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Skilled Labour Mobility: The Resurgence of the 'Brain Drain' Debate

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Preface

1. Introduction

Recent globalization trends have helped integrate global markets for goods, firms, services and capital across borders while their impact on movement of labour has been very limited. Mobility of labour has been described as the missing link in globalization. Nonetheless, there has been a renewed interest internationally in the linkages between migration and development in the past few years. The issues of skilled labour mobility and the role of remittances have figured prominently in this discussion. Globalization, international migration and its linkages with development have been issues close to Professor Lakshman's research interests. He pioneered research on the issue of remittances and development in Sri Lanka in the early 1990s[1]. The objective of this paper is to review the phenomenon of skilled labour mobility in an international perspective, as it has important implications for Sri Lanka. The paper first analyses the magnitude of mobility, and then goes on to consider the reasons for renewed interest in the issue. Next, it reviews the impact of skilled mobility, and findings of recent research. Policy responses and elements of good practice form the next area of focus.

2. Definitions and Measurement of Skilled Mobility

The term 'brain drain' in the context of developing countries generally refers to the loss of skilled persons who have been the subject of considerable investment in human resources by their own societies, through permanent or long-term international migration. Given the crucial role of human resources in the growth of these countries, the implied transfer of skills and knowledge from the country of origin is believed to be a serious loss for the source country.

The brain drain as commonly understood is by no means a monopoly of developing countries only. It can occur at different levels within the developed world also. The origins of the term can be traced to movements of skills for the UK to other countries in the 1960s. There is an extensive literature on the brain drain from Canada to the US, which has caused serious concern to the Canadian authorities (Lowell 2002). Movements from third countries to Canada, particularly from developing countries, are making up for this loss. Similarly Europe has long been losing skills to the USA. The magnet or the epicenter of movement has been the USA (Straubhaar and Wolberg 1999). New Zealand has consistently been losing skilled persons to Australia, which in turn is losing professionals to Europe and USA. South Africa is replenishing its diminishing stock of doctors from other African countries as well as from Cuba (Dumont and Lemaître 2005).

2.1 Terminology

In the context of globalization and transnationality, the term 'mobility' is more appropriate than the term 'brain drain' which implies a one-way or unilateral movement. In a recent UNDP research paper, Michael Clemens (2009) suggests the term 'skill flow'.

[1] Lakshman, W. D., Amala De Silva, et al. (1993). Migrant remittances as a source of development funding: A study of Sri Lanka. Paper presented at the Subregional seminar on migrant remittances and economic development in South Asia (jointly organized by ILO-ARTEP and the Faculty of Graduate Studies, University of Colombo), 3-5 August 1993, Colombo, Sri Lanka.

He proposes this term as more accurate and neutral, and characterizes 'brain drain' judgmental and inadequate for policy making. The OECD (2002) has also discussed these issues in terms of international mobility of the highly skilled. Still it is common to look at different aspects of skills mobility using the term 'brains'.

2.1.1 Brain Drain

A 'brain drain' refers to a sustained and critical loss of human capital through emigration of skilled persons for permanent or long-stays abroad in relation to their supply in the home country. A brain drain can occur between countries at different stages of development status as noted above. Yet the problem is more acute for developing countries because of their low level of development and the small stock of human capital. As a rule of thumb researchers have used the loss of more than ten percent of the tertiary-educated population of a particular country through emigration as a brain drain (Adams 2003).

2.1.2 Brain Exchange

A brain exchange implies a two-way flow of expertise or international flows of knowledge between sending and receiving countries, usually among developed countries. A source country may exchange highly skilled migrants with one or many foreign countries. A "brain exchange" occurs when there is no net loss or gain of human capital or when the loss of native-born workers is roughly offset by an equivalent inflow of highly skilled foreign workers. (Straubhaar and Wolberg 1999; Lowell and Findlay 2002).

2.1.3 Brain Gain

A brain gain is said to occur when the skill flow is heavily in one direction, resulting in a net inflow of skills or human capital in a receiving country. Findlay (Findlay 2002) argues that during the 1990's the United Kingdom moved from a position of brain exchange to one of brain gain. More skilled workers were coming in than the numbers leaving the country. The USA has generally been in a position of brain gain (Straubhaar and Wolberg 1999) due to a large inflow of skills from developing countries as well as from developed countries. Dumont and Laimatre (2005) find that the OECD countries generally have experienced a brain gain.

2.1.4 Brain Circulation

Brain circulation refers to a movement of skilled persons back and forth between sending and receiving countries. Periodic return of skilled emigrants replenishes skills in the sending country, usually with higher skills acquired abroad. According to Saxenian, (2000), the foreign-born residents working in the Silicon Valley, particularly from Asia, represent a new breed of circulating immigrants who study and work in the U.S. for a certain amount of time and then return or commute regularly between their Asian homes and the Silicon Valley. Circulation of skills has been recommended as a good practice to minimize the adverse impact of the brain drain (Wickramasekara 2003).

2.1.5 Brain Waste

A 'brain waste' can occur internally as well as at the international level through migration. When developing country economies cannot fully employ their skilled workers, a "brain waste" may result. Yet brain waste often occurs in the receiving countries when qualified emigrants cannot find employment commensurate with their specialized skills and previous experience. This is directly related to monopolistic practices of host country professional associations (medical and engineering, etc) which

often refuse to recognize qualifications acquired abroad by emigrant workers – a recurrent problem faced by emigrants to Australia, Canada, and New Zealand. A case in point is doctors and engineers who may be compelled to work as taxi drivers, etc., to support their families. Reitz (2001) observes: *"Canada is moving into the knowledge economy, yet there has been a 'brain waste' of immigrant professionals because we are not putting their skills into practice"*. He estimated that the Canadian economy lost up to $2.4 billion because immigrants' skills were underutilized and up to $12.6 billion because they were underpaid, receiving half to two thirds of salaries of equally qualified native workers in 1996.

2.2 Measurement of Mobility of Skilled Workers

There exists no system for recording skilled migration flows at the international level. There is poor data on outflows, inflows, return and stocks as well as utilisation of skills in both countries of origin and countries of destination. Sending countries rarely keep track of loss of talent (Lowell and Findlay 2002). In general, data in receiving countries are believed to be more reliable than those in sending countries. Yet ILO work on the UK has brought out the serious limitations in data on skilled migration even in a developed economy (Findlay 2002).

A major problem relates to different approaches to counting 'immigrants' (Dumont and Lemaître 2005). Some countries (USA, Australia, Canada, etc.) use the place of birth (foreign-born population) while others (most European countries) use the criterion of foreign nationality or citizenship. In the latter case, when foreign-born persons acquire citizenship of the host country, they are no longer counted as immigrants. Similarly children of migrants born in the host country may be counted as foreign citizens if they are not entitled to the citizenship of the country of birth.

Another issue in regard to mobility of skills is how to define skilled workers. In general, researchers have treated all tertiary educated migrants as among the skilled. Since experience or occupation is also an attribute of skills, two indicators are popularly used in measuring skills (Auriol and Sexton 2002): i) level of educational attainment or years of schooling; ii) occupations or jobs currently or previously held by the migrant workers.

There is also a distinction between highly skilled (highly qualified) and skilled (qualified) persons. Recent brain drain concerns have extended to middle level professionals such as nurses and teachers as well. It is difficult to consider them at the same level as highly skilled professionals or high tech skills. Auriol and Sexton (2002) argue that identifying HRST on the basis of the ISCO88 classification[2] with suitable adjustments is more appropriate than using education level indicators.

At the same time, mere head counts of movements cannot reflect the quality of manpower lost. This is because such numbers do not take into account differences in work experience. There is a difference between losing an experienced scientist and one who has just graduated. In LDCs where numbers of highly qualified persons are much smaller than in the OECD countries, even a minimal drainage of skills may have far-reaching impacts.

In relation to skilled labour flows and stocks, student mobility is an integral part, and the OECD has described student migration as a precursor to skilled mobility (OECD

[2] ILO International Standard Classification of Occupations 1988; http://www.ilo.org/public/english/bureau/stat/isco/index.htm

2002). Khadria (2002) recognizes student migration as the second component of the brain drain in addition to workers, and refers to students as '*half-finished*' human capital (Khadria 2002).

Table 1: Foreign international students enrolled in selected countries

Country	*Non-citizen students of reporting country*			
	2004	**2005**	**2006**	**2007**
Australia	199,284	211,255	217,055	244,309
Canada	112,816	…	148,164	132,246
France	…	…	247,510	246,612
Germany	260,314	259,797	261,363	258,513
Italy	40,641	44,921	48,766	57,271
Japan	117,903	125,917	130,124	125,877
New Zealand	68,904	69,389	67,698	64,950
Switzerland	35,705	36,827	39,415	17,950
UK	364,271	394,624	418,353	41,058
United States	572,509	…	…	…

Source: OECD Online Database on Education and Training, OECD.Stat at http://stats.oecd.org/Index.aspx

One needs both stock and flow data of skilled workers to discuss retention and return issues. With increasing liberalization and relaxation of controls, few countries have any system for recording return migration unless returns are associated with special programmes.

3. Reasons for Resurgence of the Brain Drain Debate

In an earlier paper I had highlighted two phases in the brain drain debates (Wickramasekara 2003).

The first phase (starting roughly from the 1960s to up to end of the 1970s) focused initially on the North-North flow of skilled persons among developed countries. Later the debate took up the issue of South-North movements or outflow of skills from developing countries to the developed world. The issue was a major concern in academic and policy circles, and there was extensive debate on the impact and policy options, particularly compensation for skill-losing countries and brain drain taxation, as advocated by Bhagwati (1976).

The second phase is related to the more recent globalization trends, explosive growth in information and communication technology (ICT), and the break-up of the former USSR. Globalization is believed to have led to a general increase in the demand for skilled professionals. Selective migration schemes introduced by countries such as Australia, Canada and New Zealand targeted skilled workers from developing countries. The United States increased its H-1B visas for professionals in the late 1990s. The East European countries have witnessed a massive outflow of skilled labour as a result of the initial disruptions caused by transition and restructuring processes, and relaxation of emigration restrictions (Straubhaar and Wolberg 1999).

I shall focus below on the reasons for re-emergence of the brain drain debate in recent years.

3.1 Availability of New Estimates on Dimensions of Skilled Mobility

A major cause of recent interest or revival of interest in the brain drain is the new evidence on the magnitude of skill outflows from developing countries generated by more comprehensive estimates. The IMF study of 1998 (Carrington and Detragiache, 1998) aptly titled 'How big is the brain drain' was a trailblazer in this respect. Based on estimates for 61 developing countries and movement to the USA and the OECD countries, the study concluded that: *"These numbers suggest that in several developing countries the outflow of highly educated individuals is a phenomenon that policymakers cannot ignore."*

It found that the very well educated (defined as those with tertiary education) were the most internationally mobile group. The migration rate was highest for tertiary educated people in most developing countries, amounting to about 30 per cent or so. According to regions, the cumulative "loss of brains" in 1990 was estimated as follows: Central America, 15 per cent; Africa, 6 per cent; South America , 3 per cent; and Asia, 5 per cent. There are two problems with this source: first, the information is more than 15 years old and basically reflects the pre-globalization period in the 1980s rather than the 1990s; second, it is based on fairly restrictive assumptions.

More recent estimates have however, confirmed the basic thrust of the IMF study with the exception of Adams' findings (Adams 2003; Docquier and Marfouk 2005; Dumont and Lemaître 2005; World Bank 2005; World Bank 2006)[3]. The two major studies are those of the World Bank (Docquier and Marfouk, 2005) and the OECD (Dumont and Lemaître 2005). Yet the fact remains that the latest year for which comprehensive estimates of skilled mobility are available is 2000 as they are based on the 200 round of censuses in different countries.

Table 2: Distribution of tertiary educated foreign-born adults in selected countries by region of birth, 2000 (in percent)

Country of Residence	Region of Birth							
	Asia	Europe-EU25	Europe-Non EU	Africa	Latin America & the Caribbean	North America	Oceania	Total within country
Australia	35	39	5	6	2	3	10	100
Canada	35	35	7	6	11	5	1	100
France	17	35	7	34	4	4	0	100
Germany	25	43	20	4	3	5	0	100
Italy	16	32	22	14	10	6	1	100
Japan	77	2	0	1	16	4	1	100
New Zealand	24	47	3	7	1	4	15	100
Switzerland	10	65	9	6	5	5	1	100
UK	33	27	0	21	6	7	6	100
United States	41	16	5	4	29	4	1	100
Total OECD	35	27	7	7	18	5	2	100

Source: Adapted information from Docquier & Marfouk (2005) and IOM (2008). World Migration 2008. p. 55

[3] It must be pointed out that research in skilled migration by Docquier and Marfouk have been commissioned by the World Bank. Therefore, WB data refers to the same estimates.

Studies carried out for the World Bank by Docquier and Marfouk (2005) provide new estimates of skilled workers' emigration rates for about 195 countries (including territories) in 2000 and 174 countries in 1990, both developing and industrial. They have revised Carrington and Detragiache's measures by incorporating information on immigrants' educational attainment and country of origin from almost all OECD countries. The set of receiving countries is restricted to OECD nations. The authors' database covers 93 percent of the OECD immigration stock. In absolute terms, the authors show that the largest numbers of highly educated migrants are from Europe, Southern and Eastern Asia, and, to a lesser extent, from Central America. Nevertheless, as a proportion of the potential educated labour force, the highest brain drain rates are observed in the Caribbean, Central America, and Western and Eastern Africa. The study found that between 1990 and 2000, Western Africa, Eastern Africa, and Central America experienced a remarkable increase in the brain drain.

According to Table 3, twenty-eight countries had more than 30% emigration rates in the year 2000, which is indeed a very high rate of skill loss. The study also found a correlation of skilled emigration rates with the size of the country and income level. According to the World Bank estimates (Docquier and Marfouk 2005), globally there has been an increase in skilled migration: the number of tertiary educated migrants in OECD countries increased from 12.5 million to 20.4 million between 1990 and 2000 (Table 3.3). But the number of non-OECD migrants almost doubled from 6.4 to 11.9 million during the same period. There was a marginal increase in their share from 6.6. to 7.2 per cent.

The OECD estimates by Dumont and Lemaître (2005) employed a new database of international migrants in OECD countries to estimate skilled migration, based on the latest round of census data. Another improvement claimed in the OECD methodology over the IMF and World Bank studies is the use of an additional education database[4]. Results show that (i) international migration is quite selective towards highly skilled migrants; (iii) in most OECD countries, there is a net brain gain[5]; iii) among non-member countries (largely representing the developing world) the impact of the international mobility of the highly skilled is diverse.

Table 3: Emigration rates of skilled workers 2000 (Percentage of workers with tertiary education living abroad)

Percentage	Less than 10%	10% to 20%	20% to 30%	More than 30%
Number of countries	62	33	16	28
Share of developing country population %	75	19	3	3

Source: World Bank 2006, p. 68

[4] But Docquier and Marfouk (2005) have shown that the Sato & Cohen education database has consistently underestimated African educational levels.

[5] The number of immigrants with tertiary education exceeds the number of highly qualified expatriates to other OECD countries.

Table 5 shows the OECD findings of 15 countries with the highest rate of skilled emigration rates. The discrepancy between the two education databases used should caution us to some extent about the ranking, but 11 countries appear in both lists. The largest developing countries (India, China, Brazil, Bangladesh and Indonesia) have low emigration rates for the highly skilled. Some of the smallest countries, especially in the Caribbean and in Africa, face significant "emigration rates" of their tertiary educated: the rate for Jamaica, Haiti, Trinidad, Mauritius, and Fiji is more than 40 % (Table 5). The size of the country therefore, matters. Although recent migration to OECD countries tends to come largely from non-OECD countries, migration between OECD countries continues to have a significant impact. Dumont and Lemaître (2005) conclude that the high selectivity of this migration towards highly skilled migrants highlights the current competition between OECD countries to attract 'the best and the brightest' from other countries, both inside and outside the OECD area.

These results broadly conform to those of the World Bank study by Docquier and Marfouk (2005). The main beneficiaries of skilled migration are the USA and UK (to a lesser extent) while other OECD countries such as Canada, Australia and New Zealand have also benefited. In the USA, more than 440,000 foreign born persons hold a Ph.D. which amounts to about 25 per cent of the total stock of Ph.D.s in the country. Sweden has a similar share while Australia and Canada it stands even higher at 45 % and 54%. Of course, not all these persons are from developing countries (Dumont and Lemaître 2005).

These studies confirm that the brain drain is a hard reality for certain regions (Africa and parts of the Caribbean) and small countries. Thus, there is no basic change in the pattern of skill losses from developing countries estimated for 1990 in the IMF study. It confirms conclusions of the 2001 ILO review: "*There is little doubt that blanket statements about brain drain are not warranted, but that there is equally little doubt that the problem may well be faced by many developing countries*" (Lowell and Findlay 2002). Kapur and McHale (2005) express a stronger view: "*The idea that the migration of a significant fraction of a country's best and brightest is not particularly harmful and may even be beneficial to the country is simply unwarranted,… although the effects are undoubtedly complex, the fundamental reality is that countries need talent to ensure innovation, build institutions, and implement programs—the key pillars of long-term development."*

Table 4: Global Migration Between 1990 and 2000

Type of Migrant	1990	2000
(1) No. of tertiary-educated migrants in OECD countries (millions)	12.462	20.403
(2) Item 1 as percent of total stock of migrants in OECD	29.8%	34.6%
(3) No. of non-OECD emigrants with tertiary education (millions)	6.367	11.870
(4) Average emigration rate – tertiary education	6.6%	7.2%

Source: Docquier and Marfouk 2005, p. 164.

Table 5: 15 non-OECD countries with the highest percentage of highly skilled 15+ migrants in OECD countries by different education databases*

Rank	Country	%	Rank	Country	%
1	Guyana	83.0	1	Guyana	76.9
2	Jamaica	81.9	2	Jamaica	72.6
3	Haiti	78.5	3	Guinea-Bissau	70.3
4	Trinidad& Tobago	76.0	4	Haiti	68.0
5	Fiji	61.9	5	Trinidad& Tobago	66.1
6	Angola	53.7	6	Mozambique	52.3
7	Cyprus	53.3	7	Mauritius	50.1
8	Mauritius	53.2	8	Barbados	47.1
9	Mozambique	47.1	9	Fiji	42.9
10	Ghana	45.1	10	Gambia	42.3
11	United Rep. of Tanzania	41.7	11	Congo	33.7
12	Uganda	36.4	12	Sierra Leone	32.4
13	Kenya	35.9	13	Ghana	31.2
14	Burundi	34.3	14	Kenya	27.8
15	Sierra Leone	33.3	15	Cyprus	26.0

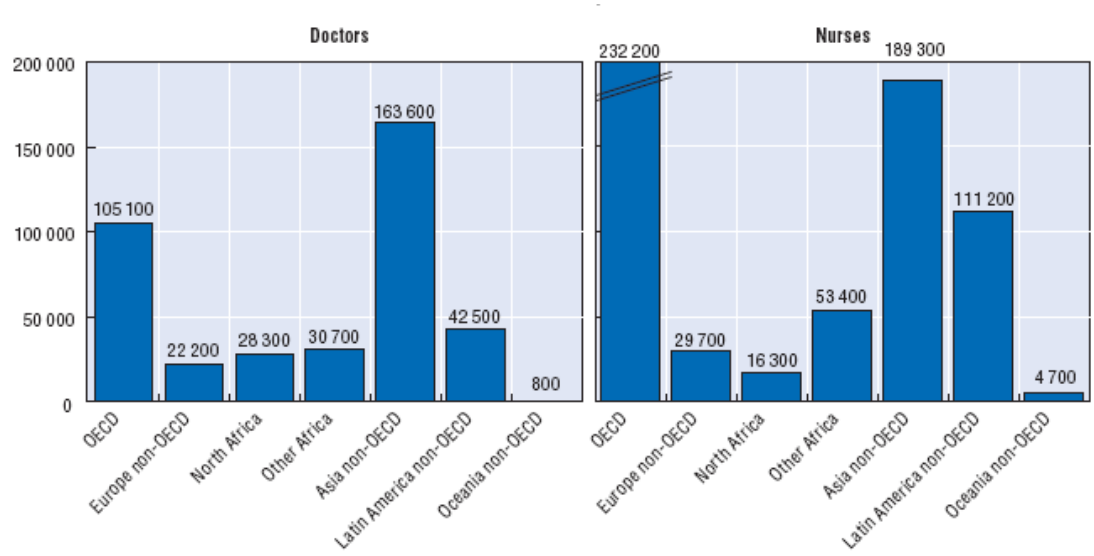
Source: Dumont and Lemaître 2005, p. 25

* The two columns represent estimates based on different education databases.

3.2 Exodus of Developing Country Health Workers

The initial euphoria over migration of Information Technology (IT) workers has now given way to major concerns about the loss of health professionals from many developing countries. This has led to extensive research by various agencies on the causes and dimensions of the skill loss. The exodus of health workers, especially from the African continent for greener pastures in Europe, North America, and Australia, has been very pronounced. Unlike the previous demand for IT workers, the health worker migration (particularly doctors and nurses) is said to conform to a vicious circle (Martin 2003). While IT migration has brought benefits in the form of return of IT workers, investments in the home country, software exports and outsourcing, health worker migration mostly represents a one-way flow with few feedback effects (Wickramasekara, 2007a).

Chart 1: Distribution of foreign-born doctors and nurses by main regions of origin in OECD countries, 2000



Source: OECD StatLink http://dx.doi.org/10.1787/015372351347

The cumulative impact of the medical brain drain is that foreign-trained health professionals now represent more than a quarter of the medical and nursing workforces of Australia, Canada, the UK, and the US (OECD, 2002 cited in: (Liese 2004)). Another telling example is that Jamaica has to produce 5 doctors to retain one doctor at home (ILO 2004). The worst affected region is the African continent. According to a BBC report, in 2003, the UK approved 5,880 UK work permits for health and medical personnel from South Africa, 2,825 from Zimbabwe, 1,510 from Nigeria and 850 from Ghana.[6]

The unethical nature of African health worker recruitment is highlighted by the fact that Africa's share of global diseases is 25 per cent while its share of the global health workforce is only three per cent according to the WHO (2006).

In the Philippines, it is reported that the cumulative migration of doctors and nurses for higher-paying jobs abroad has forced the closure of as many as 1,000 private hospitals in the last five years (AFP/Manila Times 2005). Many Filipino doctors also return to school to get a degree in nursing, because nurses are in greater demand abroad.

3.3 Admission Policies in Major Receiving Countries

As noted earlier, international movement of labour has been quite limited due to major restrictions imposed by developed countries – a sharp contrast with liberal movements of goods, services and capital in the era of gloablization. The World Bank observed: "*Over the past two decades, barriers to cross-border trade and financial transactions have fallen significantly, while barriers to the cross-border movement of people remain high.* (World Bank 2006)

[6]UK 'crippling Africa healthcare', http://news.bbc.co.uk/1/hi/health/4582283.stm

The rise in skilled mobility or the brain drain is also due to the selective immigration policies of major receiving countries which clearly target the admission of those with skills. While there is a demand in developed countries for workers in both low skill and high skill segments, their immigration policies generally frown on admission of the latter category. This contrasts with the fact that the developing or source countries have a surplus of low skilled labour. The highly selective nature of immigration policies in developed countries resembles "cherry picking" of the "best and brightest."(Kapur and McHale 2005).

The traditional immigration countries (Australia, Canada, New Zealand, USA) have been following selective migration policies for a number of years. The European Union is a latecomer to the scene. The European Union Lisbon objectives aim to make the EU the world's most competitive and dynamic knowledge-based society by 2010, and the EU would need 700,000 additional researchers by 2010 to achieve this goal (NUFFIC and EU Presidency (The Netherlands) 2004).

The policy measures used by OECD countries can be categorized as follows (Dumont and Lemaître 2005).

- Adopting selective migration policies: Australia, Canada and New Zealand Australia, Canada and New Zealand have been operating a points scheme based on age, skills and qualifications for many years. The US H1B visa category also represents a similar initiative, and the annual ceiling was temporarily raised from 65,000 to 195,000 in the dotcom boom years. The Communication from the European Commission on a Legal Policy Plan for legal Migration has identified highly skilled migration as one of the four priority areas for action by the EU (European Commission, 2005b).

- Introducing or reviewing specific migration programmes: Several European countries have introduced special policies and programmes. The German Green Card scheme to recruit 20,000 IT specialists is one such scheme. The German authorities have recently reformed their immigration law to facilitate the entry of highly skilled workers including engineers, researchers and business leaders. The UK has introduced the Highly Skilled Migrant Programme (HSMP)[7] - a points based system (education, experience, earnings, significant achievement and partner/spouse's skills). The UK and Norway have created labour shortage occupation lists.

- Easing labour recruitment (France, Japan, the Republic of Korea,). This relates to the introduction of fast track procedures, and provisions for easier changes of status. Among other measures. There has also been relaxation of labour market needs tests and the requirement of a prior a job offer as a prerequisite for labour migration (UK, Norway). The EC Green Paper also discusses fast track procedures.

- Creating special incentive for recruiting highly skilled workers: these include specific fiscal incentives to attract highly skilled migrants offering tax concessions.[8]

[7] http://www.hsmp-services.co.uk/shortage_occupations.html
[8] See Dumont and Laimatre (2005) for a chart on these fiscal measures, p. 26.

- Facilitate foreign students to access labour markets (within limited conditions) or transition to employment upon graduation

In May 2009 the European Union adopted Directive 2009/50/EC on the conditions of entry and residence of third-country national for the purposes of highly qualified employment.[9] The Directive is known as the EU Blue Card and facilitates admission procedures for its holders. It entitles them to equal treatment with nationals of the host member States through a series of socio-economic rights, and favourable conditions for family reunification and movement across the EU.

The directive defines the conditions of entry and residence of high skilled third country nationals, including the eligibility criteria related to a salary threshold. The period of validity of the EU Blue Card is comprised between one and four years, allowing member States to define the standard period.

Among others, Blue Card holders are guaranteed equal treatment with nationals of the host member States, as regards:

- working conditions, including pay, dismissal and safety requirements;
- freedom of association;
- education, training and recognition of professional qualifications;
- provisions in national law regarding social security and pensions;
- access to goods and services, including housing, information and counseling services;
- free access to the entire territory of the member state concerned within the limits provided for by national law.

3.4 Sharp Rise in Flows of Migrant Remittances to the Developing World

Although some Asian researchers had recognized the important role of remittances and its relationship with development in Asia some time back[10], there has been unprecedented interest in migrant remittances in recent years due mainly to the sharp increase in the volume of remittances. It has attracted a lot of attention by international development agencies, development banks and the donor community. The World Bank has described remittances *"an important stable source of development finance"*, (World Bank 2003) and Kapur (2003) calls it the new *"development mantra"*.

Table 6 highlights the relative position of remittances against other financial flows to developing countries. Remittances are now more than double that of ODA, and have caught up with FDI volumes also. These are recorded remittances, and the World Bank estimates a much higher inflow if informal flows are also included. The growth of

[9] EU Council Directive 2009/50/EC of 25 May 2009 on the conditions of entry and residence of third-country nationals for the purposes of highly qualified employmennt

[10] See studies in the volume edited by Rashid Amjad (1989). To the Gulf and Back; Athukorala, P. (1993). "Improving the contribution of migrant remittances to development: the experience of Asian labour-exporting countries." International Migration Review 31(1): 103-124.; ILO-ARTEP (1993). Summary of Proceedings. Subregional seminar on migrant remittances and economic development in South Asia, 3-5 August 1993, Colombo, Sri Lanka, December 1993.

remittances over time can be seen in Table 7.[11]. These remittances have increased from 31 to 170 billion between 1990 to 2005, and by 73 per cent between 2001-05. The corresponding rates for South Asia is 67 per cent.

Table 6: Financial flows to developing countries (in US dollar billions)

Item	2000	2004	2008e
Workers' remittances	84	164	328
Foreign direct investment (FDI)	166	216	583
Private debt and portfolio equity	19	181	124
Official development assistance (ODA)	54	79	100

Source: World Bank 2009, unpublished report.
e = estimate

Thus remittances have emerged as the largest source of external financing in developing countries, but this should not detract from the value of other flows such as ODA because remittances are private transfers, and not at the command of the government.

There has been a plethora of research into remittance statistics, trends, and impact and utilization globally (World Bank 2006; World Bank 2005). It has also contributed to increased awareness of the potential linkages between migration and development. For instance, the World Bank has argued for facilitating international mobility, and to a shift from *limiting migration* to *managing migration*. (World Bank 2003a). Another interesting issue is whether a particular link can be drawn between remittances and skilled mobility. There is hardly any data on this aspect. Yet the general support for migration also has raised interest in skilled migration from the viewpoint of remittances.

[11] The World Bank defines remittances as the sum of workers' remittances, compensation of employees, and migrant transfers.

Table 7: Workers' remittances to developing countries, 2000–2009

	2000	2005	2007	2008e	2009f*
$ billion					
Developing countries	84.5	191.2	285	328	304
East Asia and Pacific	16.7	46.6	65	78	74
Europe and Central Asia	13.1	29.5	51	57	49
Latin America and Caribbean	20.0	48.6	63	64	60
Middle-East and North-Africa	12.9	24.2	32	34	32
South Asia	17.2	33.1	55	74	71
Sub-Saharan Africa	4.6	9.3	19	20	18
Low income countries	21.8	46.3	25	31	29
Middle income countries	62.7	144.9	261	297	275
World	131.5	262.7	380	433	…
Growth rate %					
Developing countries	…	…	25.2	14.8	-7.3
East Asia and Pacific	…	…	23.4	19.6	-5.7
Europe and Central Asia	…	…	36.5	12.0	-14.9
Latin America and Caribbean	…	…	6.6	2.1	-6.9
Middle-East and North- Africa	…	…	21.4	8.6	-6.2
South Asia	…	…	40.1	32.8	-3.6
Sub-Saharan Africa	…	…	47.3	6.5	-8.3
Low income countries	…	…	23.2	25.3	-5.0
Middle income countries	…	…	25.4	13.9	-7.5
World	…	…	22.9	14.0	…

Source: for 2000 and 2005: World Bank (2008) Migration and Remittances Factbook
For 2007-2009: World Bank (2009) Migration and Development Brief No. 10
*Base case forecast

In the next section, I shall summarize the main threads in current debates on the impact of the brain drain.

4. The Impact of the Brain Drain

There is considerable debate on the impact of skilled migration with differing views. The traditional view has emphasized the negative aspects focusing on the direct impact of skill outflows and decrease of human capital and loss of investments in education. More recent literature has highlighted that the negative effects may be overcome to a large extent from positive impacts resulting from remittances, return migration, and induced impact on increasing educational investments. Table 6.8 attempts to summarize in a highly simplified manner the main benefits and losses to sending countries, based on review of recent literature.

Box 1: The Brain Drain Balance Sheet: Countries of Origin

Positive effects	Negative effects
➢ Induced stimulus to investment in domestic education and individual human capital investments. ➢ Enables local skilled workers to gain skills at international level, and students to upgrade their skills.	➢ Net decrease in human capital stock, especially those with valuable professional experience ➢ May lead to reduced growth and productivity and lack of innovation capacity. ➢ Reduced quality of essential services of health and education ➢ Students educated at government expense or own resources in foreign countries imply further drain.
➢ Inflow of remittances boosts household incomes and foreign exchange reserves.	➢ Remittances from skilled migrants may diminish over time, more so with the second generation.

	➢ Remittances may be used for non-productive consumption. ➢ May cause increasing income disparities in incomes in country of origin.
➢ Provides rewarding opportunities to educated workers not available at home.	➢ Fiscal loss of heavy investments in subsidized education, and foregone tax income
➢ Return of skilled persons promotes local human capital, transfer of skills and links to foreign networks	➢ Return may be for retirement at end of productive careers or because of failure abroad.
➢ Technology transfer, investments and venture capital by diasporas	➢ Limited rights, labour market discrimination and non-recognition of qualifications abroad may limit (brain waste) potential contribution.
➢ Facilitates integration into global markets and promotes exports (India, China, Taiwan (China)).	➢ Ethnic niche markets are too small to make a positive impact on home countries.
➢ Disaporas can influence economic, social and democratic reforms at home.	➢ Divisive Disaporas may contribute to political instability and disruption at home.
➢ Short-term movements of service providers (GATS Mode 4) generate benefits for both receiving and sending countries.	➢ Commitments under GATS Mode 4 are extremely limited and receiving countries use extensive immigration barriers to limit movements.
➢ Diaspora associations and digital networks can promote skill and knowledge transfers.	➢ Few digital networks are active or updated after the initial hype.

Source: This is a modified version of Table 2 from my paper (Wickramasekara 2003). The same table has been adapted by the UN Economic and Social Survey 2004: International migration (United Nations 2004) - Table 3, p.x) to illustrate the economic impact of all types of migration.

4.1 Negative Impacts

The direct impact is often to lower economic growth in the source country

It stands to reason that the direct impact of a brain drain is to lower economic growth given the crucial role of human capital in the development process. Yet the net impact depends on the interactions with other feedback impacts listed below.

The fiscal impact

Sending countries lose out on the cost of financing education of nationals proceeding abroad. In most developing countries, there are widespread subsidies on public education systems. Some estimates suggest that these can be substantial. The cost of the health personnel brain drain for Ghana is projected to be 56 million dollars between 2001-2006. (Liese 2004). This is a large cost for a developing country. The UNDP has made a crude calculation of the value of Indian software professions trained in the elite Indian Institutes of Technology migrating to the USA. The total cost of training each student was estimated to be about to $15,000–20,000. Assuming the number of professionals expected to leave India each year to be 100,000 or so, it represents a resource loss of two billion dollars a year to India (UNDP 2001).

In general, highly skilled persons form an important component of the tax base in developing countries. Desai and others (2003) have estimated the net fiscal revenue loss to India as a result of Indian skilled persons migrating to the USA alone to be in the range of 0.24-0.58 per cent of the GDP of India in 2001.

Decline in quality of essential services: education and health

The previous section highlighted the extent of loss of skilled persons, particularly in the health field. The exodus of health care workers and teachers would adversely affect two primary sectors of education and health – critical for human resource development in

the country. As highlighted earlier, Africa is experiencing an exodus of skilled workers at the height of a health crisis triggered by HIV-AIDS, among others.

4.2 Positive impacts

- *The brain drain can stimulate higher investment in human capital in countries of origin*

The possibility of emigrating to higher wage countries may stimulate persons to pursue higher education in anticipation of pursing higher paying work abroad (Mountford 1997). If emigration is possible for some people, and not for everybody, then it may spur individuals to pursue education in the hope of emigrating to increase their expected earnings. As the incentives to pursue education in the country of origin are enhanced, average human capital is increased which contributes to stimulating overall growth. Beine and others (2002) have found some empirical support for this in their research. This has been described as a beneficial brain drain situation.

Some researchers have however, cast doubt about the stimulus to human capital at home through migration. Faini (2005) has argued that that there is limited evidence that favoring skilled immigrants raises the return to education. An empirical study of medical migration to the UK by Kangasniemi and others (2004) found that the overseas doctors who come to the UK were carefully screened and that only a minority of doctors from developing countries considered the possibility of migration when they chose to obtain medical education. The authors conclude that the incentive effect is thus probably not large enough to increase the skills-supply in developing countries.

- *Return migration and brain circulation*

There is considerable emphasis in the literature on the beneficial effects of return migration and "brain circulation". The idea is that returnees bring back human, financial and social capital, and can thereby positively contribute to the development of home economies. It has also been argued that skilled migrants can stimulate the improvement of political institutions in their origin countries when they return (Clemens, 2009). A question at issue is whether return is a prerequisite for countries to reap these benefits or whether brain circulation can equally contribute. This issue of return migration is discussed further in section 5.2.

- *Remittances and investments*

Section 3.4 considered trends in remittance flows. Yet there is no direct information on remittances by skilled workers. Given the global communications system, even remittances from banks in developed countries may reflect funds from earnings originating elsewhere. No country has a breakdown of remittances by skill profile. Highly skilled workers can be attracted to home country investments through incentives. India has a long record of special programmes for NRIs (Non-resident Indians). Many countries have introduced incentives to attract investment funds from expatriates. The Non-Resident Foreign Currency Scheme (NRFC) in Sri Lanka is an example. It is usually the more educated migrants who would make use of such schemes. Skilled emigrants generally migrate with their families, and over time, their remittances may decline. Moreover, they are sensitive to political developments at home and may prefer to keep their savings abroad or in offshore accounts. Faini (Faini 2005) has theorised that skilled

migrant workers may actually remit less than low skilled workers. This is an area which obviously requires further research.

- *Transnational networks and linkages*

In recent times, there has been increased emphasis on tapping the potential of overseas diaspora for home country development. The inflows of vast amounts of FDI to China and India from overseas diaspora are cited as examples. In addition to capital, they can also mobilize transfer of technology and know how. Skilled migrant abroad can serve as intermediaries, commercial ambassadors, and mentors for investments in the home country (Clemens, 2009). The Internet has played a key role in this regard, and the South African Network of Skills Abroad (SANSA) is said to comprise an active network with more than 2000 members. It was created in 1998 by the Institute of Research for Development (IRD) and the University of Cape Town. Since 200 it is being managed by South Africa's National Research Foundation (NRF). Its members are located in more than 60 countries and they work in various sectors; academic, business, government.[12] The core of the network is its website, which facilitates exchange of information and interested migrants can register there.

4.3 Drain or gain?

The net impact of drain or gain would therefore, depend on the interaction of the above factors, the rate of migration and the time period considered. In the short term, the negative impacts may be more dominant while positive feedback effects may counteract these in the longer term. According to ILO country studies, the positive impacts seem to be dominant in the case of India and to some extent in the Philippines (Wickramasekara 2003). However, the Philippines also shows that large inflows of remittances have had limited impact on overall development. In South Africa, there is not much evidence to show a net positive impact as yet although the diaspora potential has been highlighted.

The evidence also shows that the impact is sector- and size-specific. The smaller countries experience a relatively larger impact (Docquier and Marfouk 2005). At the same time, certain sectors experience different impacts. Phil Martin (2003) has maintained that the IT worker migration (case of India) and health worker migration (case of Africa) represent virtuous and vicious circles in skilled migration. In my view, this is not a fruitful line of analysis because the comparison may not be meaningful. The contrast is also between two different types of service delivery. The IT sector offers much more scope for outsourcing, and virtual mobility than the health sector. Asia and Africa represent regions with different policy environments as well. The limited message is that some types of skilled migration may give rise to few feedback effects.

What is important is the net balance of these positive and negative factors. The ILO review of skilled migration - which was largely based on a review of literature (in addition to several country case studies) - argued that positive feedback effects could offset adverse impacts (Lowell and Findlay 2002). There is a growing volume of empirical studies, which has predicted larger gains from liberalization of migration than from trade liberalization. The early estimates related to the liberalization of the trade in services under GATS mode 4. Winters and others (2002) have argued that larger gains are

[12] See Science and Development Network at http://www.scidev.net/en/science-and-innovation-policy/african-science-policy/opinions/south-africa-shows-the-value-of-the-diaspora-optio.html

possible if medium and less skilled workers, who are relatively abundant in developing countries, were allowed to move because of larger productivity gaps. Several empirical studies of factor mobility show large potential economic gains from increased labour mobility (Commander et al. 2002).

The World Bank has recently carried out a simulation study of increased labour migration and its impact on global welfare gains in its Global Economic Prospects 2006 (World Bank 2006). The model assumed additional migration between 2006-2025 to raise industrial countries' labour force by three percent – a modest increase. It has estimated overall global gains to be of the order of $356 billion over the period – which are larger than gains from trade. The conclusion is that migration will generate significant welfare gains for the countries of origin, for the migrants themselves as well as for the countries of destination. The biggest benefit estimated was for new migrants who would experience nearly a tripling of their income levels. Natives in host countries would benefit because the increased supply of labour grants higher returns to capital while old migrants would suffer a decline due to lower wages and competition from new migrants. The countries of origin would benefit mostly through remittances, and improved labour market outcomes. Again the model includes both skilled and low skilled workers.

The Global Commission on International Migration has listed among its six principles of action "Reinforcing economic and developmental impact" of migration which is elabourated as: "*The role that migrants play in promoting development and poverty reduction in countries of origin, as well as the contribution they make towards the prosperity of destination countries, should be recognized and reinforced. International migration should become an integral part of national, regional and global strategies for economic growth, in both the developing and developed world"* (GCIM 2005).

How do we translate these considerations into policy and practice? This forms the subject matter of the next section.

5. Policy Options for Maximizing Benefits from Skilled Migration

Thus the key question is how countries can achieve net benefits from skilled migration or how to convert the so-called 'drain' into a 'gain'. The ILO synthesis report on skilled migration (Lowell and Findlay 2002) has categorized the possible policy responses to skilled migration into six convenient categories under the rubric "*Six Rs*".

1. Return of migrants to their source country

2. Restriction of international mobility to own nationals and foreign workers

3. Recruitment of international migrants

4. Reparation for loss of human capital (compensation)

5. Resourcing expatriates (Diaspora options)

6. Retention: through educational sector policies and through economic development

Kapur and McHale (2005) have conceptualized "a four-legged typology of policy responses open to both receiving and sending countries" - four Cs- *control, compensation, creation and connection* elaborated as follows. "*Control* policies relate to efforts to directly stem skilled inflows or outflows. *Compensation* policies relate to efforts to share

the often considerable spoils of emigration with those remaining behind in poor countries. *Creation* policies focus on the implications for the human capital policies of both rich and poor countries. And *connection* policies are concerned with strengthening economically valuable diasporic interactions and increasing the possibility of capital-enhanced return."

Control policies refer to Restriction - option 2 of the ILO scheme whereas compensation is 'Reparation' in the former scheme. Creation reflects option 6 to some extent while Connection relates to both option 1 and 5 in the ILO scheme.

The ILO-OECD consultation on the proposals for more equitable sharing of gains from the mobility of skilled workers (ILO and OECD 2003) rightly argued that policies should be based on four criteria: efficiency, equity, sustainability and ethical considerations. For efficiency it is necessary to promote circulation-friendly policies. Equity requires better sharing of costs between origin and host countries. Sustainability refers to better managing human resources. Ethical criteria mean good practices in international recruitment and adoption of codes of practice by all stakeholders.

Whatever the semantics of different classification schemes, it is clear that the major polices to address the brain drain cover the following: keeping skilled people at home (retention), return of skilled migrants (return migration), circulation of skilled persons (circulation), diaspora options, and compensation options. These are not clear-cut or separate options since there are obvious interrelations among them. In my view, specific policies in such areas alone cannot guarantee a win-win situation unless they conform to the ILO-OECD criteria listed above or they form part of a multilateral framework to guide labour migration policy.

5.1 Retention

If skilled persons voluntarily decide to remain in the home country, it can be regarded as the best policy in the long run. International experience highlights that several conditions need to be fulfilled for this to be achieved depending on the root causes of emigration. The latter is also important from a human rights perspective. As Clemens has stressed (2009), it is a good practice to seek for the root causes of skilled workers' mobility, rather than treat migration itself as a problem. Instead of restricting the freedom of movement of migrants' policies should expand skilled workers' choices.

However, there is clear evidence that rapid economic growth is a primary condition for creating adequate and rewarding opportunities to remain at home. Even if students and skilled persons may leave for professional advancement, they are more likely to return. This is partly because rapid growth reduces the income gap between the source and host countries thereby affecting the motives for emigration. The migration transitions observed in the case of a number of countries – the Republic of Korea, the Taiwan province, and the new immigration countries of Europe (Ireland, Italy, Greece, Spain and Portugal) – may support this conclusion.

However, retention policy may reflect a vicious circle trap in the sense that developing countries cannot stem the outflow of skills until they develop rapidly: but the loss of skills itself acts as a major constraint on achieving growth. In order to overcome this situation, policies in the countries of origin need to focus on matching skills to local needs and provide professional incentives for skilled workers to stay home (Clemens, 2009).

Major advances in information and communications technology (ICT) have also widened options to source countries in retaining skills. The proliferation of call centers

and outsourcing of activities by multinationals to countries such as India and the Philippines create employment opportunities in source countries, provide for virtual mobility, and thereby reduce the potential brain drain. Return migrants and the diaspora may invest in such activities. The ILO Philippines study (Alburo and Abella 2002) has shown the potential of the internet in generating virtual mobility and keeping people at home.

5.2 Return Migration

I have argued the limitations of the return concept elsewhere. (Wickramasekara 2003). While return migration has been viewed as a popular strategy to 'reverse the brain drain' traditionally, it is a limited concept in that it may indicate the '*closure of a migration cycle'* (King 2000). Yet current globalization trends mean that there are many types of return and circulation. As Russel King (King 2000) rightly observed *"Transnationality should replace the fixedness of emigration and return"*.

Moreover the motives, timing and pattern of returns are also critical for the impact. Cerase (1974) in his analysis of Italian return migration from the USA listed four categories of reasons for return: a) *failure*; b) *conservatism;* c) *retirement*; and d) *innovation.* He argued that the last group – return of innovation - was the one most relevant to development of the home country. Following King (2000), the time pattern can be categorized as occasional returns, seasonal returns, temporary returns and permanent returns. The timing of return is crucial for several reasons. If people return after a reasonable period of time, they are better equipped because of additional qualifications and skills, work experience, accumulated resources, and social capital (networks and linkages with those back in the host country). A person who returns after a brief spell abroad may not be able to offer much benefits to the home country in the form of diverse forms of capital - human, financial and social (Wickramasekara 2003). Return migration can be classified also as assisted or voluntary return. The latter may not be sustainable or equitable given the high costs involved and special treatment of those who left compared to those who remained behind.

5.3 Circulation of Skills

The case for promoting temporary and circular migration is now well-recognized (Wickramasekara 2003; Wickramasekara 2004). Developing countries do not lose skills permanently while host countries have access to a pool of talents from abroad. It also recognizes that most countries are now more ready to accept for temporary workers rather than permanent migrants. Even traditional settler countries such as Australia now admit more skilled workers under temporary visas than under permanent residence.

The GATS Mode 4 on the movement of natural persons is a clear example of circular migration: it supports the idea of circulation and short term work visas are a clear choice in a circulation-friendly policy package. In practice however, it has remained restricted to largely skilled labour movements, particularly intra-company transferees. Moreover, there is an inherent contradiction in negotiating the movement of workers as a trade issue under the WTO (thereby virtually treating workers as commodities) without any attention to their protection and rights.

At present, the immigration laws and visa regimes of developed receiving countries act as major barriers to the concept of circulation of skills. There are very long residence requirements for citizenship or naturalization. Migrants cannot stay away for more than six months or a year if they want to maintain permanent residency rights. The European

Commission Directive 2003/109/EC on the status of long term residents stipulates that, as a rule, long-term resident status will be withdrawn in the event of an absence of more than 12 consecutive months from the territory of the Community.[13] The US Green Card or the Swiss C permit are further examples. In many countries, students have to leave immediately after graduation or a short apprenticeship period. The visa procedures in developed countries (e.g. Shengen visa regime in the European Union) have become more costly, increasingly cumbersome and humiliating (with introduction of biometric procedures such as finger-printing) for developing country nationals irrespective of their skill levels. Some elements in the French Immigration Law of 1998 tried to rectify a few gaps in a limited manner in facilitating visas for former students and relatives of permanent residents (Weil 2002). But much more remains to be done. There are long residence requirements for entitlement to social security, and also there is very limited portability across borders in regard to social security rights.

The world of sports (soccer, cricket, etc.) provides many examples of best practices in circulation. When international sports stars move, they face few barriers. They train and play abroad and also move back and forth to contribute to the national team as needed. A South African study of scientist migration has used the metaphor of 'flamingoes' to refer to the circulation of scientists, and also pointed to the relevance of movement of sports personnel to the concept (Kahn et al. 2004).

The ILO study on the UK (Findlay 2002) argued that the UK should issue work visas with the clear message that return is required after a given period of stay. This could result in mutual benefits for both source and host countries. The U.S. "cultural exchange" visa (J) issued for varied durations of stay to work in a variety of disciplines for the purpose of fostering international exchange and experience has been suggested as a good practice model in this respect. Yet one should not minimize the problems of enforcing returns of temporary workers. When people move initially with families it becomes more difficult to return. Studies also have shown that the US J-visa system has been diverted from its original objectives to sustain the continued presence of foreign skills (Kapur and McHale 2005).

The recent Communication by the European Commission on Migration and Development (European Commission 2005a) has highlighted the critical role of circular migration and brain circulation and proposed a number of measures that can be taken by EU members to promote them. The main measures proposed are promoting temporary migration schemes, encouraging return migration and promoting temporary or virtual return.

Dual citizenship arrangements are regarded as a good practice in this respect. Many countries recognize the value of this measure in promoting linkages with their transnational (diaspora) communities. The Government of India is one of the latest to provide for dual citizenship to non-resident Indians. We have to recognize that transnational citizenship is the way of the future with increasing mobility and the possibility of people establishing homes in more than two countries.

[13] http://eur-lex.europa.eu/LexUriServ/site/en/oj/2004/l_016/l_01620040123en00440053.pdf

5.4 Leveraging the transnational communities (Diaspora)

As noted earlier, there is mounting recognition of the potential role of transnational communities in source country development. The role of non-resident Indians and the Overseas Chinese in promoting investments and technology transfer to home countries is well-known. The recent experience with the response to the Tsunami disaster in Asia has shown how the diaspora can be mobilized at short notice to respond to sudden disasters faced by home countries

Both source and host countries increasingly recognize their role. The African Union has recognized the importance of the African diaspora for a new partnership for development of Africa. The DFID White Paper on International Development, *Eliminating World Poverty: A Challenge for the 21st Century*, DFID committed the British government to build on the skills and talents of migrants and other members of ethnic minorities within the UK to promote the development of their countries of origin (DFID 2000). The European Commission in its recent communication on migration and development has recognized the role of the Diasporas as actors of home country development and pledged support for helping developing countries map their diasporas and build links with them (European Commission 2005a).

Several countries have established separate ministries or special bureaus to liaise with- their transnational communities. In Senegal, the Bureau for Assistance to Expatriate Senegalese which is within the Ministry of Foreign Affairs, promotes the welfare of Senegalese workers abroad, facilitates their return and rehabilitation and promotes the return of remittances. It also encourages expatriates to participate actively in the socio-economic development of the country.

The Government of India established the Ministry of Overseas Indian Affairs (Pravasi Bhartiya Karya Mantralaya) in 2004 to look after the interests of overseas Indians, and to promote their economic linkages with India.

Digital networks have become popular as a means of networking to promote links with transnational communities (diaspora) of skilled professionals abroad to encourage their return or circulation and transfer of skills, technology and capital for home country development (Kuznetsov, 2006; Wickramasekara 2007b). There are many examples of scientific and intellectual diaspora networks such as the GlobalScot, ChileGlobal, Digital Diaspora Network Africa (DDNA), and the South African Network of Skills Abroad (SANSA). The World Bank volume edited by Kuznetsov (2006) has reviewed a number of these networks.

Yet these networks seem to lose momentum after the initial launch. For instance, it is embarrassing to note that the link on the DDNA initiative[14] by the United Nations Information and Communications Technology Task Force to mobilize the intellectual, technological, entrepreneurial and financial resources of the African diaspora is no longer functional. A recent electronic survey of the South African Network of Skills Abroad (SANSA) by the South African Research Foundation revealed that 46% of 2,440 email contacts in the SANSA database were not working; only 428 responded to the survey, and 40% of them mentioned that they rarely or never accessed the SANSA website (cited in Seguin et al., 2006).

[14] The link (http://www.ddn-africa.org/) visited on 3 May 2007 lead to a completely unrelated page.

Another issue within the diaspora is that the second generation may not have the same 'sense of belonging' as the original migrants. At the same time, one has to recognize that the diaspora communities are not homogeneous, and that they can also contribute negatively to home development. Vertovec (2004; 2005) cites the role of some overseas communities in 'nation-wrecking' rather than 'nation-building' and sustaining insurgency and terrorism in the home countries, which has considerable relevance to the case of Sri Lanka.

Box 2: Recognition of the role of the diaspora

- *The Global Commission on International Migration (GCIM)*

Diasporas should be encouraged to promote development by saving and investing in their countries of origin and participating in transnational knowledge networks.

- *ILO Multilateral Framework on Labour Migration (2006):* Guidelines on transnational communities (Principle 15 on Migration and Development)

15.4. promoting and providing incentives for enterprise creation and development, including transnational business initiatives and micro-enterprise development by men and women migrant workers in origin and destination countries;

15.9. facilitating the transfer of capital, skills and technology by migrant workers, including through providing incentives to them;

15.10. promoting linkages with transnational communities and business initiatives.

- *The UN Secretary-General's Report on International Migration and Development (United Nations, 2006a)*

Governments understand that their citizens working abroad can be development assets and are strengthening ties with them. (Paragraph 59).

- *Department for International Development, UK, London:"Moving out of poverty - making migration work better for poor people."*

[T]he positive economic, social and political connections that diasporas maintain with their countries of origin have the potential to be an engine for development (*DFID, 2007).*

- *European Commission (2005) Migration and Development: Some Concrete Orientations*

As part of transnational communities linking countries of origin and countries of residence, diasporas can make an important contribution to the development of their home countries. (p.23).

- *Global forum on Migration and Development, Brussels 2007.*

Home and host countries should integrate diaspora initiatives into national development planning and poverty reduction strategies, both at national and local level (GFMD, 2007).

5.5 Ethical recruitment practices

There has been interest in the establishment of ethical codes of practice for recruitment of skilled workers especially from countries at risk. [15] The UK Department of

[15] Please see Annex II of the ILO multilateral framework on labour migration for more details.

Health Code of Practice for the International Recruitment of Healthcare Professionals (Revised in 2004) for NHS Employers states that developing countries should not be targeted for the recruitment of health-care professionals. The Code provides best practice benchmarks for parties involved in international recruitment, the adoption of a list of about 150 developing countries including Sri Lanka which are at risk of health-care worker shortages from which workers should not be recruited[16], the extension of the Code to both temporary and permanent health-care professionals and public and private sector providers, and the non-levy of placement fees on workers. The United Kingdom also has bilateral agreements with China, India, the Philippines and Spain for recruitment of health-care workers (UK Department of Health 2004).

The Commonwealth Secretariat has also developed both a code of practice for the international recruitment of health workers and a protocol on teacher recruitment. The Commonwealth Code of Practice for the International Recruitment of Health Workers[17] has been adopted by Commonwealth Health Ministers and provides a framework for interaction between countries as they seek to meet the basic health needs of their populations (Commonwealth Secretariat 2002). The Commonwealth Teacher Recruitment Protocol was adopted at a ministerial meeting in the United Kingdom in September 2004 (Commonwealth Secretariat 2002). It aims to protect the integrity of national education systems and prevent the exploitation of the scarce human resources of developing countries.

Yet these are voluntary codes of practice which are not biding on the recruitment industry. In the case of the UK, the impact of these guidelines is doubtful because the number of health workers admitted from developing countries has been steadily expanding. Moreover, the private sector may not adhere to these codes, and the internet provides direct access to some of these jobs in developed countries.

5.6 Compensation Options

The idea that some form of compensation or payment can be made to source countries for the loss of their human resources has intuitive appeal, and was indeed one of the standard first generation brain drain debate prescriptions. It assumes both the individual migrants and the receiving countries, which benefit from such migration, have a moral responsibility to make reparations for the losses sustained by the skill-losing countries. In the 1960s and the 1970s, there was extensive discussion of the theoretical and practical issues relating to brain drain taxation triggered by the work of the famous trade economist, Bhagwati. (Bhagwati 1976; Bhagwati and Partington 1976).

Simple arithmetic would show the intuitive appeal of such a proposal. Estimates in 1972 were that US$750 million in revenues could be raised and made available to the United Nations to be used for development purposes (Bhagwati and Partington 1976). As noted earlier, the UNDP (2001) calculated a resource loss of two billion dollars a year to India resulting from the migration of IT professionals to the USA.

The main issue revolves around how to impose such a tax, and how it would be used to benefit the sending countries. In the seventies, the idea was floated that it should be channelled through the United Nations. The receiving country would allocate it to the

[16] http://www.nhsemployers.org/workforce/workforce-558.cfm (visited 3 June 2007).

[17] The author was associated with the first expert group meeting of this initiative.

United Nations for spending in the developing countries or "share the revenue" with the source country. A multilateral approach would be the implementation of intergovernmental transfers of payroll taxes or income taxes paid by nationals of other countries. The UNCTAD in the seventies debated these ideas (UNCTAD 1979). Critics have pointed out various problems with the implementation of this proposal. It makes a major difference whether skilled migration is permanent or temporary. In the 1970s, the context was one of permanent migration whereas now, temporary or contract labour migration is more common. It is also not clear who pays the tax and at what point in the form of an exit tax or as income taxation in the host country.

Nevertheless there has been a resurgence of this idea of brain drain compensation and taxation recently. The UNDP (2001) and Kapur and McHale (2005) have proposed the American model of citizenship based taxation as a way to get around collection and transfer problems. The latter consider a number of other alternatives including direct compensation in the form of head-hunter fees, tax sharing, visa fees, and exit taxes. In actual practice, no country has ever implemented this type of skill or brain drain tax.

5.7 Multilateral Cooperation and Frameworks

While the above subsections discussed specific policy measures separately, cross border migration necessarily involves interstate cooperation. The World Commission on the Social Dimension of Globalization (WCSDG) made a strong case for a multilateral framework for cross border movement of persons to address collateral problems resulting from the absence of a framework including the brain drain. The Report stated: *"Fair rules for trade and capital flows need to be complemented by fair rules for the cross-border movement of people"* (ILO and WCSDG 2004). It stands to reason that the above measures would work best within a broad framework of guidelines and rules by the international community. This especially applies to compensation mechanisms which involves tax revenue sharing among countries.

Several initiatives have emerged in recent years. The International Agenda for Migration Management produced under the Berne Initiative (sponsored by the Government of Switzerland) in 2004 is one example (Federal Office for Migration and IOM 2004). The IAMM lists effective practices for migration covering all aspects of migration, not only labour migration. It has obvious limitations as a states-owned process involving many compromises on migrant rights, among others. The Global Commission on International Migration has not come up with concrete proposals for a new global migration order either. Instead it has enunciated six broad principles of action to guide migration policy and called for the establishment of a Global Migration Facility (GCIM 2005). The ILO has developed the most comprehensive non-binding set of principles and guidelines for a multilateral framework on labour migration addressing issues of governance, protection and development. The ILO multilateral framework on labour migration (ILO 2006) is designed to provide practical guidance to governments and to employers' and workers' organizations on labour migration policies, and has a separate section on migration and development. Its Guideline 15.7 refers to: *adopting measures to mitigate the loss of workers with critical skills, including by establishing guidelines for ethical recruitment.*

6. Some Speculative Remarks on the Sri Lanka Case

A detailed discussion of Sri Lanka's brain drain is outside the scope of this paper. It should be the subject of further research based on the generation of comprehensive data currently not available on many critical aspects. There are major gaps in information relating to the brain drain from Sri Lanka, which have to be addressed. I will make some brief remarks – largely of a speculative nature - based on the preceding analysis.

The issue of the brain drain has been a cause of major concern in Sri Lanka for policy makers and planners. This is clear from the appointment of a Commission in 1974 to look into the brain drain issue (Government of Sri Lanka 1974). The Commission dealt with trends and causes and made a number of recommendations, most of which were implemented. Korale (2001) has summarized these measures.

Since then the brain drain has probably accelerated due to greater liberalization and open economy policies, limited economic growth, especially lack of employment intensive growth, the continuing ethnic conflict, and more liberal admission policies of OECD countries. AS Keith Rankin (2001) remarked, "Sri Lanka seems to be better at creating than employing graduates". As one example, Sri Lanka Health Ministry sources have indicated that nearly 60 Government Medical Officers have not returned home after training in health institutions in England and Australia. Some of them had gone abroad as far back as 1983 on scholarships for higher training on paid leave. The Government had incurred Rs.1.5 million on each of them and so far only four of them had reimbursed the Government (Ceylon Daily News 2005b). Mr. Nimal Siripala de Silva, Health and Nutrition Minister, Government of Sri Lanka, urged the WHO World Health Assembly 2005 to collectively develop a charter to reduce the adverse effects of the health sector "brain drain (Ceylon Daily News 2005b; Ceylon Daily News 2005a)"

Sri Lankan skilled migration has traditionally been to settler countries – Australia, Canada and New Zealand - and to the UK and the USA. The flow accelerated with the liberalization of Australian and Canadian talent migration schemes. At the same time, students and those sent for training may have stayed. The Middle East flow is dominated by low skilled and semi skilled workers, but it is known that a sizeable number of professionals also go on contract basis to the Gulf. Although these are short term contracts lasting 2-3 years, professionals have the benefit of regular renewals and therefore, probably form part of the diaspora.

I shall touch on the likely flow of benefits focusing on remittances, return migration, and the diaspora options.

6.1 Remittances

Migrant remittances have been a major source of foreign exchange in Sri Lanka from beginning of the oil boom in the 1970s. They now average about 1.5 billion US dollars annually, and are now way above ODI and FDI flows into the country. It is among the largest sources of foreign exchange to the country. Pioneering work on Sri Lanka remittances was done in the late 80s and early 90s by Athukorala (Athukorala 1993), Rodrigo and Jayatissa (Rodrigo and Jayatissa 1989) and Lakshman and others (1993) and ILO-ARTEP (1993) . These explored the patterns, channels and possible development impacts of migrant remittances up to the early 1990s. The World Bank has released a recent study on migrant remittances in Sri Lanka which has not taken into account earlier work (Hulugalle et al. 2005). But the findings are consistent.

The World Bank study concludes that remittances are hugely beneficial to Sri Lanka.The economic policy implications of these trends are significant. It recognizes the development impact of the remittance flows, and offers policy guidance on increasing the quality and outreach of infrastructure. (Hulugalle, Lasagabaster and Maimbo 2005).

Korale (2001) has argued that the beneficial impact of migrant remittances in an adverse balance of payments situation has by and large shaped the government policy on the brain drain. This supports the view that the negative aspect of skill losses may be offset by gains made through remittances.

6.2 Return Migration and Circulation

As in other countries, there is no system to monitor numbers, timing, or patterns of return of skilled persons or any returning workers. Return of peace and stability may induce return of skills, which is unlikely at present. Circular migration is the norm for workers going to the Middle East on short fixed term contracts but professionals may have the privilege of renewing these contracts. For all practical purposes they may form part of a diaspora. Those who migrate to the developed countries with families are unlikely to return in the medium term. Even those who go to countries in Africa or other Asian destinations may use that as a stepping stone to move to developed countries – Australia, Canada, the UK Australia, or New Zealand.

The Brain Drain Committee recommendation for granting leave to public servants for longer periods (maximum of five years without pay) was accepted, and many public servants have made use of it.

Sri Lanka has had limited programmes for attracting back talent. The UNDP has operated the TOKTEN (Transfer of Knowledge through Expatriate Nationals) programme in a limited way, but information is not readily available on its achievements. The International Organization for Migration has also developed a similar programme, but information is lacking.[18] The Ministry of Science and Technology under the leadership of Professor Leslie Gunawardene, the then Minister, instituted a programme for attracting scarce talent in specified fields (PRIU and Sri Lanka Government Website 2001) for periods ranging from one to six months. The Ceylon Daily News of 19 June 2001 reported that about 27 persons had responded. The invitation to Sri Lankan expatriate scientists is still on the Ministry website, but there is no information whether the programme is still active or whether there was any evaluation[19].

The Institute of Fundamental Studies also is another initiative to stimulate basic research in Sri Lanka and encourage expatriates to collaborate in advanced research. The initial momentum in attracting high calibre expatriates seems to have been lost later.

Sri Lanka has been operating a dual citizenship scheme for many years, which is considered a good practice as mentioned above.

[18] The author was unable to locate any information on the operation of these programmes in the websites of local UNDP and IOM offices .

[19] http://www.most.gov.lk/invitation.doc (The website has last been updated on 17.01.2005).

6.3 Engaging the Diaspora

As noted above, there is increasing interest globally on the value of communities of nationals abroad. A problem commonly faced by many countries is the absence of reliable information on the numbers and profiles of the diaspora. Several electronic networks have emerged internationally to voluntarily register such communities. The author is not aware of such an initiative in Sri Lanka.

There is not much evidence of the positive contributions of the diaspora community although the response during the time of the Tsunami is very encouraging. One can raise only questions than provide answers here. For instance, what has been the role of the Sri Lankan diaspora in normal times? It is known that the non-resident Indian community had a major role influencing economic reforms in India, and overcoming reputation barriers, which has helped it to effectively integrate into the global economy. Is there any such evidence for Sri Lanka? While the Tsunami experience has shown some positive results on diaspora support, there is little documented evidence of diaspora contributions to the development of the economy. Political patronage and poor governance may affect such positive impacts. There is also substantial evidence to show that the Tamil diaspora (estimated to be around half a million worldwide according to Newland and Patrick 2004) is playing mainly a negative role in sustaining the conflict in Sri Lanka (Newland 2004; Vertovec 2005). It may be possible to expect a more positive impact once peace and stability return to the country.

7. Conclusions

Global demographic and economic trends indicate that cross border migration flows, especially of skilled persons, are going to increase rather than decrease in the future. The challenge is therefore not to attempt to prevent or stop such migration, but to see how it can be turned into.

Increased cooperation between skill-sending and skill-receiving countries is essential in realizing this potential. Yet there seems to be limited evidence of such cooperation at present. Increasing migration barriers in the OECD countries do not reflect their actual labour market needs or demographic trends. Concerns on state sovereignty and security seem to override economic imperatives. Multilateral, regional and bilateral labour migration frameworks and agreements represent a good practice in this respect although there is a long way to go in this direction. The ILO Multilateral Framework on Labour Migration (ILO 2006) provides a comprehensive set of non-binding principles, guidelines and best practices for formulation of credible migration policies at all levels.

There is need for intensive research on documenting the contributions of migrant workers to host countries, and developing mechanisms for sharing gains of skilled migration between host- and source-countries and evolving circulation-friendly policies. The growing preference of receiving nations for temporary labour migration schemes augurs well for benefits in the form of circulation of skills. Some of this liberalization may take place under trade negotiations, but it is important to ensure protection and welfare of migrant workers under temporary schemes by observing principles and guidelines based on international norms.

The long-run solution to the brain drain problem is rapid economic development in home countries, which can create rewarding opportunities at home and promote circulation as the experience of some European countries (Italy, Portugal, Ireland, Spain) and Asian countries (the Republic of Korea, Singapore and Taiwan (China)) has clearly

shown. This may be a distant goal for Sri Lanka, but it is important to work towards such a goal from a long-term perspective.

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