Well-educated migrants worldwide are not only a source of revenue but potential key actors

Every year, tens of thousands of highly specialized professionals and academics leave the developing world for what they believe to be a better quality of life in countries of the North.

The majority – doctors, engineers, lecturers, researchers and senior managers as well as students – are tempted by more attractive career opportunities, salaries and living conditions. A university degree is also the safest passport out of an unstable political environment.

“A global phenomenon is emerging,” says George Haddad, Director of the Higher Education Division in UNESCO. “It’s driven by new forms of transport, communication, business and the search for economic, educational and scientific opportunity.”

Staggering numbers

The extent of this “flight of human capital” is staggering, according to the UN Economic Commission for Africa and the International Organization for Migration. An estimated 27,000 skilled Africans left the continent for industrialized countries between 1960 and 1975. During the period 1975 to 1984, the figure rose to 40,000. Since 1990, at least 20,000 qualified people have left Africa every year. As Alex Nunn of Leeds Metropolitan University succinctly states, that makes 20,000 fewer people in Africa who can deliver public services and articulate calls for greater democracy and development.

But brain drain is not restricted to the African continent, nor to developing countries in general. Skilled migration between western countries is also on the rise, characterized by temporary flows of undergraduate and postgraduate students, researchers, managers and specialists in Information and Communication Technologies (ICT). Key destinations include the European Union, North America, Japan, Canada and Australia.
The United States is still, however, the main pole of attraction, according to the OECD. Since the early 1990s, some 900,000 highly skilled professionals – mainly ICT workers from India, China and the Russian Federation – have migrated to the United States under its temporary H1B visa programme. This was created specially to allow the recruitment of foreign professionals for a period up to six years. Higher education is an important source of highly skilled migrants for recruiting firms; a quarter of temporary visa holders were previously enrolled at U.S. universities.

**Adding up the costs**

The costs of this economic migration in terms of human development and public welfare are incalculable. Governments use scarce resources to subsidize the education and specialized training of workers who then take the potential economic and social spin-offs with them when they depart. In the meantime, the same governments struggle to fill posts in public welfare services and cope with skills shortages in key economic sectors.

In Latin America, for example, enrolment in medical schools is high, but countries in the region still have a chronic shortage of doctors. In certain African countries, national medical associations have warned that the skills shortage threatens the very existence of national health services as medical care and health facilities become available only to the wealthy. Countries such as Ghana and Nigeria stand and watch as their doctors and nurses leave in large numbers to take up better-paying positions in Europe and North America. In other spheres, developing countries are also critically lacking in engineers who can design and oversee infrastructure projects, as well as researchers and scientists who can pioneer advances in all areas of public welfare including health and education.

Experts agree that something needs to be done about the scarcity of key workers in developing countries. The question is what?

Many argue that those governments experiencing a significant outflow of professional workers should introduce incentive measures such as tax and welfare credits to limit the extent of outward migration from South to North. It has also been suggested that receiving countries should desist from recruiting in the most vulnerable sectors of labour markets in the South.

On the other hand, limiting migration from particular regions or countries could do more harm than good, comments Ashok Parthasarathi, a former science advisor to the Indian Prime Minister. “A ‘pro-development’ response to this situation must not include restrictions on migration [that] violate the fundamental values of human rights and individual freedom,” he says.

**A positive force**

A paradigm shift is needed in the way brain drain is perceived and analysed, argue an increasing number of development stakeholders, including scholars. The idea is to move away from the negative concept of brain drain and start talking about “brain circulation”.

“Until the early 1990s, the term ‘brain drain’ evoked the idea of a one-way, permanent migration of skilled people from the developing world to the North,” comments Francisco Seddoh, former Director of the Division of Higher Education and Adviser to the Director-General of UNESCO. “The term had negative connotations because it implied that vital human resources were being drained from those countries that need them most.”

These days, he adds, “migration is no longer a one-time only experience. Nor is it unidirectional. The influence of mobility on economic and social progress has also brought recognition that the circulation of skills and manpower can be a positive force in accelerating development.”

Seddoh points to “the immense benefits that can be gained from international migration for individuals in both sending and receiving countries, in terms of accumulated skills and experience as well as knowledge and technology transfer through networks and contacts.”

This reflection is echoed by Mark Regts of the Institute for the Study of Labour in Bonn, Germany, who believes that “many of the global gains from migration – the creation and transfer of knowledge, the emergence of networks and contacts – and the benefits for sending and receiving countries, in terms of accumulated skills and experience as well as knowledge and technology transfer through networks and contacts.”

**Did you know?**

- As of 2000, over 80 per cent of graduates from Haiti, Jamaica and Guyana were living abroad.
- Close to 30 per cent of the labour force from Guyana, Grenada and Dominica is currently in the United States.
- Africa lost 60,000 professionals (doctors, university lecturers, engineers) between 1985 and 1990. For every 100 professionals sent overseas for training between 1982 and 1997, 35 failed to return.
- US$4 billion is spent annually on the salaries of approximately 100,000 Western expatriates in sub-Saharan Africa.
- There are over eight million overseas Filipino workers worldwide, representing 10 per cent of the total Philippine population and over 22 percent of the country’s labour force.

From brain drain to brain gain

- Gence of a skilled and educated workforce and the fostering of commercial ties – are shared to some extent by countries on both sides of the equation.”

**Partners in local development**

Many expatriates already contribute massively to their national economies through sending remittances to their families. For example, Ghanaians living abroad contribute about US$400 million annually to the national economy, constituting Ghana’s fourth highest source of foreign exchange.

But many more would like to use their expertise, skills and capital to become real partners in local and national development. This is true even if concerns about living conditions and (in the worst cases) political instability and human rights abuses mean that they don’t necessarily want to return to their homeland.

For this group, the possibility of “virtual participation” in nation-building is now made easier through interactive technology that facilitates knowledge sharing as well as the conversion of specialized expertise into economic, social and cultural capital.

Diaspora networks offer “a major opportunity to transform the historical brain drain ... into [the] new African ‘brain trust,’” notes John Sarpong, founder of Africast.com, an important internet portal for Africans living overseas.

The Digital Diaspora Network is another example. Launched in July 2002, this UN initiative aims to generate a network of experts and entrepreneurs in computer technology from the African diaspora in Europe and North America.

**A headache for universities**

The issue of brain drain is a major headache for the world’s universities as they adjust to increasingly mobile and competitive labour markets.

The premium placed on scientific expertise and technological knowledge, at least in industrialized countries, means that universities must compete with industry and private research and development institutions to attract qualified staff and scientists.

In addition, funding cuts in academic infrastructures, science and technology subjects or teaching/learning materials and equipment drive a growing number of graduates and researchers out of academia to take up lucrative posts in the private sector. This trend accelerates as university salaries fall behind those of senior managers in private companies.

The inability to attract or keep qualified academic staff is having a profoundly negative impact on higher education systems in the developing world. In some countries, not enough researchers and PhD holders can be tempted to stay within academia just to fill teaching posts, never mind carrying out key scientific research.

So what would it take for talented students, researchers and lecturers to stay? Much of the literature seems to indicate the need for challenging academic and career opportunities.

This is no easy feat for under-resourced higher education systems. But the most entrepreneurial universities are looking at how their changing funding structures and service mandate can be turned to their advantage. One solution is to direct research to areas providing the highest probability of academic excellence for staff, as well as full-time, waged employment for graduates.

**Brain circulation**

At Makerere University in Uganda, for example, the Agriculture Department has adapted its undergraduate courses to the local world of work. The university’s extension services have, in turn, stimulated domestic investment in university infrastructure and research and development capacities.

In India, the success of university/industry partnerships, twinning arrangements with institutes of technology in the United States, and technology/knowledge transfer led by the Indian Diaspora in Silicon Valley, have achieved almost folklore status in the building of India’s ICT industries in the Bangalore region.

Universities are also drawing on the notion of “brain circulation” to create new learning arrangements that will keep or lure back their most prized lecturers and students. Existing undergraduate courses might be complemented with short periods of specialized and intensive study abroad. Meanwhile, exchange programmes encourage academic and research staff to return temporarily to their country of origin to give a lecture series or provide technical advice to a development project.
Public/Private Solutions in South-East Europe

In the 1990s, conflict in South-East Europe resulted in great loss of life, but also of intellectual capacity. Many countries experienced emigration of up to 70 per cent of their skilled professionals, while two out of three teaching and research jobs were lost on some university campuses, devastating scientific research and higher education capacities.

Young scientists in South-East Europe have now been given the possibility to link up with fellow-nationals abroad through a powerful IT platform.

Launched in 2003, the joint UNESCO/Hewlett Packard initiative Piloting Solutions for Alleviating Brain Drain in South East Europe hopes to turn brain drain into brain gain.

A total of seven universities in Albania, Bosnia and Herzegovina, Serbia, and the Federal Yugoslav Republic of Macedonia received state-of-the-art equipment from Hewlett Packard, enabling them to share computer power and data storage capacity.

The project is using a cutting-edge information technology called grid computing. “It has the potential to convince local talented individuals that they no longer need to look further afield in order to gain access to the latest technology,” says John Saw, Marketing Director and Philanthropy Manager of Hewlett Packard International Sales Europe.

Participating universities have succeeded in creating teams of faculties, scientists and decision-makers across the region, all working closely together. In the University of Belgrade, for example, several young engineers remained in the country to develop experiments using the grid computing technology. Project meetings have also acted as a stimulus for overcoming boundaries at inter-regional level.

“Not only has the project strengthened scientific and educational capacities at the national level, it has re-established dialogue among young researchers from the region after years of broken communication,” says Stamenka Uvalic-Trumbic, the UNESCO coordinator.

A booklet on the project will shortly be available.

Contact: s.uvalic-trumbic@unesco.org

One successful example of a programme tapping into the positive benefits of “brain circulation” is the Transfer of Knowledge through Expatriate Nationals (TOKTEN) project at the University of Mali. A joint endeavour of the national government, UNESCO and the United Nations Development Programme (UNDP), the project was initiated in 1996 to encourage overseas-based Malian academics, experts, professors and researchers to undertake short-term teaching contracts.

Similarly, the UNESCO initiative Academics Across Borders (AAB) is planning to facilitate a short-term volunteer service for retired academics and professors from developing countries who are willing to assist teachers in selected universities in their countries of origin.

The UNESCO/Hewlett Packard project in South-East Europe is another innovative programme aimed at stimulating the scientific or entrepreneurial environment necessary for academic excellence. It offers a platform for students thinking about emigrating to stay in contact with leading authorities in their fields, principally through access to overseas libraries and cooperation with their fellow-nationals abroad. “Such initiatives are a significant factor in slowing down the flow of those who otherwise would leave for good”, says UNESCO coordinator of the programme, Stamenka Uvalic-Trumbic.

Is brain drain inevitable? The UN Economic Commission for Africa and the International Organization for Migration warn that, in the future, it may become even tougher to keep skilled professionals in developing countries. With falling birth rates and aging populations, demand for labour in Northern countries is expected to grow. And in a globalizing world which promotes the free movement of capital, it will be difficult to restrict the free movement of skilled labour.

The challenge for policymakers is to find innovative strategies to face these harsh realities. They can continue to use ICT to build capacity, especially in the universities. Most of all, governments should liberate the potential of their diaspora communities and enable them to play a meaningful role in their countries’ development.