

## **Intellectual Diaspora Networks: their Viability as a Response to Highly Skilled Emigration**

*Mercy Brown \**

The phenomenon of skills mobility, commonly referred to as the « brain drain », has become a highly contested issue. This is because in today's knowledge-based economy, the loss of highly qualified human resources is a critical issue for any country and especially for developing countries that struggle to position themselves in the global market. The last three decades have seen the introduction of a number of policies to counteract the brain drain. These policies were largely informed by an approach that views the migration of highly skilled human resources as a loss to the country of origin. These policies aimed at either retaining highly skilled people through restrictive measures, or attracting them back to their country of origin through various incentive schemes, have not been very successful in terms of stemming the tide of highly skilled migration.

A new and promising strategy emerged during the last decade; this is referred to as the « diaspora option ». The diaspora option seeks to mobilise highly skilled expatriates to contribute to the social and economic development of their country of origin. The diaspora option develops from a totally different position to traditional approaches in that it recognises that highly skilled expatriates, although they might still have loyalties to their country of origin, might not necessarily want to return home. The distinguishing feature of the diaspora option thus is that expatriates don't have to return to the country of origin, but can contribute their skills and expertise to their home country from wherever they are in the world. The diaspora option sees the creation of intellectual, mainly science and technology networks of expatriates establishing links with their counterparts in their home country and participating in the development process of their country of origin. These linkages are largely, but not exclusively, facilitated by the advancement of information technology, especially the development of the Internet.

The last few decades have seen some very important changes in the world economic system. This system has seen some fundamental restructuring, following the capitalism crisis after the golden era in the aftermath of World War 2. This

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\* Doctoral candidate at the University of Stellenbosch, South Africa, Gender and Employment Equity Researcher for the Labour Research Service.

restructuring has effected all spheres of life, the social, political and economic. This economic restructuring entailed the integration of the world economy in which countries were encouraged to « open up » their economies in order to expose them to competition from other countries. This process, referred to as globalisation, has seen an increase in the movement of capital, goods and human resources. The post-World War 2 era and specifically the advent of globalisation in the 1970's saw a change in the global economy from more labour-intensive economies to more knowledge and technology-intensive industries. According to Choi, « leadership in science and technology has become equivalent to leadership in the global economy » [1995: 141]. This change in the global economy has brought about a segmentation in the labour market into a primary labour market characterized by highly skilled, well-paid jobs with good working conditions and a secondary labour market characterized by poorly paid, low skilled jobs with insecure working conditions [Van den Broeck, 1996; Rosenbaum *et alii*, 1990].

Under this new system, a country's competitive advantage is very much dependant on the level of skills of its workforce, and its ability to produce and disseminate knowledge for innovation. This entrenches the stratification of the world system as those industrialised countries at the centre of the world system have the necessary resources to invest in science and technology research and development. This fact is confirmed by the World Bank's World Development Report of 1998-1999. According to this report, sustained economic growth and improvements in human well being is determined by knowledge, and not capital. This report distinguishes between two types of knowledge; knowledge about technology or technical knowledge and knowledge about attributes *i.e.* knowledge about products, processes and institutions. Both these types of knowledge are important for both the economic and social development of a country. It is in this context that the migration of highly skilled scientists and technologists is critical for any country, but more so for developing countries that are trying to improve their position in the world economic system. This loss of highly skilled human resources is commonly referred to as the brain drain. This movement of highly skilled people occurs mostly, but not exclusively from developing to developed countries.

### **The Brain Drain Debate**

The debate concerning the brain drain phenomenon has historically been between two perspectives, the internationalist perspective and the nationalist perspective. The first is based on global market theories and argues that brain will go where economic returns will be optimised. Theorists like Kindelberger have argued that the movement from developed to developing countries is mediated by « market forces which work to allocate human resources more efficiently », the brain drain is thus a « natural » phenomenon. The nationalist perspective on the other hand holds the complete opposite view. According to theorists like Bhagwhatti, countries do not occupy the same position in the global system and « expertise is not evenly distributed ». The only countries that benefit from the movement of highly skilled professionals from the South to the North, are the industrialised countries of the North.

This perspective is closely related to the world systems theories of Gunder Frank and Wallerstein. According to these theorists, the global system is stratified into centre and periphery countries. The industrialised countries, those at the centre of the global system, developed at the expense of developing countries, those at the periphery, as a result of historical processes such as colonialism and imperialism [Webster, 1984].

According to Choi, this stratification is mirrored in the hierarchical structure of the international scientific community. Industrialised countries such as the United States are at the centre of scientific knowledge production while developing countries, because they lack the infrastructure and resources necessary for scientific knowledge production and distribution simply can not compete [Choi, 1995: 8]. This perpetuates the uneven, hierarchical nature of the global system.

However theorists like the ones discussed above, have tended to view the brain drain as a one-sided process that only benefits developed countries at the expense of developing countries. According to Pedersen and Lee this presentation of the brain drain as a win/lose situation between developed and developing countries is a misconception, because it fails to take into consideration the potential benefits that the movement of highly skilled people to industrialised countries can have for developing countries [1997: 1]. When scientists and technologists leave their home country to go and study or work in an industrialised country, they get the opportunity to acquire knowledge and expertise which they might not have gained as they remained at home. They also establish knowledge and information networks in the host country. All these represent a great potential resource for the country of origin.

These different approaches to the brain drain have informed different tactics used by developing countries to deal with the migration of highly skilled resources. If the brain drain is viewed as a loss, strategies are devised to counteract this loss. These strategies include restrictive policies designed to make migration more difficult through, for example, compulsory national service, incentive policies which are designed to make migration less attractive by, for example, offering highly skilled human resources incentives to remain in the home country. Another strategy used 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 [Bhagwati, 1977]. These policies however were not very successful, because restrictive policies are only temporary and not permanent deterrence for migration. Incentive policies are also not very effective, because developing countries are not in a position to offer their 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 the exact 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. This approach to the brain drain entails 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, 1980's and 1990's and it involved attempts made by countries to encourage their highly skilled expatriates to return home. However, only a few countries mostly newly industrialised or big countries like China, India, South Korea, Hong Kong and Taiwan have been able to implement this strategy effectively [Meyer *et alii*, 1997: 287]. According to Choi, the movement of highly skilled educated personnel can vary depending on the changing status of the country of origin in the world economic system [1995: 211]. Economic development in the above-mentioned countries meant that they were now in a position to invest in scientific and technological innovation and could offer the necessary incentives to attract their highly skilled expatriates back home. However developing countries are not in a position to offer their highly skilled expatriates the same incentives as they have access to in developed country. In the light of this, the diaspora option is a particularly useful strategy for developing countries.

### **The Diaspora Option**

The diaspora option represents a different approach to the brain drain. It takes a fundamentally different stance to traditional approaches to the brain drain in that it views the migration of highly skilled people not as a loss, but as 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 to tap into, the challenge is to mobilise these brains.

The diaspora option is based on network approaches where a network can be defined as a regular set of contracts or similar connections among individual actors or groups [Granovetter, Swedberg, 1992: 9]. 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. In this case, the development of new information and communication technologies plays an important role in facilitating the transfer of knowledge and information between actors in different parts of the world. Another element highlighted by theorists like Callon : in any network intermediaries or incentives are 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].

## Intellectual/Scientific Diaspora Networks

In 1998, the author embarked on an exercise to identify intellectual/scientific diaspora networks aimed at connecting expatriates to their country of origin for the transfer of knowledge between actors in the diaspora and those in the home country. At the time, we were aware of the existence of about 17 of these kinds of networks, but had no idea of what they were called or how they worked. As the Internet is the main tool used to facilitate contact between the different actors, it was used as the main tool for identifying these networks. A number of searches were conducted over a period of six months, using a combination of different keywords, the name of a country that was suspected to have an intellectual/scientific diaspora network with other keywords such as « scientists », « technologists », « network », « abroad », etc., for example « the network of Nigerian scientists and technologists abroad ».

Through this process 43 expatriate knowledge networks were identified. These only include networks with the explicit purpose of connecting the expatriates amongst themselves and with their country of origin. The expatriate knowledge networks are tied to 32 different countries, (and two world regions) some of which have more than one network. Expatriate knowledge networks that were identified are classified into five categories: student/scholarly network, 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 (on table in appendix). The latter group is of particular interest as these networks are specifically aimed at facilitating the transfer of knowledge and expertise between highly skilled expatriates and their counterparts in their country of origin.

All of the networks studied were set up in the late 1980's and early 1990's and were in many instances initiated by a group of expatriate students or scientists and researchers who recognized the need for an initiative of this kind. They all emerged very spontaneously and independently of each other. All of them have a website which is the initial entry point for potential members. These websites usually contain an on-line membership application form which prospective members are required to fill in. After completing the membership application form, potential members are officially network members and are entered on a database.

Except for a few networks, all of them are non-profit, independent entities which are not affiliated to any political party or the national government. Networks like the Association of Thai Professionals in America and Canada, the Polish Scientists Abroad, the Arab Scientists and Technologists Abroad (ASTA) and the Palestinian Scientists and Technologists Abroad (PALESTA), do have linkages to particular government agencies, notably the State Committee for Scientific Research and the Ministry of Higher 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 fulfil their goals.

These networks are managed by an executive committee or executive council which varies in size according to the size of the network. The fact that most of them are independent organizations means that they don't receive any funding

from the national government and thus require their members to pay a fee which is the only source of income for most of them.

### *Network Members*

Membership for most of the networks is open to researchers, scientists, students, business people and in some cases like the Irish research Scientists' Association and the Association for Thai Professionals in North America and Canada to research organizations and business organizations interested in the development of the country of origin. These networks appeal to the loyalty and commitment of highly skilled expatriates living abroad to the country of origin. Most of the networks require their network members to be expatriate nationals of their particular country. However networks such as the Colombian Caldas network and the South African Network of Skills Abroad (SANSA) consist of members who are not necessarily of Colombian or South African origin, but are simply interested in the development of these countries. Close to 7% of Caldas network members are not of Colombian origin while 57 nationalities are represented in the SANSA network. This shows that loyalty to one's 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. Some networks like the Irish Research Scientists' Association have quite a complicated membership structure. Type of membership can range from student, professional, associate and corporate membership.

Members are 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). 90 % of the SANSA network members hold a masters degree and 30% a doctorate. The percentage of people with doctorates living abroad is almost double the percentage of people with doctorate degrees in the country [Kaplan, 1997].

Members are highly dispersed; for example the members of the Caldas network are located in 23 countries and 6 main world regions with the majority of them in the United States, United Kingdom and Spain. Other networks like ATPAC, ATPER and ATPIJ are more regional. SANSA members are located in 68 countries on the five main continents. Members are mostly active in the fields of science and technology, except SANSA and the Philippines Brain Gain Network, which are more multi-disciplinary.

### *Purpose of the Network*

These networks aim to establish and foster communication and exchanges between members living abroad and to link them to their counterparts in their country of origin. The educational, social, cultural and professional advancement of their members is also high on the priority list of the different networks. These are closely related to the main objective of all diaspora networks, which is the economic, political and social development of the countries of origin.

### *Activities that Network Members Engage in*

To ensure that the above-mentioned goals are met, network members engage in various activities and organize different social, cultural and educational events. These include conferences, seminars, workshops, focus group discussions as well as social events such as dinners, Christmas parties and picnics. Networks like the Global Korean Network organize annual conferences which focus on specific issues on interest to members as well as the country of origin. ASTA organises an annual Water Conference, Environmental Conference and the International Energy Conference. The Philippines Brain Gain Network organizes focus groups focussing specifically 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. PALESTA hosts an annual Conference of Palestinian Expatriates (businessmen and professionals) in Palestine which discuss issues of mutual concern for both expatriates and the home country.

All the networks have a newsgroup or newsletter, which comes in either a paper or electronic version aimed at fostering communication between network members and to inform members about the latest developments at home. In addition, particular networks like the India Network Foundation and PALESTA have specific digests and periodicals in which scholarly articles and books written by network members are published. To ensure the economic and social advancement of the country of origin network members engage in various joint developmental projects with government agencies and private and non-profit organizations.

The above illustrate the enormous possibilities that these networks present for their country of origin with the proper institutional support. However, given the geographical distance between the different actors and the transient nature of modern technology, an important question is the long-term sustainability of these networks. In order to come to some kind of understanding of this question, a second round of searches were conducted, almost three years after the initial project, in order to determine how many of these networks were still accessible via their websites, how many of these websites have changed, etc. This was done with the aim of getting a sense of how many of these networks still existed, although it is not possible to deduce the reasons for the disappearance of those that are not accessible anymore.

### **Revisiting the Diaspora Networks**

The first step was to check whether the website addresses of the networks still worked and, if they had changed, to get the new website addresses. In the case where the website addresses no longer worked or where there was no way of getting the new website address for an individual network, new searches were conducted using search engines such as Alta Vista and Netscape. This time, since the name of the network was already known, this name was used as a search criterion.

In some cases, through these two search engines, the new website addresses for the networks were identified. In other cases like that of the Brain Gain Network of the Philippines, the Iranian Scholars Scientific Information Network, the Polish

Scientists Abroad and the Tunisian Scientific Consortium, these networks are no longer accessible. The interesting thing about all these networks, except the Polish Scientists Abroad, is that they were all started by expatriate students. One possible explanation for the disappearance of their websites, is that the expatriate students who started them might have since left university and thus the websites for these networks are no longer active. The website for the Philippines Brain Gain Network for example used to be accessible through the website of Stanford University's Chemistry Department. The websites of only 13 of these networks have since changed, while the rest have remained the same. The fact that only 4 of the websites of these networks have become inactive, is certainly an encouraging sign, because it implies that these networks are still accessible to network members and also potential network members. However this is not necessarily an indication of the level of action or activities still being generated through the network. More in-depth research is necessary to arrive at a more conclusive assessment of the potential of these networks to facilitate effective and sustainable action towards the development of the home country.

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43 expatriate knowledge networks have been established around the world to date, at least 15 of them with the explicit purpose of mobilizing highly skilled expatriates to contribute their skills and expertise to the development of their country of origin. They all emerged very spontaneously and independently of each other. This points to a new realisation around the world that the « brain drain » does not necessarily have to mean the complete loss of the skills and expertise of highly skilled expatriates to the country of origin. The examples of the projects and activities, mentioned in this paper, that some of these networks have been able to generate, certainly illustrate the enormous possibilities that these networks present to the country of origin. Almost three years after the initial search for these networks were conducted, only 4 of the 43 that have been identified are no longer accessible through the Internet. The other 39 can still be accessed by network members and other potential network members. This, however, is not necessarily an indication of the level of action/activities that are still being generated through these networks. More in-depth research is needed to arrive at conclusive evidence regarding the ability of these networks for sustainable long-term action.



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## ANNEXE

<b>Name of Network</b>	<b>Website Address *</b>	<b>Website Address</b>	<b>Type of Network</b>	<b>Country</b>
a) Palestinian Scientists and Technologists Abroad (PALESTA)	Yes	<a href="http://www.palesta.net">http://www.palesta.net</a> or <a href="http://nmopic.pna.net/home.htm">http://nmopic.pna.net/home.htm</a>	Intellectual/Scientific Diaspora Network	Palestine
b) Programme of Assistance to the Palestinian People	No	<a href="http://pappsrv.papp.undp.org/programme/tokten.html">http://pappsrv.papp.undp.org/programme/tokten.html</a>	TOKEN Programme	
The Forum for Science and Reform (FORS Foundation)	Yes	<a href="http://fors.org.ro/">http://fors.org.ro/</a>	Developing Intell/Scien Diaspora Network	Romania
Irish Research Scientists Association	Yes	<a href="http://www.irsa.ie/About/Aims.html">http://www.irsa.ie/About/Aims.html</a>	Intellectual/Scientific Diaspora Network	Ireland
The India Network Foundation	No	<a href="http://www.indnet.org/nf.html">http://www.indnet.org/nf.html</a>	Developing Intellectual/Scientific Diaspora Network	India
Reverse Brain Drain Project – Thailand	Yes	<a href="http://rbd.nstda.or.th/">http://rbd.nstda.or.th/</a>	Developing Intellectual/Scientific Diaspora Network	Thailand
Swiss Talents	No	<a href="http://www.swisstalents.org/">http://www.swisstalents.org/</a>	Intellectual/Scientific Diaspora Network	Switzerland
Silicon Valley Indian Professionals	No	<a href="http://www.sipa.org/">http://www.sipa.org/</a>	Local Association of Expatriates	India
a) Global Network of Korean Scientists and Engineers	Yes	<a href="http://kosen.oasis.or.kr">http://kosen.oasis.or.kr</a>	Developing Intellectual/Scientific Diaspora Network	Korea
b) Korean Scientists Engineers Association of Sacramento Valley	No	<a href="http://www.ksea.org/">http://www.ksea.org/</a>	Local Association of Expatriates	
Association of Thai Professionals in Japan	Yes	<a href="http://owl.fedu.uec.ac.jp/ATPIJ/">http://owl.fedu.uec.ac.jp/ATPIJ/</a>	Intellectual/Scientific Diaspora Network	Thailand
Colombian Network of Researchers Abroad – New York Node	No	<a href="http://www.pecx.org/">http://www.pecx.org/</a>	Intellectual/Scientific Diaspora Network	Colombia
Colombian Network of Researchers Abroad – Brazilian Node	No	<a href="http://www.mat.unb.br/~ayala/nodobrasil.html">http://www.mat.unb.br/~ayala/nodobrasil.html</a>	Intellectual/Scientific Diaspora Network	Colombia
Colombian Network of Researchers Abroad – Italian node	No	<a href="http://www.pg.inf.n.it/redcaldas/">http://www.pg.inf.n.it/redcaldas/</a>	Intellectual/Scientific Diaspora Network	Colombia
Association of Thai Professionals in Europe		No website	Intellectual/Scientific Diaspora Network	Thailand

Name of Network	Website Address *	Website Address	Type of Network	Country
Network of Arab Scientists and Technologists Abroad	Yes	<a href="http://www.asta-net.org/asta.html">http://www.asta-net.org/asta.html</a>	Intellectual/Scientific Diaspora Network	Arab Countries
Association of Nigerians Abroad	Yes	<a href="http://www.sas.upenn.edu/African_Studies/Org_Institutes/ANA.html">http://www.sas.upenn.edu/African_Studies/Org_Institutes/ANA.html</a>	Intellectual/Scientific Diaspora Network	Nigeria
a) Society of Chinese Bio-scientists in America	Yes	<a href="http://www.scba-society.org">http://www.scba-society.org</a>	Local Association of Expatriates	China
b) Chinese Scholars Abroad	No	<a href="http://chisa.edu.cn/">http://chisa.edu.cn/</a>	Student/Scholarly Network	
c) Chinese American Engineers and Scientists Association of Southern California (CESASC)	No	<a href="http://cesasc.org">http://cesasc.org</a>	Local Association of Expatriates	
a) Worldwide Indian Network	No	<a href="http://theory.stanford.edu/people/arjun/WIN.html">http://theory.stanford.edu/people/arjun/WIN.html</a>	Intellectual/Scientific Diaspora Network	India
b) The International Association of Scientists and Engineers and Technologists of Bharatiya Origin	No website		Developing Intellectual/Scientific Diaspora Network	
c) Interface for Non-resident Indian Scientists and Technologists Programme (INRIST)	No	<a href="http://SunSite.sut.ac.jp/asia/india/jitnet/csir/tokten.html">http://SunSite.sut.ac.jp/asia/india/jitnet/csir/tokten.html</a>	Developing Intellectual/Scientific Diaspora Network	
Conectandonos al Futuro de El Salvador (Connecting to El Salvador's Future)	No	<a href="http://www.conectando.org.sv">http://www.conectando.org.sv</a>	Intellectual/Scientific Diaspora Network	El Salvador
Red Cientifica Peruana (Peruvian Scientific Network)	Yes	<a href="http://www.rcp.net.pe/peru/peru_ingles.html">http://www.rcp.net.pe/peru/peru_ingles.html</a>	Developing Intellectual/Scientific Diaspora Network	Peru
Red Academica Uruguay (Uruguayan Academic Network)	No	<a href="http://www.rau.edu.uy/">http://www.rau.edu.uy/</a>	Developing Intellectual/Scientific Diaspora Network	Uruguay
El Programa Talento Venezolano en el Exterior (Program of Venezuelan Talents Abroad – TALVEN)	Yes	<a href="http://www.embavenez-paris.com/divers/talven.htm">http://www.embavenez-paris.com/divers/talven.htm</a>	Intellectual/Scientific Diaspora Network	Venezuela
Programa para la Vinculacion con Cientificos y Tecnicos Argentinos en el Exterior (Programme for the Linkage of Argentine Scientists and Technologists Abroad) – PROCITEXT	No	<a href="http://www.landfield.com/faq/argentina-faq/part7">http://www.landfield.com/faq/argentina-faq/part7</a>	Developing Intellectual/Scientific Diaspora Network	Argentina

Name of Network	Website Address *	Website Address	Type of Network	Country
Frognet	No website		Student/ Scholarly Network	France
The Iranian Scholar Scientific Information Network	**		Intellectual/ Scientific Diaspora Network	Iran
Japanese Associate Network	No	<a href="http://www.geosc.psu.edu/~kawakita/janet-t.html">http://www.geosc.psu.edu/ ~kawakita/janet-t.html</a>	Student/ Scholarly Network	Japan
Association of Kenyans Abroad	No	<a href="http://knightline.com/kenbul/orgs.htm">http://knightline.com/ kenbul/orgs.htm</a>	Developing Intellectual/ Scientific Diaspora Network	Kenya
Association latino- américaine de scientifiques (Latin American Association of Scientists) – ALAS	No	<a href="http://www.unesco.org/">http://www.unesco.org/</a>	Intellectual/ Scientific Diaspora Network	
TOKTEN for Lebanon	No	<a href="http://web.cyberia.net.lb/tokten/what.htm">http://web.cyberia.net.lb/ tokten/what.htm</a>	TOKTEN Programme	Lebanon
Moroccan Association of Researchers and Scholars Abroad (MARS)	No	<a href="http://www.ee.pdx.edu:80/~nadir/mars1.html">http://www.ee.pdx.edu:80/ ~nadir/mars1.html</a>	Student/ Scholarly Network	Morocco
Association of Norwegian Students	No	<a href="http://www.ansa.no/ansa/english.htm">http://www.ansa.no/ansa/ english.htm</a>	Student/ Scholarly Network	Norway
Return of Qualified Expatriate Nationals to Pakistan	No	<a href="http://www.rpi.edu/dept/union/paksa/www/html/pakistan/TOKTEN/html">http://www.rpi.edu/dept/ union/paksa/www/html/ pakistan/TOKTEN/html</a>	TOKTEN Programme	Pakistan
Brain Gain Network	**		Intellectual/ Scientific Diaspora Network	Philippines
The Polish Scientists Abroad	**		Intellectual/ Scientific Diaspora Network	Poland
South African Network of Skills Abroad	Yes	<a href="http://sansa.nrf.ac.za/">http://sansa.nrf.ac.za/</a>	Intellectual/ Scientific Diaspora Network	South Africa
The Tunisian Scientific Consortium	**		Intellectual/ Scientific Diaspora Network	Tunisia
Association of Thai Professionals in America and Canada	Yes	<a href="http://www.atpac.org/">http://www.atpac.org/</a>	Intellectual/ Scientific Diaspora Network	Thailand

\* Changed/Not Changed.

\*\* Website not accessible anymore.

N.B. We are aware of the existence of an Ethiopian network, a Hungarian network and a Croatian network. However, the information on them is very limited, thus they were not included in the above list.