

## PM WORLD TODAY – FEATURED PAPER – FEBRUARY 2010

The myriad consequences of skilled migration from  
developing countries**By Dr. Ghirmai T. Kefela****ABSTRACT**

*The consequences of skilled migration from developing countries are a direct loss of the fiscal contributions of these highly skilled individuals. This paper analyzes the effect of labor migration on both receiving and sending countries, and loss of talent for a developing countries or Sub Saharan Africa by examining human capital flows from those countries to the U.S. and Europe. A broad range of policy changes will be required to meet these challenges, including changes in immigration policies, and measures can be implemented to minimize the damage and turn 'brain drain' into 'brain circulation'. In this article it will be shown that brain drain is usually understood as the permanent loss of highly skilled and educated people who are the vital driving force of any country the pressures that drive labor migration are predominantly of economic nature. If adequate policies are not put in place to deal with it to overcome these factors, emigrants will continue to migrate in the hope for better lifestyle and income opportunities, and due to political insecurity, prosecution and bad governance, high fertility leading to massive poverty, and unemployment and low wages.*

Keywords: Brain drain; Emigrants and Immigration; Socioeconomic Factors; policy changes, political insecurity, prosecution and bad governance

**Introduction**

Human capital is the most important form of wealth for a modern nation. Countries with the most intellectual resources achieve the highest rates of economic growth and the fastest development in science and technology. But knowledge produces more than economic riches: it is also a vital ingredient for dealing with many of the social and environmental aspects of life today. The main reason behind immigration is the search for better living and working environment, often due to massive poverty leading to high fertility, unemployment and low wages, political insecurity, prosecution and bad governance at the native countries of the individuals. To overcome these factors, emigrants migrate in the hope for better lifestyle and income opportunities. Human rights such as the freedom of speech and the right to vote and elect the Government and political leaders as well as the freedom from Corruption are some of the key factors as well.

One of the main pillars of knowledge-based economy is highly - skilled workers, which create knowledge, invent new innovative products or services. This workers category is highly welcome to every country, because they are responsible for sparking innovations, knowledge which directly determines the economic growth. In global migratory, the significant increase of highly - skilled migrants can be seen. A critical but often missing element of the debate surrounding international migration – in particular from low- and middle-income countries to OECD countries – is a better understanding of the impact of migration on economic and social development in countries of origin. While few would go so far as to argue that mass emigration is a viable development strategy, it is nevertheless reasonable to ask how migrants' countries of origin could gain more from the migration phenomenon.

Highly-skilled migration usually contains people with higher skills: managers, financial analysts, consultants of special services, scientists, engineers, computer specialists, biotechnologists. Highly- skilled workers have high degrees of expertise, education, or experience, and the primary purpose of their jobs involves the creation, distribution or application of knowledge. They are not only creating new knowledge, but also use it in their work creating new products. During history people have migrated all the time from poorer states to much richer countries. Migration is not much phenomenon of a 20th century, but in this century its character changed, the flows intensified. Global migration has become one of the major global issues. According to the International Organization of Migration, nowadays about 185 million of people live not in their native countries.

Migration seen as an attempt of individuals to improve their lives in the world is facilitated by these flows, which are driven and directed by increasingly complex relationships between money flows (as organized by the realty global capital markets), political possibilities and the availability of skilled labor (Castells, 1997, 1999, 2000 and Appadurai, 1996). However, how effective technology can be applied locally depends primarily on local quality, of which the quality (and diffusion) of governmental and physical infrastructure are important elements (Chong & Calderon, 2000). Because there are huge differences in the 'allocation' of this infrastructure among countries of the world, it is quite clear that people will move to places that have an effective infrastructure in place in which they can apply their skills more profitably. In this paper we will concentrate on cultural proximity, technology, and knowledge and on the characteristics of the local infrastructure, defined as the quality of the physical infrastructure, and the quality of local governance as relevant factors that explain whether highly skilled people will stay or will move abroad. The other dimensions are left out of the analysis.

A number of factors motivate high skilled professionals (such as Nurses, doctors and professors) in the source countries to migrate. Some countries, despite their own domestic needs, cannot create enough jobs for the high skilled or health professionals they train, thus motivating them to emigrate. The infusion of international funding for

HIV/AIDS and immunization programs could help to create more jobs for nurses. However, poor wages, economic instability, poorly funded health care systems, the burdens and risks of AIDS and safety concerns are other factors that "push" nurses to leave developing countries. Additional factors "pull" nurses to developed countries, including higher wages, better living and working conditions, and opportunities for advancing their education and expertise. Remittance income from nurses is a major source of hard currency for developing countries and has motivated the Philippines to train nurses for export; to other countries now try to follow their example. Most nurses emigrate with short-term work permits. Common wisdom is that few nurses from developing countries, particularly sub-Saharan Africa, ever return to their countries of origin, but there is almost no data with which to validate this notion.

It is widely assumed that the United States is the largest importer of nurses because of the size of its health care system, its favorable wage structure, and media attention to international recruiting activities by U.S. hospitals.<sup>4</sup> Indeed, since 1998 foreign-trained nurse entrants to the U.S. nurse workforce have increased at a rate faster than that of U.S.-educated new nurses.

The number of nurses trained abroad has more than doubled as a percentage of U.S.-trained registered nurses (RNs), from six per hundred in 1998 to fourteen in 2002 (Buchan and Sochalski, 2003). Peter Buerhaus and his colleagues recently estimated that nurses born outside the United States accounted for about a third of the increase in employed nurses nationally since the mid-1990s, although it is not known for sure how many were trained abroad (P.I. Buerhaus, D.O. Staiger, and D.I. Auerbach, 2003)

The Philippines is the leading primary source country for nurses internationally by design and with the support of the government. The 2001–2004 Medium Term Philippines Development plan views overseas employment as a key source of economic growth.<sup>16</sup> Filipino nurses are in great demand because they are primarily educated in college-degree programs and communicate well in English, and because governments have deemed the Philippines to be an ethical source of nurses. A motivator for the Philippines to produce nurses for export is remittance income sent home by nurses working in other countries. In 1993 Bruce Lindquist reported that Filipinos working abroad sent home more than \$800 million in remittance income.<sup>17</sup> No other country produces many more nurses than are needed in their own health care systems at a level of education that meets the requirements of developed countries.

Remittance income can represent a significant source of "hard" currency for developing countries (International Organization for Migration, 2004). Nurses from the Philippines, the Caribbean and other source countries are important generators of funds back to their home countries. Recent research on Tongan and Samoan nurses working in Australia suggests that they make major contributions to the economies of their home

countries that far surpass the initial financial investments involved in educating the nurses.<sup>10</sup>

SSA faces a crisis with human resources for health. The WHO has estimated that though SSA has 25 percent of the world's diseases burden, it possesses only 1.3 percent of the trained health workforce (WHO 2004a, b, c). This situation is linked to an emerging health crisis—for example, it has been reported that life expectancy fell in 17 of the 48 SSA countries due to rising incidence of communicable diseases and the impact of HIV/AIDS (Sanders et al. 2003). It is almost a certainty that health-related MDGs will not be met, and workforce shortages will be a factor in missing these targets. In 2004, a report by the JLI further confirmed the conventional wisdom that availability of trained health workers influences the attainment of health goals and found, for example, that maternal mortality responded best to increases in availability of trained service providers (JLI Report 2004).

In relation to shortages, the migration of nurses and other health professionals to developed countries is considered a major contributor to the health crises in SSA. This paper reviews the available information on trends and impact in nurse migration from SSA.

Push factors are influences that arise from within the source country and facilitate a potential migrant's decision to leave. Pull factors reflect actions and omissions of recipient countries that create the demand for, or encourage potential migrants to leave home (CRHCS 2003; Dovlo and Martineau 2004).

These factors cover a broad range of issues including income (or remuneration) levels between source and destination countries; job satisfaction and perceptions of the work environment and ability to utilize one's professional skills; the organizational environment and career opportunities as well as workers' perceptions of trust in the management of health services; general political and administrative governance; encompassing bureaucratic efficiency and fairness; occupational risk and protection because of HIV/AIDS and poor availability of protective gear; and the welfare, security, and benefits of health professionals during employment and after retirement. Padarath et al. also suggest that “pushes” exist in both source and recipient countries, but are diminished by “stick” factors in source countries and “stay” factors in destination countries. “Stick” factors include family ties, psycho-social links, and the potential cost to be incurred to migrate, while “stay” issues include reluctance to disrupt family life and children's schooling, lack of employment opportunities at home, and the higher standards of living enjoyed in the recipient country (Padarath et al. 2003).

## **Highly skilled Emigrants: vital driving force of any country**

Rich countries need highly skilled professionals for knowledge-intensive economic activities, and, because of local shortages, these people must be recruited from poor

and emerging market economy countries. For poor countries – especially Africa and Asia – the loss of specialists in IT, and in engineering and medicine, has impacted far beyond the numbers involved. This brain drain migration process denies these poorer regions the optimum utilization of the skills of those now in Diaspora. The large exodus of doctors has impacted negatively on the training of new doctors, and on the quality of health services delivery and millennium development goals. A very similar scenario holds for the education sector, and other development agendas in poor countries are being compromised by the emigration of their scarce skilled manpower.

Highly skilled migrants generally have a credential or license earned by education or experience, and a major issue is whether an individual's credentials from one country are recognized in another. If not, the migrant may not be allowed to work in the same occupation abroad as at home; if he or she works below qualifications, as when a doctor works as a nurse, or a nurse works as a nurse's assistant, there may be a "brain waste" as migrants work below their qualifications.

A major challenge now facing sending countries is twofold: how to attract qualified nationals back from the OECD countries, and how to utilize effectively the rare skills of those remaining, for national development. In both rich and poor countries, economic and demographic factors underpin current debate and policy on the emigration of highly skilled professionals. To use Africa as an example: more than 100 000 sub-Saharan Africans living in Europe and North America are professionals – ironically, about the same as the number of expatriate professionals employed by aid agencies as part of the overall aid package – at a cost to the region of about \$4 billion (Adepoju, 2007).

Sending countries' policies and potential migrants' perceptions often contribute to this crisis. In the Philippines, for example where the government and the private sector have each played a key role in the labor export process, the perceptions of the international labor market have also been intricately interwoven into the educational and work aspirations of Filipinos. Anticipating future demand for nurses, nursing schools have expanded dramatically with a remarkable increase in student enrolment in nursing programs in recent years. Indeed, doctors are also studying to be nurses to enhance their chances of working abroad.

An extreme case is Jamaica. An estimated 75 per cent of the Jamaicans with higher education have emigrated (Economist, 2002), and Jamaican Minister of Foreign Trade Anthony Hylton said that "the government would try to prevent the emigration of teachers to the US and nurses to the United Kingdom to prevent a brain drain." Instead, he said that "Jamaica must enter into "bilateral and multilateral arrangements with countries like England and the United States so that they pay at least a part of the training cost to the government for recruiting people that we have trained, since we will not necessarily benefit from their service." (Quoted in Latin America. 2001. Migration News. Vol. 8. No 10. October). However, Jamaican graduates have few incentives to stay in light of high unemployment in Jamaica. The unemployment rates for University

of the West Indies (UWI) graduates almost doubled in the late 1990s, from seven per cent in 1996 to 12 per cent in 1999. 41

### **Economic and Social Aspects of Brain Drain**

Those who are in favor of the international model claim that brain drain should not be considered as a problem; and they argue that the scientist, no matter where he is, should contribute to the progress of human and the global welfare (Johnson, 1968:69-70). Those who are in favor of national models claim that migration of highly-skilled people to developed countries does not contribute to human welfare but rather contributes to developed countries' welfare. They argue that this makes developing countries' problems even worse and there should be equal progress between regions (Oğuzkan, 1971:24). Both models suggest controversial ideas.

Brain drain has both positive and negative effects on admitting and sending countries. Mostly, positive effects can be seen in inner markets of the admitting country. It is argued that the benefits of admitting country are much more than those the sending country in long term. It is suggested that the countries losing their people owing to brain drain are in a disadvantageous position; and also it is stated that brain drain causes a noticeable difference between the developing and developed countries in terms of capital, human and technical quality, and this makes developing countries lose their ability to keep up with developed countries (Guellec, Cervantes, 2002:85).

The UN Economic Commission for Africa (UNECA) and the International Organization for Migration (IOM) estimate that 27,000 highly qualified Africans left the continent for industrialized countries between 1960 and 1975. The number increased to approximately 40,000 between 1975 and 1984, and then almost doubled by 1987, representing about 30 percent of the highly skilled manpower stock (Onyango-Obbo, 2005). Africa lost 60,000 professionals (doctors, university lecturers, engineers, etc.) between 1985 and 1990, and has been losing an average of 20,000 annually ever since (Oduba, 2003). Onyango-Obbo (2005) notes also that every year, 20,000 professionals leave Africa as part of the brain drain, bringing the number in Europe and North America to more than 300,000. Of these, about 30,000 are PhD-holders. "At least, one-third of science and technology professionals from DCs are currently working in the industrialized nations" (Selassie, 2002: 5). Marfouk's study (2008: 6) shows that "10 out of the 53 African countries have lost more than 35 per cent of the their tertiary educated labor force and countries such as Cape Verde (68 percent), Gambia (63 percent), Seychelles (56 percent), Maurice (56 percent) and Sierra Leone (53 percent) suffered from a massive brain drain."

In this article it will be shown that brain drain is usually understood as the permanent loss of highly skilled and educated people (who are the vital driving force of any country), and how this can be detrimental for a country's social and economic development if adequate policies are not put in place to deal with it. It will be stressed,

however, that in spite of some negative effects, measures can be implemented to minimize the damage and turn 'brain drain' into 'brain circulation'. This can have the effect of encouraging more beneficial and temporary migratory flows, which in turn can strengthen the development of the whole region. Moreover, such circulation of highly skilled labor could improve the social and political environment which itself is a cause of emigration in the first place.

Not all skilled migrants are in search of educational, economic or intellectual opportunities. Sometimes, they are forced to leave their homes as a result of war, or political, ethnic and religious persecution" (Cervantes, Guellec 2002). This is often compounded by the fact that the economic difficulties facing countries in transition make it less likely that they will be able to substantially invest in the science and education sectors where most highly skilled labor work. Still, the poor economic situation alone is often not enough to motivate people to leave. According to Olesen, bad governance also plays an important role in the migration of highly skilled persons. It seems that this population is particularly sensitive when "they find the human rights/governance situation in their home country unacceptable. This can have many forms: honest civil servants refusing to be corrupted; lack of freedom to speak one's mind, especially for civil servants; and promotions based on unprofessional criteria" (Olesen 2002: 137).

One of the major challenges faced by the public sector in the developing countries is the inability by the governments to attract, motivate and retain professionals needed to run the public service. The public sector has been adversely affected by the international emigration of skilled nationals (the so-called brain drain). This problem, which was recognized as early as the 1960s (Adams, 1968), is best illustrated by the public sector in Eritrea.

### **Gender and skilled migrants**

Migrant workers' gender and skill level also determine their employment and labor migration outcomes. Male migrants have a greater share of employment in construction and manufacturing, while women are concentrated in health, education, and domestic services. Considering the sectorial distribution of male and female migrant workers, it would seem that the crisis has had a greater impact on the employment of men than women migrants. However, women migrant workers form a significant proportion of those employed in manufacturing and are almost equally represented in hotels and restaurants in OECD countries. Women tend to be in irregular status and employed in the informal economy, which is increasing their vulnerability. Some destination countries, such as Malaysia and the Republic of Korea, implemented measures to encourage the hiring and retaining of nationals instead of migrants. These policies likely affect low-skilled migrant workers more than the highly skilled, since the latter group often has skills in demand. The persistence of labor shortages in engineering and health care also positively affect highly skilled migrants' work opportunities (Awad, I. (2009).

## Emigrants continue to impact their home countries

According to most existing studies, it is unlikely that remittances, return migration or other ways through which highly-skilled emigrants continue to impact on their home country's economy are significant enough to compensate sending countries for the losses induced by the brain drain. By contrast, cross-country comparisons provide supportive evidence that migration prospects foster domestic enrollment in education. Additional investigations are clearly needed to assess the net effect of emigration on human capital formation at home.

While the world export/GDP ratio has increased by 51 percentage points between 1990 and 2000 (WTO, 2004), the total number of foreign-born individuals residing in OECD countries has increased in the same proportion (51%) over that period, a figure that jumps to 70% for highly-skilled migrants against only about 28% for low-skilled migrants. As demonstrated in various new economic geography frameworks (e.g., Fujita et al., 1999), skilled labor is instrumental in attracting FDI and fostering R&D expenditures (technological externality); hence, the mobility of human capital is contributing to the concentration of economic activities in specific locations, at the expense of origin regions (Docquier and Marfouk, 2004).

On the other hand, high-skill migration may also induce positive feedback effects as skilled emigrants continue to affect the economy of their origin country. Such possible feedbacks include migrants' remittances, return migration after additional skills have been acquired abroad, and the creation of networks that facilitate trade, capital flows and knowledge diffusion. The main conclusions were that skilled emigration contributes to increased inequality at the international level, with the rich countries getting richer at the expense of the poorer countries. By contrast, more recent contributions ask whether the traditional negative effects of the brain drain stressed in the early literature may be offset by possible beneficial effects arising from remittances, return migration, creation of trade and business networks, and possible incentive effects of migration prospects on human capital formation at home.<sup>1</sup>

Migrants' remittances constitute another channel through which the brain drain may generate positive indirect effects for source countries. It is well documented that workers' remittances often make a significant contribution to GNP and are a major source of income in many developing countries. Remittances impinge on households' decisions in terms of labor supply, investment, education (Hanson and Woodruff, 2002, Cox Edwards and Ureta, 2003), migration, occupational choice, and fertility, with potentially important aggregated effects. This is especially the case in poor countries where capital market imperfections (liquidity constraints) reduce the set of options available to members of low-income classes.

Instead of sending remittances to relatives at home, migrants may return after they have accumulated savings abroad and use such savings for promoting investment projects

(generally in small businesses). There is much evidence that low-skill workers migrate with the aim of accumulating enough savings so as to access to self-employment and entrepreneurship (e.g., Mesnard, 2004, and Mesnard and Ravallion (2001) for Tunisia, Dustmann and Kirchkamp (2002) for Turkey, Ilahi (1999) for Pakistan, Woodruff and Zenteno (2001) for Mexico, or McCormick and Wahba (2001) for Egypt). The latter study offers additional insights in that it shows that in the case of literate migrants, both the amount of savings and the migration duration have a significant positive effect on the probability of entrepreneurship upon return, while the first proposition only holds true for illiterate migrants; this suggests that skill acquisition may be more important for relatively educated migrants than the need to overcome liquidity constraints.

### **Skilled Migration Policy Options**

Pressures that drive labor migration are predominantly of an economic nature. On the supply side, these forces include: large differentiation in income levels between the developed and developing world, the pressures of growing populations, and unemployment in many developing countries. On the demand side, the ageing population in industrialized countries, which leads to a change in the ratio between workers and retirees with its social and economic implications, and resulting labor market shortages, particularly in the health and personal care sectors, are the major factors that continue to fuel labor migration.

The loss of skilled personnel to rich countries is a major concern for many developing countries today. However, large numbers of people from developing countries are also being trained overseas and, of those trained at home; many cannot be absorbed productively into their economies of origin. The loss of key medical personnel is seen to deprive origin countries of access to a basic human right that of adequate health care. At the same time, care cannot be provided in destination countries without importing health personnel to meet the growing demand in ageing societies.

It is important that the available information base enables policy-makers to assess the relative loss from outflow to other countries in comparison with other internal flows, such as nurses leaving the public sector to work in the private sector or leaving the profession to take up other forms of employment. For example, nurses working in the private sector in Zimbabwe reportedly earn about 40% more than those in the public sector (Padarath et al. 2003). International outflow may be a very visible but relatively small numerical loss of workers compared with flows of nurses leaving the public sector for other sources of employment within the country.

Developing migration policy is not an easy or straightforward matter. While migration has emerged as a significant area of public policy in its own right, it is still heavily interdependent with other areas of public policy. Effective national migration policy is challenged to find and maintain a balance among measures that address various migration-related issues without achieving the goals of one sphere at the expense of

neglecting the goals of another. A country that has a clear migration policy and well-defined admission categories is in a better position to avoid migration-related problems.

For example, a policy that organizes the selection of the types of migrants needed by a country helps to ensure that the migrants quickly become satisfactorily settled in their new surroundings, and it soon becomes evident that these migrants make significant contributions to the nation through their skills and talent. The native-born citizens will more easily accept them, and successful integration is facilitated. Some countries in the Middle East and elsewhere have also traditionally relied on recruiting nurses from other countries. In 2000, two thirds of staff nurses working in Oman were non-Omanis. The country is currently pursuing a policy of "Omanization" of its workforce to reduce reliance on recruits from other countries (Ministry of Health, Oman 2000).

The management of migration in many countries has been handicapped by the failure of their governments to establish a clearly defined migration policy that sets out in legislation the rules and regulations governing the major elements critical to the migration process. Most countries have become countries of immigration, transit, and emigration. As such, they will need to establish a realistic migration policy grounded in sensible migration legislation, which will not only determine who is admitted, but that will support migrants and develop programs with other countries that manage labor, remittances, migrant health, and returns.

The Philippines is well known as a source country for nurse migrants, and other types of migrant worker. While there is no explicit policy that encourages migration, there are a number of government agencies established to facilitate the deployment and the protection of its citizens abroad: the Philippine Overseas Employment Authority (POEA) and the Office of Workers Welfare Administration (OWWA). These have been cited as "good practice" in handling the needs of workers deployed overseas. These organizations also facilitate worker migration. The Department of Foreign Affairs in the Philippines reports that there are approximately 7.2 million Filipino migrants all over the world. A recent estimate is that 85% of employed Filipino nurses are working internationally – over 150,000 nurses (Lorenzo 2002).

Generally, the demand for foreign workers arises when the resident labor force is unable to satisfy the demand of the domestic labor market due to the insufficiency in numbers, level or type of skills, inability of quick mobilization, or unwillingness to take certain types of job which are poorly paid and not highly regarded. Effects of labor migration on both receiving and sending countries depend on a variety of factors including volume and characteristics of migration flows, economic, demographic and labor market conditions, as well as policies related to labor mobility in host and source countries. The growth in active recruitment by some developed countries, as they attempt to address nursing shortages, is a key driver in the current growth in nurse migration. The number of source countries, the target for international nurse recruitment, has steadily increased over the years. In the UK, the number of countries

sending recruits has increased from 71 in 1990 to 95 countries in 2001 (Buchan and Sochalski 2004).

Nevertheless, the participants recognized that labor migration has the potential of bringing significant economic gains for all parties. A number of states, among them the UK, Mexico, Australia and the Democratic Republic of Congo, emphasized the positive experience their countries had with a variety of labor migration schemes. The participants were informed that approximately 80 billion dollars of remittances are currently transferred from the developed countries back to countries of origin through official channels, compared with 50 billion dollars of overseas aid provided by the same developed countries. In many of the less developed states, remittances represent a large proportion of the GDP and constitute a major contribution to the stability of foreign exchange.

The ILO's Plan of Action 2004 includes ethical recruitment of migrant workers, especially in health and education, as one of the areas for development of guidelines and good practices: "promoting guidelines for ethical recruitment of migrant workers and exploring mutually beneficial approaches to ensure the adequate supply of skilled health and education personnel that serve the needs of both sending and receiving countries, including through bilateral and multilateral agreements" (ILO 2004: 17).

### **Massive poverty, unemployment and low wages leads Migration**

Every year developing countries lose a large amount of highly skilled workers to developed countries. The exodus of these workers is the result of political conflicts and/or economic issues. Immigrating to developed countries such as the United States offers both financial and social stability. When a scientist from India or a professor from Guatemala or a physician from the Philippines moves to the U.S., America's gain is the native land's loss. Since few American professionals head out to settle elsewhere in the world, the redistribution of talent serves only to widen the gap between the land of plenty and the lands of poverty.

However, the home country experiences a brain drain crisis that negatively affects their social and economic sectors. In developing countries, increased unemployment among college graduates is the driving force behind migration. These countries have limited employment opportunities for highly skilled workers. According to the African Capacity Building Foundation, "African countries lose 20,000 skilled personnel to the developed world every year" (Sriskandarajah, 2005, para. 3). Moreover, inflation, political strife and stagnant wages make emigration an attractive solution.

The wage differential between the U.S. and Mexico, for example, is 15 to 1. For many others, even poverty in the U.S. is preferable to an uneasy prosperity at home: thus lawyers and doctors from Central America may be found washing cars or working as

bellhops in Miami. Other highly skilled people are driven to emigrate, not by economic choice but by political circumstance. Around half of the 1,000 students who graduate each year from the 27 medical schools in the Philippines go abroad, leaving one doctor tending to as many as 20,000 people in some of the archipelago's rural areas. Few countries, however, can afford to take satisfaction from the departure of their best and brightest. In the process, they lose not only the resources of those who leave but also the confidence and commitment of those who remain.

The loss of highly skilled workers affects social and economic growth in developing countries. For instance, Malawi is associated with one of the world's most severe nurse shortages. More registered nurses have left to work abroad than the 336 who remain in the country's public hospitals and clinics that serve most of its 11.6 million people (Lowell, 2003, para. 6). Lack of these nurses affects the delivery of vital health services. Moreover, the loss in human capital decreases the country's overall growth.

When the best and brightest leave after qualifications, their country receive little or no returns on their investments. In Africa, there is a high demand for South African professionals in the global market. This is attributed to the quality of training and education provided to them in their fields of study. However, the Caribbean has the greatest amount of educated people living in the United States. According to Migration Information Source, "roughly one-third of the Caribbean's college educated populations are living in the United States (Lowell, 2003, para. 6). The largest impact are felt in Jamaica and Haiti, "which have two-thirds of their college educated population living in the United States" (Lowell, 2003, para 6). These educated individuals contribute to the development of the host country but their home country's economic and social sector deteriorates.

Remittances from migrant workers increase the home country's capital. According to Johnson (2006), "In some low income countries, remittances can account for up to 15 percent of annual gross domestic product" (para. 6). Most importantly, remittances help develop infrastructure and provide financial resources that facilitate growth. In addition, Diaspora communities promote "inward investments, technology transfer and increased trade flows" (Skiskandarajah, 2005, para. 16). The overall effect of brain drain is beneficial to developing countries. However, the United Nations has developed numerous programs to combat the flight of highly skilled workers. One such program is Transfer Knowledge through Expatriates Nationals (TOKEN). This program encourages Diaspora communities to aid in the development of their country especially those in post conflict areas. They facilitate development in countries such as Africa, Lebanon and India.

Throughout the research on brain drain in developing countries, many supporters suggest that remittances encourage economic growth. But, in this paper the question is how can remittances be enough to compensate for the loss of highly skilled workers?

We do not believe that a country can develop without sufficient manpower in social services such as education and healthcare.

## Findings and Results

The factors behind the migration of the highly skilled and their non-return to the native countries are many, complex and interdependent. That is to say, it is difficult to single out one factor as being the only reason for this migration. Moreover, in spite of the existence of similarities that characterizes this process, there exist historical, cultural and social particularities that are specific to different countries that constitute driving forces that cause the outflow of their educated or inhibit their return. However, to understand the different driving forces that motivate people for emigration, we need to deconstruct and analyze them separately, and then reconstruct them for grasping the phenomenon in its interdependent entirety. Because the economic factors represent a common denominator to all problems of migration and they are largely analyzed and known, we will concentrate more on the other factors. The identification with Western culture can be apparent in the lifestyle and identity rooted in it (Sabour 1985).

The host country's culture may become the ideal, the source and the reference. In extreme cases, this identification goes beyond the level of accommodation and assimilation to the level of alienation. This is manifested either through a passive rejection of the native culture or by an action of active questioning of its values. This is concretized by taking distance from or denigrating it: The results show that the longer the stay abroad is, the more the reintegration in the native country became difficult or improbable. The expatriate living abroad has established a social network and ties and found for himself or herself a sort of 'vital equilibrium' in the life-space of the host country. Moving back to the native country demands tremendous efforts to build up a new position.

The skill and scientific capital acquired abroad is not always enough to secure this position. In North African society, he or she needs a social capital (social acquaintances, social relation (Sabour 1988, 1993). This is one of the factors that appears influential in understanding the motives of migration. When the native country underestimates and does not recognize the expatriate's skill and knowledge, the latter is therefore denied the economic security he/she is striving for. This state of affairs creates existential uncertainty that may give birth to psychological attitudes of anxiety and even frustration. The expatriate who has made many sacrifices and worked hard by getting knowledge and skill capital, expects some sort of recognition. This recognition could be crystallized in securing him/her a relatively decent status and looking at him/her as an individual with personal aspiration and interest. And he/she is tied to a familial and social setting.

## Conclusion

The main conclusion to draw from the above analysis is that for any given developing country, the optimal migration rate of its highly educated population is likely to be positive. Whether the current rate is greater or lower than this optimum is an empirical question that must be addressed country by country. This implies that countries that would impose restrictions on the international mobility of their educated residents, arguing for example that emigrants' human capital has been largely publicly financed, could in fact decrease the long-run level of their human capital stock.

This also suggests that rich countries should not necessarily see themselves as free riding on poor countries' educational efforts. The difficulty is then to design quality-selective immigration policies that would address the differentiated effects of the brain drain across origin countries without distorting too much the whole immigration system; this could be achieved, at least partly, by designing specific incentives to return migration to those countries most negatively affected by the brain drain, and promoting international cooperation aimed at more brain circulation.

Recognizing that international highly skilled migration will continue to exist, mechanisms need to be put in place that will safeguard migrants' rights and facilitate their integration into society and their workplace. It is likely that this will need a multi-prong approach incorporating the financial and human resources of stakeholders from both the source and destination countries. Government, professional organizations, trade unions, employers and the for-profit sector (e.g. recruitment agencies) must be held accountable to develop the appropriate structures and procedures.

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## Footnotes:

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