an individual possesses. Governments make an investment by paying for education and training and expect a return on their investment when the
individual becomes economically active and starts paying taxes. In this perspective, the migration of highly skilled people represents a “loss” to the country of origin.

Orders of Magnitude
In the past, massive migrations of both unskilled, semi-skilled and skilled labour have occurred at different periods of economic growth in Europe and North America. However, with changes in science, technology and industry, the demand for skilled labour has outstripped demand for less skilled labour in these regions. With the shortfall in internal supply, industrialized countries have increasingly relied on the least developed countries (LDCs).

According to one study (Reuben, 1976), over 17,000 professionals and technical personnel migrated from LDCs to three industrialized countries (United States, Canada and the United Kingdom) in 1963. By 1972, the figure had more than doubled to 44,843. This rising trend has continued and Africa in particular has been losing a lot of its skilled personnel to industrialized countries every year.

Although quantifying the brain drain is yet to become an exact science, some statistics do exist, beginning with the estimate that approximately half the Africans who went for tertiary studies in chemistry and physics in the US in the 1960s never returned to the continent. According to ECA, between 1960 and 1975, about 27,000 high-level African professionals left the continent for Western industrialized countries. Between 1975 and 1984, this number increased to about 40,000 and then almost doubled by 1987, representing 30 per cent of the stock of highly skilled personnel.

Between 1985 and 1990, Africa lost an estimated 60,000 doctors, university lecturers, engineers and other professionals to migration. For a continent with well-known problems of health and the delivery of medical services, the migration of African doctors in very striking. There were over 21,000 Nigerian doctors practising the US alone, according to the UN Development Programme’s Human Development Report, while Nigeria’s health system suffers a chronic shortage of doctors. In Ghana’s case, 60 per cent of doctors trained at home in the 1980s subsequently left the country. In Sudan’s case, some 17 per cent of doctors and dentists, 20 per cent of university lecturers, 30 per cent of engineers and 45 per cent of surveyors had gone to work abroad by 1978.

According to a 1995 World Bank study, 30 per cent of Africa’s highly skilled personnel migrated to industrialized countries in the 1960-78 period. The Bank study added that some 23,000 academics and 50,000 people in middle- and high-level management leave Africa each year in search of
better salaries and working conditions. Furthermore, there are up to 40,000 African PhD holders working outside the continent. According to Vas-Zoltan (1979), “the number of foreign doctors working in the United States is equivalent to the annual output of 30 medical universities in the USA.” Many African doctors are among this number.

Box quote
Over the past 30 years, industrialized countries have implemented increasingly tight controls on immigration from developing countries. At the same time, some industrialized countries have made distinctions in their regulations between skilled and less skilled potential immigrants according to their national needs. The United States Congress, for example, passed a Bill in 1998 that permits an annual increase of 50,000 visas for foreign nationals working in the information technology field. “The US has a rare opportunity to draw immigrants of high intelligence and ability from abroad, and immigration, if well administered, can be one of our greatest national resources. We are in the international market of brains.”

-- US Secretary of State Dean Rusk at a hearing of the US House of Representatives (quoted in Vas-Zoltan, 1979)

The reverse face of the coin is the number of non-Africans working in Africa as expatriate experts performing functions generically described as technical assistance. According to the World Bank, there are about 100,000 expatriates from industrialized countries employed in Africa at an annual cost to African countries of $4 billion. This represents nearly 35 per cent of total official development aid to the continent.

<table>
<thead>
<tr>
<th>Total numbers of African professionals admitted into the US in 1982-89</th>
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</thead>
<tbody>
<tr>
<td>Ethiopia</td>
</tr>
<tr>
<td>Cape Verde</td>
</tr>
<tr>
<td>Ghana</td>
</tr>
<tr>
<td>Kenya</td>
</tr>
<tr>
<td>Liberia</td>
</tr>
<tr>
<td>S. Leone</td>
</tr>
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Tanzania       110  94  128  102  102  121  103  56
Uganda         92  101  107  63   81  63   41  124
Nigeria        340 278  277 339 435 492 547 1015

<table>
<thead>
<tr>
<th>Total</th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>2 855</td>
<td>2 596</td>
<td>2 737</td>
<td>2 864</td>
<td>3 161</td>
<td>3 331</td>
<td>3 353</td>
<td>4 783</td>
</tr>
<tr>
<td>World</td>
<td>64</td>
<td>58</td>
<td>58</td>
<td>62</td>
<td>63</td>
<td>54</td>
<td>65</td>
<td>90</td>
</tr>
</tbody>
</table>

|Africa as|     |     |     |     |     |     |     |     |
|% Of World|4.4 |4.4 |4.7 |4.6 |5   |5.2 |5.1 |5.3 |


**Internal Brain Drain**

Another phenomenon occurring in many LDCs, especially those that have been in economic crisis, is that of “internal brain drain.” This refers to the intellectuals and professionals who have been trained to apply their skills, knowledge, energies and talents in their relevant fields but who, for lack of appropriate incentives and motivation, move outside their original areas of training and qualification. This constitutes a shift of resources within the economy and may constitute a “misemployment” and “misapplication” of resources.

Some of the reasons for internal brain drain include poor conditions of work, lack of incentives and motivation, unemployment and under-employment. Another reason is that public policy may increase the social prestige to be gained through activities other than those for which intellectuals, academics and technicians were originally trained. In some cases, intellectuals and professionals appear to exercise their talents in their relevant fields but in practice, devote more time to other activities in order to boost their income.

**A Neo-Classical Viewpoint**

Arising from neo-classical economic theory, it is argued that migration of workers from low- to high-wage countries ensures a more efficient use of labour and narrows wage differences between countries. According to this view, migration of skilled labour from developing countries helps lower unemployment, raise wages, boost economic growth and household welfare in those countries through greater access to resources such as remittances and the skills of potential returnees. Such migration is also part of the “free flow of people and ideas,” “the free flow of information,” “the free movement of scientists” and “brain overflows.”
Similarly, brain drain is seen as a mismatch between training and job opportunities in a given developing country rather than as the irresistible attraction of more industrialized countries. In this context, Pakistan, the Republic of Korea and Sri Lanka are cited as having reduced the magnitude of their unemployment through migration.

Such international migration reduces the excess supply of skilled workers in developing countries and ensures optimal allocation of previously unused or underutilized human resources, to the gain of the world economy. Investment in the education and training of skilled workers by developing countries is more of a sunk than an actual cost.

Migrants also send home remittances in foreign currencies. A World Bank survey conducted in 1978 found that remittances from Pakistani expatriates exceeded the country’s total foreign aid receipts. Excluding clandestine or in-kind remittances, the World Bank estimated that total remittances from international migrants amounted to approximately $75 billion a year, a figure greater than total foreign aid flows to all developing countries.

A Different Viewpoint

In contrast to the neo-classical approach, it has been argued that brain drain takes place between economically and politically unequal countries and, as a result, widens rather than narrows wage and income disparities between countries. This outflow retards economic development and leads to pauperization of workers. In this definition, brain drain is a selective process that tends to cream many of the best workers from sending countries while, at the same time, enhancing the interests of receiving countries.

Brain drain from poor to rich countries enables skilled personnel from developing countries to reap the benefits from and contribute to the further development and growth of already affluent nations. If structural problems remain unresolved and demographic pressure continues in developing countries, the contribution of emigration to alleviating unemployment in these countries is likely to be limited. Indeed, skilled labour migration from developing countries may actually lead to the postponement of the structural changes needed to sustain a process of dynamic and broad-based development as the sending country loses some of its most innovative and enterprising workers.

While the importance of remittances for developing countries is not disputed, it should also not be used to downplay the social costs and adverse
effects on developing economies of the outflow of skilled personnel. Instead of free movement of human capital between nations, it seems more accurate to see the situation from the developing countries’ point of view, and recognize the phenomenon of brain drain and human capital flight and their adverse impact.

According to this argument, the costs of brain drain to developing countries outweigh the imputed benefits. The consequences of brain drain can also be put in an ethical context: the taxpayers of poor nations bear the costs of training and maintaining potential migrants only for wealthier nations subsequently to reap the benefits of the skills of these migrants. In this light, brain drain is a process that retards income growth, economic output and overall welfare in developing countries because it involves the departure of valuable human capital.

**Causes of Brain Drain**

The main reasons why skilled people migrate from developing countries to industrialized countries are often seen quite simply as economic and financial. Generally, there is a wide gap in salary and overall income levels between industrialized countries and LDCs, therefore, people migrate from LDCs to take advantage of higher earnings in industrialized countries. With regard to education, there is often the perception that education in industrialized countries is of higher quality. These elements are described as ‘pull’ factors in the brain drain, where conditions abroad – whether real or perceived – exert a strong attraction.

This ‘pull’ is strengthened by developed countries that have programmes to attract skilled immigrants. This can include extensive scholarship programmes, the end result of which is the retention of students at the end of their studies in the countries that gave them scholarships. Another ‘pull’ factor is the recruitment of people into international organizations with high remuneration.

The ‘purely’ domestic factors that are seen as causes of brain drain are known as the ‘push’ factors. Many analysts suggest that the rate and persistence of brain drain is directly related to the overall state of governance in a given developing country. The worse the quality of the institutions and social conditions of governance, the stronger the «push» exerted on skilled personnel to seek better conditions abroad.

Poor governance tends to be a vicious cycle that encourages tax evasion, lowers professional standards and encourages the migration of
talented professionals. This leaves fewer good professionals to manage the profession, with ever weakening standards.

In order to maintain systems of supervision and regulation, provision of facilities for social development (health, education, etc), development and maintenance of infrastructure, key skills (such as academic, accounting, engineering, managerial and medical) are required at various levels, even if of varying quality. At a general level, the continuous loss of skilled people will retard the modernization process. This outflow weakens the already limited domestic capacity to train a new generation of professionals.

In low-income countries, professional associations and think tanks are relatively few in number and uneven in quality. Local donors of grants such as foundations are rare and are replaced by aid institutions run from distant capitals with little vision. Whatever public policy debate takes places is conducted in a relatively closed group comprising mainly the professionals and consultants of these aid institutions. The government may have only marginal participation because it lacks the capacity or the will to concern itself with longer-term implications of public policy.

At the same time, the lack of domestically organized research and debate on public policy tends to leave low-income countries dependent on expatriate advice on policy reform. This reliance on expatriate advice tends to “crowd out” and stifle the growth prospects of domestic capacity for policy development, thereby adding to the “push” factors.

Where there is foreign aid for the development of public policy institutions in low-income countries, there is often a heavy insistence on externally devised plans, rules and reporting requirements that leave little room for local innovation and direction. Furthermore, the incentives are not for attracting talent and inducing the required effort but more for migration out of the needed professions, or out of the country. Domestic talent continues to be rated as inferior to foreign talent, with lower salary incentives and lower professional stature.

Since United Nations and bilateral donor agencies are usually the highest-paying (non-private sector) employers, they have to be more alert to patterns of activity involving both the public and private sectors that “crowd out” domestic talent and fuel the brain drain.

According to one analysis of the brain drain from the public and private sectors of many African countries, the causal factors of brain drain include the following:
Public sector
1. The large number of personnel, the mismanagement of human resources and the often low salaries relative to the private sector leads to a shortage of personnel in key areas of economic activity and an increased dependence on technical assistance for basic professional services. A 1995 World Bank study showed that only 5,000 (or 17 per cent) of Gabon’s 30,000 civil servants had appropriate qualifications for their jobs and the country relied on expatriates in several sectors.
2. The legacy of political appointments, nepotism and, in some cases, ethnic-based patronage results in an inadequacy of competence relative to the number of jobs, as well as the misuse and under-use of existing capacity.
3. The opportunities for staff to get training and develop their knowledge are limited, ad hoc and badly coordinated not only because of a lack of resources but also and especially because of poor organization.
4. Poor management linked with inadequate incentives further weakens institutions.
5. There is little capacity to manage and monitor economic activity, budget implementation, resource mobilization and the management of foreign aid.
6. Skills development in the civil service as well as the culture of responsibility and meritocracy are neglected in favour of short-term gain and opportunism.
7. The dilapidated state of public facilities and communal infrastructure discourages a general sense of initiative.

Private sector
1. Low educational attainment and low competence level of some entrepreneurs.
2. Poor infrastructure (especially transport and communications) and unstable provision of essential utilities.
3. Limitations on access to resources and to information on export opportunities.
4. Burdensome regulatory and bureaucratic processes.
5. A judicial environment that does not inspire confidence.
6. A weak banking sector.
7. Strong collusion between business and political circles.
### Summary of Causes of Brain Drain

<table>
<thead>
<tr>
<th>PUSH FACTORS</th>
<th>PULL FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low and eroding wages and salaries, lack of transport, housing, etc</td>
<td>Higher wages and income; higher standard of living</td>
</tr>
<tr>
<td>Political instability</td>
<td>Political stability</td>
</tr>
<tr>
<td>Under-utilization of qualified personnel; lack of satisfactory working conditions; low prospect of professional development</td>
<td>Better working conditions, job and career opportunities and professional development</td>
</tr>
<tr>
<td>Lack of research and other facilities, including support staff; inadequacy of research funds, lack of professional equipment and tools</td>
<td>Substantial funds for research, advanced technology, modern facilities; availability of experienced support staff</td>
</tr>
<tr>
<td>Declining quality of educational system; lack of clear career opportunities</td>
<td>Modern educational system; better career opportunities; prestige of ‘foreign training’</td>
</tr>
<tr>
<td>Discrimination in appointments and promotions</td>
<td>Meritocracy, transparency</td>
</tr>
<tr>
<td>Lack of freedom</td>
<td>Intellectual freedom</td>
</tr>
</tbody>
</table>

### The University - Origins of the Crisis

*Africa's universities initially produced most of the continent's trained and professionally qualified people. Now, many of those universities are in crisis.*

In the early post-independence years, higher education was among the first priorities and pillars for the development of new nations. Universities and other institutions of tertiary education were to continue the job of training civil servants, administrators and other people qualified to take on responsibilities in all spheres of national life. Many governments considered it their duty to provide free higher education and became major employers of graduates in an era when a modern private sector was at an embryonic stage.

However, the economic downturn in many countries from the mid-1970s onwards resulted in a tightening of budgets for education. The onset of structural adjustment programmes in the 1980s brought further cuts in education budgets. There was also increasing debate on the relevance of traditional models of higher education for the requirements of national
development. One very influential voice in the debate was that of the World Bank, which began putting more emphasis in its adjustment lending on basic education. The argument was that primary level education provides the highest rates of social return on initial investment and is more fundamental to the broadest development of human resources and productive forces than secondary or tertiary education.

Meanwhile, as student numbers grew along with demand for university places, funding for higher education diminished, with an increasingly adverse impact on libraries, classrooms and laboratories as well as on salaries and maintenance of existing facilities. The shrinkage of financial resources and the deterioration of physical facilities led to a sharp downturn in academic and living conditions in many universities. In the early phases, poor working conditions drove many lecturers to migrate within Africa in the 1970s and 1980s, moving, for example, from Ghana and Nigeria to Botswana, Lesotho and Swaziland. This type of migration has been described as “brain circulation” within Africa. It has continued in the 1990s, with South Africa in particular becoming a pole of attraction for university lecturers and skilled people of various categories from other parts of the continent. However, the main direction of migration has been northwards, towards Europe and North America, and has been properly described as brain drain.

**Impact of the Crisis**
The stagnation and decline in financial resources and the loss of academic staff have combined to profoundly undermine the real and potential contribution of universities in Africa to national development. Universities have traditionally hosted the largest concentration of experts and specialists in specific fields, and have been in some cases the only national institutions with the skilled personnel and infrastructure to conduct research and give informed advice on important aspects of national development policies and their implementation. In the absence of critical financial and human resources, many universities are now shadows of their former selves in terms of the overall quality of their output, even as they are vastly more populated in terms of student numbers. Those lecturers who remain often have a heavier teaching load and work in conditions that leave much to be desired, at the same time as their incomes remain unsatisfactory, especially in comparison with their peers in the private sector. In order to earn extra income, many lecturers have spent more time on consultancies than on their students and their own research.
Thus, the departure of lecturers and the loss of attractiveness of teaching as a career have led to increasing difficulties in renewing and rejuvenating faculties. The growth in student numbers across Africa in recent years has occurred at the same time that universities have tended to become net losers of teaching staff and often of academic quality.

Box 1
Impact of Brain Drain

NEGATIVE

- Reduces the already low quantity of skilled manpower available in African countries and needed for their development
- Reduces numbers of dynamic and innovative people, whether entrepreneurs or academics [90 per cent of private firms in Gabon are managed by expatriates]
- Increases dependence on foreign technical assistance
- Slows the transfer of technology and widens the gap between African and industrialized countries.
- Africa’s share of the world’s scientific output has fallen from 0.5 to 0.3 per cent and the brain drain of scientists, engineers and technicians continues. There are roughly only 20,000 scientists in Africa, 3.6 per cent of the world total.
- In the four years from 1994 to 1997, brain drain cost South Africa an estimated R8.4 billion in lost income tax and R285 billion in potential contributions to gross domestic product (GDP). In 1997 alone, South Africa lost R80 million in income tax and a potential R2.26 billion contribution to GDP as a result of emigration.

POSITIVE

- Contribution of new skills when migrants return
- Remittances from skilled migrants boosts household welfare
- Remittances support the balance of payments
Towards a Solution

It has been argued that Western countries should have a moral obligation to restrain brain drain from African countries. According to Thomas (1997:91), “if physical capital must be paid for, why should publicly financed human capital be received free?” As the argument goes, poor, developing countries should be compensated for the loss to the West of the little skilled and trained personnel they have contributed to creating. For it appears that rich nations deliberately and subtly solicit the migration of scientists from developing regions.

However, developing countries have little leverage to exert on industrialized that have benefited from this brain drain. Some countries have tried restrictive policies in order to make migration more difficult. One example is compulsory national service. Another approach is through incentive policies that aim to make emigration less attractive by offering rewards for highly skilled people that stay in the home country. Neither has proven especially effective. Restrictive policies are only temporary deterrents for migration. Incentive policies are also ineffective because developing countries cannot offer to skilled professionals salaries and infrastructure comparable to those in industrialized countries. Another approach seeks to turn the brain drain into “brain gain” through two options. The first is the return option, which involves efforts by countries to encourage their highly skilled expatriates to return home. Only a few, mostly newly industrializing countries such as Hong Kong, India, and South Korea, have been able to implement this strategy. For the return option to work, home countries must be able to offer salaries and infrastructure comparable to those in the countries in which the expatriates work.

BOX 2

The RQAN programme

The International Organization for Migration (IOM) has implemented a programme designed to help African governments reduce personnel shortages in priority areas of the public and private sectors. The Return and Reintegration of Qualified African Nationals (RQAN) programme began as a pilot initiative in 1983 with grants from the European Commission and the United States government.
The pilot phase was judged a success and a second phase was started from 1988 to 1991 in the framework of the Lome III Convention with funds from the European Commission and from African countries. A third phase of RQAN ran from 1995 to 1999 in the framework of the Lome IV Convention.

RQAN involved working closely with African governments to identify the types of job openings to be filled. Specific job offers were solicited from both public and private sector employees, while advertising was also used to attract highly qualified candidates. IOM helped to match jobs with candidates and provided a financial package covering the costs of family relocation (household shipment, purchase of professional equipment if appropriate, and a short-term installation grant). IOM then monitored and supported the returnees' social integration and professional development to ensure that the return was sustainable.

In the first phase of the RQAN programme, IOM helped 535 African professionals to return to an initial three target countries: Kenya, Somalia and Zimbabwe. In the second phase (1988-91), Ghana, Uganda and Zambia joined the target countries and another 619 professionals were helped to return home. New target countries in the third phase included Angola, Cape Verde, Guinea-Bissau, Mozambique and Sierra Leone and 855 more professionals went back home. This meant that a total of 1,937 African professionals returned home (with their dependants) through RQAN.

Among the notable objectives of RQAN is the enhancement of the role and utilization of African professionals in the national development process. The IOM programme has also helped to ensure the gainful employment (and self-employment) of returnees and to help African countries establish and strengthen institutional frameworks for the return of their expatriate professionals.

The second option is the diaspora option. This takes the brain drain not as a loss but as a potential gain to the sending country. Its expatriates constitute a pool of potentially useful human resources that have to be mobilized. The main feature of the diaspora option is that it tries to set up linkages between skilled expatriates as a knowledge network and with the country of origin. The aim is to facilitate exchanges of information and knowledge between expatriates and the transfer to and application of such expertise in the home country without necessarily requiring the physical and/or permanent return home of the expatriates. In this way, the home
country has access to the knowledge and expertise of the expatriate as well as access to the networks that he/she forms in the host country.

The diaspora option relies on an effective system of transfer and exchange of information and knowledge between network members and between them and their counterparts in the home country. Also important is the provision of some incentive or benefit that bonds the members of the network.

There are some 41 expatriate knowledge networks in the world with the explicit purpose of inter-connecting the expatriates themselves and with their country of origin. These networks are tied to 30 different countries, but only six are linked with Africa. (These are an Ethiopian Network, the Association of Kenyans Abroad, the Moroccan Association of Researchers and Scholars Abroad, the Association of Nigerians Abroad, the South African Network of Skills Abroad and the Tunisian Scientific Consortium.)

Expatriate networks are further categorized as: student/scholarly networks, local associations of skilled expatriates, expert pool assistance through the Transfer of Knowledge Through Expatriate Nationals (TOKTEN) programme of the United Nations Development Programme (UNDP), and intellectual/scientific diaspora networks.

Their main purpose is to mobilize their members to contribute their skills and expertise to the economic and social development of their country of origin. Members organize activities such as conferences and seminars on issues of importance to their country of origin, and newsletters for sharing information. The Association of Nigerians Abroad, for example, has committees for specific areas of concern in Nigeria and each membership application form asks potential members to indicate in which committee they intend to become involved. The committees range from education, technology and finance to health and political affairs.

The South African Network of Skills Abroad (SANSA) is an example of the intellectual/scientific diaspora network in which members are mostly, but not necessarily, from the home country in question. Fifty-seven nationalities are represented in SANSA. This indicates that incentives other than national loyalty play a significant role in the decision to join a network.

While SANSA members are located in 68 countries on the five main continents, over 44 per cent of them are equally divided between the US and the UK. Nearly half the notably multidisciplinary members hold a masters degree while 30 per cent have a doctorate. This percentage of SANSA members living abroad that are PhD holders is almost double the percentage of PhD holders in South Africa.
The diaspora option is not a magical solution to the brain drain problem. However, it does go beyond traditional approaches in recognizing an opportunity to capitalize on the very characteristics of the brain drain through the remote mobilization of highly skilled people in the diaspora.

**Tackling the Pull and Push Factors**

There is now a general consensus that the process of brain drain can only be reversed if the “push” and “pull” factors are adequately addressed through the implementation of short- and long-term strategies. At this stage, there is probably not much that African governments can do about the pull factors originating from industrialized countries, which are the destination of most skilled African migrants. It is, therefore, more important for African governments to tackle the push factors of brain drain as these are to some extent more are under their control.

The main issues are how to build, retain and utilized indigenous capacities critical to national growth and development. One important preliminary step is to undertake a comprehensive census of a country’s skilled and qualified personnel (both at home and abroad) and their areas of specialization. This database would be used in conjunction with a regular survey of the skills needed by the productive sectors.

A necessary (but not sufficient) condition for addressing the push factors is the creation of a political environment conducive for the mobilization of internally available human capital. This presupposes the will and commitment of political leaders to the effort of restraining brain drain and to building local capacity. Respect for human rights and democratic values need to be upheld for creative ideas to flourish. The stability of political institutions and the confidence of citizens in government policy are among other important prerequisites for making use of scare human capital. Of course, durable peace is in itself a vital condition for the full participation of citizens in the development process.

Other positive elements include:

- Increasing education spending and putting more emphasis on building capacities needed by the country in the short and the long term.
- Improving technical assistance and revising its objectives especially with regard to accelerating the process of genuine transfer of technology
- Regional and subregional collaboration to develop South-South technical assistance
• Promote economic policies that diversify the industrial base in order to increase labour supply, allocate it rationally and better utilize local expertise.
• Governments must be made aware and realize for themselves the need to set and implement their priorities in education and scientific research.
• The few scientists and researchers should increase their advocacy for R&D, and initiate cross-border research projects and projects with the scientific diaspora.
• Links between universities and industry should be strengthened.

The experience of some South-East Asian and African countries such as South Korea, South Africa and Botswana suggests that the solution to the flight of qualified personnel is political stability and economic development. Even clearly imperfect democracies have succeeded in reversing emigration trends by establishing and sustaining over time an environment and resources that stimulate entrepreneurship and creative work and ensure the possibility of maintaining links with peers abroad. In this context, the processes of economic recovery and social development taking place in some African countries, alongside efforts to institute a strong culture of democracy provide justified hope for a solution to the problem of brain drain.

Within the above-mentioned processes, there are measures that work towards mitigating the brain drain problem. These include institutional development and capacity building, which combine training of personnel, renovation of management structures, improvement of facilities, structures and overall conditions of work, and coherence with sectoral and national development policies. Training human resources primarily in African countries rather than through long courses in industrialized countries, and at the same time re-establishing adequate working conditions will in turn address some causes of emigration.

Sidebar Box
Africa has great internal disparities with regard to science and technology institutions and personnel. An analysis conducted by UNESCO in 1995 in 38 sub-Saharan countries showed that:

• There were 602 national research centres
• Of which 393 (65 per cent) were in just 8 anglophone countries.
• South Africa has 172 (28.6 per cent) of the 602 centres
• 16 West African countries have 132 research centres but 95 (over 72 per cent) of them are in 4 countries (Nigeria, Ghana, Senegal, Cote d'Ivoire).
Food, health and human sciences are the focus of activity of 66 per cent of these institutions (or 70 per cent, excluding South Africa).

Only 4 per cent of the institutions are working on basic sciences (or 1.6 per cent, South Africa excluded).

The combination of human development policies and initiatives to promote regional cooperation and integration provide further opportunities to reverse the brain drain. However, such networking requires the establishment of information and communications technology capacity within institutions. This will allow teaching and research staff to communicate and interact freely with peers and potential end-users of their research results within Africa and also with their counterparts outside the region. Thus, the development of information and communication technology comes to form an important part of the necessary overall improvement in working conditions.

Another area of concern is that of technical assistance to Africa, which represents 22-25 per cent of total world consultancy. The participation of African consultants in this market has been very low, a factor which undermines capacity building in the region. Consequently, African governments must strongly encourage the use of the skills and expertise of African universities in consultancies that are normally contracted to foreign firms, with appropriate remuneration. Not only will this improve the financial situation of the universities and both formalize and regularize the current informal and individualistic situation, it will also provide challenging and rewarding opportunities that could help reduce the outflow of skilled personnel.

Sidebar Box
The biggest challenge facing Africa is to consolidate good governance and the rule of law, create societies that encourage creativity and critical thinking and build confidence in citizens to engage in the production of wealth and improvement of standards of living, attract national and international investment, produce enough food for all citizens, build roads for goods to reach all parts of the nation, expand and improve education and health systems and lay the foundations on which sustained development can be built. Progress along these paths represents the best hope for a permanent solution to Africa's brain drain problem.
Revitalizing African Universities

Strategic planning is the first major step that African universities must take in order to regain initiative and chart a course towards renewed health and vigour. This was one of the conclusions of a 1997 joint publication of the Association of African Universities (AAU) and nine international and regional scientific institutions in Africa, together with the World Bank and several funding agencies.

Entitled *Revitalizing Universities in Africa*, the study identified as priority topics for discussion the expansion of access to higher education, particularly for females; diversification of tertiary education opportunities; financing, improving the quality and relevance of university education; management of the human, financial and physical resources; access to scientific information and technology; and the strengthening of research activity. Other issues include: strengthening institutional and regional cooperation, especially for graduate training and research; accelerating the rate of installation of information and communication technologies; and modernizing curricula and study programmes.

The publication called for an inclusive process of consultation that brings together the university management, academic staff and students, as well as representatives of the government and other social constituencies. This process of consultation would facilitate an informed consensus among the relevant stakeholders and would enable the university to adjust its role according to the needs of the society and ensure the support needed for the implementation of approved plans.

While traditional, state-run universities continue their efforts to meet the current multiplicity of demands, there has recently been an upsurge in the establishment of private institutions for tertiary education. Sometimes associated with religious denominations, always with a clear commercial basis, these new institutions account for a still limited enrolment of students. They tend to offer degrees mainly in the social sciences and humanities (religious studies, law, business administration, etc) and conduct limited research or none at all. More costly courses such as engineering and medicine are rarely available in private universities. In a good number of instances, most of their best-qualified staff is part-time, in effect “moonlighting” from public sector jobs to supplement their income.

These private institutions are a welcome development in Africa because, in principle, they expand access to higher education. However, in practice, their contribution has a number of limitations. These include their relatively small size, the small range of courses on offer and the small
number of people able to afford the fees. Along with distance learning at university level, private universities in Africa are useful adjuncts to the public system, but are by no means a realistic alternative.

**Regional Cooperation**

One of the positive steps taken by African universities is to forge stronger links through subregional and regional networks that encourage a more cost-effective use of resources. Besides enabling smaller and newer universities to learn from the experience of older counterparts, networks also facilitate exchange programmes for graduate training and research, staff exchange for teaching and external examinations, student mobility, and quality enhancement and assessment.

The African Economic Research Council (AERC) is a successful model of regional cooperation in research and training. It is a network of schools of economics and business administration that offers masters and doctoral degree programmes to selected students from various African nations. By 1992/93, there were some 17 institutions in 15 countries participating by contributing staff and students to a joint Regional Collaborative MA Programme for Anglophone Africa (excluding Nigeria). AERC has also provided scholarships in a PhD. Fellowship Programme. While its programmes are decentralized to faculties selected for the ability to undertake research and training, programmes also include a period of study in a major AERC centre (Nairobi, for example) which has been specially equipped to provide advanced research and training facilities. Francophone West African universities are also operating a similar collaborative system.

Another notable model is the International Centre of Insect Physiology and Ecology (ICIPE). It conducts research and training in insect physiology in a “centre of excellence” and students from all over Africa apply for scholarships to enroll in its masters and doctoral programmes. The African Regional Postgraduate Programme in Insect Science (ARPIS) is associated with the ICIPE and was launched in 1983 as a grouping of seven African universities involved in a three-year doctoral training programme in insect science. There are now 25 institutions involved in the programme.

Yet another model of collaboration and networking is that provided by the UNESCO/UNITWIN Network for Southern Africa in which each member institution is responsible for developing capacity for training and research in a specific priority area. This programme involves faculties of five universities in Botswana, Mozambique, Namibia, South Africa and Zimbabwe and at least three European universities in Germany, Portugal and
The Netherlands. They provide programmes in disciplines such as law and human rights, mathematics and science, and medicine and African religions.

The Association of African Universities (AAU) has itself run a number of regional programmes over the years. These include the Study Programme on Higher Education Management and Research in Africa, which provides research fellows with grants and supervision to undertake research into such issues as decision making processes, graduate employment, information systems, resource mobilization and finance policy. It has held Senior University Management Training Workshops to expose vice-chancellors and senior staff to modern management skills. The AAU has provided grants that enable students to produce dissertations and theses in universities other than in their own country, and has also run an exchange programme of academic staff for lectures, seminars and external examinations.

Building on the progress already made in collaborative programmes, the AAU invited proposals in 1998 for a Programme on Networks for Regional Cooperation in Graduate Training and Research that it was launching in cooperation with the Association for the Development of Education. AAU received 41 proposals, involving 35 African countries, and seven were selected for development, covering areas such as distance education, energy systems, human rights, agricultural research (notably into drought-resistant plants), processing of industrial and agricultural by-products, accounting and academic publishing.

Despite the progress made in enhancing collaboration between African universities, there remains the fundamental limitation of reliance on donor funding to sustain networks and an insufficient sense of ownership of programmes on the part of the African institutions involved.

In this light, some have argued that in order to achieve the objective of stemming the brain drain, African countries must take responsibility for financing the development of science and technology education, particularly in identified areas of national need. The point is to strengthen national institutions rather than facilitate further training abroad for qualified Africans who, for want of domestic employment that is professionally rewarding, may well not come back home.

Recent studies indicate that developed countries are going to need in the near future roughly twice the number of professionals that their education systems currently produce. African countries must, therefore, urgently embark on the strengthening of national and regional university institutions within an explicit programme of building and retaining indigenous capacity.
The brain drain is only one symptom of a grave malady afflicting the science education policies of African countries. By wanting to copy the education systems of Northern hemisphere countries, African countries have merely accentuated the defects of those systems. Instead, African countries need to re-focus their policies for training and research according to local priorities and identified needs. The continent’s meagre financial resources indicate the desirability of establishing subregional centres of excellence that will help retain in their countries highly qualified African intellectuals.

**BOX 3: Subregional institutions – the EISMV in Dakar**

It has often been said that African governments must quickly set up dynamic structures and institutions for training and research. Some people have argued that African countries must pool their meagre resources to set up subregional institutions that will help stem a brain drain that could accelerate in the near future due to globalization and the rapid evolution of knowledge and technology.

The case has, of course, also been made for strengthening Africa’s existing subregional institutions. One example is that of the Ecole Inter-Etats des Sciences et Medicine Veterinaires (EISMV) located in Dakar, Senegal. It was set up in 1968 by 13 francophone countries of sub-Saharan Africa as an institution of higher education, research and professional training. It was initially an institute of the University of Dakar until 1976 when it became autonomous, with member states fully supporting its budget.

The mission of the EISMV is to provide African countries with veterinary doctors fully trained in regional realities and to support and stimulate research in order to solve the problems of livestock breeding in the region. Between 1968 and 1999, the EISMV produced 715 veterinary doctors (of which 54 are women). Over the period, its research programme was broadened to address the process of making livestock breeding more sustainable by improving breeding techniques and tackling desertification in member countries.

In fact, at the beginning of the 1990s, EISMV embarked on a radical reorientation as a result of a number of new factors. These included the growing impact of structural adjustment policies, the devaluation of the CFA franc in 1994, the build-up of arrears in member-state contributions, the fall in enrolments and the privatisation of veterinary medicine. EISMV undertook to further increase its teaching standards, diversify its areas of
training and monitor the careers of its graduates. The aim was to keep up with new and tougher conditions in the job market and the general socio-economic conditions of member states.

**Veterinarians trained at EISMV (1968-99)**

<table>
<thead>
<tr>
<th>West Africa</th>
<th>526</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin</td>
<td>58</td>
</tr>
<tr>
<td>Burkina</td>
<td>71</td>
</tr>
<tr>
<td>Cote d’Ivoire</td>
<td>14</td>
</tr>
<tr>
<td>Mauritania</td>
<td>7</td>
</tr>
<tr>
<td>Niger</td>
<td>69</td>
</tr>
<tr>
<td>Senegal</td>
<td>235</td>
</tr>
<tr>
<td>Togo</td>
<td>72</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Central Africa</th>
<th>180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameroon</td>
<td>81</td>
</tr>
<tr>
<td>Central African Rep.</td>
<td>11</td>
</tr>
<tr>
<td>Congo</td>
<td>16</td>
</tr>
<tr>
<td>Gabon</td>
<td>6</td>
</tr>
<tr>
<td>Rwanda</td>
<td>39</td>
</tr>
<tr>
<td>Chad</td>
<td>27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other countries</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djibouti</td>
<td>1</td>
</tr>
<tr>
<td>France</td>
<td>3</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>2</td>
</tr>
<tr>
<td>Madagascar</td>
<td>1</td>
</tr>
<tr>
<td>Dem. Rep. Congo</td>
<td>1</td>
</tr>
<tr>
<td>Burundi</td>
<td>1</td>
</tr>
</tbody>
</table>

Besides seeking more explicitly to make EIMSV a sub-Saharan centre for training in veterinary sciences, a significant example of the new orientation was the creation in 1998 of a consultancy bureau specially adapted to respond to the needs of member states. EIMSV also renewed its efforts to improve inter-university cooperation and collaboration with
institutions in Europe and North America as well as in Africa (ECOWAS, CILSS and UEMEAIO).

The aim of EISMV has remained that of producing veterinarians trained in the specific realities of African countries and who return to their countries of origin in order to reinforce existing national capacity. According to a study of its graduates showed that in 1990, some 54 per cent of veterinarians trained at EISMV were working in the public sector and 11.4 per cent in the private sector. Another 17.3 per cent was engaged in further professional training, while a similar percentage was looking for work. The most recent study, conducted in 1996, showed that all EISMV trainees in Benin and Senegal were employed three years after graduation, and only 0.6 per cent had migrated abroad.
SECTION II

Country perspectives on brain drain

Ethiopia

Ethiopia faces considerable shortages of skilled labour in different sectors. One indicator of skilled labour coverage in a country is the ratio of university graduates per 100,000 people. For Ethiopia in 1996, there were 8.35 graduates per 100,000 people living in Ethiopia.

The following table shows the demand and supply of university graduates in Ethiopia in the 1980s. Demand is expressed in terms of the labour requirements submitted by the Office of the National Committee for Central Planning (ONCCP) and other government departments. Supply is in terms of new graduates placed by the ONCCP. Ethiopian graduates could meet only an average 49 per cent of requests for skilled personnel made by different departments in the 1978/79-1988/89 period.

<table>
<thead>
<tr>
<th>Year</th>
<th>Supply (S)</th>
<th>Demand (D)</th>
<th>S/D x 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978/79</td>
<td>35</td>
<td>1 214</td>
<td>29</td>
</tr>
<tr>
<td>1979/80</td>
<td>1 118</td>
<td>2 349</td>
<td>48</td>
</tr>
<tr>
<td>1980/81</td>
<td>286</td>
<td>1 191</td>
<td>24</td>
</tr>
<tr>
<td>1981/82</td>
<td>1 528</td>
<td>2 836</td>
<td>54</td>
</tr>
<tr>
<td>1982/83</td>
<td>1 198</td>
<td>2 273</td>
<td>53</td>
</tr>
<tr>
<td>1983/84</td>
<td>1 395</td>
<td>2 917</td>
<td>47</td>
</tr>
<tr>
<td>1984/85</td>
<td>1 280</td>
<td>2 929</td>
<td>44</td>
</tr>
<tr>
<td>1985/86</td>
<td>1 716</td>
<td>2 830</td>
<td>61</td>
</tr>
<tr>
<td>1986/87</td>
<td>1 941</td>
<td>3 486</td>
<td>56</td>
</tr>
<tr>
<td>1987/88</td>
<td>1 933</td>
<td>2 600</td>
<td>74</td>
</tr>
<tr>
<td>1988/89</td>
<td>1 665</td>
<td>3 6277</td>
<td>43</td>
</tr>
</tbody>
</table>

The shortfall has been felt within academia as well. Every major department of the Addis Ababa University reported an extreme shortage of instructors. The Department of Accounting said that its existing staff members could cover 60 per cent of the total credit hours in the first
semester of the 1997/98 academic year, and only 40 per cent in the second semester.

**Trends in outflow (1968-96)**

Scholarships have been the most important means by which potentially skilled Ethiopians emigrate. According to a national Education Policy Study conducted in 1989, out of 3,551 Ethiopian students sent to the then socialist countries between 1975/76 and 1985/86, only 2,089 or 59 per cent returned home. The reasons for many students not returning home were economic, political, social and academic.

Based on data from the Central Statistical Authority (CS), the total number of students leaving Ethiopia with scholarships in the 1968/69-1995/96 period was 18,357. The total number that did not return home for this period was 6,425, suggesting an annual average of 238 skilled individuals not returning home. The non-returnees were mainly students in the social sciences and technology.

The major destinations of Ethiopian migrants have been North America and Western Europe. Between 1981 and 1996, Ethiopia stood ninth in the ranking of the nationality of migrants entering the US. About 34,138 visa applications from Ethiopians were approved during this period, and in 1996, Ethiopia was among the top five nationalities of people gaining admission into the US through the Diversity Visa category. Based on available 1996 data, some 49 per cent of all Ethiopian immigrants into the US were employed in a professional or technical capacity.

Case studies of four governmental organizations – Addis Ababa University (AAU), the Ministry of Economic Development and Cooperation (MEDAC), The Ethiopian Science and Technology Commission (ESTC) and the Disaster Prevention and Preparedness Commission (DPPC) – provide further evidence of the significant numbers of Ethiopians that are sent abroad and do not return. The number of non-returnees has steadily increased since the early 1980s and shows no sign of abating. It reached its apex between 1991/92 and 1995/96, probably due to political and economic development in Ethiopia. Out of 100 personnel of these organizations sent abroad for further training in the period from 1981/82 to 1996/97, an average of 35 have failed to return. The percentage of female non-returnees for the period stood at 43 per cent, while the figure for males was 34 per cent.

The largest number of non-returnees was in the social sciences, while medicine registered the largest ratio of non-returnees to returnees. Out of every 100 medical practitioners who went abroad for further study in 1982-95, some 43 per cent did not return home on schedule. Meanwhile, fully 50
per cent of people sent to train in technology fields by the ESTC did not return. It is a matter of great concern that Ethiopia, which has a grave shortage of doctors and scientists, is supplying wealthier countries with such skills.

It appears that the higher the level of education, the greater the proportion of non-returnees. Of 1 000 staff members sent abroad for specialization by the Addis Ababa University, 50 per cent stayed on permanently in the countries to which they were sent. Another 40 out of 100 people with both MAs and PhDs did not return home on schedule. For the ESTC, all those sent on PhD. scholarships did not come back. In MEDAC, half of all those sent to get their MA/MSc degrees did not return.

### Profile of non-returnee staff from Ethiopian institutions

<table>
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<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of non-returnees</td>
<td>35</td>
<td>38</td>
<td>41</td>
<td>23</td>
</tr>
<tr>
<td>Fields with higher % of non-returnees</td>
<td>Medicine (43 %)</td>
<td>--</td>
<td>Technology (56 %)</td>
<td>Technology (53 %)</td>
</tr>
<tr>
<td>Programme of study with highest % of non-returnees</td>
<td>PhD. and specialization (42 %)</td>
<td>MA/MSc. (50 %)</td>
<td>Certificate PhD. (100 %)</td>
<td>MA/MSc. (31 %)</td>
</tr>
<tr>
<td>Major host countries</td>
<td>Western Europe (42 %)</td>
<td>Western Europe (50 %)</td>
<td>Western Europe (94 %)</td>
<td>Western Europe (62 %)</td>
</tr>
</tbody>
</table>

Source: Dejene and Yohannes (1997)

It also appears that the longer the period of stay abroad, the greater the likelihood of not returning to Ethiopia. Out of 100 AAU staff members who were away on study leave of one year or less, only 21 failed to return home. Of 100 staff that was sent for three or more years, 47 did not return.

The “pull factors” of migration, such as better job opportunities and a higher standard of living in host countries, are likely to have played a big role in the strong relationship between length of study abroad and rate of non-return home. There is also some evidence that the probability of permanent migration declines with the frequency of travel abroad. According to AAU data, people getting their first exposure to foreign countries showed a higher propensity to stay abroad than those who had the
opportunity to make frequent trips abroad. Does this suggest that the opportunity of going abroad reduces the incidence of permanent migration, or does it suggest that individuals with weak push factors tend not to migrate?

Profile of tertiary students sent abroad (1968/69-1995/96)*

<table>
<thead>
<tr>
<th>Field of study</th>
<th>Number (1)</th>
<th>Ratio of non-returnees** (2)</th>
<th>Estimated number of non-returnees (3) = (1) x (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Science</td>
<td>4 325</td>
<td>.37</td>
<td>1 600</td>
</tr>
<tr>
<td>Natural Science</td>
<td>1 707</td>
<td>.32</td>
<td>546</td>
</tr>
<tr>
<td>Medical Science</td>
<td>2 013</td>
<td>.21</td>
<td>423</td>
</tr>
<tr>
<td>Agriculture</td>
<td>3 182</td>
<td>.30</td>
<td>955</td>
</tr>
<tr>
<td>Engineering and Technology</td>
<td>4 353</td>
<td>.35</td>
<td>1 524</td>
</tr>
<tr>
<td>Fine Arts and Sports</td>
<td>265</td>
<td>.30</td>
<td>80</td>
</tr>
<tr>
<td>Unidentified</td>
<td>2 512</td>
<td>.30</td>
<td>754</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>18 357</strong></td>
<td><strong>.35</strong></td>
<td><strong>6 425</strong></td>
</tr>
</tbody>
</table>

*Data for 1993/94 not available
** Ratio obtained using data compiled from personnel records of Addis Ababa University, the Ministry of Economic Development and Cooperation, the Ethiopian Science and Technology Commission and the Disaster Prevention and Preparedness Commission
Source: Central Statistical Authority and Ministry of Education

As regards the direction of migration, most migrants from the four institutions have gone to industrialized Western countries. The US, Canada and Western Europe hosted some 80 per cent of all non-returnees. The then USSR and other Eastern European countries in turn registered a high percentage (50 per cent) of non-returnees. In view of the break-up of the Soviet bloc and the reduction in the number of scholarships, it is possible that some Ethiopians already there for further studies have used these countries as transit points to Western Europe and the US.

Major destinations of government and private scholarship students (1978/79-1995/96)*

<table>
<thead>
<tr>
<th>Continent</th>
<th>Number of students (1)</th>
<th>Ratio of non-returnees (2)</th>
<th>Estimated number of non-returnees</th>
</tr>
</thead>
</table>

32
Various efforts have been made to lure expatriate Ethiopians back home. Among them was the Transfer of Knowledge through Expatriate Nationals (TOKTEN) programme financed by the United Nations Development Programme. However, of the 30 Ethiopians who came home under the auspices of the programme, only one decided to stay in Ethiopia. Nevertheless, some scholarship schemes have produced encouraging results. These include the mechanism used by the German scholarship agency DAAD to encourage African scholars to return home, and the sandwich programme at Addis Ababa University.

**Guinea**

Guinea, newly independent in 1958, saw an impressive return of citizens who were civil servants in other French colonies, in the military, working or studying in France. They dropped everything to come home to their newly independent country. That was a phenomenon that is deeply wished for today, namely the massive return home of skilled human resources whose intervention made a difference. Whether in public administration, in factories, on construction sites or in schools and hospitals, these Guineans from abroad took command of the economy and of education, much to the satisfaction of the new government.

In contrast to this “pull” effect of national independence, the deterioration of the regime into an “intolerant, one-party state” led to the “push” factor of brain drain by the mid-1960s. Thousands of Guinean lawyers, engineers, technicians, intellectuals, teachers and business people fled the country rather than face the risk of inadvertent political misfortune.

---

<table>
<thead>
<tr>
<th>Region</th>
<th>Returnees</th>
<th>(1 x 2)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>622</td>
<td>.51</td>
<td>317</td>
</tr>
<tr>
<td>Western Europe</td>
<td>358</td>
<td>.28</td>
<td>184</td>
</tr>
<tr>
<td>Eastern Europe and USSR</td>
<td>7335</td>
<td>.50</td>
<td>3668</td>
</tr>
<tr>
<td>Asia and Pacific</td>
<td>365</td>
<td>.32</td>
<td>117</td>
</tr>
<tr>
<td>Africa</td>
<td>50</td>
<td>.22</td>
<td>11</td>
</tr>
<tr>
<td>South America</td>
<td>504</td>
<td>.40</td>
<td>202</td>
</tr>
<tr>
<td>Unidentified</td>
<td>1631</td>
<td>.40</td>
<td>652</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>11165</td>
<td>.35</td>
<td>3908</td>
</tr>
</tbody>
</table>

*Data for 1993/94 not available
Source: Ethiopian Ministry of Education
By the mid-1980s, Guineans living at home numbered 5 million while nearly 2 million Guineans were living abroad.

Instead of fostering human development, “repressive policies and practices pushed the intellectual and creative forces into exile. The shortage of competent officials and experienced entrepreneurs contributed significantly to Guinea’s underdevelopment although the country has enormous natural resource wealth.”

“…(T)he criteria of merit, qualifications and competence were not respected in appointments or promotions to positions of responsibility in state institutions and the parastatal sector. Loyalty to the party and to the Supreme Chief were key elements of the public service. It has for a long time been suffering from mediocrity, laxity and the absence of any sense of responsibility towards taxpayers. Public administration today is a constraint rather than a positive factor in sustainable national development.”

**Côte d’Ivoire**

Tertiary education in Côte d’Ivoire is marked by a shortage of the lecturers and researchers. While the teaching body has hardly grown in a decade – and has even shrunk in some categories – the student body has grown rapidly, pushing the student-lecturer ratio from 25.8 to 37.5:1 in the 1991/2-1994-95 period.

Each year between 1997 and 2000, Côte d’Ivoire allocated 2.7 billion CFA francs to 490 students for scholarships outside the country. This was equivalent to 47.4 per cent of the value of scholarships awarded in 1997/98 to 12,845 students at tertiary level within the country. From another perspective, the 1997 budgets for recurrent and investment spending of the University of Abobo-Adjamé – which has about 5,000 students – were 38.3 and 85 per cent respectively of the annual cost of the external scholarships.

Meanwhile, funding for research at the Université nationale has fallen from 120 million CFA francs in 1981 to 50 million in 2000, shared between nearly 1,000 lecturers and researchers.

This situation helps explain the brain drain and the resulting crisis of human and material resources, particularly at tertiary level, a vital stage in the training of skilled personnel who can formulate, analyze and implement the policies and programmes needed to develop the private and public sectors.

Some tertiary education programmes have survived largely due to research projects financed by donors that have otherwise taken the initiative to create and support such programmes. A good example of such support is
the Ivorian Centre for Economic and Social Science Research (CIRES), which has been funded by the International Development Research Centre of Canada (IDRC). The Canadians have also supported the establishment of a doctoral programme in Environmental Sciences and Management at the University of Abobo-Adjame. One of the programme’s objectives is to help fight the brain drain.

It would be simplistic to just decide one day that Ivorian scholars abroad in the diaspora must return home. Above all, they must be offered good living and working conditions, but this would seem difficult in the current context of political and social crisis.

In order to reduce the brain drain, there has to be an improvement in the quality of conditions in tertiary education and in resource allocation. To this end, a special fund for post-graduate and professional studies was created in 1998 that gives interest-free loans in the form of scholarships on which repayment begins as soon as the recipient begins his or her working life.

At a fundamental level, the fight against brain drain requires an improvement in the psychological, political and moral environment. This would help reverse a situation that sees lecturers whose income is much lower than their private sector peers, turning into businessmen who have increasingly less time for their universities and especially for their students.

Cameroon
In the period from 1981 to 1997, budget allocations to higher education in Cameroon have averaged around 1 per cent and only once attained some 4.5 per cent of the total state budget. In the same period, total allocations to research, acquisition of books and laboratory equipment in the university hardly surpassed 5 per cent. This explains why the growth in infrastructure and equipment stagnated in the face of a rapidly increasing student population. From the mid-1980s, many lecturers began to complain loudly. Conditions for migration were thus being created and by the 1990s, most university lecturers were eager to leave the country. Thus, the low levels of university funding and their division within the different activities in the university can be said to have been one of the push factors responsible for brain drain within the tertiary education sector in Cameroon.

When the University of Yaounde was created in 1960, university salaries were made equivalent to those of the public service. There was thus no particular incentive to teach in the university. Between 1970 and 1975, many lecturers either abandoned their fields of training to work in different
areas or moved to other countries. The government responded in 1976 by instituting two allowances, (technical allowance and higher educational allowance) to the different grades of university teachers. This gave lecturers an edge over civil servants and provided an incentive for teaching in the university. Many Cameroonians abroad returned home to teach in the University.

However, these allowances – which had remained fixed since their introduction – were not only reduced in 1993, but university salaries were reduced drastically alongside those of the civil service. Salaries of the security services and the military were not affected. This created a greater incentive for teachers to migrate and many departures were recorded, particularly in the faculties of science and economics, as well as law.

A survey was conducted on a sample of 76 university teachers. All of them considered their salaries to be too low. Asked whether if given the opportunity, they would move abroad, 68 (or 89 per cent) of them replied in the affirmative. On whether their position would be different if their salaries were to increase, 56 (or 73.6 per cent) of the teachers said that would depend on the extent of the increase while 20 (or 26.4 per cent) were definite that their position would not change. Asked what measures could be adopted to stem the migration of teachers, the answers ranged from a complete review of the salary situation to providing good working conditions (such as computers, officers for lecturers, smaller classes, better equipped laboratories and libraries, etc.).

The implication of this small survey is that there is still a high probability of migration among university teachers in Cameroon. The only thing that keeps many of them in the country is the lack of opportunities to move.

Generally political factors have also been responsible for brain drain in many countries. Some of these factors are temporary while others are not. The factors include racial and ethnic distrust, lack of academic freedom in writing and speech etc. The early 1990s in Cameroon were marked by political developments such as the creation and launching of political parties and national and local elections. Some lecturers were very active in these political events, with some either founding or even leading political parties. While some lecturers belonged to the ruling party, others were in opposition. Some of those in the ruling party were rewarded with promotions or appointments to political positions, with the attendant social prestige. Some of those in opposition, however, suffered in terms of promotion, victimization and discrimination. Many in the latter group left
the country for fear of further victimization and to enjoy academic freedom elsewhere.

All the above have had some consequences on the higher education sector in Cameroon. Among the consequences is the complete loss through emigration of many Cameroonian lecturers who would have contributed to the development and growth of the country’s tertiary education system. Their role as potentials leaders both in the universities and the nation as a whole has been reduced.

One of the main problems facing Cameroon’s six universities today is an acute shortage of teachers. This explains why lecturers criss-cross the universities to teach on part-time basis. This has often resulted in reduced productivity. There is a complete absence of some categories of teachers. For example, some economics departments have not got a single Ph.D holder. This affects the level and quality of teaching and consequently, the quality of degree awarded.

Towards a solution
While financial and economic factors are the main push factors for the brain drain, other social and political factors are responsible for intellectual flight. On the basis of these factors, there is a clear need to increase budgetary allocations to higher education in Cameroon. This will not only enable the provision of basic infrastructure, but will also increase the capacity for research. Within the sector itself, there is need for a national reallocation of University budgets to give teaching and research priority.

Second, there is an absolute need to improve the salaries, working conditions and social prestige of university teaching staff. The universities should be also given the freedom to generate and use funds to meet their particular needs.

At the national level, there is a need to establish some confidence in the future of the country in terms of political freedom and good governance. This will make some of the lecturers who felt insecure in Cameroon to return home.

Above all, the whole university system needs to be reformed to take into consideration national economic and social objectives. Syllabuses need to be modernized so that those who wish to return from abroad can comfortably fit into an improved university system.
Nigeria

The role of the university in capacity building in Africa cannot be underestimated. From colonial times universities in African have built the capacity needed for the management of institutions and the economy. Unfortunately today this is history. The capacity building potential of the Nigerian and most African universities has become unsustainable due to the nature and dynamics of the political and economic environment of these institutions.

The implications of this for African development in the next century are grave. This is because without the ability to build capacity, sustain the process and ensure the effective utilization of what has been built, Nigeria and indeed Africa may not be able to achieve the desired integration into the global system.

A notable feature of industrialized countries since the Second World War has been the aggressive development of human and institutional capacity. Universities, research centres, foundations and industries have played a critical role in the institutionalization of capacity building, with governments recognizing their important role in creating an enabling environment for collaborative capacity building among these various actors. Similarly, South-East Asian countries have recorded rapid economic development in the last four decades of the 20th century due in significant part to their systematic and policies for and investment in human capital and institution building.

In contrast, Africa is characterized by the under-utilization of its existing capacity, the loss of a significant part of this capacity through brain drain, the continuing weakness of institutions and the low level of capacity building.

Some have argued that the link between building local capacities and the ability to respond to internal and external challenges is usually forged in the process of learning and cooperation between institutions. This is because without the cooperation of a community of actors and an institutional framework for coordination their activities, it may be impossible for a country like Nigeria to acquire the technological capacity required for global competitiveness.

While Nigerian governments have recognized the development of science and technology as a matter of national policy, the countries universities and research centers face many constraints. Indeed, there still exists within Nigeria a body of internationally and locally recognized expertise and intellectual ability that needs to be harnessed for building the national capacity for policy design, implementation, coordination and
evaluation. Thus, capacity building in a broad development context implies a dynamic process that enables individuals and agencies to develop critical social and technical capabilities to identify and analyze problems, proffer solutions and manage their implementation. A conducive policy environment is, therefore, absolutely crucial for an unfettered process of capacity building, particularly in the technology sector.

The emphasis on technology is deliberate. Broadly defined, technology is the totality of knowledge and skills embodied in people and institutions that provide them with mastery over their natural environment. The role of capacity building is to harness human capabilities within a network of institutions and enhance the interaction between organization in order to better manage the process of development and change. This involves the acquisition, diffusion and utilization of technology and skills in an environment that encourages research institutes, university laboratories and the private sector to build a network of information, knowledge and personal exchanges.

However, in a country where education and training systems are not geared to the development of national capacity, modern technologies of production can find only limited employment. Clearly, Africa’s human resource development institutions need to be strengthened – and supported by relevant institutional structures and linkages – in order to produce the capacities needed for the continent’s development. The appropriate policy environment would also address the problems of under-utilization of existing capacity and brain drain.

In African and other less developed countries, universities are the main agencies for research and the production of knowledge. The private sector is not strong enough and does not produce the necessary incentives (private benefits) to create knowledge for public consumption. This leaves universities as the major public institutions that develop and sustain a country’s knowledge industry on which future generations can build.

**The current situation**

Today, Nigeria’s 39 universities are, to varying degrees, in a condition that causes great concern for the future. According to a former university Vice-Chancellor and Professor of Economics T.M. Yesufu, “The student-teacher ratios are worsening in virtually all disciplines. Laboratories are either non-existent or completely denuded of essential equipment and experimental consumables. Libraries are crying out for updating with current books, periodicals and research findings. Teachers are grossly underpaid and many have had to resort to migration to other countries to seek how to keep body and soul together, and further their intellectual development. Many others
have abandoned academics to the greener pastures of private industry, the banks and consultancies. Part-time jobs and moonlighting have become the rule rather than the exception.”

Furthermore, the quality of graduates is so poor that their impact on the national economy in terms of productivity is generally below the required standard for a developing economy, Professor Yesufu adds. Another consequence of the shortage of academic staff is the decline in enrolment for graduate studies. Total post-graduate awards by Nigerian universities fell from 5,149 in June 1988 to 3,818 in June 1992 (see table below).

**Post-graduate awards by Nigerian Universities**
(year ending June)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>519</td>
<td>436</td>
<td>469</td>
<td>621</td>
<td>734</td>
</tr>
<tr>
<td>Agriculture</td>
<td>319</td>
<td>306</td>
<td>215</td>
<td>421</td>
<td>429</td>
</tr>
<tr>
<td>Education</td>
<td>1,751</td>
<td>2,055</td>
<td>1,229</td>
<td>1,972</td>
<td>1,062</td>
</tr>
<tr>
<td>Engineering &amp; Technology</td>
<td>275</td>
<td>217</td>
<td>305</td>
<td>226</td>
<td>112</td>
</tr>
<tr>
<td>Environmental Design</td>
<td>267</td>
<td>170</td>
<td>210</td>
<td>199</td>
<td>41</td>
</tr>
<tr>
<td>Law</td>
<td>121</td>
<td>138</td>
<td>181</td>
<td>226</td>
<td>8</td>
</tr>
<tr>
<td>Medicine</td>
<td>141</td>
<td>152</td>
<td>157</td>
<td>200</td>
<td>77</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>87</td>
<td>14</td>
<td>18</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Sciences</td>
<td>420</td>
<td>474</td>
<td>620</td>
<td>491</td>
<td>276</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>28</td>
<td>15</td>
<td>19</td>
<td>12</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: National Universities Commission of Nigeria, 1988-92

And for those who have embarked on graduate studies, Nigerian universities do not represent attractive employment opportunities. This is due to the poor working conditions and low salaries. Nigerian universities continue to suffer, therefore, from internal brain drain, emigration and lack of rejuvenation. The universities themselves have continued to suffer declining finances in the face of rising resource requirements.

Over the years, lecturers have sought to defend their professional and personal interests through the Academic Staff Union of Universities (ASUU), sometimes embarking on industrial action over such issues as salaries, fringe benefits and working conditions. The usually military governments have tended to respond with the stick instead of the carrot and have at time proscribed ASUU, confiscated its assets and detained and/or dismissed lecturers from their jobs. For the period 1988-90 when
government revenue was low and inflation a high 41 per cent, the National Universities Commission stated that over 1000 lecturers had left their university jobs.

Within Nigeria’s labour market, lecturers have constituted the least paid relative to their peers, a fact that has been a major cause of frustration and disillusionment.

### Average Salaries in Different Sectors of the Nigerian Economy (September 1997*)

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>ANNUAL SALARY (in naira)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public sector (oil)</td>
<td>450 000-600 000</td>
</tr>
<tr>
<td>Public sector (iron and steel)</td>
<td>300 000-400 000</td>
</tr>
<tr>
<td>Economy-wide average</td>
<td>100 000-200 000</td>
</tr>
<tr>
<td>University academic salary</td>
<td>30 000-54 000</td>
</tr>
</tbody>
</table>

Source: Academic Staff Union of Universities National Secretariat publication, 1997

Worse still is the disadvantage of Nigerian lecturers when compared to their peers in some other African countries.

### Academic Salaries in Selected African Countries

<table>
<thead>
<tr>
<th>Countries</th>
<th>Lecturer</th>
<th>Senior Lecturer</th>
<th>Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>15 000</td>
<td>30 000</td>
<td>55 000</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>12 000</td>
<td>24 000</td>
<td>48 000</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>3 600</td>
<td>4 800</td>
<td>6 000</td>
</tr>
<tr>
<td>Kenya</td>
<td>3 600</td>
<td>4 500</td>
<td>5 400</td>
</tr>
<tr>
<td>Ghana</td>
<td>1 800</td>
<td>3 000</td>
<td>4 800</td>
</tr>
<tr>
<td>Nigeria</td>
<td>222</td>
<td>360</td>
<td>439.2</td>
</tr>
</tbody>
</table>

Source: ASUU National Secretariat publication, 1997

With this decline in the overall ability to build intellectual and technical capacity, the sustainability of Nigeria’s economic growth is being undermined. The process of teaching, research, publication and knowledge development is diverging from the country’s immediate and future needs.

**What is to be done?**

In order to arrest and reverse the decline in Nigeria’s universities, the entire education system needs to be overhauled from primary to tertiary levels.
Particular emphasis should be placed on education in the sciences, with secondary and tertiary curricula adjusted accordingly. At tertiary level, an appropriate package of incentives and improved working conditions can dam the outflow of academic staff and even promote the return of expatriate qualified Nigerian scholars and technicians.

Nigerian institutions must in turn develop specialized capabilities that are currently missing, notably consultancy/research and development expertise to meet the growing needs of the oil sector, the chemical industry and machine tools companies. Research institutes need to redirect the focus of their work, make their facilities available to the universities for collaborative research geared to meeting the needs of industry. This evidently implies better policy coordination between government departments responsible for the funding and supervision of universities and publicly funded research institutes.

The government should make university funding a top priority for budget allocations in order to provide adequate resources for maintenance of decaying infrastructure, procurement of new equipment, publications, laboratory supplies and other inputs for learning. The universities should themselves adopt new strategies in light of the unpredictability of resource inflows from the national budget. They should begin to market research findings and capacity for consultancy aggressively to the government, industry and private sector bodies. Each university should set up a University-Industry Research and Development Coordination Unity to serve as a technology transfer link. University departments should be encouraged to undertake consultancies in order to generate revenue and expose students to the world of work.

Such developments will equip Nigerian universities to fulfill their statutory role and socio-economic mandate as producers of knowledge for national development and in the process, reverse the trend of brain drain.
Annex

Papers prepared for the Regional Conference on Brain Drain and Capacity Building in Africa

Revisiting the Brain Mobility Doctrine in the Information Age, Damtew Teferra, Centre for International Higher Education, School of Education, Boston College, USA.

L’exode des compétences au Burkina Faso, Taladidia Thiombiano, Centre d’études, de documentation, de recherches économiques et sociales, Université de Ouagadougou, Burkina Faso.

Description sommaire de l’initiative SISERA, Diery Seck, Secretariat d’appui institutionnel à la recherche en économie en Afrique, Dakar, Senegal,

Exode des compétences et développement des capacités : quelques réflexions à partir du cas camerounais, Aka Kouamé, Institut de formation et de recherche démographiques (IFORD), Université de Yaoundé II, Cameroun.


Eviter la fuite des cerveaux en Afrique subsaharienne : Role des institutions sous-régionales de formation et de recherche, Professeur Yalacé Y. Kaboret, Ecole Inter-États des Sciences et Médecine Vétérinaires (EISMV) de Dakar, Senegal.

Le phénomène de la fuite des cerveaux et le programme de retour de personnel qualifié mis en œuvre par l’OIM en Afrique, Ndioro Ndiaye, Directeur général adjoint, Organisation international pour les migrations

Return and Reintegration of Qualified African Nationals, Meera Sethi, International Organisation for Migration


L’expérience guinéenne en matière de renforcement des capacités humaines de développement, Soriba Sylla, Université de Conakry, Guinée

Capacity Building Effort and Brain Drain in Nigerian Universities, Bankole Oni, NISER, Ibadan, Nigeria

Effects of Brain Drain on Higher Education in Cameroon, Tafah Edokat, University of Yaoundé II, Cameroon

L’exode des compétences et développement des capacités : Le cas de l’enseignement supérieur en Cote d’Ivoire, Pascal Valentin Houenou, Université d’Abobo-Adjamé, Abidjan, Cote d’Ivoire

Understanding Human Capital Flight, Nadeem Ul Haque, International Monetary Fund, Washington DC, USA
Using the Intellectual Diaspora to Reverse the Brain Drain: Some Useful Examples, Mercy Brown, University of Cape Town, South Africa

Human Capital Flight from Africa: An Assessment of Brain Drain from Ethiopia, Dejene Aredo, Addis Ababa University, Ethiopia


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Tab 7
What is MIDA?

"Migration for Development in Africa" (MIDA) is a capacity-building programme, which helps to mobilize competencies acquired by African nationals abroad for the benefit of Africa's development.

Based on its long experience in the Return of Qualified African Nationals (RQAN), IOM has launched this new programme to strengthen its capacity building efforts in assisting African countries to benefit from the investment they have made in their nationals. Many African nationals in the diaspora are applying their qualifications and skills in developed countries in Europe and North America. Such qualifications and skills should be brought back into the mainstream of development of the African continent. Through its mobility-based approach, MIDA aims at helping African nationals to directly contribute to the development of their countries of origin.

The Organization for the African Unity (OAU) endorsed the MIDA programme at the 74th Ordinary Session of the Council of Ministers and the 37th Ordinary Session of the Assembly of Heads of State and Government of the OAU that took place from 5 to 7 July 2001 and from 9 to 11 July 2001 respectively, in Lusaka, Zambia.

The OAU requested "IOM, in partnership with the OAU, the African Development Bank (ADB), the international community and funding organizations and other stakeholders, to strengthen their activities in the continent by promoting specific development projects in areas predisposed to international migration". It also called on IOM "to continue to help African countries to encourage and facilitate the return of their qualified expatriate nationals and promote the initiated Migration for Development in Africa (MIDA)."

IOM in cooperation with African sub-regional bodies such as the Economic Community of West African States (ECOWAS), the Southern African Development Community (SADC), the East African Community (EAC), and the Maghreb Arab Union (UMA) is developing partnerships aimed at reinforcing the links between migration and development in Africa.

The overall objective of the MIDA programme is to assist in strengthening the institutional capacities of African governments to manage and realise their development goals through the transfer of relevant skills, financial and other resources of Africans in the diaspora for use in development programmes in Africa.
How does MIDA work?

The programme ensures that the rights and status acquired by migrants in host countries are preserved by guaranteeing them freedom of movement to and from their countries of origin. Several modalities to transfer the competencies of the diaspora are possible. The innovations in the MIDA programme are its uses of the new information technologies to facilitate the mobility of competencies.

Within the African Countries

In collaboration with Government and private sector employment institutions in participating African countries, IOM will:
- identify priority skill needs and investment possibilities;
- compile assignments, job vacancies and investment opportunities;
- build synergies between government and private sector institutions as well as donor agencies engaged in capacity building programmes in Africa;
- request African countries to include MIDA in their National Indicative Program (NIP) or Regional Indicative Program (RIP) in accordance to the Cotonou Agreement.

Within host countries

In collaboration and co-operation with governments, educational institutions, private sector employers, and African associations in the host countries, IOM will:
- identify available skills, financial and other resources of Africans in the diaspora for transfer;
- identify Africans in the diaspora with the necessary financial resources to invest in Africa.

Within IOM

IOM will:
- match the identified priority skill needs with identified skills, financial and other resources of Africans in the diaspora;
- establish and maintain an updated data bank;
- recruit and train personnel;
- enhance the utilization of Africans in the diaspora;
- provide assistance, where required.

Transfer Modalities

The transfer of skills, financial and other resources of Africans in the Diaspora will be carried out through:
- Virtual / tele-work or satellite based information technology systems;
- Sequenced / repeated visits;
- Investment;
- Permanent relocation.
Specific MIDA Programmes

MIDA is a generic strategy, but various configurations are possible. IOM is developing specific MIDA projects designed according to country, region and/or sector of activity (enhancement of national capacity, private sector, public health etc.)

MIDA Great Lakes

With the technical and financial backing of the Belgian authorities, IOM began to implement in November 2001 the first MIDA programme - targeting the three countries of the Great Lakes region: Burundi, the Democratic Republic of the Congo and Rwanda.

Under the MIDA programme for the countries of the Great Lakes, IOM makes it possible for professionals who reside in Belgium to return to their home countries and offer technical short-term assistance and expertise in technical fields including agriculture, banking, engineering, economics, environmental protection and social and educational sciences. Their cultural and linguistic affinities facilitate the transfer of skills and pave the way for more permanent relationships with national experts, as well as with their homeland. The programme is instrumental in responding to the need for strengthening the human resource bases in the countries. It not only rectifies manpower imbalances, it also helps reverse the brain drain in the long run.

MIDA Health

Brain drain particularly affects the health sector in the African continent. IOM is aware of this problem and wishes to participate to its solution by mobilizing the African diaspora. One of the basic tasks is therefore identifying the skills that can be found in the diaspora.

During the 52nd World Health Organization Regional Conference, the 46 Ministers of Health participating mandated WHO and IOM to index the expertise of African health diaspora. They agreed to set up a database for every African diaspora, by field and level of competencies. A questionnaire has been developed and distributed to African health professionals, who often come together in active associations and operate as networks.

After the identification process, the MIDA approach opens the way to draw maximum benefit from the skills in the diaspora. By means of repeat visits and/or virtual transfers of knowledge, MIDA Health can contribute to improved health conditions in African countries.

By drawing on professionals in the diaspora, the risk of badly adapted processes or cultural and linguistic problems can be minimized. In addition, the collected data on the skills in the diaspora can be matched with the priority needs of African health systems, offering a statistical basis with which to solicit support from development partners.
MIDA Italy

MIDA Italy is a pilot project promoted by the International Organization for Migration (IOM) with the support of the Italian Ministry of Foreign Affairs. Its main objective is to assess the interest and potentialities of sub-Saharan Africa immigrants in Italy who are willing to contribute to their countries of origin's socio-economic development. The programme is also intended as a supportive tool for the realization of self-sustainable development projects.

Further Information

MIDA Brochure http://www.iom.int/DOCUMENTS/PUBLICATION/EN/Mida_E.pdf
MIDA Strategic Plan http://www.iom.int/mida/pdf/MIDA_strategy.pdf
African Countries Working with MIDA http://www.iom.int/MIDA/map.shtml
MIDA Health http://www.iom.int/mida/mida_health.shtml
MIDA Italy http://www.iom.int/mida/pdf/Mida_italy_en.pdf
Transfer of Knowledge Through Expatriate Nationals (TOKTEN)

The “Transfer Of Knowledge Through Expatriate Nationals” (TOKTEN) programme is a global mechanism which allows qualified expatriate professionals from developing countries to return to their countries of origin for short periods of time to share the skills they have gained during their residence in developed countries.

Initiated by the United Nations Development Programme (UNDP) in 1977 to counter the effects of 'brain drain', it is now under the auspices of the United Nations Volunteer (UNV) program and is managed by the United Nations Office for Project Services (UNOPS). Since its inception, the programme has proved to be a cost effective and innovative mechanism in transferring 'know-how' to more than 30 developing countries, spanning a wide range of areas, from public administration to management of enterprises, from agricultural research to computer technology.

Experts are traced through a database developed to record the names of émigré professionals and graduates. TOKTEN consultants volunteer their services and perform tasks that might otherwise be performed by international consultants. Transfer of knowledge occurs at a much lower cost (often with savings of 50%-70%) and at greater speed, since the consultants need no period of adjustment to get acquainted with language or social and cultural context. In virtually all cases, networks are created and follow-up takes place.

Many African countries have participated in this program, including Somalia (see below), Algeria, Guinea, Liberia, and Mali.

Qualified Expatriate Somali Technical Support (QUESTS)

It is estimated that more than one million Somalis are currently living abroad. They have gained technical skills in their countries of domicile, and these benefits need to be utilised in Somalia in order to revive the struggling country.

The Somali QUESTS Initiative, modelled after the UNDP global initiative Transfer of Knowledge Through Expatriate Nationals (TOKTEN), which encourages expatriate nationals to volunteer their expertise in the service of their homelands for short periods of time, proposes to bring the skills of Somali professionals in the Diaspora to Somalia on a short-term, voluntary basis. By doing so, UNDP Somalia will address three major needs: the reversal of brain drain, supporting lasting peace in Somalia and increased participation of the Somali Diaspora in the creation of a conducive environment for sustainable human development.

The major sectors to be assisted initially are those identified as priority needs by local authorities, Somali and international organisations. These include education and training institutions, such as institutions of higher learning, vocational schools and primary and secondary schools; and health facilities, such as hospitals, mother-child health centres (MCHs) and laboratories; and agriculture.

For further information:
TOKTEN Homepage http://www.tokten.org/
UNOPS TOKTEN page http://www.unops.org/textimageflash/default.asp?pmode=3&pno=122
QUESTS Homepage http://www.so.undp.org/TOKTEN/transfer_of_knowledge_through_ex.htm
Tab 8
Former UNESCO boss cites reasons for Africa's brain drain

Dakar, Senegal (PANA) - The poor living condition of African intellectuals remains a major factor propelling brain drain on the African continent, a former head of the UN Educational, Scientific and Cultural Organisation (UNESCO) has observed.

"Our academics, our intellectuals are extremely poorly paid," ex-UNESCO director General Amadou Mahtar Mbow told an inter-generation discourse convened on the sidelines of the first conference of intellectuals from Africa and the Diaspora holding 6-9 October in the Senegalese capital Dakar.

Thursday's meeting between "elders and youths" to share knowledge and experiences was attended by African Union Commission chairman Alpha Oumar Konare at a local university here.

Responding to a series of questions from the youths on brain drain in Africa, Mbow lamented the poor atmosphere in which intellectuals fare, coupled with the lack of freedom of expression and means for researchers to pursue their work.

The former UN official, who once served as minister of culture in Senegal, summed up that these factors contributed to the reasons that push the African intelligentsia to seek greener pastures for their material and intellectual development.

Mbow said when Western countries spot the potential of African intellectuals, they offer not only possibilities to earn more money, but also opportunities to pursue research and reach higher heights.

In the early 70s, Mbow, then deputy-director of UNESCO for education devoted a number of studies to brain drain issues, seeking to address causes for the flight of human capital from Africa.

He said it was a sad state of affairs for African countries to fund the education of their nationals only to see them end up contributing to the growth and development of Europe, America and other industrialised countries.

"The African farmers, through their work and taxes, are those who fund the studies of these Africans who later stay and work in Europe or in the West instead of returning home to contribute to developing their countries," Mbow stated.

Today, as conditions in African countries were yet to improve, even though they are better than the 1970s, Mbow said the continent lacked the attraction to stem the rising brain drain or lead students back home at the end of their studies abroad.

He said while strict immigration policies could help check, if not stop, the massive flow of African intellectuals to Europe or America, it was worth noting that the West would "always chose the best to pull into to their countries."

"But it also rests with us to set conditions so that the best remains in our countries," he countered.

Dakar - 09/10/2004
UNESCO hails involvement of Diaspora in African affairs

Dakar, Senegal (PANA) - UNESCO deputy director in charge of Africa, Nouréni Tidjani-Serpos believes that with the evolution of information and communication technologies, intellectuals from Africa and the Diaspora do not need to return home before contributing toward continental development.

The problems related to the political, economic or professional environment as well as the inadequacy of structures in African countries "can be evaded in some cases by tapping in the immense opportunities currently offered by new technologies with distance work, Tidjani-Serpos told PANA Friday in an interview here.

"It is now possible for members of the African Diaspora to use their knowledge to serve the continent without being physically present. You can, wherever you are, bring something to Africa," he told PANA on the fringes of the ongoing Conference of Intellectuals from Africa and the Diaspora.

"In fact, we know that the African Diaspora is essentially composed of men and women who have left their original countries because they are unsatisfied with the political system, how public wealth is distributed or prevailing social policies," he observed.

Therefore, a return to roots would first require that African leaders consider the legitimate aspirations of the Diaspora in order to arouse their renewed interest in contributing to continental development.

Nevertheless, Tidjani-Serpos expressed confidence that the initiative to involve intellectuals in African development would bear its fruits, and hailed the changes in the past few years between intellectuals and African leaders.

"In the 1960s and the 1970s, intellectuals were regarded as subversive, dangerous elements.

"Today, notable progress has been recorded in Africa, regarding human rights. It is enough to scrutinise the mechanisms set up by the African Union and NEPAD to understand that they institute the consideration of values such as good governance, respect of human rights, etc. Therefore, it is becoming somewhat difficult to bar people from expressing themselves," the UNESCO executive analysed.

When it opened Thursday, the Conference of Intellectuals from Africa and the Diaspora failed to ease the concerns of some delegates fearing lest their hopes should be shattered by poor follow-up to the recommendations of the meeting.

But the UNESCO representative differs, saying the Senegalese proposal, which was relayed by African Union Commission chairman Alpha Oumar Konare to make the Diaspora the sixth region of Africa, is "a guarantee for success strengthened by the Dakar conference".

Yet, also included in the Diaspora is that large community of non-intellectual Africans earning their living by the sweat of their brows in Europe, America and Asia.

"They have not waited for the conclusions of the Dakar conference to contribute in developing their respective countries," Tidjani-Serpos said, citing the example of Malians in the Diaspora, who, at all times, have pooled their resources to develop communities in their country.

Dakar - 08/10/2004

Their Loss, our gain

Many of Africa’s best-educated people have left the continent to live in the West while other Africans suffer back home

By Ainalem Tebeje and Clyde Sanger

Africa is losing its human capital at such an alarming rate that some observers say the continent is dying "a slow death from brain drain.” Others have warned that, by doing nothing to stop or reverse the brain drain. Africa is "committing suicide.” In more measured language, the United Nations has called the brain drain "the most serious threat to the economic development of sub-Saharan Africa." It has, in fact, reached such a level of crisis that it is being compared to the effect of famines, civil wars and even AIDS. According to the International Organization for Migration, a UN agency, Africa has already lost one-third of its human capital. Of the estimated 3.6 million Africans in the diaspora, spread all over the world the IOM believes that more than 300,000 are highly qualified professionals. More than 30,000 of these professionals have PhDs. For more than a decade now, Africa has been losing about 20,000 skilled professionals every year. As a result, there are more African scientists and engineers in the United States than there are in Africa.

For more than three decades, academics have been engaged in a futile debate about whether the emigration of highly skilled professionals out of Africa is good or bad for the continent. On the one hand, the "brain drain" school maintained that Africa was losing the very people it needs to fight poverty, under-development and disease. The other school, in the meantime, argued that this exodus was simply "an overflow of excess skill” that the African economy could not absorb.

It was thus better, they said, for African scientists, engineers, doctors, professors, entrepreneurs and senior managers to be out of the continent. Such people would otherwise be unemployed, underemployed, under-utilized and perhaps persecuted in Africa. Outside, they can work at prestigious hospitals, universities, laboratories, institutions and companies in the West, contribute to global scientific and technological progress, earn a decent income and send remittances to Africa. This way, they will not only support their poor families back home, but also contribute to the gross domestic product of their countries through remittances that come in foreign currency; of which Africa is permanently short.

Certainly, Africans in the diaspora are major contributors to Africa's economy. For example, 4.1 per cent of Nigeria's GDP comes from remittances, while Eritrea gets some 16.7 per cent of its GDP from this source. Remittances are particularly important since they go straight into the pockets of individuals and families who use the money for basic necessities.

However, the myth created around remittances has for long masked the real cost of brain drain to Africa. Africa employs 150,000 expatriate professionals at a cost of $4 billion U.S. a year to replace the departing African professionals. In other words, for every two African professionals who are outside, Africa employs one expatriate at a much higher salary. Worse, Africa gets little return from its investment in higher education since the graduates who emigrate give little or nothing back to their societies. For example, in Kenya it costs nearly $40,000 U.S. to train a doctor and $10,000 to $15,000 to educate a university student for four years. This has led some to say that Africa's budget for higher education is actually a large subsidy to the education budget of Western governments that receive these graduates.

Given its remarkable survival skills, Africa might show its ability, once more, to deal with yet another crisis. During the last two decades, African governments and institutions have launched several programs and offered incentives to slow down or even reverse Africa's brain drain. In both cases, the results were disappointing. Few returned, and many continued to leave.
It cannot, therefore, be left to those in Africa to deal with this problem by themselves. This belief was the spur for a group of Ethiopian professionals who immigrated to Canada a decade or more ago to plan what they have come to call "Virtual participation" in their land of birth. We define virtual participation as participation in nation building without physical relocation.

The Association for Higher Education and Development (AHEAD), based in Ottawa, has for several years supported medical students back in Ethiopia with scholarships and sent medical books to university libraries. Recently, with funding from the International Development Research Centre (IDRC), its members conducted a study among the wider Ethiopian diaspora with focus groups in three Canadian cities, to learn their attitudes about engagement for development purposes in their homeland. AHEAD also organized focus groups that gathered in Ethiopian cities, asking about the usefulness of this involvement. We also gathered data about the brain drain from other African countries.

The findings were more shocking than we had expected. Africa's institutions have become increasingly incapable of responding to Africa's economic, health, social and political challenges, since its professionals with track-record experience and a corporate memory are replaced by fresh graduates with limited expertise or by expatriates who know little about the societies to which they come.

In particular, Africa's health and social services are crumbling as skilled professionals leave in droves. The Kenyan Medical Association is warning that the brain drain is threatening the very existence of the country's health services. One-third of Ethiopia's medical doctors have already left the country. Zambia had 1,600 doctors not too long ago; today only 400 remain. In the 1980s, Ghana lost 60 percent of its graduating doctors.

The story is no better in other spheres. Zimbabwe's respected mining industry has lost one-third of its skilled manpower. South Africa, which has benefited from the arrival of professionals from other parts of Africa, is losing many of its own - and the rate of exodus may well increase. Ms. Lala Ben Baraka, deputy executive secretary of the Economic Commission for Africa and an IDRC governor, has even said, "Africa will be empty of brains In 25 years."

In September, AHEAD presented its findings in a study entitled "Semantics Aside: the role of the African Diaspora in Africa's capacity building," with Ethiopia as the case study. The study allows the diaspora voice to be heard for the first time. Its thesis is that the international community has wasted valuable time debating about the brain drain; and set the diaspora on the sidelines for far too long. The study argues that the African diaspora must be recognized as a key stakeholder and be engaged in the dialogue and efforts regarding Africa's brain drain. Further, the African diaspora has not only moral responsibility to pay back the people who gave them education, but has tremendous potential to become a major player in Africa's capacity building efforts.

For its part, the African diaspora seems to be willing, after almost 20 years of indifference, to engage in this dialogue. In Canada and the United States, groups from Africa have started to mobilize their communities in an effort to raise awareness, co-ordinate efforts and channel resources towards development efforts in Africa.

The next step for AHEAD is to organize a stakeholders' round-table with representatives from African embassies, the IOM and civil society, to discuss African capacity building and practical moves in "virtual participation."

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CLYDE SANGER is an Ottawa-based journalist.
Africa's Health-Care Brain Drain

New York Times
August 13, 2004

As Africa tries to fight AIDS, the single most serious obstacle is a desperate shortage of health workers. Yet at the same time, doctors, nurses and pharmacists in English-speaking African countries are emigrating in droves to Britain, the United States, Canada and Australia. In Ghana and Zimbabwe, three-quarters of all doctors emigrate within a few years of completing medical school. Randall Tobias, President Bush's global AIDS coordinator, said in a recent speech that there were more Ethiopian-trained doctors practicing in Chicago than in Ethiopia.

The problem isn't new, particularly when it comes to African doctors, but as Celia Dugger wrote recently in The Times, the flight of nurses is a growing phenomenon, fueled principally by the nursing shortages in wealthy nations. Instead of paying salaries that would attract homegrown nurses, American hospitals recruit in the Caribbean, the Philippines, India and Africa. The same is true in Britain. From 1994 to 2001, the number of nurses registering to work in Britain who came from outside Europe grew to 15,000 from 2,000.

The group Physicians for Human Rights recently published a detailed report about this problem and its consequences. One is that the world's poorest countries are providing enormous quantities of medical aid to the richest. The United Nations estimates that every time Malawi educates a doctor who practices in Britain, it saves Britain $184,000.

It's understandable why overseas work is attractive. AIDS and tuberculosis have stretched African health services to the breaking point, placing impossible demands on nurses in particular. They do their jobs without adequate equipment or drugs. Their paychecks sometimes arrive months late. They risk infection - in some places, even gloves are scarce. While rich countries average 222 doctors per 100,000 people, Uganda has fewer than 6. Malawi has 17 nurses for every 100,000 citizens; many rich countries have more than 1,000.

This is a problem with no easy solutions. One of the worst ideas would be any sort of restrictions on emigration, which would not only be discriminatory, but also counterproductive. Africans would be even less likely to choose careers in medicine. Nevertheless, it's unseemly for wealthy countries, which could afford to pay nurses enough to create an ample homegrown supply, to run ads instead to recruit skilled staff in places like South Africa. In 2001, the British National Health Service swore off recruiting nurses from countries without their governments' agreement, but private hospitals and nursing homes still do it.

Available online at http://www.globalpolicy.org/socecon/develop/aids/2004/0813braindrain.htm
FOR IMMEDIATE RELEASE
July 15, 2004

New Report Presents Action Plan to Prevent Brain Drain and Create Equitable Health Systems in Africa; Massive Infusion of Resources for Health Sector Human Resources Should be a Priority

_We are paid so little that all of us in the medical profession think about going overseas. I don't want to go, but I want to work in modern conditions. I want to be paid enough to support my family. That means I must go to Britain, or maybe Australia._

_New doctor, Zimbabwe_

The severe shortage of health professionals in Africa is a huge barrier to expanding AIDS treatment and care and other health goals. African countries, donor governments, and international institutions must link their responses to AIDS to a broader initiative to build equitable health systems in Africa, with special attention to strengthening human resources and ensuring the right to health care for all, said a report released today by Physicians for Human Rights (PHR) and its Health Action AIDS campaign.

An Action Plan to Prevent Brain Drain: Building Equitable Health Systems in Africa, was presented in Bangkok at the XV International AIDS Conference today, with the theme, "Access for All." The PHR report addresses such equity issues by offering a series of recommendations to meet people's health care needs by paying more attention to human resources. These proposals include improvements in health infrastructure, higher salaries and benefits for health workers, enhanced investment in training institutions, reduced recruitment by wealthy nations and capacity-building for human resources management.

Right now, some 38 countries in sub-Saharan Africa, more than 75% of the region's countries, fall short of the World Health Organization (WHO) minimum standard of 20 physicians per 100,000 population; 13 of these countries have five or fewer physicians per 100,000 population. Countries are losing health professionals to wealthier nations. Zambia's public sector retained only 50 of the 600 physicians that have been trained in the country's medical school from approximately 1978 to 1999. Nursing shortages are severe too. Approximately 17 sub-Saharan countries do not even have half of the WHO minimum standard for nurses, 100 nurses per 100,000 population.

Health workers are leaving their countries because they refuse to practice in second-class health systems, where they practice in unsafe conditions, where they cannot begin to meet the needs of their patients, and where their salaries can't meet their own needs, the report said.

"Solutions exist," said Eric A. Friedman, Physicians for Human Rights Policy Associate and author of the new PHR report. "If governments commit the resources and if everyone involved in health sector financing and planning recognizes the urgent need to implement strategies that will bolster human resources, the nations of the world can achieve their AIDS treatment and other health goals. The primary response to brain drain must be to redress second-class health systems that reflect widespread violations of the right to health and other rights."

He continued, "Meeting these goals requires a renewed commitment to equity. Just as intolerable gaps exist between health care in rich and poor countries, the gaps between rich and poor, between urban and rural areas within countries must be closed."

Shortages of health professionals and access to care are especially acute in rural areas. With donor support, African countries should increase investment in rural health infrastructure, provide incentives to health professionals to work in underserved areas, and re-orient health professional training and recruitment practices to increase the number of new health professionals who decide to work in rural areas.
While the health sector human resources crisis would exist even without HIV/AIDS, the AIDS crisis is central to the shortages of health professionals. Many health professionals die of HIV/AIDS and HIV/AIDS is increasing the workload at health facilities. Meanwhile efforts in countries that have begun to scale-up AIDS treatment, such as Botswana and South Africa are being hampered by the dearth of health professionals.

Other recommendations in the report include:

- African countries, with donors support as necessary, should implement and fully fund infection control procedures, such as ample supplies of gloves, syringes and sharps with safety features to protect health workers.
- Donors should help African countries increase salaries and benefits within a context of fair salary structures. Countries should apply to the Global Fund to Fight AIDS, Tuberculosis and Malaria for costs of increased salaries and benefits.
- African health training institutions should re-orient their curricula to be more relevant to local circumstances and should focus recruitment on students from rural areas, who will be more likely to practice in these underserved areas upon their graduation.
- Wealthy nations must address their own shortages of health professionals, especially in rural areas.
- Health professionals need tools to do their jobs. African countries, with the assistance of the United States and other wealth countries, should rehabilitate their health facilities, ensuring phone service, electricity and safe water, functioning equipment, and a consistent supply of medicines and other key items.
- African governments and the health profession must reassess the roles of nurses, mid-level health workers, and community health workers, and the potential for increasing their responsibilities. As these workers receive new responsibilities, they will require increases in salaries, supervision, and training.
- Wealthy countries and health training institutions in these nations should develop programs to enable health professionals in these countries to work in African countries that cannot meet their human resource needs through native health professionals. These foreign health professionals can help build capacity and deliver services. Members of the African health professional diaspora can make an important contribution to health care in Africa.
- Low-income countries that are the source of health professionals who migrate to wealthy nations should be reimbursed by those nations.
- Budgetary spending caps driven by macroeconomic concerns often result in limitations on the amount of money countries spend on health and other social sectors. The International Monetary Fund and donor and recipient governments must work together to remove the ceilings on these sectors or make them more flexible.

At present, sub-Saharan Africa's health systems are dramatically underfunded. The US State Department reports that "overall public health spending is less than US $10 per capita in most African countries." The Commission on Macroeconomics and Health urges donors to contribute an additional $22 billion by 2007 to health sectors of low-income countries to cover basic health care intervention.

"The health consequences of brain drain are enormous and result from practices of both developed and developing countries," said Leonard S. Rubenstein, PHR Executive Director. "Rich and poor nations each have responsibilities to secure people's right to the highest attainable standard of health in Africa and other regions of the developing world."

Source: Physicians for Human Rights
http://www.phrusa.org/campaigns/aids/bangkok/release07152004.html
Academics streaming out of Africa

Africa's "brain drain" is being made worse by private industry poaching the continent's best professors, a body representing a number of East African universities has said.

Africa is suffering because many of its best minds leave for richer parts of the world - more than 10,000 left for America or Europe in 2003 alone.

But Professor Chacha Nyaigotti-Chacha, the executive secretary of the Inter University Council for East Africa in Nairobi, told BBC World Service's Africa Live programme that teaching quality was also being damaged because lecturers were being taken by private companies.

"There is brain drain, and it is affecting Africa in a very adverse way," he said.

"We do lose a number of people who are properly trained and well-grounded in their fields of specialisation to the west.

"But within the university system we also lose people from the universities to the private sector."

Factors

Professor Nyaigotti-Chacha said that this poaching was very damaging to the continent's universities.

In particular, they were getting little back from the money invested in professors and lecturers.

"I think it takes quite a lot of investment to prepare somebody up to a PhD or a good Masters, and put him in research or teaching in a university to prepare other people," he said.

"When you lose such a person, it means you have to start again, to prepare another person to come and fit into the shoes of the one you have lost.

"It's a very expensive affair."

However he added that it was not difficult to see why so many were opting for the private sector.

"The bottom line is the terms and conditions of service," he said.

"When you talk about terms and conditions, you are encompassing a number of other related aspects, including the general environment, within which a professor or developer is engaged to work."

A lack of money is a factor twice - not only does it mean poor pay, but it also severely limiting the amount of research that experts and professors can do, Professor Nyaigotti-Chacha added.

These claims were confirmed by Obong Quintas, a lecturer in politics at one of Africa's best-known universities, Makerere University in Uganda.
"I'm definitely proud to be at this university, the premier university in this country," he said.

"But of course there are conditions here that really frustrate our efforts to grow as intellectuals.

"We talk about the big numbers of students - we don't care about the actual quality of learning."

**Innovative**

But he said what was even more important was renumeration of teachers, which he said was "so low."

His total pay per month was just over $250, and consequently a job offer lecturing abroad would be tempting.

"The pay is so low, the environment doesn't allow me to work - it's easy for someone to leave," he said.

"There are many who have gone."

However, Asingwire Narathius, a senior lecturer and the head of Makerere's department of social work, stressed that he felt it was possible to do well.

"I'm very proud to be working at Makerere - it's the Harvard of Africa," he said.

"I think it's very prestigious."

He added that as a proud Ugandan he was happy to be at the University.

"There are so many opportunities here if you can use your head... certainly the pay isn't good, but - I am talking in my personal capacity - you've got to use your head to be innovative.

"You do research work, you do consulting work, and you subsidise the pay that you get."
Africa to Lost Professionals: 'Come Home'

News Feature, Philip Ngunjiri,
Pacific News Service, Dec 09, 2003

Editor's Note: Africa's best and brightest often leave the continent to live in the developed world. Now several African organizations are trying to lure them back.

NAIROBI, Kenya--Gichure wa Kanyugo, a Kenyan-born psychiatrist working in Boston, knows that Africa wants him back. But the naturalized U.S. citizen isn't going anywhere.

'You see, you cannot eat patriotism,' he says.

Kanyugo, who has lived in the United States for 17 years, is one of more than 300,000 African professionals currently working in Western countries. The flight of human capital, or 'brain drain,' from Africa is nothing new. But recent years have seen a sharp rise in the numbers of African-trained experts and professionals leaving the continent -- as well as new strategies designed to lure them back.

Between 1960 and 1975, an estimated 27,000 professional Africans left for the West, according to a study by the International Organization for Migration (IOM), a Geneva-based intergovernmental body, and the United Nations Economic Commission for Africa (ECA). This number increased to approximately 40,000 between 1975 and 1984, and then nearly doubled by 1987, representing 30 percent of Africa's highly skilled manpower stock.

Since 1990, Africa has been losing about 20,000 doctors, university lecturers, engineers and other professionals annually.

Critics say that the failure of so many Africans to return home is particularly damaging in light of the resources many African nations devote to educating their citizens. Especially in areas where the educational infrastructure is incomplete, nurturing a student up to the university level requires colossal amounts of money and energy, experts say.

'African professionals take a longer time and more money to train in their respective fields. They are the ones that are most needed to provide the expertise to develop Africa,' says Kabuga Kabiro of the Kenya Institute of Policy Management (KIPM).

With little skilled manpower left, African nations trying to sustain economic development must employ foreign workers at wage levels much higher than local salaries. A new report by the Pollution Research Group, a sustainable development organization at Natal University in South Africa, found that the continent pays up to $4 billion dollars per year to replace lost professionals with expatriates from the West. This is 35 percent of official development assistance directed to the continent, the report says.

Zephania On'gata of the Kenya Institute of Policy Management blames the brain drain on 'the politics of international economics and aid.'

'When bi-lateral or multi-lateral donors release aid packages, expatriates appear as a 'must-string' on it,' she says. That means expatriates must be hired. This, in turn, forces Africans who are equally qualified for the positions to divert their interests abroad.

Kanyugo, the Boston psychiatrist, says that time, in addition to poor economic conditions, may deter African migrants from returning. 'After years of working abroad, the migrant's plan to return home becomes increasingly vague.'
Maureen Achieng, head of the Nairobi-based Return and Reintegration of Qualified African Nationals (RQAN) program, says despite civil wars, abject poverty and massive unemployment on the continent, her organization still finds ways of facilitating the return of trained and experienced professionals back to Africa.

RQAN, which is funded by the European Union (EU), is implemented by the Geneva-based IOM, in cooperation with participating African governments. Many Africans, the IOM says, remain abroad because of inadequate knowledge of job opportunities back home, which might be attractive enough, or because of an inability to foot the relocation bill.

To attract Africa's lost talent, the IOM has launched a major campaign through advertisements in local papers that urge firms and businesses interested in various key professionals to contact IOM.

Currently, a handful of professional Kenyans are returning home annually under the IOM plan. IOM pays the returnees' airfare, pays for any excess baggage and provides a relocation allowance and a local salary supplement of up to $800 dollars per month for six to 12 months.

Still, it's an uphill battle, especially for the poorest African nations. IOM officials say that some of the professionals, after returning home, pack their bags and move to South Africa, which, in terms of economic development, stands a head taller than the rest of Africa.

*PNS contributor Philip Ngunjiri is a Nairobi-based journalist who writes on social issues and development.*

[http://www.ethiopiandiaspora.info/admin/upload/Africa%20to%20Lost%20Professionals.doc](http://www.ethiopiandiaspora.info/admin/upload/Africa%20to%20Lost%20Professionals.doc)
South Africa shows the value of the diaspora option

Mercy Brown
22 May 2003

The ‘brain drain’ – and strategies to curb the migration of highly skilled human resources – has baffled governments, academics and other policy-makers for more than three decades. The issue has become especially critical for developing countries that are struggling to carve a niche for themselves in today’s international knowledge-based economy.

A new and promising way to deal with the brain drain emerged in the early 1990’s, the so-called ‘diaspora option’. This strategy is attractive to any country – particularly those in the developing world – that cannot afford to offer the salaries and other incentives needed to attract their highly skilled expatriates back home. For it provides the opportunity to maintain contact with, and utilise the knowledge of, these valuable individuals.

The aim of the diaspora option is to encourage highly skilled expatriates to contribute their experience to the development of their country of origin, without necessarily returning home. The South African case demonstrates what can be achieved with such an approach.

Linking through networks

The main feature of the diaspora option is that it seeks to establish links with – and between – highly skilled expatriates. This allows for the exchange of information and knowledge between such expatriates, as well as between them and their country of origin. In turn, the country of origin also has access to the knowledge systems that expatriates belong to in their host countries.

Achieving this requires an effective network to facilitate the transfer and exchange of information. The South African Network of Skills Abroad (SANSA), created by the Institute of Research for Development (IRD) and the University of Cape Town is one such ‘intellectual/scientific diaspora network’. SANSA was born out of the realisation that South Africa has a vast pool of highly qualified, highly skilled expatriates living abroad. Encouraging them to contribute their skills and expertise to the country’s development would, it was felt, be immensely beneficial.

With this in mind, highly skilled South African expatriates all over the world were contacted in 1998 by the SANSA team, who asked if they would be prepared to make their skills available to their country of origin. Just 18 months later, more than 2000 had responded to this call, and the number of members is still growing.

A survey of SANSA members has shown that they are located in more than 60 countries, although more than half still has South African nationality. Most are between 30 and 60 years old, with 45 per cent holding masters degrees and almost 30 per cent with doctorates, indicating that SANSA is a professional rather than a student network. They are spread across the academic, business and government sectors, with the majority working in managerial, executive or administrative positions.

SANSA activities

At the core of SANSA’s activities is a website, via which all those interested in joining the network can register. The website has been designed to facilitate links and exchanges both between SANSA members, and between them and their counterparts in South Africa.
For example, there is a bulletin board on which SANSA members or others can post notices of general interest. There are also seven electronic discussion groups – based on fields of expertise – which allow members, and visitors to the website, to exchange information. The website also has a facility for searching the SANSA database by skills and expertise.

All of these facilities are being actively used. For example, the number of notices posted on bulletin boards doubled between 2000 and 2001, and the number of searches conducted has also increased substantially.

**Current status**

In 2000, the SANSA network was handed over to South Africa’s National Research Foundation (NRF). The Foundation lies at the heart of the country’s innovation efforts, and has important responsibilities for science and technology policy, making it an ideal home for the network. The transfer has thus significantly increased the potential for fruitful collaboration between SANSA members and their counterparts in South Africa.

Admittedly the number of projects generated through the SANSA network has not, so far, been numerous. But there have been some exciting developments over the past year. For example, the SANSA database is now linked into the NEXUS database, which contains information on current and completed research projects in South Africa, research organisations, professional associations, profiles of researchers in South Africa, and forthcoming conferences. The SANSA database has also proved valuable for research purposes, such as a study by the World Health Organisation on the migration of skilled health personnel in South Africa.

The SANSA network also continues to attract media attention more than three years after it was initiated. In 2001 alone, 32 articles about the network appeared in both South Africa and international newspapers, and it has also featured on national television. This interest appears to reflect a realisation both in South Africa and abroad of the important role that such a network can play in boosting South Africa’s research capacity, and thus the country’s social and economic development.

**A mutually beneficial option**

South Africa is not the only country to be exploring the benefits of using its international diaspora as a response to the brain drain. Over the past 10 years, more than 40 countries have set up similar links and exchanges with their highly skilled expatriates. Many of these countries have acknowledged that efforts either to stem the emigration of highly skilled people, or to attract them back to the home country, are not always effective. But they now realise that they can still have access to the skills and expertise of these individuals, even when they are not physically located in the country of origin.

However, it has become clear that a commitment from both the country of origin and its expatriate community are necessary for the diaspora option to be successfully implemented. A coordinating body is also needed to ensure effective communication between the two. In South Africa, we have found that the best model is to establish a consortium made up of representatives from both the country of origin and the network membership.

The diaspora option is mutually beneficial for both the country of origin and members of the network. The country can harness the skills and expertise of its highly skilled expatriates, and the wider community in the host country. Conversely, network members get the opportunity to contribute to the development of their country of origin, and also to further their reputation through participation in joint research projects.
AFRICA: Brain drain reportedly costing $4 billion a year

ADDIS ABABA, 30 Apr 2002 (IRIN) - Africa is losing as much as US $4 billion a year through top professionals seeking better jobs abroad, according to research by a senior economist at Addis Ababa University.

Dr Dejene Aredo argues that 20,000 professionals each year leave the continent for new jobs in the west. In an academic paper, presented at the Organisation Of Social Science Research In East Africa (OSSERA), he claimed the brain drain was hindering the continent’s development.

“It is a problem, because there is a huge deficit of manpower in developing countries,” Dejene told IRIN. “Highly qualified professionals are migrating to the west when we don’t have enough of them here.” He said that for every 100 professionals sent abroad for further training between 1982 and 1997, 35 failed to return home.

“In Ethiopia alone we have one full professor in economics – in the United States they have more than 100. We don’t have enough highly skilled manpower,” he said.

Dejene argues that countries should put policies in place that restrict the flow of educated migrants. He also says western governments should pay compensation for drawing the best talent away from developing countries. He believes that higher wages, better access to information and the dominance of western culture and values act as a magnet to professionals.

Kibre Moges from the Ethiopian Economic Association, a leading think-tank in the country, agreed that the brain drain was a serious problem in Africa as a whole and Ethiopia in particular.

“Today if you visit colleges and universities in this country you will not find any lecturers who have been there for more than seven or eight years,” he said. He pointed out that the majority of senior lectures had been lured abroad by lucrative university posts and by political freedoms.

“The main reason people go is politics,” he added. “Across Africa I still think the main reason people go is political, the lack of development, democratisation and human rights... And some may leave simply for better opportunities.”

During a recent visit to Ethiopia, US Congressman Jim Kolbe said the brain drain from Ethiopia had robbed the country of much its talent.” I am troubled personally that some of the best brains and best entrepreneurs of a country like this end up coming to the United States and thus rob the people of Ethiopia of their talents,” he said.

Source: IRIN News.org

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GHANA: Special report on struggle to stop exodus of doctors and nurses

ACCRA, 3 Oct 2003 (IRIN) - Ghanaian doctors warn that the health services will break down unless the government takes urgent action to pay health professionals a decent wage and curb the activities of overseas recruitment agencies enticing them to accept salaries up to 20 times higher.

"This practice is illegal. It is criminal for countries that have more than enough health professionals to recruit from our country knowing that we do not even have the minimum numbers to run our health facilities," the President of the Ghana Medical Association (GMA), Jacob Plange-Rhule told IRIN.

Ghana has been grappling for years with a brain drain of doctors, nurses, pharmacists and medical technicians. Thousands have left for the United States, Britain and South Africa, to escape low pay and poor conditions of service at home.


More than two thirds of the doctors trained at Ghana's two teaching hospitals over the same decade - 594 out of 871 - packed their bags and left.

The GMA complains that foreign recruitment agencies working in Ghana have aggravated the situation. "Our colleagues are just not allowed to make their own decision to leave. They are actually induced to leave," Plange-Rhule said. "Imagine getting offers from all kinds of agencies promising to pay overnight 20 times what you earn a month in Ghana for your qualifications. Definitely, no one will stay."

The Health Ministry says it would like to curb the activities of these recruitment agencies, but it cannot enforce a total ban. "Movement of labour on the international level is free. We can not impose a total ban otherwise our health professionals will just simply resign and leave," Health Ministry spokesman Kofi Amponsah-Bediako told IRIN. "A more realistic solution to this difficult situation is to consistently improve the conditions of service of our health workers."

The basic salaries of Ghanaian doctors and nurses are among the lowest in the world. The government has gone some way to try and improve them by offering generous overtime allowances and official cars. However, this in turn has led to overspending, which has got the government into trouble with the International Monetary Fund (IMF).

The Health Ministry declined to provide a pay scale, but IRIN enquiries amongst doctors revealed that the basic salary of a General Practitioner (GP) at a government hospital is about two million cedis (US $ 230) per month. A nurse earns a basic wage of about 800,000 Cedis (US $ 92).

However, in a bid to stem the exodus of health professionals, the government tops up these basic salaries with special Additional Duty Allowances that can more than triple take-home pay. GP's are paid about five million cedis (US $ 575) per month in such allowances, while nurses get around 1.5 million cedis (US $ 172).

The GMA says the allowances have helped to retain many staff who would otherwise have gone abroad, but they are frowned on by the IMF, which advocates a uniform pay structure for all health workers. "Whether we like it or not, the payment of this allowance has stemmed to tide of the exodus," Plange-Rhule said. Any attempt to stop it will rather have a negative effect in escalating an already bad
situation,"

He urged the IMF to be more flexible and imaginative in its approach. "The IMF and other world bodies are ready to put money into poverty alleviation. A big part of poverty alleviation is ensuring good health and health workers provide this service," the GMA chairman said.

The Health Ministry is also adamant that the allowances are vital for retaining staff. "We have kicked against the IMF conditionality against paying out these allowances because we are losing all our health workers.

This is the only way to get them to stay and work in Ghana," Amponsah-Bediako, a ministry spokesman said.

Professor Jeffrey Sachs, Special Advisor to the UN Secretary-General on the Millennium Development Goals (MDG), supports the government view.

"The IMF is making a bad mistake by insisting on the withdrawal of these allowances," he told IRIN.

"Salaries of health professionals should be increased to keep them in the country. If Ghana cannot pay its health professionals adequately, it is the responsibility of the IMF and other donor agencies to chip in and help. Otherwise, Ghana might not meet its health goals as stated in the MDG."

These range from halving poverty to halting the spread of HIV/AIDS by 2015.

The problem is that the paying of top-up allowances to doctors and nurses has given rise to serious over-spending, which has annoyed the IMF, the World Bank and other donors, on whom Ghana's aid-driven economy is dependent.

Finance Ministry officials said unbudgeted wage increases to health workers and other government workers were key factors which prevented the government from meeting its IMF-set budgetary targets last year.

The World Bank, the IMF and other donors failed to disburse loans worth $147 million in the last quarter of 2002 because of this overshoot.

The government says its is pumping a lot of financial resources into the health sector in order to avert the constant threat of strikes by doctors and nurses in other ways too.

Officials point out that the Health Ministry has more vehicles allocated to it than any other government department. And the government is securing a $10 million loan to build affordable housing for medical staff. "We are doing our best," Amponsah-Bediako said. He stressed that when President John Kufuor was elected in 2001 "the health sector was in virtual collapse."

"The improvements are gradual because we are faced with so many constraints," he added. We can not focus on the doctors or nurses alone," Amponsah-Bediako added.

Ethiopia Ranks First In The Immigration Of Medical Professionals

Addis Ababa, October 08, 2002 (WIC)- The International Organization for Migration (IOM) disclosed that Ethiopia ranked first among other African countries in the number of immigrant Medical Professionals and other intellectuals.

IOM country representative, Dr. Meera Sethi, told Walta that with only 485 specialists and 33 sub-specialists in the country, Ethiopia has already lost more than a 3rd of its doctors.

According to Dr. Sethi, between 1968-1996, every year 238 skilled individuals sent for scholarship did not return with 49 per cent of the total Ethiopian immigrants to the USA being employed in professional or technical capacity.

Dr. Sethi, attributed the exodus of African Professionals and their hesitation to return to the lack of conducive environments such as poor working conditions, low salaries, human rights violations, lack of higher education opportunities and absence of peace and security.

Inefficient policies, weak government ownership, lack of trust on the part of the diaspora, lack of brain exchange at intra-regional level and mismatch between supply of professionals and local demand also contributed a lot, she added.

Dr. Sethi who disclosed that such a huge immigration of professionals was aggravating the economic and technological stagnation and regression of African countries also underscored the need for reversing the situation.

Thus IOM was currently trying to develop strategies that reverse the negative effects of brain drain thereby facilitating the use of the knowledge and expertise of the diaspora for home country development, it was learnt.

She said, IOM has helped the return of 66 Ethiopians who were placed in priority area such as education, public and private sector.

Dr. Sethi appreciated the effort the Ethiopian government was currently exerting to facilitate the return of Ethiopians in diaspora mainly through the General Directorate with the Ministry of Foreign affairs.

Source: Walta Information Center
http://www.waltainfo.com/ennews/2002/nov/08nov02/nov08e2.htm
SOUTH AFRICA: Government wakes up to flight of health workers

JOHANNESBURG, 14 May 2002 (IRIN) - South Africa's leading nurses' union on Tuesday welcomed comments by the government addressing the debilitating flight of health professionals from the country.

Speaking at a Commonwealth meeting of health ministers in Geneva, Health Minister Manto Tshabalala-Msimang said: "The recruitment of health workers from developing countries has created unforeseen shortages in those countries."

She said that the exodus of medical professionals could be stemmed by bilateral agreements between developing and developed countries.

"While we are pleased that the minister acknowledges the magnitude of the problem, we insist that the health department consult us throughout the setting up of these bilateral agreements," nurses' union leader, Thembi Mngomezulu, told IRIN.

"It would be in the government's best interest to make sure we agree to all of the terms of any agreement," said Mngomezulu, deputy secretary of the Democratic Nursing Organisation of South Africa (DENOSA).

More than 300 specialist nurses leave South Africa every month according to DENOSA. Many never return. Many of those who leave have complained of their conditions of work and how they are treated.

"We are tired of lip service. The time has come for some real action," Mngomezulu said, adding that nurses run hospitals and carry a huge responsibility but "are suffering or leaving". She said that if experienced nurses carry on earning the same as other nurses after six years service, all the experienced staff would be lost.

Fully trained public sector nurses can earn US $716 a month, unless they move away from the bedside into management. Their starting salary after four years' study is US $296.

"A vicious cycle has developed in that the few loyal nurses that remain in the public service are required to deal with a heavier if not totally unrealistic workload. The state as an employer, last year agreed on introducing incentives to retain specialised skills in the health services. To date, such incentives have not materialised," Mngomezulu said.

She added that the flight of specialised skills would have a devastating effect on the quality of care for the terminally ill, especially for HIV/AIDS patients.

"We are smack in the middle of a national epidemic. The last thing we need now is people jumping ship. Already many of the hospitals which come face to face with dying patients are understaffed and ill equipped."

Dr Kgosi Letlape, chairperson of the SA Medical Association (SAMA) said: "Countries must address the underlying reasons why health care workers find it necessary to leave their countries to continue their medical careers abroad."

He emphasised that developing countries should appreciate their health care workers and remunerate them for what they are worth if they were serious about stopping the poaching of their skilled health work force.

"Doctors leave for many reasons and do not necessarily have to be actively recruited to pursue their careers elsewhere. South African doctors are very well trained and have always been sought after by
other countries."

Letlape stressed that there were various reasons why doctors in both the public and private sector choose to emigrate. These include inadequate facilities and resources that sap morale, and a lack of treatment policies for diseases such as HIV/AIDS in the public sector.

There are no accurate statistics available on the brain drain, but SAMA estimates that at least 5,000 South African doctors have moved to countries such as Canada, America, Britain and Australia.

South Africa is particularly angry at UK-based recruiters, accusing them of poaching the country's best medical professionals in what the government calls "a crucial time in the nation's development".

The migration of health professionals is not particular to South Africa. Over the last five years there has been an increase in medical personnel leaving the Southern African region as a whole to seek greener pastures in the more affluent west.

A recent study by the World Bank reported that some 70,000 highly qualified African scholars and experts leave their home countries every year in order to work abroad.

"Many of these highly skilled emigrants never return home due to the lack of motivation and opportunities for doing so. In order to replace those that have left the continent for greener pastures, Africa spends an estimated US $4bn annually on recruiting some 100,000 skilled expatriates," the report read.

According to official statistics, 10,000 people emigrated from South Africa in 2000. Unofficial estimates put the number of professionals heading overseas at three times that stated by the government.

A study of emigration to Britain, the United States, New Zealand, Canada and Australia by the Paris-based Institute for Development Research (IDR) estimated that 233,609 people left South Africa for these destinations between 1987 and 1997 - 41,000 of them professionals.

One of the worst examples of the regional brain drain cited by the IDR is Zambia. A few years ago the country had 1,600 doctors, but there are now only 400 in practice. Zambian doctors have migrated to Europe, the United States and neighbouring Botswana, lured by higher salaries.

In Zimbabwe, a large number of doctors and nurses are also leaving every month, according to a leading Zimbabwean financial newspaper.

The Financial Gazette reported that qualified nurses, who earn about US $281 a month after being certified to practice, are leaving mostly for Britain. An increasing number are also emigrating to countries such as New Zealand and Australia.

Analysts said the main reason for the exodus of Zimbabwe's black professionals was the country's economic and political crisis.

Political scientist at the University of Stellenbosh, Heidi Hudson, told IRIN that African governments could do more to halt the brain drain "rather than just becoming increasingly frustrated".

While economic conditions "dictate that they cannot yet afford to pay western-size wages, they can ensure that the respect of basic human rights and law prevails over all", she said.

Kenyan authorities worry as doctors bail out

Nairobi, Kenya (PANA) - Kenya is losing on average 20 medical doctors each month to better jobs abroad, local dailies reported this week.

In a front-page story Wednesday, the East African Standard quoted the Kenya Medical Association (KMA) as saying doctors were fleeing poor remuneration in their country.

According to KMA coordinator Paul Wangai, a large number of doctors were "migrating to seek greener pastures in other countries because they are extremely underpaid by the Kenya Government".

Underlining the gravity of the problem, Dr Wangai said the public sector currently has only 600 medical doctors and 70 dentists countrywide serving more than 28 million people.

"If the trend does not change, the situation would continue deteriorating until there's no expertise in the medical sector," Wangai was quoted as saying.

In its editorial, the East African Standard noted that "on the one hand, virtually all Government hospitals are suffering from an acute shortage of doctors".

Recently, the paper added, the KMA proposed massive pay raise for doctors in order to stem the brain drain, but the Government reacted with a "shrug of the shoulders".

The paper echoed the concerns of the KMA, adding that the issue was both important and disquieting.

It noted that the doctors were bailing out even as Kenya's medical sector was in dire need of qualified personnel.

Nairobi - 23/08/2001

Source: Panapress
Tab 9
Adaptive Technology Center for the Blind (ATCB)
http://www3.sympatico.ca/tamru/

The Adaptive Technology Center for the Blind (ATCB) is a non-profit organization established by Mr. Tamru Ewnetu, an Ethio-Canadian adaptive technologist. ATCB states its mission as empowering the visually challenged community in Ethiopia through the enhancement of skills in the use of adaptive technologies.

Visually impaired himself, Mr. Tamru understands the multitude of problems experienced by his compatriots in Ethiopia. For example, reading materials in Braille are in short supply in Ethiopia while their production is of poor quality due to the old technology still in use in the country, thus leaving blind schoolchildren, senior students and professionals at a disadvantage and dependent on sighted assistance.

ATCB became officially operational in June 2000 with the objective of facilitating access to Braille computing technology to blind people across Ethiopia. It trains local blind community members in computer applications and specifically targets children, students, professionals, the unemployed and school dropouts. It seeks to enable these beneficiaries to achieve success in their fields of activity through the application of information and communication technology (ICT) skills enhanced by means of adaptive technology. The Center has a wing called Empowering Blind Women of ATCB (EBWA) because women constitute the majority of the visually impaired population in Ethiopia and are the victims of marginalization due to their disability and gender-related discrimination. A dozen blind women were among the first graduates from the Center.

In 2003, ATCB, the International Telecommunication Union (ITU) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) joined in a bid to assist the visually impaired community in Ethiopia in gaining access to information and communication technologies. The two UN agencies will be supporting the ATCB by training blind students, government employees and others to use computers equipped with such adaptive devices as voice synthesizers, magnifying hardware and software as well as Braille embossers, scanners and printers. The ITU and ATCB will provide the training equipment and software while UNESCO will assist with training and curriculum development.

African Foundation for Development (AFFORD)
http://www.afford-uk.org

The African Foundation for Development (AFFORD) was founded as a UK registered charity in 1994 by a group of Africans in the UK, in response to concerns, that despite the vast number of Africans in the UK who organize themselves and contribute to Africa's development, Africans were effectively marginalized from mainstream development activity directed towards Africa. There was also a realization that different Africans can and should learn from each other.

AFFORD has a mission to enhance and expand the capacity of Africans in the Diaspora to contribute to Africa's development. It seeks to achieve its mission through four strategic goals:

- To shift the balance of power to Africa
- To influence the African development agenda
- To strengthen AFFORD's legitimacy and effectiveness
- To build a strong and sustainable AFFORD
As such, AFFORD’s activities involve facilitating links and bringing the African Diaspora together to deepen development initiatives for Africa; disseminating information through a number of electronic bulletins; undertaking research; brokering new relationships and supporting new ideas and adding value to the work of UK-based African civil society organizations.

AfricaRecruit

AfricaRecruit, established in 2002 by the Commonwealth Business Council (UK) and the NEPAD Secretariat, focuses on capacity building through human resources using its various networks within and outside Africa and seeks to provide a platform for debate with the African Diaspora on how to add value to capacity building in the continent.

AfricaRecruit services include:

- Building a robust database of African skills to determine what and where these skills are, in addition to identifying the constrains and challenges faced in retaining the skills within Africa and redirecting the skills of the communities in the Diaspora to Africa in areas of deficiency and gaps;
- Establishing and working in partnership with various African communities and Diaspora groups to enable effective engagement with African governments and international organisations;
- Establishing a policy group of companies to draw on private sector expertise and experience, and produce research and policy recommendations. The Group will work with African governments to improving the regulatory environment and address the complex social and economic issues involved in meeting the human resource challenges facing African employers in creating jobs and developing the economy;
- Conducting research to inform the developmental and investment potential of the African Diaspora in view of the remittances and current policies by both African and international governments.

AfricaRecruit works in close association with various professional organizations and alumni associations and boasts over 35,000 CVs on its database, 176 African Universities, over 2000 African professional organisations, 945 African Diaspora organisations globally and a mailing list of 71,500. The African Union (AU) has expressed its appreciation for the initiative, which supports the AU's policies on the role and contribution of the Diaspora.

Association for Higher Education and Development (AHEAD)
[http://www.aheadonline.org](http://www.aheadonline.org)

The Association for Higher Education and Development (AHEAD) is a voluntary, not-for-profit and non-political organization founded in 1999 in Ottawa, Canada, by a group of Ethio-Canadians. Its primary goal is to contribute to development efforts in Ethiopia by mobilizing, coordinating and channeling the necessary resources and relevant expertise to Ethiopian higher academic institutions.

To that end, AHEAD seeks to:

- assist in the capacity building of universities by responding to academic, infrastructure and resource needs;
mobilize Ethiopians in the Diaspora to facilitate their contribution to and play a role in the capacity building efforts of higher academic institutions in Ethiopia; and,
facilitate a partnership between Ethiopian and Canadian and/or international organizations.

AHEAD currently runs three distinct but complementary programs: medical books and journals shipment to medical faculties in Ethiopian universities; a bursary program for medical students based on their academic standing and financial needs (72 students sponsored so far); and an equipment project whereby basic training equipment and diagnostic tools are sent for use by medical students during their training and upon graduation.

Moreover, in May 2002, AHEAD and the Getachew Bolodia Foundation established a Higher Education Resource Center in Jimma, Ethiopia, with the financial support of the Canadian government. The Resource Center is currently in use by faculty and students in Jimma and has become a model for other institutions across the country.

Recently, AHEAD, with the financial support of the International Development Research Center (IDRC), conducted a study entitled *Semantics Aside: The Role of the African Diaspora in Africa’s Capacity Building Efforts* whose findings show that brain drain has become one of the most serious threats to the economic development of Sub-Saharan Africa. A subsequent roundtable was organized to bring together key stakeholders for a dialogue on brain drain in Africa and mechanisms to address the problem.

**Cameroon Forum**
[http://www.cameroon-forum.co.uk/](http://www.cameroon-forum.co.uk/)

Cameroon Forum is a non-partisan organization, integrating the diverse portfolio of Cameroonian professionals, associations, businesses and related institutions, to engage at all levels, for the economic and cultural advancement of the Cameroonian community in the United Kingdom (UK) and abroad, and to cultivate leadership capacity for the participative development of Cameroon.

The objectives of the Forum include:
- Establishing a network of professional and business practitioners of Cameroonian origin;
- Encouraging trade links between the UK and Cameroon and creating a platform for incorporating Cameroonian expertise in the Diaspora, through seminars, workshops and trade missions;
- Initiating, executing, managing or assisting any charitable initiatives on issues that impact Cameroonian in Cameroon, the UK and other countries; and,
- Facilitating trade opportunities that lead to visible outward investments through seminars, workshops and conferences.

**Digital Diaspora Network - Africa**
[http://www.ddn-africa.org](http://www.ddn-africa.org)

The Digital Diaspora Network-Africa seeks to promote development in Africa through mobilizing the technological, entrepreneurial and professional expertise and resources of the African Diaspora. Its objective is to build a network of entrepreneurs from Africa living in North America and Europe who will contribute to promoting digital opportunities in Africa.
DDN-Africa seeks to bring together members of the African Diaspora with the growing number of organizations, corporations, foundations, and academics promoting the application of ICT (information and communication technologies) to assist Africa's development in order to facilitate the exchange of ideas and information with the aim of helping ICT entrepreneurs in Africa create opportunities and find the partners and resources they need to make use of them.

DDN-Africa is a collaborative effort between the United Nations ICT Task Force, the United Nations Fund for International Partnerships (UNFIP), the United Nations Development Fund for Women (UNIFEM), and Digital Partners.

**Ethiopian North American Health Professionals Association (ENAHPA)**

[www.enahpa.org](http://www.enahpa.org)

The Ethiopian North American Health Professionals Association (ENAHPA) is a non-profit organization established in November 1999 by Ethiopian-born physicians, dentists, nurses, pharmacists, health care and non-medical professionals living and working in the United States of America and Canada.

ENAHPA presents its mission as follows:

- to attend to the specific health care needs of women and children in Ethiopia;
- to assist in the delivery of medical and surgical services to the adults in Ethiopia;
- to assist in promoting preventive health and providing educational materials and medical supplies to healthcare facilities in Ethiopia; and,
- to transfer skills and state-of-the-art technologies to healthcare professionals in practice and in training in Ethiopia.

Since its creation, ENAHPA has played a key role in the capacity building of health care in Ethiopia by transferring knowledge, technology and skills, and providing support in human resource development. Most notably, in 2003, it launched a Medical-Surgical Mission to Ethiopia to give free surgical services to heart disease patients. Forty-one healthcare professionals from the United States and Canada, under the leadership of Dr. Engida Asfaw, took part in this mission that successfully performed the first-ever open-heart surgery, the first-ever video-assisted laparoscopic surgery in the country, and the first cardiac pacemaker implant just in nine days. A total of 130 patients underwent various surgical procedures with no fatalities. This free service by the medical and surgical professionals is estimated to be worth about US$3 million. In addition, the ENAHPA team donated medical instruments and appliances worth between US$1.5 and 2 million.

**Fana Society**


Inspired by and modeled after AHEAD, the Fana Society is a not-for-profit charitable organization founded in 2001 by a group of Ethio-Canadians living in or around Toronto, Canada. It provides support to post-secondary institutions in Ethiopia through two programs, namely a bursary program and the shipment of educational materials. Fana Society provides financial assistance based on both merit and need to students in the Science Faculty of Addis Ababa University.
To date, Fana has supported 10 students selected from various departments for the fellowship and each qualified student earns a monthly allowance of 30 Birr for one academic year. GBF administers the bursary program with its own selection criteria on behalf of Fana Society. Fana Society also coordinates the collection and shipment of undergraduate and graduate level books to the Science Faculty of AAU. Fana Society is making every effort to promote higher education and research in Ethiopia as a way of building and strengthening the country’s capacity and has, so far, sent 150 statistics and physics books to the AAU Science Faculty.

**Nigerians in Diaspora Organization Europe (NIDOE)**

The Nigerians in Diaspora Organization Europe (NIDOE) is a non-governmental, non-political, non-religious and non-tribal organization whose membership is drawn from Nigerians living in Europe, estimated at about two million. NIDOE was officially launched in London on 26 October 2002.

NIDOE’s main vision is to bring Nigerians living in Europe together and to identify those willing to offer their skills (economic, education, information technology, science, arts, gender and youth empowerment, law, health, governance, management/administration, building, etc) to assist Nigeria's developmental process.

To that end, the organization’s objectives include:

- Establishing and maintaining close liaison with the Nigerian and European governments and other representative bodies having objectives similar in whole or in part to NIDOE’s;
- Promoting the spirit of patriotism amongst Nigerians living in Europe and encouraging their participation in the affairs of Nigeria;
- Encouraging contacts and networking amongst Nigerians living in Europe, the Americas and elsewhere and with community groups, voluntary organizations, government departments, statutory and non-statutory authorities, businesses, individuals and all other organizations, and in particular based on pressing social, economic, democratic and cultural issues in Nigeria;
- Serving as technical advisers, partners and acting as catalysts in Nigeria with respect to development of policies, organization and implementation of social and economic programmes;
- Encouraging and assisting Nigerians who wish to return to Nigeria permanently, and dissuading skilled Nigerians from emigrating from Nigeria, thereby helping to stem further brain drain.

The group is headquartered in London, England, with chapters in France, Germany, Greece, Italy, the Netherlands, Spain and Ukraine.

**NIDO Americas** also serves a similar mission in the United States, Canada, the Caribbean and South/Central America. For further information: [http://www.nidoamericas.org/](http://www.nidoamericas.org/)

**People to People AID Organization (P2P)**
[http://www.peoplepeople.org/p2p/index.cfm](http://www.peoplepeople.org/p2p/index.cfm)

People to People AID Organization (P2P) is a non-profit organization set up by a group of concerned individuals with diverse professional backgrounds to contribute to the fight against HIV/AIDS in Sub-
Saharan Africa and particularly Ethiopia. P2P is based in Morehead, Kentucky, with chapters in Canada, Sweden and Ethiopia.

A sponsorship program for children orphaned by HIV/AIDS in Ethiopia is one of the group’s most visible undertakings. Moreover, P2P has sponsored experts from the USA to offer training to NGOs in Ethiopia on topics such as home-based healthcare and anti-retroviral therapy. Other projects include coordinating the donations of computers to the Addis Ababa Medical Faculty as well as the Black Lion Hospital and donating money to install the computers; managing a research on Anti-AIDS Clubs in high schools in Ethiopia; and medical equipment donation. P2P also publishes the *Horn of Africa Journal of AIDS*.

**South African Network of Skills Abroad (SANSA)**

[http://sansa.nrf.ac.za/](http://sansa.nrf.ac.za/)

The South African Network of Skills Abroad (SANSA), created by the Institute of Research for Development (IRD) and the University of Cape Town, is an ‘intellectual/scientific diaspora network’ established to encourage the South African Diaspora to contribute their skills and expertise to the country’s development. Thus, SANSA links skilled people living abroad who wish to make a contribution to South Africa’s economic and social development and connects them with local experts and projects.

Although the network is principally directed at former South Africans now living abroad, it is not restricted to them and anyone, in any field, who has skills and is interested in contributing to the development of South Africa can join SANSA. SANSA members are spread across the academic, business and government sectors, with the majority working in managerial, executive or administrative positions.

At the core of SANSA’s activities is a website, via which all those interested in joining the network can register. The website has been designed to facilitate links and exchanges both between SANSA members, and between them and their counterparts in South Africa. For example, there is a bulletin board on which SANSA members or others can post notices of general interest. There are also seven electronic discussion groups – based on fields of expertise – which allow members, and visitors to the website, to exchange information. The website also has a facility for searching the SANSA database by skills and expertise.