

Bringing back what has been 'lost': knowledge exchange through the diaspora

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Abstract

Strong negative reactions have been raised against the continuing and steadily increasing mobility of highly skilled people from developing countries. There is, however, growing evidence that this outflow of skills and knowledge may not necessarily mean a loss for home countries. Jean-Baptiste Meyer, a scholar of the Institute of Research for Development in France, argues, in particular, that any apparent loss of skills can be restored through the exchange or circulation of knowledge between the migrants and their home country. Studies of diaspora have further emphasised the ways in which migrants can remain not only connected but also deeply committed to the social transformation of their home countries. Staying abroad but keeping themselves involved in development processes may be realised by participating in knowledge exchanges. Although still an emerging strategy, knowledge exchange poses a lot of potential for a number of reasons: the advances in communication and transportation technologies which reduce cross-border distance; the growing appreciation by governments of the network approach as a conceptual guide and strategy to thrive in a globalised world; and the increasing desire of diaspora themselves to connect with their home countries. However, the success of tapping the intellectual, financial and social capital of the diaspora depends on consistent, well-defined and well-supported policies and programs. The paper revisits the experience of India, China and the Philippines in knowledge exchange and draws relevant insights.

Introduction

Increasingly complex and steadily growing mobility of people is a key feature of globalisation in the 21st century. Governments themselves are contributing to this mobility. They are loosening their foreign investment policies to attract businesses, which all the more spur the demand for human capital. Many developed countries have also made the entry of unskilled and highly skilled labour much easier to alleviate their own labour scarcities as a result of the movement of their own people to other countries and their ageing populations. Traditional immigration countries such as the United States, Canada, Australia and New Zealand differ in the ways they attract permanent skilled migrants, but "it is one of the explicit objectives of their immigration policies" (Iredale 2000).

This apparently more liberal policy shift has generated strong negative reactions given that it contributes to the loss of highly skilled people particularly for developing economies, which are in great need of such skills. There is growing evidence, however, that this outflow of skills and knowledge may not necessarily mean a loss for home countries (Hunger 2004; Meyer 2001; Meyer et al. 2001; Saxenian 2002b; Tung 2008). Meyer (2001) notes that any apparent loss of skills can be restored through the exchange or circulation of knowledge between migrants and their home country through social and economic networks of skilled diaspora. The transnationalism concept first articulated by Basch et al. (1994) also posits that migrants forge multiple links across national borders while studies of diaspora (Alayon 2006;

de Ferranti and Ody 2007, to name a few; MacRae and Wight 2006; Pandey et al. 2006) have further emphasised ways in which migrants can remain not only connected but also deeply committed to their country of birth.

The next section presents in more detail the conceptual assertions explaining the viability of the diaspora as a tool for alleviating the negative impacts of high-skilled mobility. This is followed in the third section of actual experiences in knowledge exchange involving the diaspora by discussing three Asian cases. The aim is to pick out useful lessons from these cases on how to effectively engage the diaspora in social transformation in the home countries. The last section summarises and concludes.

Diaspora as knowledge exchange agents: conceptual assertions

Knowledge exchange or circulation through the diaspora is one of two ways envisaged to bring the 'lost' skills and knowledge back to the sending countries. The other option is the repatriation of highly skilled migrants to their home country. Some countries such as Singapore, Korea, India and China have successfully implemented the return option. Meyer and Brown (1999) attribute the good result to these countries' structural and institutional readiness to absorb and utilise the skills of their returning expatriates through the research and technical-industrial networks that they have gradually built.

There are indications, however, that enticing highly skilled migrants to return may not be easy. Scientists go where there is funding for their research. Meyer et al. (2001) also cite the nomadic character of scientists and engineers owing to the requirement of science itself for theories to be continually tested to gain universal acceptability. To gain a deeper understanding of the phenomenon under investigation, it is imperative for them to move to the place and stay for prolonged periods when necessary, and leave when their research is completed.

Moreover, Faini (2007), discussing studies of Regan and Olsen (2002) and Knerr (1994), notes that educated migrants have a propensity for spending longer time abroad due to the better quality of life and better career opportunities there. As an example, a study by Pandey et al. (2006) describes the rising numbers of Indian scientists and engineers from 1990-93 (86 percent) to 1998-2001 (94 percent), as well as those who plan to remain in the US for postdoctoral research appointments or jobs with enterprises (from 63 percent in 1990-93 to 73 percent in 1998-2001).

As an alternative to repatriation, knowledge exchange or circulation through the diaspora may be considered a viable strategy for a number of reasons. First, the structural requisites to make these exchanges happen are present, and these are in fact the reason why transnational practices have reached a level of critical mass (Portes 2001). Cross-border distance—which in the past could impinge on the regularity and scope of exchanges—has been eliminated by advances in communication and transportation technologies. Communication technologies have also become cheaper, making them more accessible even to the less affluent and allowing even those in far-off places in the world to accumulate and benefit from knowledge developed from another place.

Second, there is a growing appreciation for the network approach as a conceptual guide and a strategy. Governments are increasingly realising the need to network and collaborate both with state and nonstate actors as a necessary tool to survive in a globalising world. They have

come to acknowledge the significance of maintaining ties with their diasporas for economic (investment), political (support of and loyalty to the regime), demographic (reverse migration) or symbolic (national identity) reasons (Dufoix 2008). Primarily because of the significant amount of remittances that are being poured by diasporas into their home countries, governments have realised that they are a substantial resource that should not be ignored.

Third, diasporas themselves are exhibiting a growing desire to connect with their home countries and take an active part in development. Besides contributing at the personal level (individual remittances or investments), they are willing to help as a group by forming hometown associations or diaspora foundations to extend assistance to their home countries (de Ferranti and Ody 2007). The presence of 41 scientific diasporas in 1999 from the inventory of Meyer and Brown (1999) also shows the interest of highly skilled migrants to involve themselves in development activities in their home countries. Between that time and the present, it is not unlikely that other scientific or professionals diasporas have come into being.

Cases of knowledge exchange through the diaspora

Three Asian cases written using archival data are presented in this section to discuss the viability of knowledge exchange or circulation through diasporas of highly skilled migrants.

The Indian IT diaspora

Indians constitute one of the biggest diaspora in the world. Around 17 million people of Indian origin live in 134 countries as of 2001 (High Level Committee on Indian Diaspora 2001). One of the largest Indian diasporas can be found in the United States (1.7 million as 2001) as a result of decades of continuous migration. In particular, large migration streams into the US occurred during the 1970s and 1980s as a result of the passage of the Immigration and Naturalisation Act of 1965. Not only did this act abolish the quota system based on national origin, it also gave preference to persons with skills, abilities or training needed in the US (Historical Documents in United States History n.d.). Majority of the Indians living in the US belong to the educated and elite class and include information technology (IT) engineers, scientists, teachers, accountants, doctors, managers, hoteliers and business people (Pandey et al. 2006).

India's software industry and the Indian IT diaspora in the early years

The Indian diaspora in the US is particularly known for its significant contribution in shaping the home country's software industry. This industry is considered the backbone of India's IT sector, producing US\$8.9 billion in total revenues in 2003-2004 (NASSCOM 2008). The advent of India's software industry occurred in the 1970s but software development during this period was strongly hampered by high import duties on hardware needed for designing software systems (Pandey et al. 2006). Things improved gradually, however, in the home country beginning 1980s. IBM left India making its software companies less reliant on mainframe computers. IBM's decision was prompted by a government law passed in the 1970s that mandated all multinationals to reduce their equity share in their Indian subsidiaries to less than 50 percent. Saxenian (2002a) in a related paper notes how the departure of IBM has been advantageous for India because it forced its software engineers to use imported models of a wider range from different manufacturers making them knowledgeable with

working on various platforms. Also in the 1980s, the import costs of hardware decreased, thanks to the advent of personal computers. IT education also began to be offered in India by private providers initially through tutorials and training classes in IT.

Moreover, the government made two important policy pronouncements in the 1980s in support of the software industry (Saxenian 2002a). In 1984, the government of Rajiv Gandhi formally recognised software as an 'industry' and passed a policy whereby software manufacturers could import computers at a special low duty in exchange for software exports. The same policy also lowered duties on software and personal computers. Two years later, the Computer Software Exports, Development and Training Policy was passed. Towards facilitating increased software imports, this policy permitted the import of software tools in any form, promoted the entry of foreign direct investments, and committed to making venture capital available for new businesses.

Although these policies were helpful in removing significant barriers, they were not enough to propel industry growth during that period. The biggest hurdle was the lack of infrastructure software export. Complex, bureaucratic procedures that involved getting approval from multiple government departments were major disincentives for private providers to establish an earth station (Saxenian 2002a). By 1986, the first earth station was set up in Bangalore but this entailed the provider, Texas Instrument, "removing or breaking twenty-five different government rules" (Parthasarathy 2000 as cited in Saxenian 2002a, p. 173).

The involvement of the Indian IT diaspora in the home country was very minimal in the 1970s and 1980s. Majority of them had just arrived in the US, were still studying for their degrees or starting to build their careers. Not only were they preoccupied with adapting to their new country or gaining the needed qualifications, investing in the IT industry back home was also not regarded as lucrative by those who were capable enough. The lack of substantial manpower with the needed IT competency and knowledge with US technology, coupled by bureaucratic obstacles, discouraged them to invest in India (Pandey et al. 2006).

Nevertheless, some Indians who were already executives at that time acted as mentors for Indian programmers. They helped them gain training and employment in US companies by creating "programs within their companies in which Indian programmers could work in the United States with US technology (at Indian wages plus travel-related costs). They coached and guided the Indian companies in improving their quality and performance standards" (Pandey et al. 2006, p. 80).

The momentous era of Indian IT diaspora

It was not until the 1990s that the Indian IT diaspora began to emerge as a significant force in the growth of the Indian software industry. This could be attributed to the fact that the highly skilled migrants who migrated 10 or 20 years ago or even more had already established themselves by this time. As described by Pandey et al. (2006, p. 81), they "had become entrepreneurs, venture capitalists, or high-level executives in midsize and large companies." They have the resources to invest and the networks to tap, thus the confidence to start their own companies just like what others had opted to do. They were also willing to collaborate with one another as compared to the early decades when there was hardly any attempt to do so. Two Indian associations—the Silicon Indian Professional Association (SIPA) and the Indus Entrepreneurs (TiE)—both formed in the 1990s helped institutionalise the Indian social networks in the US (Saxenian 2004).

In particular, the contribution of the Indian IT diaspora in terms of knowledge exchange came in a variety of ways—encompassing support to new business formation, mentoring, access to business contacts and new markets, and provision of employments, among others.

Some Indians formed their own companies either by remigrating to their home country or by staying in the US and establishing them through branches of their US companies (Hunger 2004). NASSCOM figures cited by Hunger in his paper note that in 2000, 10 out of the 20 most successful software enterprises in India (which contribute more than 40% of the total revenues in the industry) were set up or managed by former Indian residents in the US. Five of the 20 companies were also joint ventures between Indian and foreign companies and the rest are Indian companies established in the past. Some of those who returned to India started their IT research and development laboratories, such as the IBM India Research Laboratory established in 1998, or worked for US-owned IT companies with branches in India by supervising outsourcing contracts or by training Indian professionals on US standards (Pandey et al. 2006). On the whole, NASSCOM estimates around 30,000 expatriate professionals who returned to India and worked in the software industry (Engardio 2008).

Another role assumed by the Indian IT diaspora is by acting as ‘middleman’ linking US companies with software programming skills in India (Saxenian 2004). With some Indian occupying well-placed positions in big corporations such as IBM, General Electric and American Express, they had every opportunity to influence their companies’ decision to outsource software work in India (Pandey et al. 2006). Many in the Indian IT diaspora working in US companies were also instrumental in convincing their own companies to hire Indian IT professionals. This, according to Pandey, had also been facilitated by the good reputation of Indian IT professionals in the US.

Professional organisations formed by Indian IT diaspora in the US provided mentorship support to budding entrepreneurs in setting up new enterprises. TiE, which was formed in 1998 and now has more than 12,000 members across 11 countries, is committed to fostering “entrepreneurship globally through mentoring, networking and education” (The Indus Entrepreneurs (TiE) 2008). Mohan Trika, head of the Xerox spin-off inXight, related to AnnaLee Saxenian in an interview how organisations like the TiE has created a feeling of self confidence in the community by acting as some sort of role model and confidence builder (Saxenian 2002b). In 1998, TiE also helped build IT training centres in India by providing financial support (Chakravartty 2001 as cited in Hunger 2004).

The high level of involvement of the Indian IT diaspora beginning 1990s coincides with the intensive phase of liberalisation the government has implemented during this period. These economic reforms served as significant ‘pull’ factors for the Indian IT diaspora. Liberalising the economy opened up opportunities for them to take part in the economic processes in their home country. Assistance in the form of incentives and subsidies spurred up interest to invest in India.

A major component of these reforms is the establishment of the software technology parks (STPs). Similar to an export processing zone for software, firms in the STPs enjoy “tax exemptions for five years and guaranteed access to high-speed satellite links”, are provided with basic infrastructure, including “core computer facilities, reliable power, ready-to-use office space, and communication facilities including internet access, are allowed to import all equipment without duty or import licenses, and 100 percent foreign ownership is permitted in

exchange for a sizable export obligation” (Saxenian 2002a, p. 173). The introduction of the STPs facilitated the growth of offshore outsourcing in India particularly in regions such as Bangalore and Hyderabad.

Back in the US, a critical change in the immigration policy in 1993 significantly affected the entry of Indian IT professionals. Nevertheless, it also led to beneficial results later on. That year, the US Immigration and Naturalisation Service mandated US companies to submit a certification that their immigrant workers were receiving prevailing market wages (Pandey et al. 2006). The Immigration Act also mandated immigrant workers to pay Social Security and related to the US government, thus placing burden on them and their companies.

As hiring software engineers from India became both costly and cumbersome for both the workers and their employers, some companies gradually shifted to a new business model of having some of their software programmers work at their premises and the others continuing to work at their IT company’s backoffice in India (Pandey et al. 2006). With the improving business climate in India, the generous incentives provided to willing investors, and its large pool of highly skilled, English-speaking IT professionals, foreign businesses started to look at India as an excellent location for offshore software production.

Another change in the immigration policy occurred, however, as a result of the Internet-telecom boom, the dot.com boom and later on, the approach of the millennium (Y2K problem). In need of immigrant programmers to fill up internal labour shortages, the US increased its work visa quotas from 65,000 in 1998 to 130,000 in 1999 and to 195,000 soon after (Pandey et al. 2006). This resulted in increased numbers of IT professionals to the US.

Indeed, significant developments in India, the United States and the rest of the world took place in the 1990s that paved the way for the emergence of an Indian IT diaspora. This diaspora evolved into an influential force not only in shaping India’s software industry but also that of the world. It thus seems appropriate to call the 1990s as the momentous era of the Indian IT diaspora.

The Chinese diaspora

China experienced large outflows of human talents but in contrast to the experience of most countries, the formation of its diaspora has been largely shaped by state policies (Xiang 2005). Almost one million scholars went overseas between 1978 and 2006 (Zweig et al. 2008). National policies regarding emigration and return had been complex and inconsistent in the beginning due to opposing views within the ruling party.

For the most part of the Cultural Revolution, leaving China to study was not an option for students. Towards the end of the 1970s, then head of the central government, Deng Xiaoping, pushed the Ministry of Education to start sending selected researchers to the West to study and learn advanced technologies. The policy was promoted by forging educational exchange agreements with the United States (e.g., the Sino-America Understanding on Educational Exchanges in October 1978 and the Agreement on Cooperation in Science and Technology in January 1979) (Zweig and Chen 1995 as cited in Xiang 2005). In 1978 alone, more than 3,000 students were sent overseas.

The growth of the Chinese diaspora was also prompted by the passing of the Temporary Regulations on Self-financed Overseas Education in 1981, which recognised self-financed

overseas study as a legitimate means of leaving China (Xiang 2005). Since the early 1980s, employers have also been able to send their staff overseas for academic exchanges or to study for a degree at company's expense.

During the 1980s, Deng, who was earlier vocal on his support for sending students overseas, started to criticise the growing numbers of scholars leaving China. Nevertheless, the State Science and Technology Commission continued to back up the policy in recognition of the perceived advantage the home country would gain out of these scholars' access to American technological skills (Zweig et al. 2008). Still there were steps implemented to regulate the outflow of students and sanctions were imposed against students who failed to return on time (Xiang 2005).

Following political upheavals in that decade, particularly the student demonstrations in 1986-1987 and the Tiananmen crackdown of June 1989, the central government became unified on its stance to restrict the flow of students going to the US. Those who were already overseas were also reluctant to return for fear of prosecution by the Communist Party (Zweig 2006). The Tiananmen incident thus created an instant diaspora of highly skilled Chinese who did not want to return to China. The United States, as an act of defending democracy against Communist China and protecting the Chinese students in their soil, issued an executive order granting PRC students permanent residency in 1990, followed by the 1992 Chinese Students Protection Act (Xiang 2005). This resulted in a sizeable number of Chinese students and scholars acquiring permanent residency in the US (70,000 including 20,000 family members). Other developed countries also issued a similar order. In Canada, 10,000 Chinese students were granted permanent resident status while 28,500 students got the same privilege in Australia (Zweig and Chen 1995 and McNamara 1995, respectively, as cited in Xiang 2005).

Return as an initial strategy

Realising the impending loss of skills looming in the horizon as many overseas scholars were more inclined to stay abroad and possessed the status to do so, Deng saw the urgency for repatriation of the diaspora. The series of economic reforms that China has undergone beginning 1978 (towards its accession to the World Trade Organisation in 2001) meant that more than ever, China needs highly skilled talents. With the knowledge and training that they have acquired overseas, which are the very qualities the country needs, the government saw Chinese expatriates as valuable partners for China to compete in the global economy (Zweig 2006). Thus, the government started calling on overseas students to return, "promising them that all would be forgotten if they avoided future anti-government activity" (Jiao 1999:72-74 as cited in Zweig et al. 2008), a statement which clearly was directed to students who had left China in the wake of the 1989 Tiananmen incident. In 1993, the government also issued a 12-point slogan on returnee policy with a catch that all returnees are "free to come and go" after they had returned (Zweig et al. 2008).

Between 1992 and 2002, a number of programs were implemented by various government agencies to entice diaspora members to return. Some of these are the following (Zweig 2006):

- The "Hundred Talents Programme" of the Chinese Academy of Sciences. This programme provides fellowships to institutes in the form of grant to start a laboratory for their proposed research, including financial support for buying of equipment and hiring of technical personnel.

- Establishment of Overseas Study Service Centres to help returnees find jobs. As of 1989, 33 of these have been formed. Schools for the children of returnees have also been created to cater to the needs of these children.
- Setting up of 'postdoctoral stations' by the Ministry of Employment and the Ministry of Personnel to serve as holding stations for overseas PhD who could not find jobs in China.
- Giving of preferential treatment to returnees, such as more living space and higher professional titles and permitting students who had signed two- or three-year contracts with their research centres to either remain or switch jobs once their agreements expired.

Implementing a more flexible and practical model

In 2001, a major policy was implemented that promoted knowledge exchange or circulation as an option for overseas scholars to serve their home country. It highlighted the shift to temporary return which was demonstrated in the slogan, *weiguo fuwu* (serve the motherland) in contrast to the earlier notion of *huiguo fuwu* (return and serve the motherland), emphasizing that 'physical return is no longer regarded as a determinant' (Wescott 2006, p. 8). With this new policy, the government started to advocate the 'double base model' or dumb-bell model which means Chinese expatriates can both be in two countries simultaneously such as by having professional or/and business affiliations in both China and overseas and moving back and forth regularly (Xiang 2003).

Under this policy, members of the diaspora may remain overseas and contribute to their home country through seven types of activities, namely: utilising the advantage of their professional bodies; holding concurrent positions in China and overseas; engaging in cooperative research in China and abroad; returning to China to teach and conduct academic and technical exchanges; setting up enterprise in China; conducting inspections and consultation; and engaging in intermediary services, such as running conference, importing technology or foreign funds, or helping Chinese firms find export markets (Zweig et al. 2008).

The merit of the diaspora model for engaging the diaspora is recognised by the Community Party. The secretary of the party at Changshu Province acknowledged it to be a more practical approach compared to having their expatriates back in China. Repatriation entails huge investments because the government has to match the salaries and benefits that they are earning abroad to entice them to stay. It also needs to provide the needed equipment and facilities which makes the process even more costly. "But if we let them stay overseas, and invite them back to serve the country, we can use them. This is a terrific choice and model" (Chen et al. 2003, p. 75 as cited in Zweig et al. 2008, p. 18).

Even the overseas Chinese expressed their preference toward the diaspora model. Stan Rosen of Los Angeles, whom Zweig et al. (2008) interviewed in 2002, related that he is treated very well whenever he returns to China as a representative of the American business school where he is he affiliated. Keeping his excellent post in America is a better choice for Stan as he perceives that his status would be much lower if he were to return to China.

The "Spring Light Project" of the Ministry of Education's Foreign Affairs Bureau is one of activities used to promote knowledge exchange through the diaspora. This project arranges and funds short visits for lecturing or research collaboration in Chinese universities. About 600 scholars participated during its first year.

Some actual cases of knowledge exchange through the diaspora were discussed by Zweig et al. (2008) in their paper. One is that of a former Beijing University undergraduate who received his PhD in Canada. After setting up a laboratory for developing hearing aid implants at a major Canadian university, he established a second laboratory at a Beijing university and helps in developing collaborative projects between the two institutions. Another case cited by the authors from Chen and Liu (2003) involves a geography professor at Berkeley who set up a joint research centre at Nanjing University.

To ease the entry of Chinese expatriates back to China, the government simplified the residency requirements and entry visa for overseas scholars who wish to return or to come for short visits to engage in collaborative work. Longer term multiple-entry visas from three to five years were granted to overseas Chinese professionals (Xiang 2003).

Moreover, to facilitate the campaigns on returning and exchanging knowledge and to make information about positive developments in China easier to disseminate, the government organised diaspora members into professional associations. Officials in embassies and consulates led in this undertaking. More than 2,000 overseas student associations and 3,000 professional associations for overseas scholars were formed. The Education Commission also came up with the "Shenzhou xuerer" magazine and an electronic board to link up overseas scholars and domestic organisations. A yearly Overseas Chinese Scholars meeting is also being held by Ministry of Education where overseas scientists present their project to domestic governments and companies.

The government also encouraged diaspora members to invest in China or to help find export markets for Chinese products. Zweig et al. (2008) gave some examples in their paper. For instance, some Chinese expatriates based in Osaka set up three plants in Changshu City in Jiangsu Province between 1999 and 2002. These plants manufacture a material for upgrading the quality of air conditioners. Setting these plants up in China could save the latter RMB 150 million a year as the material it produces had previously been imported. One of the authors of the same paper also related the story of a Chinese businessman living in Tokyo who owns 14 factories in China which manufactures high-quality fertiliser for the Japanese market.

Despite the shift in strategy beginning in 2001, the government continued to attract members of the diaspora to repatriate to China. It implemented the diaspora model in tandem with the return option, which proved to be a smart move as there are expatriates who do not wish to return but are still interested to maintain ties with their home country and make a significant contribution. By presenting more than one option, the government makes connecting with the home country appealing for the diaspora as they could choose the option that suit their preference and need.

The Filipino diaspora

The Philippines is recognised in the world as one of the major sources of skilled and unskilled labour. As a country perennially beset with high poverty levels and high unemployment rates, labour migration is openly supported by the government as a stop-gap measure to alleviate the country's socioeconomic problems. Over the years, the government has proactively deregularised labour policies to facilitate the movement of people overseas (Alcid 2003).

With much of the attention and policies focused on going abroad, a 'culture of emigration has emerged' in the Philippines (Asis 2006). Working and living in foreign soil has become a dream for most Filipinos despite the risks and uncertainties. Even the choice of degree to pursue is motivated by a desire for a better chance of going abroad with ease. Thus, most young people—and with the influence of their parents—would often choose courses like nursing, information technology, and seafaring, being fields that are in high demand abroad. Maruja Asis of the Scalabrini Migration Center in the Philippines mentions in her paper a nationwide survey of 1,200 adult respondents carried out by Pulse Asia, a Philippine-based research agency. The survey showed that one in five Filipino have a desire to migrate. Even children at a young age have a conscious desire to leave the country. In a 2003 survey among children ages 10 to 12, nearly 50 percent reported wishing to work abroad someday.

The United States remains as a primary destination of Filipino migrants. Based on Commission on Filipino Overseas data, nearly three million Filipino migrants are living in the US as of 2006. The Filipino diaspora is also one of the largest immigrant groups in the US, second only to the Mexican immigrants and ahead of the Chinese, Indian and Vietnamese foreign born (Terrazas 2008). Nearly half of the foreign-born Filipino adults are highly skilled, having finished a bachelor's or a higher degree.

Policies for engaging the diaspora

As early as 1975, the Philippine government has instituted several programs to tap the skills of its expatriate professionals and encourage them to participate in nation-building. These are the TOKTEN, *Balik Scientist* and STAC programs.

- The TOKTEN Program

The Transfer of Knowledge through Expatriate Professionals (TOKTEN) was a program initiated and funded by the United Nations Development Programme (UNDP). It is now managed by the United Nations Volunteers. First introduced in Turkey in 1977, this program allows expatriates to return home for a period of two weeks to three months to contribute their skills and services toward their home country's development (UN Volunteers 2006). In the Philippines, the program ran from 1988 to 1999 under the auspices of the UNDP and the Philippine Department of Foreign Affairs (DFA).

TOKTEN consultants can volunteer their expertise on a wide variety of technical fields such as agriculture, banking, business management, economics, environmental science, food industry, public health, medicine, urban studies, and water management, among others. As they are volunteers, they forego their professional fees but they receive a daily allowance at United Nations rates and medical insurance while on mission (UN Volunteers-Ghana n.d.).

The TOKTEN program in the Philippine was cited by the TOKTEN administrator as one of the most successful in the world. Its success may be attributed to the fact that it has a staunch supporter within the foreign affair department in the person of Dr. Federico Macaranas, then undersecretary for international economic cooperation. Undersecretary Macaranas reportedly even went abroad to personally invite Filipino expatriates to participate in the TOKTEN (Opiniano and Castro 2006). (Unfortunately, data on the actual numbers of expatriate professionals deployed to the Philippines as well as the actual impact of the program were lacking). In 1998, the program was discontinued as soon as Undersecretary Macaranas left the DFA (Opiniano and Castro 2006).

- *Balik Scientist Program (Return Scientist Program)*

This program, which was implemented even earlier than the TOKTEN, was an initiative of the Philippine government. It started in 1975 through Presidential Decree 819 for a period of five years, extended through a Letter of Instruction up to 1986, and revived and instituted under the Department of Science and Technology in 1993 through Executive Order 130 (Email of Assistant Secretary Ma. Lourdes P. Orijola, Department of Science and Technology, to author, 14 October 2008).

In 2007, in order to attract more scientists to come, the guidelines have been liberalised and made more flexible. Also, to ensure program sustainability particularly the allocation of manpower and sufficient funding, Senator Jinggoy Estrada submitted to the 14th Congress a bill providing for the establishment of the Balik Scientist Program (Estrada 2007).

Announcements calling on scientists and engineers to participate in the BSP are channelled through the Philippine embassies and consulates (see Appendix for sample). Contracted scientists may opt for a short-term (at least one month) or a long-term (at least two years) engagement. As part of the incentives, they are given free round-trip economy air tickets and a grant for their research and development projects. Short-term consultants also receive a daily subsistence allowance. For long-term consultants, the air tickets of their spouses and at least two dependents are also shouldered by the program. Other incentives include a relocation allowance, duty- and tax-free importation of personal effects and professional instruments and implements, reimbursement of expenses for the shipment of their personal effects, and budget for setting up a laboratory to perform their work.

There were a total of 320 scientists who came back, 195 who went back to their host countries after their stint, 114 are still in the Philippines, and 14 are already deceased (Email of Assistant Secretary Ma. Lourdes P. Orijola to the author, 14 October 2008).

- *Science and Technology Advisory Council (STAC)*

STAC began in 1987 as a project of the DFA to encourage overseas Filipino scientists to form their own associations and initiate knowledge transfer (Wescott 2006). Recalling his experiences as a foreign service officer directly assigned to manage the day-to-day operations of knowledge exchange programs coordinated by the foreign affairs department, Seneres (2008) writes that at one point, STAC had more than 40 chapters worldwide, composed of mostly Filipino scientists and engineers.

Among the chapters that are still active today is STAC-Japan. Its current membership includes scientists, engineers and students staying or who have stayed in Japan and those who are willing to pursue its objective of promoting science and technology in the Philippines (STAC-Japan 2008). The group awards undergraduate research grants to science majors in close cooperation with universities and science and technology organisations), and also provide skills training in computer literacy and entrepreneurship to fellow migrant workers in Japan, many of whom are working in the entertainment industry (Wescott 2006).

Moreover, in the process of development is a program called Roster of Scientists, Inventors and Engineers (ROSIE). It is intended to serve as a “centralised clearinghouse for the exchange of information and resources between and among scientists, inventors and

engineers on one hand, and government agencies, private corporations and nonprofit organisations on the other” (Seneres 2008). The creation of the ROSIE is a collaborative undertaking of the DOST, Asian Development Bank, Asian Institute of Management, and the United National Integrated Alliance. The ROSIE will draw from the experience and the remaining resources of the previous knowledge exchange programs.

Other initiatives for knowledge exchange are being carried out by professional diaspora associations and concerned individuals. Examples of these diasporas and their activities as discussed by Opiniano and Castro (2006) in their paper include: the University of the Philippines Medical Alumni Society in America (UPMASA; medical mission for poor patients in the Philippines, lecturing at and consultancy services to the University of the Philippines’ School of Medicine); Philippine Institute for Certified Public Accountants (PICPA; organises continuing education seminars to members and global conferences) in the United States, Association of Filipino Teachers (AFTA; organised the “Return to Teach” Program in 1993 to train teachers in the Philippines; more than 4,000 teachers and professionals have benefited from the program) and the Brain Gain Network (<http://www.bgn.org/bgn/index>; human resource database of scientists, engineers and IT professionals, encourages mentoring, business network and joint collaboration).

The Philippines has also made strides in engaging its expatriate professionals but the contribution of the latter seems to be not as substantial as compared to the experience of China and India where their migrants have been highly instrumental to their economic success (for instance, the Indian IT professionals have been a great force in developing India’s software industry). This could be attributed to the strong bias towards labour migration on the one hand and the lack of a clear and stated policy to encourage return migration and diaspora engagement on the other (Wescott 2006). Although there were some programs implemented to tap the skills of its expatriate professionals, these have not been sustainable due to lack of adequate institutional support particularly from the government.

Conclusion

As the paper shows, high-skilled mobility is a beneficial process that does not necessarily lead to a loss of skills and knowledge for sending countries. It increases the intellectual and social capital of migrants, which may benefit home countries through knowledge exchanges. By going abroad, migrants accumulate not only new skills but also build professional and social contacts which may have still been possible had they remained in their home countries but most probably not as extensive and as substantive. Hunger (2004) notes that the successful development of the Indian software industry may have been considerably supported by the existence of Indian IT entrepreneurs who migrated to the US. The challenge for home countries is how to mobilise their expatriate professionals and engage them in development.

The three cases exhibit the potential of knowledge exchanges through the diaspora as a practical (particularly resources-wise) and flexible method for restoring the knowledge and skills that are temporarily ‘lost’ when high skilled migrants leave their home countries. The cases show the wealth of knowledge assets that they can contribute, namely: as source of expertise in terms of skills, technologies and markets; as source of venture capital; and as intermediary or middle person in providing language skills, cultural know-how and contacts for building business relationships or collaborative projects.

The three cases also demonstrate that the success of tapping the intellectual, financial and social capital of the diaspora depends on consistent, well-defined and well-supported policies and programs. For India, the liberalisation of the economy and the offer of incentives to inventors have facilitated the economic participation of overseas IT intellectuals (Hunger 2004).

For China, although policies concerning the outflow of its highly skilled people have shifted over time, the country finally gained its focus beginning 1990s as its comprehensive, well-defined and well-funded diaspora policy clearly illustrates (Zweig 2006; Zweig et al. 2008). China also implemented the diaspora model in tandem with the return option which was a smart move as there are expatriates who do not wish to return yet are still interested to maintain ties with their home country and make a significant contribution.

The weakest effort to engage the diaspora is obviously that of the Philippines. This is exemplified by the strong bias towards promoting labour migration (Alcid 2003; Asis 2006), which takes the emphasis away from the necessity to involve the diaspora, particularly expatriate professionals. The Philippines has no clear and stated policy for encouraging return or diaspora participation (Wescott 2006). As a result, the activities undertaken to engage the Filipino diaspora are not anchored on a policy agenda that ideally should have been present to serve as a unifying principle that will coordinate and consolidate all activities and ensure their sustainability.

Finally, as the cases have shown—particularly in the India and China examples—factors or events either in the host or home countries shape the formation of diaspora. Diasporic involvement are also bounded by economic, social, political or cultural factors both in the home and host countries. These factors work in a complex, intertwined manner.

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Appendix 1. Sample of an announcement on the Return Scientist Program in the Philippines

Embassy of the Philippines – DOST Balik Scientist Program

DOST Balik Scientist Program (BSP)

The Philippine Embassy in Singapore is pleased to announce that the Department of Science and Technology (DOST) is now accepting applications for its Balik Scientist Program (BSP) under the New Graduate, Short and Long Term Expert Categories for CY 2007.

For the year 2007, the DOST is planning to bring back twenty-five (25) scientists for priority areas such as Alternative Fuel, Biotechnology, ICT, Pharmaceuticals (Medical/Health Sciences) and Environment including Disaster Management.

Details of the BSP including the procedure for application, the qualifications of applicants, and incentives for qualified candidates are outlined in the attached copy of DOST Administrative Order No. 008, Series of 2001 (BSP Implementing Rules and Regulations). Interested parties may also secure information from the DOST through its web site: <http://www.dost.gov.ph> or by contacting the following:

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Source: Embassy of the Philippines in Singapore (2007)