

## **Policy Department External Policies**

# **SKILLED WORKER MIGRATION AND THE DEVELOPMENT DEBATE**

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## Table of content

<b>1. Introduction: migration and development.....</b>	<b>3</b>
<b>2. THE ENVIRONMENT / the dynamics .....</b>	<b>5</b>
2.1 Demographic evolution.....	5
2.2. The labour market.....	6
<b>3. The brain drain debate.....</b>	<b>9</b>
<b>4. The actors and their role in the migration process .....</b>	<b>11</b>
4.1 The level of the individual migrants – the micro level .....	11
4.2 The level of society – the macro level.....	11
4.2.1 Some positive results .....	11
4.2.2... or a mixed outcome .....	12
4.2.3 The distribution of power.....	13
<b>5. the ‘return’ of migration: remittances .....</b>	<b>15</b>
<b>6. Policy responses .....</b>	<b>17</b>
6.1. Recapitulation.....	17
6.2 Some general policy responses to outweigh the possible adverse effects.....	17
6.3 Policy responses in the host countries .....	18
6.4 Policy responses in the countries of origin.....	21
6.4.1 Policies to maximize payoff of highly skilled migration .....	22
6.4.2 Policies to convince migrants to return.....	22
6.4.3 Policies to prevent highly skilled migration.....	23
<b>7. Summary and conclusions .....</b>	<b>25</b>
<b>Selective Bibliography .....</b>	<b>26</b>

## 1. INTRODUCTION: MIGRATION AND DEVELOPMENT

Globalisation is the stepping stone for plenty of articles, essays and papers on social transformation, as it is for this one. Of the many questions raised by globalisation, one that has attracted much attention lately, is how this so-called globalisation affects the national and international mobility of workers and how this impacts upon development. More and more skilled and highly skilled workers are moving abroad for jobs. Rich countries have been opening their doors to developing country professionals. Is this a loss for the relatively less developed countries, or on the contrary, do they benefit from the presence of their professionals in the technologically more advanced societies? Many poor countries development efforts seem to be continuously undermined by the phenomenon of human capital flight, currently referred to as '*brain drain*'. It is not a new phenomenon. *Developing countries lose thousands of skilled people each year – engineers, doctors, scientist, technicians*. This can be read in the 1992 UNDP report. This report, published 15 years ago, looked into the causes of the brain drain – describing how it is a process that is already existing for decades- , describes the often devastating effects of the mobility of the highly skilled, and suggests some measures.

The migration of skilled workers from the developing world to the richer industrialize countries is an ongoing process. The losses of human capital the 1992 UNDP report refers to, have been recognized internationally since the 1960s. Some changes can be noticed lately. Not only scholars are studying the problem Europe and Africa considered this problem on two successive summits in Morocco and in Tripoli. On the 22<sup>nd</sup> and 23<sup>rd</sup> of November 2006 e.g. the ministers for foreign affairs, ministers responsible for migration and ministers responsible for development from Africa and the EU member states gathered together with other involved actors and issued afterwards the Tripoli declaration. In this declaration it is stated that all parties *recognize that the fundamental causes of migration within and from Africa are poverty and underdevelopment aggravated by democratic and economic imbalances, unequal terms of global trade, conflicts, environmental factors, poor governance, unequal of globalisation and humanitarian disasters*). They further recognize that *illegal or irregular migration cannot be addressed by security consideration only but should be bases on broader development frameworks and on mainstreaming migration in development strategies*. The ministers and other responsible actors recognise that *selective immigration approaches in developed countries constitute an additional threat to African social and economic development*. They are concerned about the loss of heavy investments made by African Governments in training and human resources development in priority sectors and the negative impact of the brain drain on these sectors. (Tripoli declaration)

Also the final report of the Global Commission on International Migration drew in December 2005 comparable conclusions. Not only is the threat highlighted, but also the possibilities for the migrant community to play a role in the development process. *The role migrants play in promoting development and poverty reduction in countries of origin, as well as the contribution they make towards the prosperity of the 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, 23). Also the World Bank sees opportunities in the migration process for the sending as well as the receiving countries (World Bank, 2006).

The Global Commission observes that migration can make a valuable economic, political, social and cultural contribution to the societies they have left behind, but that migration can also result in the departure of the country's brightest, best-educated and most entrepreneurial citizens. This deprives the state of revenue and prevents countries of origin from gaining an early return on the investments they have made in education and training of these people. Especially when the people leaving the country are professionals from sectors such as health and education, migration can affect adversely on the supply and quality of essential services. (GCIM, 2005, p. 23)

This is the problem generally referred to as the "brain drain" problem. As the concept itself already suggests, this phenomenon has predominantly been viewed as a negative one. If not, brain transfer or brain circulation would definitely have been a better label. However, scholars like Binod Khadria, the author of "The Migration of Knowledge Workers: Second Generation Effects of India's Brain Drain" (1999) point out, that brain drain has become a generic term. Brain drain, as a concept is used to talk about the advantages as well as the disadvantages of the mobility of (high) skilled workers.

The first aim of this paper is to draw the ongoing debate and bring together some evidence on what is generally called the "brain drain" problem: who are the actors involved, what are the appropriate levels of analysis, what are the goals and what processes can be distinguished? The second goal of this paper is to address some of the related policy issues. What kind of policy can be developed to minimise the negative aspects of the migration of high skilled workers and to maximize the positive outcome?

## 2. THE ENVIRONMENT / THE DYNAMICS

International migration is an important element in economic, social, cultural and political change. International migration is driven by structural factors in both developing and developed countries. The root causes of international migration are more or less known and include poverty, violence, war, environmental degradation, ... in the sending countries. Other factors are the technological and the demographic evolution. The demographic situation of the industrialised countries was elaborated in *Replacement Migration: Is it a Solution to Declining and Ageing Populations?*, an in 2000 by the United Nations published report that fuelled the discussion on migration in most of the European countries (United Nations, 2000). An increasing life-span and declining fertility in the industrialised world and a booming population in the developing countries will lead to a major shift in both size and structure of the population in the developed as well as developing the world.

### 2.1 Demographic evolution

Mass migration is to a large extent a matter of the export of the problems of the developing world. The problems are known: violence, poverty, high unemployment and despite child mortality, an important population growth. An average annual population growth rate of 1.4 percent may not sound like a large number, but, at this rate, nearly 90 million people will be added to this year's population. Because of the large and increasing population size, the number of people added to the global population will remain high for several decades, even as growth rates continue to decline. The less advanced societies are accountable for this population growth. Between 2000 and 2030, nearly all the annual growth will occur in the less developed countries in Africa, Asia, and Latin America, whose population growth rates are much higher than those in more developed countries. The impact of growth rates can best be seen by looking at the time it takes for a population to double in size. Growth rates of 2.3 percent and higher means that populations would double in about 30 years or less, if these rates continue. A lot of countries in the south like most African countries and a lot of Arab countries are facing a population doubling time of thirty years or less. Twice as many people will need twice as much food and water, along with adequate houses, schools, hospitals, jobs, roads, etc. This accelerates the degradation of the environment, strains finite resources and gives rise to social ills, such as poverty and unemployment. To accommodate all new workers entering the labour market and to reduce unemployment, the world will have to create 500 million new jobs over the next 10 years, the International Labour Organisation said in a 2001 report. One-third of the world's workforce are unemployed or underemployed, and that 500 million new jobs must be created in the next decade to accommodate new arrivals in the job market and to cut unemployment by 50 percent (ILO, 2001).

The national labour markets in developing countries have become saturated and cannot absorb more people, sometimes not even the rising skilled work force. The unemployment of university graduated is some countries part of the social reality. For some developing countries (e.g., India, Pakistan, Egypt), the international movement of highly skilled people from one region to another released the tension of the academic unemployment in their societies (Sabour, 1995).

For countries with a high fertility rate and high unemployment figures, emigration seems to be a blessing. Large-scale migration can be considered as a safety valve for the developing countries. The emigration of workers seems an instant solution to problems like a growing unemployment and a worsening balance-of-payment problem. The advantages are multiple. The unemployment figures

drop if a part of the working age population leaves the country and the social tension is reduced because the competition for scarce goods like jobs, housing, ... is less. And moreover, the migrants working abroad are sending money back home. Remittances are an essential source of income for many developing countries, albeit that there is a long-standing debate over the overall benefits of remittances and their benefits on economic development. Government control over how remittances are used – invested or channelled to immediate consumption- is rather limited. Emigration can be used as a safety valve, but the consequences of large-scale emigration are not always positive for the developing countries.

In monitoring fertility, mortality and migration trends for all countries of the world, we see a growing population in the developing world, but also some reverse trends in Europe and Japan. Among the demographic trends for these regions, two are particularly salient: population decline and population ageing. In *Replacement Migration*, the UN report quoted earlier, prognoses indicate that over the next 50 years, the population of Japan and virtually all countries of Europe will most likely decline. In a number of cases, countries would lose between one quarter and one third of their populations. The ageing of the population will bring the median age to historically unprecedented high levels. For instance, in Italy, the median age will rise from 41 years in 2000 to 53 years in 2050.

The ageing of the population will probably endanger the social security system in the industrialised countries. The working age population is paying for the pension of the retired. The United Nations report gives some projections for the elderly dependency rate (the population of 65 years of age and over divided by the working age population: 15-64). By 2050, this dependency rate doubles for most of the studied countries and almost triples for Japan. This will have a severe fiscal impact. One obvious response to a (relative) shortage of working age population is to import them, this means to allow greater immigration. The influx of new workers is one of the instruments that can be used to alleviate the stress on the social security system in the industrialised world, but new immigration is not the only alternative. A reduction of the benefits, an increase in taxes, an increase of the female employment and postponing the age of retirement are also possible, albeit that some of these measures are politically rather difficult.

Another important consequence of the ageing population is the growing demand for assistance. Older people tend to be more heavy consumers of the health care. There is more demand, and there is less supply. A career in the health sector doesn't seem to attract people, and those who started a career, often start looking for opportunities outside the health sector after some years. The shortage of manpower is an overall problem, although it is most salient in sectors like the health sector. Some industrialised countries have already for years a shortage of nurses and doctors, and have already a certain tradition of importing skilled health care professionals. The United States, Canada, Australia, the United Kingdom, Ireland, Holland all report shortages of e.g. nurses. These shortages will further intensify as the population ageing continues and will probably become pronounced the next decade.

## **2.2. The labour market**

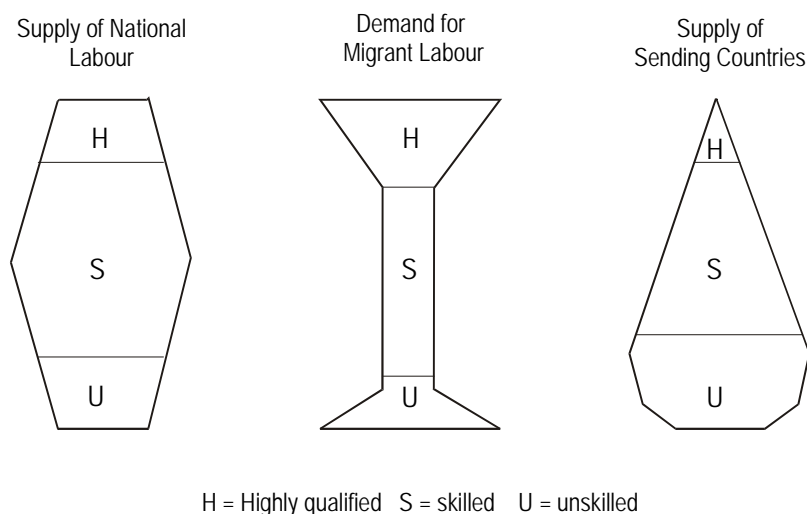
Historically, the scope and the magnitude of the migration flows have been dictated by the demands of the host countries. There, the migration policy has always been an instrument of the labour market policy. Although the migration policy in Europe has largely been reduced to an asylum policy in the eighties and the nineties, it still is. The active recruitment of foreign workers in the 1950s and 1960s was put to an end with the 1973 oil crisis. But the so called "migration stop" was in fact a reduction of the European immigration to family reunification and humanitarian

immigration and in exceptional circumstances, labour migration of foreign workers needed on the labour market. Recent evolutions like the in 2000 passed migration act in Germany illustrate that the migration policy still is an instrument of industrial policy that leads to a selective permanent migration of skilled workers and temporary workers.

Scholars like George Borjas describe the “immigration market”, where countries are competing for the best and the brightest, offering various deals to different migrant types, depending on their skill level, country of origin, ... (Borjas, 1990). Countries like Canada, Australia and New Zealand, all made clear that they are in the global competition of the highly skilled. Also the European Commission works under the expert guidance of commissioner Vitorino, towards an efficient labour migration policy. The basic assumption is that there are long-term needs of the European Union as a whole, and considerable shortages on the labour market of the different member states. Even countries who don't consider themselves as immigrant countries and where the discussion whether or not labour migration should be admitted again is still going on, like in Belgium, recognise the importance of attracting skilled migrants.

Apparently the world is facing on the one hand an oversupply of labour in the developing countries, and on the other hand, simultaneously, a shortage of labour due to ageing of the population in a part of the industrialised world. One and one ads up to two. It should not be so difficult to imagine that this can be beneficial for all parties involved. If there is unemployment in one region, even academic unemployment (like in India, Pakistan, and Egypt), and a shortage of labour in another region, circulation of labour seems to be a solution for both types of society. So maybe the brain drain discussion is indeed exaggerated.

Unfortunately, there is a skill mismatch on the global labour market. The labour market is not a uniform market, but a layered market, with supply and demand on each level. Migrant receiving countries do not worry about migration as such. Migrant receiving countries worry about unskilled migration. Many highly qualified workers or professionals are regarded in quite a different way. The industrialised countries are not reluctant to welcome them. On the contrary, several countries are more than happy to accept these people and even put effort into attracting with the right skills. Looking at Figure 1 below, we see a more substantial demand for highly qualified in the upper layers of the labour market and also a demand for people who are willing to do the dirty, dangerous and difficult jobs for wages that national workers reject.



Source: Böhning, W. in Stalker P. 2000

Figure 1 Patterns of Skill Supply and Demand, Western and Northern Europe, 1990



Böhning's figure given above shows how the supply of high skilled labourers on the national labour market is smaller than the demand. It also shows the supply in the sending countries. What it doesn't show, is the demand in the sending countries. Some migrant sending countries are faced with a surplus of highly skilled. But in many others there is also a demand for high skilled labour that is often also not met by the local supply.

The market plays, and highly skilled labourers and professionals are players in the game. There is a global supply and demand of (high) skilled workers. But there is also a national legislation and a national translation and/or interpretation of international rules. And there is no subsidiary principle. Smaller countries have hardly any impact on the worldwide movement of labour.

The market plays, but apart from purely economic motivated migration, there is also migration from trained professionals who wish to leave their country because of the political, social or environmental environment.

### 3. THE BRAIN DRAIN DEBATE

After an absence of some decades, the “brain drain” issue has re-emerged as a result of the growing competition for highly-skilled migrants from the ‘western’ countries. Skilled migration receives a lot of attention lately, not only in the developing countries, but also in the industrialized world. The attention is threefold. (1) Political leaders and opinion makers realize what impact the migration of skilled workers from the south can have on the development of the regions of origin. (2) The western world is in the need of qualified labour and tries to attract ‘brains’ from the outside world. The previous commissioner Vitorino As well as commissioner Frattini expressed themselves on the topic of skilled migration. (3) Also the industrialized countries are confronted with qualified workers leaving the country. Although “brain drain” does not exist in a similar way in the countries of the industrialized world, it is often the case that skilled workers leave one country in the North to be replaced other skilled workers from abroad. In this case, “brain exchange” might be a more appropriate label. As the competition for skilled migration grows and the world's population becomes increasingly mobile, these are issues of growing importance and interest.. The EU is concerned with this matter and considers it to be a significant element of the common migration policy. However this situation is complex, research shows that there can be some positive effects for countries of origin, like e.g. the host country migrant remittances. The remittances contribute to improvements in standards of living and development of the local economy.

The actual impact of the migration of the (highly skilled) for the countries of origin remains to be empirically verified further, but there are in some cases bound to be adverse effects on development. Especially the least developed countries are suffering from unequal power relations and have to accept what is happening.. There are growing concerns in the international community that immigration policies of the industrialized world should incorporate provisions for the eventual return of talents and skills, or proper compensatory payments to origin countries. How complicated the debate can be was shown some years ago when two reports were published - not simultaneously, but in a short time - by the international organizations OECD (2002) an UNDP (2001)

A study of the Organisation for Economic Co-operation and Development (OECD) called *International Mobility of the Highly Skilled* (2002), suggests that the mobility of highly skilled workers encourages innovation to circulate and helps to boost economic growth around the globe.

Based on a series of country case studies, the report looks on the one hand at what drives the movement of professionals like scientists, engineers, computer programmers across borders; and on the other hand at how entry rules in the richer countries have generally served to match shortages of highly qualified labour in some industries. According to the report, the main increase in flows has been from Asia and Central and Eastern Europe into North America, Australia, Germany and the United Kingdom.

The report notes some clear benefits for the home countries: migrant workers return with new technological and entrepreneurial skills obtained abroad and very often they also have money to invest or have contacts in the international science and technology fields. They have extended their social capital, their ‘network’ capital. The sharp expansion of high-technology industries in Chinese Taipei, South Korea and Ireland owes much to returning migrants, says the report.

Given that many professionals do eventually return to their country of origin, fears of a loss of competence, of a brain drain from developing to technologically advanced countries may be exaggerated, the OECD report says. That is probably why the press headlined ‘Highly Skilled

Worker Migration Can Boost Economic Growth, Says OECD Study', when the report came out. This seems to be a clear position in a debate that has been characterised by quite some confusion. Of course this study is more balanced than the newspaper headlines suggest. It also states that greater co-operation between sending and receiving countries is needed to ensure a more equitable distribution of benefits.

A more equitable distribution of benefits is what worries the United Nations Development Program (UNDP). The press release of UNDP's 2001 *Human Development Report* (2001) suggests an almost antipodal view. Here the world's attention was drawn by the headline 'Brain drain costs developing countries billions.' The proposition put forward here is that the migration of trained professionals from the south happens at a high cost to their home countries. Look for instance at the well-known Indian professionals. Each year, about 100,000 of them, primarily in the computer industry, are expected to request new visas issued by the United States. According to the report, the average total cost to India of providing a university education to every one of these professionals is estimated to be about US\$ 15,000 to US\$ 20,000, which means that India is losing an investment of US\$ 2 billion a year as a result of emigration to the United States.

The costs are stressed in this study, but the report also notes that these Diaspora's can also be a valuable resource for the countries from which they originate. There can be an important return. Remittances, the money sent home while abroad, the saved money returnees bring back and the accumulated knowledge can considerably contribute to the development of a sector. Bangalore, the Indian IT centre, owes much to the Indians in Silicon Valley. The Indian Diaspora has important effects in the information technology sector.

The brain drain debate is still marked by a considerable amount of confusion and frustration as Ross Finnie wrote in 2001. Should we conclude that brain drain is a loss for a country like UNDP suggests or should we conclude that it can lead to an economic boost like the OECD says? Most probable, both studies are looking at different sides of the same coin.

## 4. THE ACTORS AND THEIR ROLE IN THE MIGRATION PROCESS

To give a balanced answer to the question whether the migration of professionals is a loss for the relatively less developed countries, or a benefit, one has to ask some questions. Who are the actors involved, what are the appropriate levels of analysis, what are the goals, what is the context, what is the dynamic and what processes can be distinguished? Answering these questions can be a starting point in developing a policy response in order to maximise the benefits for all parties. The stage for the play of high-skilled migration is the worldwide labour market in an era of globalisation. The main actors are the migrant workers, the (future) employers, the countries of origin and the countries of destination.

### 4.1 The level of the individual migrants – the micro level

Skilled or unskilled, the main motivation for migrant workers will be to increase their income. Already more than, a decade ago, a Philippine nurse for example could triple her monthly income by migrating to the Gulf Countries and make twenty times as much in the United States as in Manila (Stalker, 2000). Salary differentials can be a major source of attraction, but also the opportunities to develop a career can be a significant motive for professionals. At an individual level this seems to be a win-win situation. The migrant workers improve their situation, earn more money and have better opportunities. The employer abroad just hired a motivated but relatively cheap professional.

Often an individual migrant is not capable of working on the level of his or her qualifications. Also highly trained people are leaving their country of origin without official documents or real prospects in the country of destination. Some jobs however, especially in protected sectors like the health sector, are not open for all interested workers. Some requirements have to be met. Recognition of the degree or the issuing university is necessary and the individual migrants have to ask for recognition of their *earlier acquired competences* or their *foreign diploma*. If this is not done, not possible or not granted, these migrants will not be able to work on the level of their qualification. Even if they are earning money as an unqualified labourer and they are capable to send funds back home, this can be considered as an important loss of investment that can be called *brain waste* (see macro level also) and that leads on the individual level to frustration.

### 4.2 The level of society – the macro level

#### 4.2.1 Some positive results ...

While it may be advantageous on individual level, migration of highly skilled or professionals may represent a considerable loss for the countries that have heavily invested in education. Remember the Indian professionals discussed earlier in this paper: India is losing an investment of US\$ 2 billion a year only as a result of the migration of IT professionals. India has been investing hugely in human capital. There is of course some return. India has progressed in the IT sector and is supplying industrialised countries with software engineers. Software even accounted for eight percent of India's exports of goods and services (ILO, 2001). The question is whether India will be able to sustain its decade-long momentum in the software business.

The goals of the countries of origin are multiple and depend on the social and economic situations. Highly skilled workers and professionals are needed to develop the country. To a certain extent, migration of the highly skilled is advantageous for the country of origin because of the social and economic return. A Diaspora population stands for money transfers, savings and investments and can also contribute to social goals. In case of high unemployment, emigration even functions as a safety valve to reduce unemployment.

Successful migrants abroad also leave opportunities for those left behind on the local labour market – less competition – and their success stories can stimulate new generations to study in an attempt to follow in their footsteps. The prospect of working abroad for higher wages and better conditions can be a stimulus to pursue higher education. This can increase the number of domestic students beyond what it might have been without migration. If many of these increased numbers of students opt to stay in the country after graduation, they bolster the knowledge available locally. This is what is behind Oded Stark's argument that the brain drain has economic and social benefits for the countries whose brains are leaving (Stark, 2002). His reasoning is simple, although backed up by a lot of theoretical economics. When educated people leave and report back that they make a lot of money, that creates an incentive to those still in the homeland to improve their human or social capital, say by improving their education. This happens on a large scale. However, only a small percentage of those whose human or social capital has increased actually leave. The rest stay behind and offer the benefits of their education to the home country.

The logic of Stark is similar, but the adverse of what can be read in the report of the Global Commission turned around. The Commission states that all countries should make substantial investments in their education and training of their citizens in order to increase the competitiveness of their economies. If these economies are not capable to absorb all people who have acquired professional skills, then these people can contribute to the development of their own country by migrating and sending money back home, returning with supplementary competences ....

#### **4.2.2... or a mixed outcome**

This kind of scenario sounds encouraging, but it has to be put into perspective. Migration of the highly qualified can be positive, but this assumes that there is already a minimal stock of qualified people. If a doctor or a nurse, or even an electrician leaves the village, the city or the region, and there is nobody to succeed him or her, you can hardly speak of an advantage for society. There is a threshold. There are even two thresholds. There is a lower limit under which society suffers the consequences of all skilled and high skilled migration, because there is no replacement capacity. Above this threshold migration can be positive until the number of migrant workers reaches the upper limit, above which emigration of professionals and highly qualified becomes problematic again because the replacement capacity has been drained. Between the two limits, we can talk about brain transfer, brain circulation and even brain gain. Above and below the thresholds, we had better talk about brain drain. For every country, for every region and even for every sector, the picture is different.

The health sector may be used as an example in different parts of the world. The migration of professional personnel has a major impact on the health sector in sub-Saharan Africa. Since 2000, for example, nearly 16 000 African nurses have registered to work in the UK alone. Only 50 out of 600 doctors trained since independence are still practising in Zambia. And it is estimated that there are currently more Malawian doctors practicing in the northern English city of Manchester than in the whole of Malawi (GCIM, 2005, 24). Also Zimbabwe's brain drain has hit the medical

profession particularly hard. More than 80 per cent of doctors, nurses and therapists who graduated from the University of Zimbabwe medical school since independence in 1980 have gone to work abroad, primarily in Britain, Australia, New Zealand, Canada and the United States, according to recent surveys. (The Observer, Sunday August 10, 2003).

John Connell from the University of Sydney, looked in a study commissioned by the World Health Organisation, into the health situation of the some countries in the Pacific (Fiji, Palau, Samoa, Tonga and Vanuatu). Connell came to the conclusion that the health situation of the population of these countries in the Pacific is suffering from the emigration of their health professionals to New Zealand, Australia or the Arab world (Connell, 2001).

Docquier, Lohest and Marfouk (2007) have calculated the second thresholds talked about in the previous paragraph. He notices that migration of skilled workers and/or professionals can have a very negative impact on the development capacity of the countries concerned, reducing the general schooling level of workers. In this way brain drain increases the inequality between countries. Certainly if the migrants are concentrated in strategic sectors like the medical sector, education, ICT, .... Their departure creates a shortage of labour in these sectors and impacts negatively on the well-being of a whole population. Especially small countries and poor countries are severely affected by this phenomenon. More than removing skilled people, this emigration also reduces these countries capacities to train a new generation of professionals. The loss of qualified people surpasses 80% in small countries like Guyana, Surinam, Jamaica, and etcetera. The situation is according to Docquier, Lohest and Marfouk also alarming in sub-Saharan Africa and in Central America. Countries like Mozambique, Uganda or Ghana lose almost half or their potential of highly qualified labourers to the OECD countries (Docquier, a.o., 2007). Though the negative aspects of the emigration of highly skilled are manifest, there are also positive outcomes. Docquier, Lohest and Marfouk come to the same conclusions as Stark: highly skilled migrants are not only a good example inciting youth to study, but they are also facilitating commercial activities and investment in the countries of origin. He concludes, based on econometrical analysis of OECD data that a moderate "brain drain" between 5 and 10% has more positive than negative effects on the sending countries. Most countries skilled emigration is situated between this 5 to 10% fork. But a large share of the poor countries are confronted with much higher (highly) skilled emigration figures (Docquier, Lohest and Marfouk, 2007)

#### **4.2.3 The distribution of power**

The roles of the **countries of destination** are also multiple. The industrialised world is attractive, first because of the wage differences and the possibility to send money back home, and secondly because of the opportunities at professional level and thirdly because it is often simply a more secure environment. If highly qualified migrants from the less advanced countries develop their talents in the industrialised world, this need not be disadvantageous as we already saw. It can be a win-win situation. But unfortunately this is not always the case. Perhaps the worst situation is when the highly skilled are not adequately utilised in the countries of employment. If trained nurses migrate to the more advanced societies in order to work in a factory, a shop or to clean the houses of the double-income families, it becomes more difficult to evaluate this positively. Although supply met demand, the worker can earn money and send a part of it to the family left behind, and the employer found relatively cheap labour, it cannot be considered a win-win situation. Here the investment in education is not put to advantage. Neither to the country of origin that lost a skilled worker, nor to the country of destination that makes insufficient use of the investment made. This is an important aspect of economic loss that we called higher *brain waste*.

Because of the wage disparities, the lack of opportunities etc., there is **no equal distribution of power** between the different players in the game. If there is a shortage on the labour market in the more advanced countries, and there are qualified workers in the developing world, even if this labour market also faces shortages, the supply and demand mechanism will most probably lead to a loss of skilled and/or highly skilled workers for the developing countries. History demonstrates this too. The African countries have been severely hit, albeit in terms of absolute numbers the largest exodus of professionals is the one from Asia, with the United States as principal destination. Whereas certain countries see their citizens eventually returning and/or establishing networks with the former host countries, many other societies, especially in Africa, are not developed to the level where they can match the wages and employment conditions of the more developed countries. Some regions are losing most of their professionals. To describe this situation the expression *brain desertification* is used. This is often the case in countries suffering from violence and economic stagnation where human capital is scarce. Already in the nineties, studies of UNDP (1992) and IOM (1999) estimated that in many African countries largely one third of the college graduates were residing abroad.

## 5. THE 'RETURN' OF MIGRATION: REMITTANCES<sup>1</sup>

Migrant remittances always emerge in the brain drain debate as a possible positive return. There is large amount of literature on remittances, although general conclusions about both the level and the use of remittances differ. Overall, the evaluation of remittances has shifted since the 1970s, when there was much emphasis on the 'conspicuous consumption' of the migrants and their money receiving relatives, towards more positive views, focusing, for example, upon a more productive use and investment of remittances. Migrant remittances are now mainly considered as positive outcomes of the migration of professionals to the industrialized world. They are generally sending money back home to their countries of origin, lots of money. The impact of remittances is however - just like the impact of highly skilled migration - still a subject of debate among scholars. Most theories and conclusions are based on either empirical micro-scale studies or analysis of macro-economic data. Because the former are very context-specific and the latter only take into account formal transfer methods, it is very difficult to draw general conclusions, which are valid for all remittance receiving regions, and senders and recipients of remittances. In addition, most research focuses on the economic impact of remittances, and do hardly mention social effects (see further).

At the macroeconomic level, remittances provide foreign exchange which strengthens the balance of payments. They can also stimulate the import of capital goods and resources which are needed for industrial development (Russell 1986). On the other hand, the demand for import can also have negative consequences on the balance of trade. Carling (2005) argues that this can occur when the consumption patterns of migrants' families in the country of origin as well as return migrants and non-migrant families change because these groups get accustomed to foreign products. Furthermore, large influxes of foreign change can lead to an appreciation of the local currency and thus making exports less competitive. At the indirect positive side, the demand for products of the country of origin by the migrant communities can lead to an increased export.

Financial transfers are also a more stable money influx than for instance foreign direct investments. Even in times of political and economic crisis migrants tend to send remittances to support their families. Remittances even tend to be counter-cyclical, i.e. the remittance influx is higher in terms of crisis. On the other hand, remittances tend to decrease the longer the migrant community is establishing itself in the destination country. When an economy is too dependent on remittances, a decrease of his money flux can have severe negative effects on the national income.

One of the most often heard criticisms about remittances is, that they mostly used for consumption purposes. So-called economic productive investments are much less mentioned as objectives of remittances. The use of remittances for consumption purposes doesn't always means 'conspicuous consumption'. Even if the money is used for consumption, for many families it constitutes an important source of revenue. This extra income allows them to meet their basic needs or to overcome periods of economic crisis. It can also open up opportunities to invest in family's well-being, education of children, improvement of the family's health status and so on. In some countries, remittances form a major source of money for parental support and, as such, act as a kind of social security resource base for vulnerable groups.

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<sup>1</sup> This paragraph is taken from and further elaborated in De Bruyn T. & Wets J. (2006) "Remittances in the Great Lakes Region", IOM Migration Research Series, No. 25, IOM, Geneva



At the regional and community level, increased consumption can give a boost to the local economy and smoothen income inequalities. On the other hand it can also result in rising inequality between families receiving remittances and those who do not. Moreover, the poorest population groups often do not possess the financial means to undertake an international migration. Hence they are excluded from receiving remittances. Inflation can be another effect of a large inflow of remittances in a region.

Moreover, also families and regions can become dependent on remittances, and neglecting productive activities. On the other hand, several migrant communities remit money to their region of origin to develop social and economic infrastructure. The Home Town Associations of Mexican communities residing in the US are among the best known examples (De Bruyn & Wets 2004 and Wets et al. 2004).

Another cost of remittances that should be taken into account, although a cost that may be less relevant in the discussion of highly skilled migration, is the social cost, especially in the case of female migration. Almost half of the migrant population is female, and there are not always wives following their spouses. Countries of origin can profit from the situation. Women are remitting a lot and this is reflected in the balance of payments. The families have an economic benefit - they are provided with the necessities of life - but they are deprived from their mother. This leads to situations where the children are raised by a grandmother while the mother is working abroad, often in countries, where the migrants' rights are not protected or guaranteed and where they are exploited and in the worst case even abused. If these women are raped they lose their social position in their society when they return, which simply compounds the trauma of what they have already experienced. The economic benefits are often realized at a very high social cost.

## 6. POLICY RESPONSES

### 6.1. Recapitulation

Summarising, we have individuals who express the desire to go abroad, we have a demand for migrant labour and companies willing to hire qualified foreigners, we have – on average poor – countries that have invested in education of their nationals, we have – on average rich – countries with an ageing population and a shortage on the labour market. Further, we have on the one hand concepts like individual freedom, and freedom of choice, and on the other hand concepts like obligations and social duties. We have a globalized, a world wide and layered labour market where supply and demand meet. And we have unequal power relations.

The challenge is how to put the pieces together in a way that ensures a more equitable distribution of the benefits. It can be concluded that brain mobility does not automatically translate into ‘brain drain’. As stated earlier, for every country, for every region, for every branch of industry, the picture is different. It is clear that there is no overall effect. If there is an adverse effect, it occurs on a country-by-country basis, and even within an occupation-by-occupation framework. Let’s look for instance at the health industry. The emigration of nurses in many Pacific Island or Caribbean islands like Jamaica is a loss and a challenge for those countries to deal with. The migration of Filipino nurses is part of the Philippines’ strategy to export labour. The Philippines are often cited as an example of a country that ended up in the business of exporting skilled labour (*brain business*) to the benefit of their academic industry, and as a way to cultivate remittances and international connections. Universities in the Philippines have even adapted their curricula to suit international demand and facilitate the export of skilled workers (Stalker, 1994).

The opportunity of skilled mobility may be real, but so is the threat. The international actors involved must dig into the details and not only look solely at the ‘shining examples’. It is clear that while we know more and more about migration of highly skilled workers and its effects on the countries of origin, there still is a lot we do not know.

Given the demographic evolution in both the industrialised world and the developing world and the evolution on the international, “globalize” labour market, it can be concluded that cross-border human capital flows from developing countries to developed countries will play an influential role in the political, economical and social landscape the coming decades. This will demand a new set of policy responses from the developed world as well as from the developing world and the international community. Slowly, countries are beginning to (re)discover the policy instruments available to respond to large flows of migrants and those who are aimed at the migrant communities living abroad.

### 6.2 Some general policy responses to outweigh the possible adverse effects

The ‘brain drain’ issue asks for appropriate responses. But what are appropriate responses? What are the goals aimed at? Goals can vary greatly, depending upon the level of analysis and the time frame. There are at least as many goals as there are actors in the debate. There are immediate goals like alleviating the pressure on the labour market and there are more strategic goals, like reinforcing the economic power of the country in a changing environment. Strategic goals can be directed as

well as indirect. The problem is that some of these goals can be conflicting. Immediate goals in the area of the domestic labour market like importing nurses from abroad can be on the short, medium or long term be conflicting with the e.g. the development policy aiming at a sustainable development from the countries in the south. A solution can be found in an *integrated migration policy*.

If governments acknowledge the economic and social realities and regulate practices thoughtfully, they stand a much better chance of achieving important public-policy goals than if the legitimacy of some of the reasons for these practices are denied. The problem however is that if, in a democracy (with recurring elections), long term goals are conflicting with short-term goals, the latter will receive priority. What is needed is a. more manageable set of immigration-related priorities. More manageable means clear objectives, but also a set of more integrated priorities, and achievable short-term and long-term goals.

There are a number of policies that can outweigh the possible adverse effects of high skilled migration and even increase the outcomes for the source countries. The key lies in improving the general level of education of the population. Low levels of skills keep productivity and wages low and therefore delay development. To retain and draw back their highly skilled, developing countries need long-term strategies to promote a sustainable economic growth. The migrant's communities can play an important role through remittances, Diaspora networks and their own willingness to return – either permanently or for a brief period – to share their skills and contribute towards economic progress. Destination countries can facilitate the process through policies that promote circulation of highly skilled migrants.

Finally, the actors involved can attempt to be more creative. The idea of compensating poor countries for any professional they have trained but who moves on, a kind of 'brain tax', is perhaps not such a strange thought. It originates already from decades ago, but was left aside because it is difficult to implement. Some theoretical consideration can be found in the work of Jagdish Bhagwati. Desai, Kapur and McHale (2001) examine the range of taxation instruments available to source countries to manage the consequences of emigration in the 21<sup>st</sup> century. Also the UNDP report suggests different alternatives (2001) (See further).

### **6.3 Policy responses in the host countries**

- *Adapted policy framework* : an integrated migration policy

Migration management becomes important. Until recently, migration and development have been treated as separate policy areas. Things are moving slowly. IOM and the West African countries gathered in 2000 and published the *declaration of Dakar*. Under the instigation of IOM, several other meetings have been organized. The most far reaching conference on this topic was last years UN conference on Migration and Development. Now is the time to translate the rhetoric in more concrete action. A first follow up meeting will be organized in the summer of 2007 in Brussels. More sophisticated policy approaches are needed. The topic of migration should be better intergraded in development issues like poverty reduction policy and strategies. The impact of trade relations, foreign affairs, welfare policy, labour market policy, ... should be included. There is a need for an *integrated migration policy*. As far as possible, all players in the game: governments, IGO's, INGO's, NGO's Trade Unions, employers, universities, ... should be included in the process. An integrated migration policy is needed not only on an international and/or European level, but also on a regional and national level.

The Global commission puts it this way: *The governance of international migration should be enhanced by improved coherence and strengthened capacity at the national level; greater consultation and cooperation between states at the regional level, and more effective dialogue and cooperation among governments and between international organizations at the global level. Such efforts must be based on a better appreciation of the close linkages that exist between international migration and development and other key policy issues, including trade, aid, state security, human security and human rights* (GCIM, 2006, 65).

- *Education fund*

The host countries can try to be a little bit more creative in developing legislation. Developed countries can pay compensation to developing countries from which individual skilled professionals are recruited. If there is a need for qualified people on the labour market, and if demand and supply meet, why not tax the transaction. It can be a brain tax, as suggested in the Human Development Report 2001. It can be a new approach of Bhagwati idea more adapted to the reality of the 21<sup>st</sup> century. (Bhagwati, 1976).

The US has experience in taxing its citizens abroad (Desai a.o., 2001). Individuals are taxed on basis of nationality, not residence. The Human Development Report 2001 suggests more or less the same. To further recoup their education investments, developing countries might follow the US model, and tax their citizens abroad. This is not easily done, because this requires negotiating tax agreements with all countries where fellow countryman are working.

Instead of the developing countries taxing directly the possibility to create an *education fund* into which those who benefit from the transaction allocate a contribution can be studied. Contributors can be the migrant workers, like suggested in many proposals. Also employers that hire foreign-trained labourers to fill the gaps on the national labour market, can be asked to contribute financially. This contribution can be put in an *education fund*, than can assist countries that are severely affected by the emigration of highly skilled workers, to invest in the education of the next generations. The idea of the fund can be linked with the concept of corporate *social responsibility*. If there is a shortage on the labour market and companies are -in the short term- in the need of labour that cannot be found on the local labour market, migration is a solution to their problems. And this can be compensated in the form of a non-recurrent contribution. The alternative, training the unemployed, would take time and cost a lot of money. There is also a cost attached to the import of labour, like training in the local language, adapting the foreign worker to the way life in the host community, etc. .... . If the amount asked to the employers is lower than the difference between the investment in the foreign labour and the training of an unemployed it is still profitable. Not only has the company to pay less, but they can have an employee much faster that if they would have trained an unemployed, at a lower price.

The tax can be considered as a kind of an *employer's contribution* and can be collected through the same channels. The actual height of this tax, the way it is collected and its possible impact should be studied by specialist. A Compensation Fund or an Education Fund requires high-level international cooperation and probably oversight by an international. It requires putting in place the right kind of regulatory frameworks and institutions, and ensuring the right kind of policies in order to avoid that the recruitment of relatively cheap foreign labour is not affecting the local labour market in a negative way. Complementary policies will also be required, including the involvement of the corporate sector. This would involve corporate responsibility for development, for ensuring that the recruitment of highly skilled labourers is not only a profitable activity for companies but

also services a development purpose. It is essential to achieve a balance between the need of companies to attract foreign labour and the development needs of the countries of origin.

Ideally, the administration of such a fund will be entrusted to an international organisation, but it can be organised on different levels. If countries are willing to recognise the possible adverse effects of the migration of skilled workers and if these countries are capable of making tax agreements it can be organised on an international level. But even single developed countries, who are hiring foreign workers, and who recognise the possible negative effects on the development of the source countries can act. The government can pay a contributing, but also the companies or organisations that are employing those people can be asked to pay. It can be a tax that companies have to pay if they recruit abroad, it can be flat tax where employers pay a small percentage of the wages to the fund, ... . The fund should be used to compensate the migrant sending countries for the loss of investment and allow them to invest in the education of a new generation, thus alleviating the adverse effects of what can best be called a brain 'drain'.

- *Code of conduct*

Most examples describing the devastating impact migration of the highly skilled can have, looks at the health sector. To reduce the negative impact of the recruitment of overseas-trained health personnel, there is a need for the development of ethical but pragmatic approaches to this recruitment.

Such codes seek to identify those countries from which recruitment may be most harmful and those countries from which recruitment may be less harmful. They seek to identify more acceptable forms of recruitment within poor countries, and to apply other elements of good practice. These codes gain credibility if they are adhered to by both public and private sector recruiting bodies. The way they are implemented should be thought over: the impact will be limited if the use of the code is voluntary. If installed, one must realize that this demands an adequate monitoring of all recruitment activity.

A Code of Conduct can be implemented. The recently adopted code signed by Commonwealth countries, at a wide international level can serve as a first example. The Commonwealth Code focuses on agreement over a set of ethical principles to address the issue of brain drain (Commonwealth Secretariat, 2003). Adherence of the code is essentially voluntary. It is thus difficult to be confident that voluntary international codes will make a real difference.

A code of conduct goes together with a contributing to the formulation of international cooperative strategies to address the ethical, economic and population health problems arising from migration of qualified personnel

- *Increase the mobility*

There are still a lot of obstacles for the migrate population to enter the labour market of the industrialized countries and / or travel freely. Immigration controls prevent workers in developing countries from moving across international frontiers. Already in the early 1990s, UNDP calculated that the developing countries were denied 250 billion \$ of income due to immigration control and thus an incomplete entry of the global labour market. The same report presents estimates of the Indira Gandhi Institute of Development Research (India) estimating that immigration restrictions and an incomplete entry of the global labour market would have resulted by 2000, in a 1 000 billion dollars loss in global economic growth. It is difficult to calculate the real cost of immigration restrictions since it would require data on many different aspects of migration. It is

hard to estimate how many people would migrate if the labour markets would be completely free, what migrants would earn, what they would send back home, ((UNDP, 1992, p 57 & 66)

The issue of migrant mobility is also addressed in the Global Commissions report. The Commission even calls the traditional brain drain concept outmoded, given the changing pattern of international migration. *The notion of 'brain drain' is [...] a somewhat outmoded one, implying as it does that a migrant who leaves her or his own country will never go back there. In the current era, there is a need to capitalize upon the growth of human mobility by promoting the notion of 'brain circulation', in which migrants return to their own country on a regular or occasional basis, sharing the benefits of the skills and resources they have acquired while living and working abroad. As also recommended [...], countries of destination can promote circular migration by providing mechanisms and channels that enable migrants to move relatively easily between their country of origin and destination (GCIM, p. 31). The commission recommends to governments and employers to jointly review current barriers to the mobility of highly educated professionals, with a view to removing those which are unnecessarily hindering economic competitiveness (GCIM, p. 79)*

- *Development projects linked to return migration*

A last suggestion that can be made is linked with the previous one. Countries in the developing world can profit more from the temporary and circular migration of their citizens than from their permanent departure. The Global commission suggests *States and international organizations should formulate policies and programmes that maximize the developmental impact of return and circular migration (p. 31, 80).*

One such policy that could be developed is a policy that links return migration and development. It could be interesting to study the possibilities to develop a temporary migration scheme, combined with a development project on return. Many migrants return, voluntary or less voluntary. An obstacle for many migrants to return voluntarily are the expectations of the society in the region of origin. If they cannot be considered as successful, many migrants feel rather reluctant to return. By linking return with development projects, the best of two worlds can be combined. How this could or should be developed needs further study. It can be organized as a rotating system of labour migration, even for the less or unskilled migrants, combined with (vocational) training. This training can be training on the spot or just work experience in a particular field, combined with the development of the skills needed in the later project. Migrants who enter the scheme can work, save money, learn and return after a few years with enhanced skills and money to invest or set up a small business.

#### **6.4 Policy responses in the countries of origin**

Literature generally refers to the 6 R's if it comes to the possibilities of countries (of origin) to develop a policies to manage highly skilled migration. The 6 R's stand for: resourcing, reparation, recruitment policies, restrictive policies, return, and retention<sup>2</sup>. There are policies to maximize the payoffs of highly skilled migration, policies to convince skilled workers abroad to return and policies to prevent highly skilled workers to leave.

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<sup>2</sup> The text below is to a large extent based on studies of B. Lindsey Lowell and Allan Findlay, that were published by ILO. See e. B. Lindsey Lowell and Allan Findlay (2001), and B. Lindsey Lowell (2001).

#### **6.4.1 Policies to maximize payoff of highly skilled migration**

- Resourcing expatriates (diaspora options)

Skilled emigrants abroad can be a significant resource of knowledge, especially if ongoing contact between academic and private sector institutions is fostered. The option of using this resource relies mainly on the creation of expatriate networks, which return knowledge to the home country. Not all networks are as successful, as research shows, but skilled emigrants can be a significant source of knowledge and their skills may be used through the establishment of different types of networks like academic partnerships, special initiatives aimed at the transfer of knowledge, joint ventures, etc. (Meyer & Wattiaux, 2006). Government and private sector initiatives can seek to increase communications, knowledge transfer, remittances, and investment through this diaspora option.

- Reparation for loss of human capital (tax)

One of the policy options for a country that sees large number of skilled workers leave, is to use a tax policy to generate resources that can be invested in institutions (schools, universities) that create skills that can be used on the national as well as on the international labour market. The idea of creating an education fund (see point 5.3) goes back on this idea of making developed countries compensate for the loss of the source countries. Developed countries can compensate migrant sending countries, but also emigrants can pay taxes to deal with consequences created by the immediate loss of human capital. This idea was already developed in the 1970s, but was never implemented (see e.g. Bhagwati, 1976). Various tax proposals – from a one time exit tax to long term bilateral tax agreements – have been around for some time. In the light of the increased emigration of highly skilled workers in recent years, such proposals deserve serious reconsideration (UNDP, 2001)..

- Recruitment of international migrants

If there are domestic shortages of skilled workers, for any reason, the option can be studied to hire foreign workers. Some developing countries bring in foreign workers to increase the nation's human capital. (Lowell & Findlay, 18).

#### **6.4.2 Policies to convince migrants to return**

- Return of migrants to their home country

The return of emigrants is one sure way to cultivate human capital for source countries, especially when there is value added from working abroad (Lowell & Findlay,18). International Organisations like IOM have developed special programmes, like e.g. the *Return of Qualified African Nationals Programme*. This programme has tried to encourage qualified Africans to return and assists them in establishing in their home country. Return policies are long-term operations that work only when the countries of origin can offer returnees satisfactory career opportunities in their own field (Gaillard & Gaillard, 2001). Permanent return tends to be the focus of most such policies, but also circular migration can bring knowledge back home.

Also the provision of dual citizenship can help. Many countries do not allow dual citizenship. Losing citizenship however implies loss of political rights and other rights and can reduce the incentive to return.

### **6.4.3 Policies to prevent highly skilled migration**

Highly skilled migration can be prevented by restrictive measures and by retention policies. Retention policies are without doubt the best long term strategies. The United Nations stresses the need for effective links between governments and the private sector to improve incentives to invest in and retain highly skilled workers (Kuzvinetsa, 2003).

- Restriction of international mobility

Many developing countries have restrictive emigration policies that make it difficult for their nationals to take a job abroad. Restrictive exit policies however touch on (human) rights of individual international migrants and are largely counter productive (Lowell & Findlay). Not only leaving the country can be difficult. Almost all possible destination countries restrict the immigration of foreign workers to protect their domestic labour force from competition.

- Retention through educational policies

Source countries can also play a more proactive role in enhancing the creation and strengthening of institutions conducive of sustainable development. One element can be educational policies. Creating a highly educated workforce begins with strengthening of the domestic educational institutions. A viable system encourages graduates to stay with the system, retains people and ensures that the source country keeps its original investment in education. In short term, development can lead to more out-migration, but in the long run, retention policies are likely to be the best response to the emigration of large volumes of highly skilled workers (Lowell & Findlay). The Global Commission links the investment in education to most other policy options: *“All countries should make substantial investment in the education and training of their citizens in order to increase the competitiveness of their economies. If those economies are unable to absorb the people who have acquired professional skills, then such people can contribute to the development of their own homeland by migrating, sending remittances home and returning to their country of origin on a temporary or long term basis, bringing the knowledge they have gained while living and working abroad”* (GCIM, 24).

- Retention through economic development

Retention policies also mean reducing the push factors. Part of the solution to migration pressure also lies in the emigration countries. The possibilities on the domestic labour market influence the magnitude and the direction of the out-migration. When jobs are scarce and wages are low on the domestic labour market, and there are better opportunities abroad, then there is a strong incentive for qualified workers to migrate to these jobs. Giving people a reason to stay (or return) is doubtless the most effective policy for reducing emigration and the surest long-term way of boosting human capital in a country, as well as economic growth (Lowell & Findlay). Success of any retention policy off course depends on the economic, technologic and scientific development of the country involved. Also the Global commission urges the countries in the developing world to evaluate their



labour market conditions. *Both private and public sector employers in developing countries must understand that professionals seek employment abroad or move to alternative jobs at home because their pay, working conditions and career perspectives are currently so poor. [...] Development country enterprises and institutions have the obligation to be good employers, to re-evaluate traditional approaches to social services professionals, and to create a better environment for home-grown talent to flourish than many have done so far. (GCIM, p. 79)*

## 7. SUMMARY AND CONCLUSIONS

Summarising, we know that the world population is steadily growing, and consequently also the (potential) migrant population. And what is also known for certain, is that the local labour markets in the developing countries are not capable of absorbing all newcomers on the labour market. It is a fact that the migration potential in the developing world increases all the time.

We have further individuals who express the desire to go abroad, we have a demand for migrant labour and companies willing to hire qualified foreigners, we have – on average poor – countries that have invested in education of their nationals, we have – on average rich – countries with an ageing population and a shortage on the labour market. We also have on the one hand concepts like individual freedom, and freedom of choice, and on the other hand concepts like obligations and social duties. We have a globalized, world wide and layered labour market where supply and demand meet. And we have unequal power relations.

The challenge is how to put the pieces together in a way that ensures a more equitable distribution of the benefits. It can be concluded that brain mobility does not automatically translate into ‘brain drain’. As stated earlier, for every country, for every region, for every branch of industry, the picture is different. It is clear that there is no overall effect. If there is an adverse effect, it occurs on a country-by-country basis, and even within an occupation-by-occupation framework.

The opportunity of skilled mobility may be real, but so is the threat. The international actors involved must dig into the details and not only look solely at the ‘shining examples’. It is clear that while we know more and more about migration of highly skilled workers and its effects on the countries of origin, there still is a lot we do not know.

What we know is that if the market plays in a situation with an uneven distribution of power, the weaker party almost always loses. The industrialised countries can balance this by developing and/or adapting a *code of conduct* to avoid situation where e/g/ western countries are recruiting nurses in Southern African for the European labour market, knowing that there is a shortage of trained nurses in the region.

Policy makers have the power to be creative and create a kind of “*education fund*”. Companies who want to recruit skilled workers with a profile that is locally needed, have to be asked to pay a tax on the recruitment of this personnel. The tax can differ, depending on the profile (profession, region of origin, ...) of the worker hired. The money collected by this fund should be invested again in the education of young professionals in the South. Such a fund can be created on a regional level (e.g. the European Community) or on an international level (United Nations).

There are still a lot of obstacles for the migrate population to enter the labour market of the industrialized countries and / or travel feely. Given the changing pattern of international migration it can be recommends to governments and employers to jointly review current barriers to the mobility of (highly educated) professionals, with a view to removing those barriers which are unnecessarily hindering economic competitiveness. Countries of destination can promote *circular migration* by providing mechanisms and channels that enable migrants to move relatively easily between their country of origin and destination.

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