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Knowledge Transfer for Development
“Circulation of Scientific Talent and Communication with Diasporas”

Compendium

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1. State of Play (Facts, figures, trends, statistics)

First, it accepts that there are large stocks of highly skilled (university educated) expatriates from developing countries in developed countries. Among developing countries in 2000 (the latest year for which data are available), the Philippines had the highest emigration stocks of university-educated expatriates in high-income economies (1,126,260 people), followed by India (1,037,626), Mexico (922,964), and China (816,824) (Ozden and Schiff 2005, p.170). Second, it assumes that the skilled expatriates could be a significant resource for the development of their home countries. As a well-known example, overseas Chinese contributed 70 percent of China’s foreign direct investment during 1985–2000. By 1995, 59 percent of the accumulated foreign direct investment in China came from Hong Kong (China) and Macao, with a further 9 percent from Taiwan (China) (World Bank 2005, p. 67). (International Migration of Talent, Diaspora Networks and Development, p. 3)

At least for developing economies, the attraction of diaspora networks over immigrant communities and multinational firms is that networks promise to depoliticize the relationship between domestic actors and the foreign actors from whom they learn, transforming a volatile, often irrational, struggle for power into a mutually beneficial economic exchange. Economically powerful ethnic minorities have traditionally been suspected of having greater loyalty to their ethnic community than to the host country and of being tempted to exploit the latter to benefit the former. Powerfully autonomous and often footloose multinational firms are viewed as the agents, even the masters, of economic imperialism rather than as partners in development. (Op.cit, p. 4)

Whether, and in what way, diasporas connect domestic economies and the world economy depends on the interaction of changes in global production or supply chain patterns, changes in domestic growth opportunities, and changes in the economic activities and strategies of the diaspora members themselves. Thus diasporas are mirrors of national development, reflecting the migratory pushes of national crises and the pull of the global economy. Network diasporas are not a self-generating, context-free solution to the perennial problem of learning from abroad without being victimized by the foreign master; they coevolve with the political and economic contexts within which they operate. (Ibid, p. 5)

The changes are most noticeable in the behavior of the most skilled workers. The brain drain pattern of migration long drew many of the most promising students from poor countries to lucrative and challenging careers in developed countries. Today this pattern shows signs of turning into a back and forth movement, or diaspora network, in which talented students still go abroad to continue their studies and work in the developed economies, but then use their own global networks, and especially those of their diasporas, to help build new establishments in their home countries. (Ibid, p. 6)

There are also signs that emigrants with fewer skills, forced by poverty to go abroad but long confined to dead-end jobs in developed economies, are also finding new career possibilities. Increasingly, the entry-level jobs they take in factory production or the health care sector in host countries demand and teach problem solving skills that blur the line between management and labor. Whether these new skills can be redeployed back home is an open question. But the changing nature of migrants’ work suggests the possibility that these “birds of passage,” traditionally in transit between a native land that cannot support them and a rich country that remains alien, may one day form distinctive, medium-skill diaspora networks that complement the diasporas of managers and entrepreneurs. (Ibid, p. 7)

Official and public reaction to the two migratory streams underscores these differences: high-skill talent is welcomed in virtually every country, while most lowskill immigrants are illegal. High-skill professionals provide tangible benefits to the receiving country in terms of new business creation and human capital; unskilled immigrants are perceived as draining the budget for social expenditures and threatening solidarity. (Ibid, p. 10)

Put another way, many so-called low-skill migrants are low skilled only in comparison to certified professionals. They are far from unskilled compared with the bulk of the population in their country of origin, and they have skills that are in demand in the host country. Managerial skills are a case in point. (Ibid, p. 10)
The Indian software industry grew 40 percent a year in the 1990s. Revenues reached $10.2 billion in 2002, $7.7 billion of them from exports (see chapter 4). During the same period, employment grew from 56,000 to 360,000, absorbing most of the 75,000 new information technology graduates India produces every year. The number of software firms more than quadrupled, from 700 to more than 2,800, and the largest firms, such as Wipro and Infosys, are undertaking increasingly complex and valuable projects. India has demonstrated that success in outsourcing low-level business services can be a building block for higher value-added services. *Ibid, p. 15*

Job mobility in a global labor market is an individual right but for countries that suffer a net loss of their university trained professionals, it represents a considerable cost. India looses an estimated 2 billion dollars a year (HDR, 2001), the number of students leaving sub-Saharan Africa is considerably higher than other regions of the globe (about 10% higher) and a report by an expert on the situation in Latin America and the Caribbean is devastating. According to F. Lema, “it can be considered that more than 1,200,000 qualified people with tertiary education emigrated from the region in the last 40 years. Considering that minimal costs for the education of a qualifed professional in the region is about 25,000 dollars, the migrations of professionals during the last 40 years cost more than 30 billion dollars to Latin America and Caribbean countries. Since the region invested in 1999 a total amount of 15 billion dollars in scientific activities, that loss represents 2 years of regional investment, and 9 times more than the total amount of direct aid contributed by the Inter-American Development Bank to Science and Technology since its foundation in 1961 (Lema, 2002).” *(Diaspora Knowledge Networks, p. 6)*

According to Adela Pellegrino and Jorge Martinez by 1990 there were 11,030,840 migrants from Latin America and the Caribbean distributed throughout the world, of which 74.5% of this migration was concentrated in the United States. Nevertheless the rate of increase of this migration has been diminishing in the last forty years, as can be seen in Table 3. *(Role of Diaspora in Facilitating Participation in Global Knowledge networks, p. 7)*

In a recent report prepared by Alejandro Gaviria on Colombian migration to the United States, some interesting characteristics of this population movement appear:

a) In terms of the total volume of this migration, estimates range widely from 500,000 to 700,000.

b) Migrants have three years more of schooling than the average level of schooling in Colombia.

c) The personal income level of migrants is double the average income level of residents in Colombia.

d) The education level of migrants has been increasing over time. Before 1995 the average education level of migrants was 11.8 years of schooling; after 1995 it became 12.6 years of schooling and after 1998 12.8 years. *(Op.cit, p. 8)*

In 2004, remittances sent by Albanian emigrants were estimated at 1 billion USD. They constituted some 13.5 percent of the GDP (almost the size of an economic sector), were three times higher than net foreign direct investment, double the official development aid received by Albania and covered 50 percent of the trade deficit (Bank of Albania, 2005). *(From Brain Drain to Brain Gain, Mobilising Albania’s Skilled Diaspora, p. 3)*

Turning to the question of return, a recent set of studies suggests that perhaps more than half of Albanian emigrants, especially in Greece and Italy, are willing to come back to their country of origin – but only after on average 14-17 years in their country of destination (De Zwager et al., 2005; Gedeshi et al., 2003). *(Ibid)*

Work by the Centre for Economic and Social Studies suggests that about 50 percent of all lecturers, research people and intellectuals in the country, most of them young and trained in part in Europe, have left Albania since 1990. Nearly 66 percent of those Albanians known to have carried out a PhD in Western Europe or the US since 1990 have either emigrated from Albania, or never returned after their graduation. *(Ibid, p. 4)*

The dynamics of brain drain from the universities and research institutions reached its peak in the periods 1991-93 and 1998-99 (Figure 1). Several factors explain these peaks. For example, initial departures from 1991-93 reflect the sudden opening of the country right after a 45-year period of self-isolation, the economic, political and social crisis which emerged in the first years of transition, and the
deep economic gap between Albania and the EU countries. In contrast, the situation of 1997-99 is largely explained by the economic, political and social chaos that overwhelmed Albania after the collapse of the pyramid schemes. (Ibid, p. 7)

Furthermore, a survey realized in year 2000 with 835 university students studying in the US, Italy, France, etc., indicated that only 45.5 percent of them were willing to return to their country of birth after their graduation (CESS, 2000). Later, another survey realized in 2004 with 181 PhD holders and PhD candidates revealed that only 56 percent of the surveyed were willing to return in Albania (CESS, 2004). The non-return of the successful university and post-university students will be in the longer-run, the major way of brain drain from Albania. This process will be further accelerated by the policies of several European countries, USA and Canada, to stimulate the flow of foreign students. (Obid, p. 9)

Besides, interim results of surveys by CESS suggest that as many as 60 percent of Albanian intellectuals abroad are not working in their profession. This concern is stressed from one of the leaders at the Institute of Oil and Gas in Fier: “only 5 to 10 percent of the emigrant-employees of the institute are employed in their area of competence in the host country. Others are doing common jobs”. If this is true, and there is independent evidence from surveys in host countries that it is, we can conclude that the “brain drain” from Albanian universities and research institutions is more a process of “brain waste”, and in this case the loss for the country may be considerable, and irreversible (Figure 6). (Ibid, p. 11)

For example, in the period 1991-2005, due to the emigration of lecturers and research workers, the universities and research institutions of the country lost at least 4,500 months of training courses to institutions abroad, mainly in France, Italy, Germany, Greece, Austria, England and the US. This figure is twice the number of training months that Albanian higher education institutes were allocated during the period 1992–2005, through the TEMPUS 1 and 2 Projects. (Ibid, p. 14)

Another negative impact of the “brain drain” is that it does not produce positive signals for the country of origin. If professionals are leaving their country, potential investors are likely to view this as a negative reflection of the country. This means that foreign investors may begin to question if the country that is experiencing outflow of professionals is a good location for their funds, if they perceive the emigration of professionals as a sign that the economic and political future of the country is uncertain. (Ibid, p. 15)

The diaspora numbers at a given point in time relate to a stock concept. In measuring diaspora populations, one handy—though by no means comprehensive indicator— is the total number of migrants in the world. The United Nations Population Division (United Nations, 2006b) has estimated total global migrants in 2005, defined as those residing outside their place of birth (the foreign born population) at 191 million and the number may amount to 200 million at present. But this foreign born population or people outside their country of birth include both temporary workers and those settled abroad or long-term residents in foreign countries. Some may already be naturalized citizens of the countries of destination. Some countries use the criterion of nationality in discussion of migrant populations; a foreign born immigrant may disappear from the immigrant numbers when he/she acquires citizenship in the country. Moreover the foreign born estimate does not include the second or third generations of the diaspora (born in the host country) since only the foreign born population is counted. (Diasporas and Development, Perspectives on Definitions and Contributions, p. 14)

The new African immigrants, mainly in North America and Europe and to a smaller extent in Australia and Japan, among others, as a result of voluntary migration for education or employment. According to the World Bank (World Bank, 2007), the official estimate of documented ‘voluntary’ African immigrants in North America and Europe is about 3 million – one million in the United States, 282,600 in Canada and 1.7 million in Europe. (The figure for Europe does not include immigrants from North Africa). (Op,cit, p. 16)

The High Level Committee on the Indian diaspora estimated the total Indian diaspora globally at about 20 million which included persons of Indian origin (PIOs) and overseas Indians (Indian Ministry of Foreign Affairs, 2001). Non-Resident Indian [NRI] means a ‘person resident outside India’ who is a citizen of India or is a ‘person of Indian origin.’ ‘Person of Indian Origin’ (PIO) includes foreign citizens of Indian origin or descent, including second and subsequent generations. It is thus closer to the
concept of overseas Chinese. Figure 1 shows the distribution of the Indian diaspora by region. \((\text{Ibid, p. 16 - 17})\)

There are no accurate estimates of the American diaspora overseas. According to a State Department estimate for 2005, about 6.6 million Americans (excluding military) lived in 160-plus countries. The US Census Bureau has generally included only “federally affiliated” groups—members of the military and federal employees and their dependents—but has excluded private citizens residing abroad from recent censuses. The 2010 Census will also exclude this category due to cost reasons. \((\text{Ibid, p. 18})\)

Data from the United States show that 37 percent of the foreign born population had less than a high school diploma. Those with a tertiary degree and above were almost one-fourth, while high school graduates or higher was 56 percent of the total (Figure 4). \((\text{Ibid, p. 21})\)

Traditional settler countries such as Australia and Canada are also increasingly resorting to temporary admission of skilled workers, who have the option of changing their status. In 2006, Australia admitted 192,000 persons under the regular migration programme while admissions for temporary migration for work amounted to 210,000 (including working holiday makers) (OECD, 2008). \((\text{Ibid, p. 24})\)

The findings indicate that departures by foreigners from OECD countries can represent anywhere between 20 percent and 75 percent of arrivals in any given year. Further, depending on the country of destination and the period of time considered, 20 to 50 percent of immigrants leave within five years after their arrival, either to return home or to move on to a third country - secondary emigration (OECD, 2008). \((\text{Ibid, p. 26 - 27})\)

In the case of China, the return of professionals is not that large (Biao, 2005). Over the period 1985-2003, out of over 700,000 who emigrated, only 180,000 returned – implying that almost three-fourths of the OCPs remained overseas (Table 9). \((\text{Ibid, p. 28})\)

Repeated waves of emigration have led to the creation of vibrant diasporas that possess cutting-edge technology, capital and professional contacts. For example, developing countries accounted for three-quarters (approximately 2.5 million) of the 3.3 million immigrant scientists and engineers living in the United States in 2003.....At a minimum, the technical, market and marketing knowledge of national diasporas is a huge potential technological resource. \((\text{Ibid, p. 35})\)

Dedicated government offices, sometimes with ministerial level competencies, are common to almost all countries on Table 1. These are often created when a critical mass of government activity targeted at expatriates is reached and requires central coordination within the state system. At this point, a number of agencies will typically begin to see an interest in the results of increased monitoring and involvement, and begin to put their hat in the ring for involvement in related policy discussions. This process seems to currently be underway in Australia (Senate Legal and Constitutional References Committee 2005). The institution-building imperative is strengthened by the desire of governments to embed their orientations as deeply as possible within the state system, ensuring that future governments will find them difficult to uproot. \((\text{Diaspora Engagement Policies: What are they, and what kinds of states use them?}, \text{p. 9})\)

William Safran argued that the concept of ‘diaspora’ is linked to those communities that share some or all of the following characteristics:

- the original community has spread from a homeland to two or more countries; they are bound from their disparate geographical locations by a common vision, memory or myth about their homelands;
- they have a belief that they will never be accepted by their host societies and therefore develop their autonomous cultural and social needs;
- they or their descendants will return to the homeland should the conditions prove favourable;
- they should continue to maintain support for homeland and therefore the communal consciousness and solidarity enables them to continue these activities (Safran 1991, 83-4).

\((\text{Rethinking the Concept of Diaspora: Mobility, Connectivity and Communication in a Globalised World, p. 54})\)
According to a survey conducted by AnnaLee Saxenian (1999), 52% of the India-born IT entrepreneurs investigated in Silicon Valley travelled to India on business at least once a year, 27% reported regular exchanging information on jobs/business opportunities with those back home, while 33% reported regular exchanges of information on technology. Furthermore, 46% had been a contact for domestic Indian businesses. In terms of investment, 23% had invested their own money into Indian start-ups—10% on more than one occasion. Although these figures may not represent the situation of all emigrant IT professionals, the survey at least reflects the existence of the wide connections. (Promoting Knowledge Exchange through Diaspora Networks, p. 78)

Whether they were laundrymen subsisting on modest wages in America or wealthy Southeast Asian merchants, Chinese emigrants never forgot their obligations to the family members and home villages they left behind. Between 1929 - 1940, remittances to China averaged $80 - $100 million a year, enough money to offset China's balance of payments deficit each year, and prop up entire provincial economies. (The Chinese Diaspora and Philanthropy, p. 16)

We began this study with the firm expectation that the official non profit sector would be a major beneficiary of overseas Chinese philanthropy. In fact this turns out to be much less the case than we had supposed. Although open to donations from any sources, the official non profit organisations have not, in the main, systematically targeted overseas Chinese donors; nor, typically, do they even maintain break-downs of their funding sources – which suggests that their fundraising operations, despite experimentation with techniques such as on-line giving and soliciting funds through cellphone short text messages, is not yet particularly strategic or professionalised. However, nearly every charity and non profit organisation that we interviewed told us that giving from 'overseas Chinese' based in Hong Kong, Taiwan, and Southeast Asia far outstrips giving from North American Chinese. (Op.cit, p. 20-21)

Job mobility in a global labor market is an individual right but for countries that suffer a net loss of their university trained professionals, it represents a considerable cost. India looses an estimated 2 billion dollars a year (HDR, 2001), the number of students leaving sub-Saharan Africa is considerably higher than other regions of the globe (about 10% higher) and a report by an expert on the situation in Latin America and the Caribbean is devastating. According to F. Lema, "it can be considered that more than 1,200,000 qualified people with tertiary education emigrated from the region in the last 40 years. Considering that minimal costs for the education of a qualified professional in the region is about 25,000 dollars, the migrations of professionals during the last 40 years cost more than 30 billion dollars to Latin America and Caribbean countries. Since the region invested in 1999 a total amount of 15 billion dollars in scientific activities, that loss represents 2 years of regional investment, and 9 times more than the total amount of direct aid contributed by the Inter-American Development Bank to Science and Technology since its foundation in 1961 (Lema, 2002)". (Diaspora Knowledge Network Proposal, p. 6)

The debate concerning the brain drain phenomenon has historically been between two perspectives, the internationalist perspective and the nationalist perspective. The first is based on global market theories and argues that brain will go where economic returns will be optimised. Theorists like Kindleberger have argued that the movement from developed to developing countries is mediated by « market forces which work to allocate human resources more efficiently », the brain drain is thus a « natural » phenomenon. The nationalist perspective on the other hand holds the complete opposite view. According to theorists like Bhagwhatti, countries do not occupy the same position in the global system and « expertise is not evenly distributed ». The only countries that benefit from the movement of highly skilled professionals from the South to the North, are the industrialised countries of the North. (Intellectual Diaspora Networks – their Viability as a Response to High Skilled Emigration, p. 2)

However theorists like the ones discussed above, have tended to view the brain drain as a one-sided process that only benefits developed countries at the expense of developing countries. According to Pedersen and Lee this presentation of the brain drain as a win/lose situation between developed and developing countries is a misconception, because it fails to take into consideration the potential benefits that the movement of highly skilled people to industrialised countries can have for developing countries [1997: 1]. When scientists and technologists leave their home country to go and study or work in an industrialised country, they get the opportunity to acquire knowledge and expertise which they might not have gained as they remained at home. They also establish knowledge and information
networks in the host country. All these represent a great potential resource for the country of origin. *(Op.cit, pg. 3)*

States’ attempts to promote, accommodate or constrain migrant trans-nationalism can be summed up in seven major policy trends.

1. **External citizenship** There is great variety in the practices states employ to determine which populations residing abroad are granted citizenship. Only few states withdraw citizenship from first-generation emigrants after a certain number of years. A larger number of states require renunciation when emigrants acquire the citizenship of their new country of residence, though there is growing toleration of dual nationality in such cases.

2. **EU citizenship** A transnational perspective is also important to understand why and when migrants opt to change their citizenship status. Rates of naturalisation depend not only on the degree of social, economic and cultural integration or the costs and legal conditions of acquiring citizenship in a country of settlement.

3. **Multiple nationality** The global proliferation of multiple nationality is the most visible sign that national citizenship itself has become transnationalised.

4. **External voting** An even stronger global trend towards promoting active migrant transnationalism is the granting of external voting rights. Kin-states and their external minorities Policies of granting external co-ethnic populations citizenship status or quasi-citizenship rights are widespread in both Western and Eastern Europe. The impact of diaspora mobilisation on democracy and ethnic conflicts While kin-states try to mobilise external minorities in order to put pressure on their countries of settlement, diasporas are mobilised to influence political developments in emigrants’ home-lands.

5. **Migration and co-development** For some time now, EU migration policy has acknowledged the need to cooperate with migration source countries in its neighbourhood. The declared aim is not only to fight irregular migration, but also to address the root causes of poverty-driven emigration. *(Ties Across Borders The Growing Salience of Transnationalism, p. 4)*

A highly notable example, especially within the IT industry, is the agency work known as ‘body shopping’. Khadria (2001) points out that while the phenomenon has existed since the 1980s, body shopping is now considerably more organized, more ubiquitous, involves more independent professionals and is often conducted with government sanctions on sending and receiving ends. The basic idea behind body shopping is for local recruiters (in India for instance) to supply on-site, ‘just-in-time’ labour abroad at an economical price for employers (Aneesh 2001). The rationale follows developments within an industry in which short-term projects predominate; it usually doesn’t make sense for IT employers to invest (in terms of money, administration and legal responsibility) in 1-4 year visas for workers when there will suffice a short-term contract overseen, in practically all its parts, by an intermediary agency. *(Transnational Networks and Skilled Labour Migration, p. 6-7)*

Different OECD countries have pursued different immigration policies and these differences are reflected in the stocks of migrants in those countries today. The so-called settlement countries, namely Australia, Canada, New Zealand and the United States, have traditionally focused on permanent migration and it is not surprising that the foreign-born populations in those countries are relatively high. The foreign-born share of the total population is 23 per cent in Australia, 19.3 per cent in Canada, 19.5 per cent in New Zealand and 12.3 per cent in the United States.

Although some European countries of the OECD have very large foreign-born populations (e.g. Luxembourg, with 32.6 per cent, or Switzerland, with 22.4 per cent), most have lower proportions of migrant stocks than the settlement countries. The foreign born comprise less than 5 per cent of the population in Poland, the Slovak Republic, Finland, Hungary and the Czech Republic, and between 5 and 10 per cent in Spain, Portugal, Denmark, Norway, the United Kingdom, Greece and France. *(Policy Coherence for Development, Migration and Developing Countries, p. 29)*
Until quite recently, little effort was made by European states to attract highly skilled migrants. Partly by default and partly by design, a significant portion of migrants to Europe has consequently possessed fairly low skill levels. In the OECD countries of Europe, by 2000 there were about 11 million expatriate adults with low levels of education (nine years of schooling or less). In comparison, there were nearly 6 million with a secondary school education and slightly fewer than 5 million with a tertiary education. (Op.cit, p. 33)

In 2000, about 55 per cent of foreign adults present in the EU-15 were estimated to have had less than a secondary education (i.e. less than nine years of schooling). (Ibid, p. 34)

By contrast to the situation in many European OECD countries, 10.2 million foreign-born adults in North America are highly skilled while 14.2 million are lowskilled. In North America (but also Australia and New Zealand, which have similar migration patterns) migrants generally have higher educational attainments owing to rigorous selection processes. Of course, much of the high-skilled mobility occurs between OECD countries. In particular, the United States, Australia, Canada, Switzerland, Spain, Sweden, Luxembourg and Norway (in that order) are net beneficiaries of highly skilled migration from other OECD countries (OECD, 2006a). (Ibid, p. 35)

For these OECD countries, the inflow of highly skilled nationals from other OECD countries is higher than the outflow from these countries to other OECD countries. In the US, for example, 49.9 per cent of those born in other OECD countries have at least some tertiary education. The settlement countries are net winners in the global competition for talent: though many of their skilled citizens emigrate to work elsewhere, especially in the OECD (e.g. a skilled Canadian going to work in France), they receive many more highly skilled immigrants from all countries, OECD and non-OECD alike (e.g. a skilled Chinese coming to work in the United States). The net inflow of highly skilled immigrants is positive in the United States (8.2 million), Canada and Australia. (Ibid.)

First, migrants are more likely to come from middle-income countries. That is, on average emigration rates to the OECD are higher among richer developing countries than poor ones. Using the OECD Database on Immigrants and Expatriates, Cogneau and Gubert (2005) show that a country's emigration rate is a smooth and increasing function of the country's per capita income up to a point; beyond a certain level of average income emigration rates fall as income rises. They point out that Latin American countries and countries from the Middle East and North Africa (MENA) region, including Turkey, together account for only one-sixth of the population of the developing world, but account for fully two-thirds of the migrant stock born in developing countries resident in the OECD. (Ibid, p. 40)

The foreign-born, tertiary educated populations of the OECD countries are estimated to have increased by nearly 8 million between 1990 and 2000. By the turn of the millennium, this resulted in a total of slightly over 20 million such highly skilled people in the OECD. North America is clearly the dominant attraction. Almost two-thirds of the foreign-born, tertiary-educated population living in the OECD countries were in North America in 2000. Most of these were in the United States. The OECD countries of Europe have attracted about one quarter of the highly skilled migrants, while the remaining 10 per cent are in Australia, New Zealand, Japan and Korea.

Second, more than 40 per cent of highly skilled migrants in the OECD are actually transfers from one OECD country to another: brain circulation among the advanced economies is common. In 2000, almost one-third of the highly skilled adults in the OECD who originated from outside of the OECD came from East Asia with nearly 80 per cent of them residing in North America. (Ibid, p. 66)

In 2004, there were 2.7 million students worldwide studying outside their own countries; in other words, almost three times as many as 20 years ago. OECD countries receive some 85 per cent of all foreign students, two-thirds (66%) of whom were nationals of non-OECD countries in 2004. Thus, such student flows show a strong South-North orientation, with five OECD countries hosting over half of the total (58%). In 2004, 22 per cent of all foreign students worldwide were in the United States, 11 per cent in the United Kingdom, 10 per cent in Germany, 9 per cent in France and 6 per cent in Australia. The top five English-speaking host countries (United States, United Kingdom, Australia, Canada and New Zealand) alone receive almost half (47%) the total number of foreign students (Figure 4.1). Of the ten countries hosting the largest share of foreign students (75% of the world total) only Russia and South Africa are not OECD members. (World Migration 2008: Managing Labour Mobility in the Evolving Global Economy, p. 106)
Asia ranks first in terms of students going abroad to pursue higher studies. In 2004, almost half (48%) of the foreign students in the OECD area came from Asia, followed closely by Europe (27%), Africa (12%), South America (7%), North America (4%) and Oceania (1%). (Op.cit. p. 108)

Some factors determining the choice of a foreign destination include:

- The destination country’s immigration (or visa) policy for foreign students: Potential determinants are the ease of obtaining a visa, the possibility to work while studying or to remain in the country upon completion of studies.
- Employment possibilities in the host country and the country of origin: A host country will be more attractive if students can work there after completing their studies, or if their qualifications are highly regarded on the local job market when they return home.
- Recognition of skills and foreign qualifications in the country of origin and the host country: The frequent absence of any formal framework for such recognition partly explains the success of student mobility under joint university programmes or partnerships between establishments - leading to double degrees or automatic recognition of credits obtained in the partner establishment. (Ibid, p. 111)

In numerical terms, international students do not represent a very significant source of skilled migration. Assuming that one-quarter of the stock of international students complete their studies each year and that 25 per cent of this group stay in the country where they studied, that would represent no more than 20 per cent of the current level of skilled migration (and less than five per cent of migration flows) (OECD, 2006c). Although it is known that in some countries former students may account for a much larger proportion of skilled migrants. (Ibid, p. 123)

One trend affecting labour supply is emigration: “outflows of nationals (…) can have an important impact on skills composition where high-skilled workers leave because of more attractive business or research conditions in third countries” (Boswell et al., 2004: 14). For example, emigration from the U.K. has become quite significant in the last few decades, with the country experiencing a total net loss of approximately 2.7 million nationals between 1966 and 2005. More than 198,000 nationals left the country in 2005, while only 91,000 returned. Moreover, two-thirds of those who left the country did so to take up or seek employment opportunities abroad (Sriskandarajah and Drew, 2006). A similar net exodus, though to a lesser extent, was experienced in Germany (Landler, 2007) (Ibid, p. 293)

In Italy, the risk of unemployment for young people does not depend on their level of education (unlike all the other EU15 countries except Spain) and unemployment differentials for prime-age people do exist, but they are far less sharp than the EU15 average. The reason is not an oversupply of highly educated labour, because Italy still lags substantially behind other countries in the proportion of upper secondary and tertiary education graduates, even in younger age groups. Actually the narrower differentials by level of education regarding unemployment as well as income (OECD, 2005) are caused by the fact the Italian economy provides far fewer highly-qualified jobs than the number of Italians attaining high educational qualifications. (Permanent or circular migration, p. 111)

During the 1990s, many developed countries recruited foreign health professionals; consequently nearly one-third of doctors and 13 per cent of nurses in the United Kingdom are foreign born, and half the extra staff employed by the National Health Service over the past decade qualified abroad. 11 From 1995 to 2000 in the OECD countries, the foreign labour force grew by 3-4 per cent per year; however, the highly educated migrant workforce grew much faster – on average 35 per cent annually in the United Kingdom over the past five years, and 14 per cent a year in the United States. (Towards a fair deal for migrant workers in the global economy, p. 15)

The EU as a whole, however, seems not to be considered attractive by highly qualified professionals in a context of very high international competition: for example, the EU is the main destination for unskilled to medium-skilled workers from the Maghreb (87% of such immigrants), while 54% of the highly qualified immigrants from these same countries reside in the USA and Canada. The attractiveness of the EU compared to such countries suffers from the fact that at present highly qualified migrants must face 27 different admission systems, do not have the possibility of easily moving from one country to another for work, and in several cases lengthy and cumbersome procedures make them opt for non-EU countries granting more favourable conditions for entry and
stay. *EC Communication on the conditions of entry and residence of third-country nationals, p. 3*

3. Case Study – The Brain Drain from Romania and the Other CEECs

After the fall of Communist regimes in Eastern Europe, and the subsequent opening of borders, fears of large migration flows from East to West rose on both sides. However, these fears remained largely unconfirmed partly because people had optimistic expectations related to their regained freedom. Indeed, in a few years the economic progress was apparent, such that some of the CEECs now already have positive rates of migration. This is not the case with Romania who still lags considerably behind from an economic point of view. In the last few years emigration has started to be a more serious problem, as people counteract the lack of opportunities in Romania by migration prospects. Moreover, studies show that it is rather the skilled and young who are the most likely to move abroad and they usually choose permanent emigration (MLSS, 2001). *(Brain Drain and Brain Gain, pg. 8)*

As far as Romanian emigration is concerned, ex-post self-selectivity is very strong, as the stock of Romanian nationals is much higher skilled than the flow of immigrants – 21% against 10%. Thus, Straubhaar and Wolburg’s study brings some evidence for the idea of an Eastern European brain drain and moreover there is some proof that the *skill selection continues ex-post as only the most skilled remain on the long run.*

Another way of studying the phenomenon is by using data and estimations from emigration studies. Such a study has been realized by the Romanian Ministry of Labour and Social Solidarity based on estimations of the National Institute of Statistics and the Ministry of Interior. These data also reveal a bias towards skilled migration, which increased after 1998, as shown in figure 3.2. Thus the *share of highly qualified permanent migrants* in the total permanent flows approaches 30% in 2001 and together with secondary and post secondary migration it amounts to almost 60% of the total flows. *(Op.cit, p. 11)*

Thus in the first part of the 90s there was confidence in the new regained freedom so that it appeared that Romania was not going to lose a considerable part of its highly skilled workforce. However, as expectations were repeatedly contradicted by evidence on failure of reforms, the share of highly skilled emigration became more significant. The SOPEMI 2002 report *Trends in International Migration* singles Romania among the CEECs as experiencing increased out-flows especially among the young and skilled. Their observations are summarized in the table below, sustaining the idea of a brain drain with focus on development relevant occupations: teachers and economists. *(Ibid, p. 12)*

Many developed countries have shifted their immigration admission policies to actively recruit highly-skilled migrants, whereas developing countries remain largely suppliers of such immigrants. In North America, the U.S. and Canada fit such profiles of developed economies whereas Mexico is a country supplying both skilled and unskilled labor to the other two. While issues relating to Mexican undocumented/illegal immigrants dominate the current immigration debates in the U.S., what has been largely overlooked is the highly-skilled immigration within North America: the brain mobility (or brain drain) in addition to labor mobility. *(Brain Mobility, Highly Skilled Migration in North America, p. 2)*

In 1995 there were some 28 million foreign workers (national or foreign born) in 25 OECD countries. Over the period 1995 to 2000 the foreign labour force in the European OECD countries rose by about 3 percent a year while that in the US grew faster at over 4 percent. The migration of the highly educated and the highly-skilled however grew faster practically everywhere – by as much as 35 percent annually in the UK over the last half of the last decade for long-term permit holders, 14 percent a year in the US which include specialists and those with distinguished abilities, and 6 percent in Canada. By any historical parallels these are very high rates of growth, reflecting fundamental changes in technologies and the production structures of the industrialized countries. *(Global dimensions of the highly skilled migration, p. 1)*

Using tertiary education, Figure 2.1 shows that the growth of highly skilled migration to EU countries already started in the early 1990s, preceding the “New Economy” and the boom in the information, communications and technology (ICT) sectors. Once underway, the percentage of highly skilled migrants increased until the end of the ICT-led cycle in 2001. From just under 15 per cent of all migrants in 1991, the share of the highly skilled grew to just over one-quarter of all migrants by 2001. *(World Migration 2008: Highly Skilled Migration, p. 53 – 54)*
Traditionally, considerable role in Poles’ mobility was ascribed to the emigration of highly skilled persons. Similarly to other less developed countries, this process was described and interpreted in the categories of brain drain. However, upon analysis of data on international migration, this thesis seems to be rather questionable with reference to almost the whole post-war period. With an exception of an episode of (partially) forced migration of persons of Jewish descent (1968-1971), when over 13,000 of mostly highly educated persons left Poland, the share of persons with tertiary education among all migrants did not differ significantly from that of the total population. However, the situation changed in the late 1970s and 1980s. The brain drain thesis is particularly true in the case of massive outflow in the 1980s. Calculations based on the policy register’s data show that of almost 700,000 emigrants who left Poland between April 1st, 1981 and December 6th, 1988, 15 per cent had a higher degree and 31 per cent had secondary education. If we consider that for the whole population the share of university graduates was ca. 7 per cent, the quoted data show that there was a considerable overrepresentation of emigrants of high quality human capital in relation to the whole population of Poland (Sakson 2002). The scale of the emigration of highclass specialists in the 1980s was so large that the number of emigrants in this category each year (15,000) constituted approximately one fourth of Polish university graduates of all higher education institutions (Okólski 1997). (Highly skilled migration in Poland, CEE. p. 11 – 12)

The factors pushing the scientists to go abroad were actually parallel in all CEE countries: low income and worse labour conditions, low prestige and social status of science and education, poorly equipped study rooms and laboratories, restricted access to the literature, lack of research funds, limited opportunities for contacting broader scientific circles. A massive migration abroad could have been expected as the education in many states of the region was of top quality. (Op.cit. p. 13)

The above presented data shows that a vast majority (80-90 per cent) of migrants from the A8 countries are hired for occupations that need no professional qualifications. Other sources state that out of the total number of migrants from Poland to the UK the share of persons holding a university degree exceeds 25 per cent. This would indicate that, certainly, positive effects related to opportunities for qualification improvement or professional development are out of range for the majority of educated migrants. Rather wasting or deskilling of brains, a typical phenomenon for the migration of the 1980s, should be expected. (Ibid. p. 21)

What are the scale and characteristics of the mobility of the highly skilled between OECD countries? While most skilled workers migrate from developing countries to OECD countries, there is also important intra-regional migration of the highly skilled in Europe, the Americas and Asia. Data
show that countries such as Canada, France, Germany, Sweden and the United Kingdom are important sources of temporary skilled migrants to the United States (e.g. postdoctoral students, researchers, company transferees), but less so in terms of permanent skilled migration, suggesting more a pattern of “brain circulation” than one of “brain drain”. Among some OECD countries such as Canada, France and Germany, the evidence indicates that “brain drain” has been overestimated, notably because the return rate is high and because these countries are also hosts to highly skilled foreigners. For instance, a survey shows that in France in 1999, three years after completion of their PhD, only 7% of PhD graduates were still working abroad (most of whom had plans for returning to France soon). *(International Mobility of the Highly Skilled, p. 1 -2)*

By and large, the data on flows of the highly skilled show that skilled migration, especially from Asia, to the United States, Canada, Australia and the United Kingdom is quite significant. It is also increasing, particularly with regard to students and the temporary migration of skilled professionals such as IT workers. An estimated 900 000 highly skilled professionals entered the US labour market between 1990 and 2000 under the so-called H-1B visa programme for the temporary entry of skilled workers. While this amount is small in comparison to the 750 000 permanent and 1.9 million temporary average annual entries, mainly based on family reunification and humanitarian grounds, the OECD estimates that these temporary workers accounted for one-sixth of the total US IT workforce. *(Op.cit, pg. 2)*

Often, especially in developing countries, the most skilled individuals leave their homeland involuntarily, as a result of war, economic collapse, or political and religious persecution. Indeed, skilled migrants are often found among refugees and asylum seekers. The wars in former Yugoslavia, civil strife in Southern Africa and two-decades of conflict in Afghanistan led to an exodus of the youngest and brightest, with few opportunities for those that remained.

In general, research shows there are several net positive effects for the main host countries, notably the stimulation of innovation capacity, an increase in the stock of available human capital and the international dissemination of knowledge. The contribution of foreign-born scientists to science is illustrated, for instance, by the number of Nobel prizes awarded to US-based researchers of European or Asian origin, for example, 32% of US Nobel-prize winners in Chemistry between 1985 and 1999 were foreign-born. Skilled migrants are also a source of high-tech entrepreneurship. It is estimated that a quarter of Silicon Valley firms in 1998 were headed by immigrants from China and India, collectively generating almost USD 17 billion in sales and 52 300 jobs. *(Ibid, pg. 4)*

Less Dependence on Government Services: “Immigration of people with higher levels of economically valuable skills than the average Australian-born tends to raise average incomes … [and] higher levels of education are associated with higher labour force participation, lower unemployment and higher average productivity and income … [Such an immigrant] pays more tax and draws less on public services over the life cycle.” *(Management policies of various countries, pg. 6)*

Patterns of Skilled Migration

In the OECD countries alone, in 2000, it has been estimated by Docquier and Marfouk for the World Bank that there was a stock of 59 million migrants, of which some 34.6% or 20.4 million people were skilled migrants. More than 85 per cent of that total were to be found in just six countries, the United States (circa 50 per cent), Canada (13.5), Australia (7.5), the United Kingdom (6.2), Germany (4.9) and France (3.0).

22% of skilled migrants come from the old EU-15 (the UK alone accounts for 7%), with another 7% from Australia, Canada, New Zealand and the United States together. China and India add another 9% with the Asian tiger economies and the Philippines adding almost a further 12%. So, half of the skilled migrants to OECD countries come from 26 countries. Most go to the same group, in a system of brain circulation within the developed world. *(Skilled Migration New Policy Options, p. 2)*

Attracting the ‘best and brightest’ immigrants has become government’s priority across advanced industrial (OECD) countries over the past years. Especially labour market shortages, but also ageing population, decrease in human capital stock and international competition for innovation, progress and economic growth all heighten the conception that governments “need to act. Removing barriers is a priority: even America still rations the number of highly skilled immigrants
it lets in, and Japan and many European countries do far worse” (The Economist, 5 October 2006). *(The Varieties of High-Skilled Immigration Policies, p. 2)*

Countries’ categorization has also changed over the years as few initially restrictive countries have become more open towards HSI (e.g. France). Some countries among the Coordinated Market Economies (e.g. the Netherlands, Switzerland) target high-skilled immigrants to greater extent than others (e.g. Belgium, Sweden). In the Liberal Market Economy group, *Ireland* has experienced several policy reforms over the past years that have shifted the country’s classification from restrictive to very HSI open. As a consequence, countries’ policies cannot be deducted from a simple division into three VoC groups. *(Op.cit, p. 3)*

On the whole, HSI is considered positive for a country’s economic growth. The Productivity Commission of *Australia* report shows the likely effects over 20 years of the government increasing the current intake of skilled migrants by 50 percent. In the Commission’s modelling, the economy would grow by 3.5 percent by 2024-2025 and average incomes would be $335 higher (2006: 137). More generally, George Borjas assumes that the increase in skills through HSI “accelerates the rate of scientific discovery”, which can bring large benefits for particular groups of the population (2006:32). However, HSI creates distributional consequences for different sectors of labour and capital that in turn establish varying preferences for HSI policy. *(Ibid, p. 5)*

In Canada, immigration now accounts for 60% of total population growth, a figure that is likely to rise in the next decade to 100%. The European Commission recently published its “Green Paper on an EU approach to Managing Economic Migration,” with the distinct goal to target more aggressively highly skilled migrants. In the attempt to reform immigration policies, *Canada’s Point System and modes of recruiting economic immigrants are often perceived as models* (adopted, for instance, in the UK and in the form of the Green Card Initiative in Germany), and Europe is likely to become an increasingly attractive competitor for highly trained migrants. *Canada’s immigration and integration policies, p. 2*

One of the most important features of Canada’s immigration program is its large size relative to the overall population. *For the last 15 years, the explicit goal has been to take a number of immigrants equaling 1 percent of the total population per year.* The actual intake has fallen short of this target – at between 200-250,000 annually for most years since 1990, the intake represents 0.75 percent of population. *(Canadian Experience, p. 3)*

2. Communication with Diasporas

The Network of Colombian Researchers Abroad – Red Caldas, was established in 1991 as part of an explicit policy of integrating the “scientific diaspora” (researchers abroad) with the Colombian scientific community and with the activities and programs of the National Scientific and Technological System. Two motivations are at the origin of this network. The first one was to strengthen the national research community with the participation of Colombian researchers studying and working in different countries, considering them as an “extension” of the former instead of looking at them as a loss to the country through a “brain-drain” process. The second motivation was that of using the Colombian scientific diaspora as a means of integrating national research groups into regional and global research and knowledge-intensive networks, given the increasingly important role these networks play in the knowledge economies of the turn of the century. It is important to point out that the emergence of Internet played a major role in making this network possible, since e-mail facilities went a long way in facilitating a continuous interaction with the various groups of Colombian researchers abroad. *(Role of Diaspora in facilitating Participation in Global Knowledge, p. 3)*

The activities of the Caldas Network were mainly organized around the following lines of action:
- Identification of areas of potential scientific cooperation through collaborative research projects, between research groups in Colombia and their colleagues abroad.
- Support to Graduate Training Abroad and Reinsertion of Graduate Students (“Retorno de Investigadores”).
- Visiting Fellows and Exchange of Researchers.
Knowledge Societies are characterized by the importance knowledge plays as a factor of production and as an organizing principle in contemporary societies (i.e. capacity to participate in their construction and in its benefits). In the context of the New Economy there are two contradictory processes that are taking place at the same time with respect to “knowledge flows” and “access to knowledge”. On the one hand, the rapid dissemination and adoption of information and communication technologies (ICTs) have facilitated knowledge flows between generators and users of knowledge, as well as among interested stakeholders, through the Internet and through a wide range of information dissemination facilities. At the same time, there has been an increasing privatization of knowledge due to the changing nature of knowledge itself and its increasing importance as a factor of production. This is reflected in the importance of industrial property rights (IPRs) and of other forms of “knowledge appropriation”. This second process tends to limit knowledge flows, given the evolution of knowledge in many fields from being “public goods” to being “proprietary technology”. The dialectical tension between knowledge as public goods and proprietary technology is one of the characteristics of globalized Knowledge Societies. (Ibid, p. 25-26)

An interesting new dimension is gradually taking shape with the widespread use of information and communication technologies (ICTs) and of the Internet. We are referring here to the increasing importance of electronic networks that operate through the web, using the more recent technologies that allow for real-time on-line interaction among its members. The new technologies go much beyond the simple use of mailing lists to more dynamic possibilities of on-line real-time interaction among network members. This is opening the possibility of collective work through the web that generates new opportunities for e-learning in decentralized and globalized knowledge communities, evolving towards new organizational forms of the scientific community such as virtual research groups and virtual labs. (Ibid, p. 27)

The DKN are very diverse. However, they are all built on the same basic objective: to take advantage of expatriate networks and human resources for the benefit of the origin country. The logics to which they all respond is thus one of networking and connectivity. This is what makes the diaspora option very much distinct – though complementary- from the return option. The former relies on permanent repatriation of individuals’ human capital to be physically reinserted in the local environment while the latter mobilises the expat’s networks through the single actor with whom direct contact is made. There is, thus, a multiplier effect. (The New Frontier of Diaspora Knowledge, p. 6-7)

It is often said that, through the diaspora option, the country of origin is able to access the social capital accumulated by the expatriates. However, this refers to an extensive version of social capital, much more than simply interpersonal relations. It includes obviously human capital (Becker 1962) but also institutional capital (Stewart 1997), symbolic and cultural capital (Bourdieu 1979), institutional (Rey Valette 2004), technical, physical, financial capitals as well, since equipments, infrastructures and money are susceptible of being mobilised too. In the case of the South African network of Skills Abroad, some of these have been estimated. Human capital and social capital indicators have been defined, in a reductive though analytical manner. The diploma and the socio-professional positions have been chosen as proxies, respectively for the former and the latter (see figure 7). (Op.cit, p. 7-8)

The problem of skills circulation has been successfully reformulated, with the shift from brain drain to brain gain during the last decades. With the latter has emerged a vision in which the possible reconnection has become a workable and promising option. Today, neither a single country nor an international organisation would reject the possibility of networking with expats in a systematic manner and this opens opportunities for many DKN. (Ibid, p. 12)

All the cases where real attempts of setting up networks have been impulsed did manage to gather a significant number of expatriates. The extent of the mobilisation does vary considerably from one network to the other, from country to country, but the message of call from home has proven to be appealing to many. This message has usually been spread through e-mailing lists made of personal or
institutional contacts. Interestingly, many expats confess that prior to such a call, they had been away from any national initiative. The fact that it is based on professional and intellectual reasons and interests seems to have fuelled the mobilisation process while political or patriotic channels appear to be more divisive or dissuasive. The new media, internet, being neutral on these aspects and in this particular context, has allowed reconnection on new grounds. (Ibid, p. 13)

It was however pointed out that migration is not only a national, but also a transnational phenomenon, and therefore effective migration management requires cooperation between states. While states might have their own, country-specific challenges, these are often similar to and shared by others and as such could be dealt with on an interstate basis. It was also remarked that developing a capacity building programme for a number of states rather than for one specific country is more cost effective. Furthermore, it was suggested that it is essential to ensure that national management systems are adapted to international practices, and correspond to international requirements. (Workshop for policy makers report capacity-building in migration management, p. 5)

The Berne Initiative, launched in 2001 by the Swiss Federal Office for Refugees, enables governments from all world regions to share their different policy priorities and identify their longer-term interests in migration, and offers the opportunity of developing a common orientation to migration management. (Op.cit, p. 7)

In this context, it was suggested that it is important to make a distinction between capacity building and capacity development: the former refers to cases where capacity is either absent or not appropriately built (i.e. developing countries), whereas the latter implies improvement of capacity and is suitable for developed countries. It was pointed out that building capacity requires more resources than its improvement, which raises the critical question of resource allocation. (Ibid.)

Computer supporting Diaspora Knowledge Networks
Scientists are mobile on the international job market:
- 35% of the scientific elite in developing countries leave their country of origin to reside in developed countries;
- 5% of European scientists leave for the United States.
Increasingly the term of “scientific and technical Diaspora” is being used to identify and discuss the migration patterns of the highly educated. The loss of these people is seen as being a severe handicap for country of origin development and is qualified negatively as “brain drain”. Within its program on International Migrations, UNESCO is adopting a more positive attitude towards migration: UNESCO is placing its hope in the idea that new information and communication technologies will open avenues for achieving “brain gain” through the mobility of the highly educated. In this context:
- “brain gain” is defined as the capacity of Diaspora members to mobilize the skills and knowledge available to them in their host countries for use by networks in their country of origin;
- this capacity of mobilization is expected to depend upon the way in which information infrastructures are configured to support bridge-building activity between host and home country networks. (Diaspora Knowledge Network Project, p. 4)

To accept the idea that what determines Diaspora engagement for the home country has less to do with policy than with individual time constraints arising from such things as family and livelihood obligations in the host country. Using D. Diminescu’s image, the connected migrant is both “here” and “there” but in very down-to-earth, material terms, livelihood is earned “there”, in the host country, and when conflicts of interest arise, migrants will disconnect from what they have engaged “here”, in the country of origin. And these conflicts of interest do arise. Just one example is the case where Diaspora members irrupt on the local scene with projects for the home country and are perceived as competitors by members of home country networks rather than as a potential source of new knowledge and skills. (Op.cit, p. 7)

The project’s public space is designed to assist in adjusting offer and demand for diaspora participation in country of origin development.
• On the offer side, many highly qualified members of scientific and technical diaspora living abroad are more than willing to do things for their country of origin. The DKN public space will allow them to set out their ideas, provide information on their skills and on the social networks which they would like
to create.

• On the demand side, development agencies in countries of origin, receiving countries or working internationally can post information on projects, funding resources, events or other opportunities of network building for country of origin development.

The private space is open to people (individuals, development agencies or others) who want assistance in mobilizing support for their projects. This assistance comes in the following forms:

• a WIKI interaction space which allows people to collectively define, discuss and analyse the specific conceptual, methodological and practical needs of their project;

• a common information resource created by depositing reference documents, articles, data, bibliographies, etc. in an accessible document store.

  - A document store constitutes a "library resource" for a project and as such each deposited document is catalogued as belonging to some category. Cataloguing categories are defined "bottom-up" by people who consider them useful for describing a particular aspect of the collective activity which needs to be informed. The documents filed in each category constitute the means of informing a specific aspect of collective activity.

• a listserv application providing direct Email contact with all the registered members of a project, threads for following the discussion of specific subject areas and archives for building up a memory of on-going collective action;

• a variety of project management devices which serve a project leader for:

  - mapping out task assignments (who does what) and showing how they are interrelated;

  - text mining documents in order to assist in building a shared conceptual frameworks;

  - the project project planning : establishing milestones, deliverables and "things to do"

  (Ibid, p. 9-10)

On one side, Diasporas are often defined in substantive terms as being composed of people who live abroad but who share a common attachment to their country of origin, its values, its culture and its development. From this perspective, doing things for the home country is often seen as paying back a debt to the country where one was born, raised and educated, leading to the idea that “brain gain” is in fact the sum of all these individual “pay back” initiatives.

On the other side, diasporas are defined less by what they are than by what they do and, in principle, this “what they do” consists in building networks over national borders. From this perspective, Diasporas contribute to home country development by structuring the conduits through which skills and knowledge flow not only from the host to the home country, but in the opposite direction as well. Their utility lies in enlarging the frame of reference, moving brain gain out of a context defined uniquely in terms of the needs of a Nation-State towards one which focuses on the social dynamics of knowledge production in its own right. Knowledge production knows no borders, however, it requires a space where people can meet, interact and learn how to do things together. Diaspora Networks contribute to brain gain by building these interaction spaces. (Ibid, p. 11-12)

The specific purpose of the DKN Project is to supply UNESCO decision-makers with evidence justifying growing optimism in the idea that the mobility of the highly educated can provide their countries of origin with the skills and knowledge they need for development.

The need for building up a social capital type of management approach as a compliment to a human capital approach because ‘brain gain’ is empirically defined as a network building activity. More precisely, members of scientific and technical Diasporas are expected to be able to mobilize the skills and knowledge at their disposal in their host countries for use by social networks in their countries of origin. The social science literature has shown the extent to which resource mobilization for network building relies on a specific set of behavior patterns which, often, do not obtain in Diaspora networks. The DKN Project Group is developing the sociological concept of ‘interessement’ to address this question, but much more work is required on the underlying dynamics leading to the constitution and stabilization of Diaspora Knowledge Networks. (Ibid, p. 13)

43 expatriate knowledge networks have been established around the world to date, at least 15 of them with the explicit purpose of mobilizing highly skilled expatriates to contribute their skills and expertise to the development of their country of origin. They all emerged very spontaneously and independently of each other. This points to a new realisation around the world that the « brain drain » does not
necessarily have to mean the complete loss of the skills and expertise of highly skilled expatriates to the country of origin. The examples of the projects and activities, mentioned in this paper, that some of these networks have been able to generate, certainly illustrate the enormous possibilities that these networks present to the country of origin. Almost three years after the initial search for these networks were conducted, only 4 of the 43 that have been identified are no longer accessible through the Internet. The other 39 can still be accessed by network members and other potential network members. This, however, is not necessarily an indication of the level of action/activities that are still being generated through these networks. More in-depth research is needed to arrive at conclusive evidence regarding the ability of these networks for sustainable long-term action. (Intellectual Diaspora Networks – their Viability as a Response to High Skilled Emigration, p. 8)

In 2007, the World Bank Economic Prospect estimates remittances reached $250 billion, which far surpass official development assistance. (Policy dialogue on fostering effective engagement of Canadian university diaspora, p. 5)

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- Support to Graduate Training Abroad and Reinsertion of Graduate Students (“Retorno de Investigadores”).
- Visiting Fellows and Exchange of Researchers.
- Information and Dissemination Activities.
- Tapping into Specialized Knowledge Networks.

(Op.cit, pg. 10-11)

Highly qualified migrants from the less advanced countries are not always developing their talents in the industrialized world. If trained nurses migrate to the more advanced societies only 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 is able to earn money and send 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. Not for the country of origin that lost a skilled worker, nor for the country of destination, where the available skills are not used efficiently. This is an important aspect of economic loss, brain waste. (Migration and development conference, p. 222)

A major source of complaint about the brain drain is the ‘lost’ public investment in the education of the emigrant. Where emigration of highly educated people is common, the likelihood of departure must be integrated into any serious thinking about the educational strategy of the country and the means of financing that education. It may not be in the interest of the home country to invest in training people in fields where the chances of emigration are especially high. Indeed, the choice of such fields may well reflect an aspiration to work abroad. Overseas education poses a particularly difficult dilemma: taking advantage of specific forms of training abroad that are not available at home, then returning to work in the home country, may prove very valuable, at least if the newly acquired skills have some relevance at home; on the other hand, studying abroad is often a port of entry to more permanent settlement abroad. (Integrating migration issues into development planning, p. 17)
In the absence of definitive data, conclusions about the impacts of PTK migration on developed and developing countries often rest on world views. Ellerman (2003) discusses the debate between “internationalists” who believe that, if migrants move voluntarily and achieve higher incomes, global economic welfare increases because e.g. each one million migrants earning an average $10,000 more increases global income by $10 billion. Even if the people in the country of emigration are worse off, internationalists believe that the benefits to migrants and the increase in global economic welfare are more important than losses to particular countries. The “nationalist” model, on the other hand, aims to maximize growth in a particular country, and nationalists note that such growth may be fostered by strictly limiting the time abroad of students and professionals if their exit sets in motion a vicious circle that slows growth and development (2003, 7). (Highly skilled labour migration, p. 11)

However, the increased PTK migration of the 1990s was accompanied by a new literature that reached the seemingly counterintuitive conclusion that the emigration of skilled workers can accelerate economic growth in their countries of origin. This conclusion is a straightforward result of the assumptions. Imagine a developing country with no emigration that suddenly opens its borders, so that PTK workers who emigrate have incomes abroad that are 5 or 10 times their incomes at home. For all workers with PTK credentials, emigration has raised the average returns to education, which should induce more people in the emigration country to stay in school and obtain PTK credentials. However, not all of this expanded number of PTK workers will in fact emigrate, so switching from no or low emigration to more emigration can, paradoxically, increase the number of PTKs in an emigration country (Mountford, 1997; Beine, Docquier and Rapoport, 2001). The conclusions of such studies suggest that:

- Neither developing nor industrial countries should ban the exit or entrance of PTK migrants if their goal is to prevent a brain drain
- There may be some “optimal level of brain drain”: low enough to avoid a vicious downward spiral but high enough to inspire more residents to acquire PTK skills. (E-Handbook, Immigration & Skill Shortages, p. 12)

Migrants become better integrated into the destination country and often form networks across transnational communities; family reunification is largely completed and a second generation of emigrants appears in the host country. The creation of “home town associations” in the destination country improves the communication between the two countries and enhances economic links. As time passes, migrants exploit their knowledge of markets in both countries and become good trade and investment intermediaries. (Policy Coherence for Development, Migration and Developing Countries, p. 56)

Emigration opportunities for the highly educated can encourage higher levels of education at home. If only a small fraction of those who are induced to seek out further education and training emigrate, then the stock of highly educated at home may even expand. Put simply, the possibility of migration creates incentives for improvement of skills and human capital formation. This, in turn, enhances economic growth in the home country. Newer models of economic growth suggest that the average level of human capital is an important determinant of an economy’s growth rate: higher levels of educational attainment induced by a brain drain can thus accelerate growth even if some of the highly skilled leave. Although the net effect can also be negative. In Mexico, for example, researchers find that migration to the United States reduces educational attainment among rural Mexicans. (Op.cit, pg. 62)

Like other categories of migrants, skilled people mostly move in response to economic opportunities abroad that are better than those available at home as well as in response to the migration policies in destination countries. Other factors, however, also play a role in the decision of the highly skilled to migrate and in their choice of destination and include intellectual pursuits, be it education, research or language training. In the case of researchers and academics, the conditions in the host country regarding support for research and demand for R&D staff and academics can be an important determinant in the migration decision and destination. Among the entrepreneurially-minded, the climate for innovation generally, and for business start-ups and self-employment in particular, may play an important role in the decision of the highly skilled to move abroad. (International Mobility of the Highly Skilled, p. 3)
Middle class Bulgarian emigrants (about 20,000 people) are found in the United States, Canada, Germany, Austria and other Western European countries. They are considered an already established Bulgarian lobby and a good potential source of investment. (For example, the United States is already home to three Bulgarian-American Chambers of Commerce.) In 2000 former Prime Minister Ivan Kostov attempted to attract the interest and expertise of young Bulgarian expatriates from this group, organising a “Bulgarian Easter” in Bulgaria. (Policy Coherence for Development, Migration and Developing Countries, p. 42)

Return migration can be actively promoted by migrants’ home countries through various incentive schemes; in some cases these efforts reach out to the descendants of the original migrants. The Bulgarian government, for example, attempted to resettle ethnic Bulgarians from abroad (e.g. from Moldova and Ukraine). The unwritten policy amounted to an attempt to achieve an ethnic balance in “ethnically sensitive areas” especially those depopulated by emigration. The attempt was not particularly successful as most of the returning Bulgarians wanted to settle in the cities, and not in the targeted regions. (Op.cit, p. 57)

The internationalization of higher education enables national systems to compare themselves to foreign systems of higher education and often leads establishments and universities to come up with innovative ideas to adapt themselves to the requirements of foreign students (or of their own students returning from abroad). It also paves the way to attract foreign talent to the host country. Though scholarship programmes could remain an important part of this strategy, they are also complemented by other measures, such as actively promoting a country’s higher education system abroad while simultaneously relaxing the visa or immigration regulations for the target groups. Dedicated entities are sometimes created to assist foreigners in relation to their studies and their stay in the host country. Instruction in English might be developed and encouraged in non-English-speaking countries. As such, studies pursued by international students are subsidized by the host country in the same way as for local students. They may target students from certain regions, postgraduate students or future researchers, rather than undergraduate students or students specializing in a particular field. (World Migration 2008: Managing Labour Mobility in the Evolving Global Economy, p. 116)

While it may assist developing countries in their efforts to strengthen their own human resource capacities (Vincent-Lancrin, 2005), cross-border education can indeed favour brain drain rather than the circulation of skills between host and home country. There is no record of systematic data on the relationship between the mobility of students and researchers, and subsequent variations in immigration patterns. What little exists, however, confirms that there is a link. Some 75 per cent of Chinese students who studied abroad between 1978 and 1999 have not returned to China (Iguchi, 2003). (Ibid, p. 119)

In Canada, it is estimated that between 15 and 20 per cent of foreign students have stayed on and are working in the country; in New Zealand, 13 per cent of the foreign students who entered the country between 1998 and 2005 to study obtained a residence permit by 2006; in Norway, 18 per cent of the foreign students studying there between 1991 and 2005 and originating from outside the European Economic Area (EEA) remained in the country, as against nine per cent of foreign students from within the EEA; lastly, in the United Kingdom, a recent study showed that, in 2005, 27 per cent of international students from within the EU were employed in the U.K. six months after obtaining their degrees. (Ibid.)

Since most developing countries welcome the opportunity to export their “excess” unskilled workers in order to relieve unemployment pressures and generate remittances, a critical dialogue is needed between developed and developing countries on the potential impacts of brain drain on development and the conditions under which “brawn drain” migrants can be employed abroad to mutual benefit. (World Migration 2005. Costs and Benefits of Migration, p. 28)

These asymmetries in the regulation of international labour migration create at least some obligation for receiving countries to make their labour immigration policies “development friendly” for sending countries. This could be achieved by creating legal and readily accessible channels for the flow of remittances, discouraging the permanent immigration of highly skilled migrant workers, where such migration would constitute a serious loss to the sending country, and by encouraging the return and/or circulation of migrant workers. The best way of promoting sending countries’ interests in international labour migration would be to adopt a more inclusive approach in
the design of labour immigration policies, and to cooperate with sending countries in at least some aspects of policy design. (Op.cit, p. 49)

An increasing number of countries aim to increase the level of skilled migration. In 2007, 36 countries out of 144 countries reported promoting the admission of highly skilled workers. While more than 40 per cent of developed countries aimed to increase the number of admission of the highly skilled, only 17 per cent of developing countries pursued such a strategy. To attract skilled third-country nationals, the European Union proposed a "Blue Card" visa programme in 2007. (Migration and development conference, p. 233)

The newly formed Ministry of Overseas Indian Affairs, constituted in 2004, has taken the initiative to amend the Emigration Act, 1983, and introduce a number of measures. In addition, there are various other pro-active programmes that are in the pipeline of the MOIA, including benchmarking of the best practices of other progressive sending countries like the Philippines and Sri Lanka (See GOI, MOIA, Annual Report 2005-6). Overseas Indian, the house journal of the Ministry, has been launched in five languages with an electronic version accessible online. Of all the government measures and programmes in India, the Overseas Citizenship of India (OCI) is an important landmark in redefining the contours of its migration policy in the new millennium. This measure seems to be relevant mainly to the highly skilled migrants in the developed countries. A second measure, that Indian citizens abroad would have the right to exercise their votes from abroad, is primarily meant for the Indian workers in the Gulf – those who send large remittances back home but can never hope to become naturalized citizens of those countries because of restrictive regimes there. However, it is still too early to gauge the impact of these two measures as they are in their infancy. (Perspectives from the South, p. 101)

The Indian Ministry for Indians Overseas supports the Diaspora Knowledge Network, which is designed to connect highly skilled emigrants with opportunities at home. Mexico has set up a mechanism to encourage migrant collective investments in community projects. The Programa Tres por Uno (Three-for-One Programme) was established in 1999, based on regional programmes set up since the early 1990s. Tres por Uno is administered by the government's Secretariat for Social Development (SEDESOL). Transfers from Mexican hometown associations are matched by equal commitments from municipal, state and federal authorities. Funds are used for projects to improve roads, drinking water, sewage and electricity. In 2004, more than US$ 50 million were made available in this way. There is also an "Invest in Mexico" programme of the Inter-American Development Bank and Nacional Financiera. Morocco set up the Banque Al Amal in 1989, to encourage legal transfer of remittances and to support migrants' projects. In the Philippines, the Commission for Filipinos Overseas (CFO) supports LINKAPIL (Link for Philippine Development) to mobilize the resources of the diaspora. (Ibid, p. 276)

Gender research emphasizes how migration policies can render female migrants more vulnerable than males, e.g. current tendencies towards admitting only highly skilled professions, where women are still underrepresented (Jolly and Reeves, 2005) may mean female migrant workers can often only enter as unskilled workers and/or as irregular migrants. Both routes carry a high element of risk, irregular migration exposes women to abusive practices associated with smuggling and trafficking, while legal routes of unskilled migration may afford greater protection but are rare, especially in the sectors in which female migrants are most typically employed. (Achieving policy coherence, p. 33)

Professional Diaspora networks, like the Digital Diaspora Network Africa (DDNA), the South African Network of Skills Abroad (SANSA) and the African Foundation for Development (AFFORD) (ILO, 2005), have proven a useful means for migrant professionals to pool their knowledge and contacts with professionals in their homeland. Internet and e-learning provide considerable potential for such transfer of skills. The influence of such networks is difficult to quantify as, on the one hand, collaboration appears to occur such as strong positive correlation between the country of birth of U.S. college faculty staff and the percentage of scientific articles originating in their countries with U.S. co-authorship (Lowell, 2004) and, on the other, some e-networks may lie dormant and unused for long periods.

The IOM Migration for Development Africa (MIDA) pilot initiative has sought to capitalize on this potential for distance learning by facilitating a virtual transfer of skills using ICT, and also through short and long-term visits. MIDA has sent five diaspora medical doctors (based in the Netherlands, Belgium
Countries of destination frequently perceive conflicts of interest between migration policies that focus on internal needs, and external commitments to international development. Temporary migration and brain drain/skilled labour migration issues are two areas where the policies in receiving countries are based on their own needs, and where any related development dimension is not of primary concern. However, experience shows that measures to support development do not necessarily work against receiving country interests.

Temporary migration schemes can work well for both: they provide the labour force needed by receiving countries, help combat irregular migration and, at the same time, provide secure migration channels for migrants which can generate greater dividends for sending countries through increased remittances.

Return migration has the potential to suit the needs of both sending and receiving countries, depending on the timing, form and the skills acquired by migrants abroad and their useful application at home.

Coherence in the other direction, i.e. to ensure that development policies take account of migration, is less prone to tensions. The development policies in receiving countries can take account of migration without compromising their ultimate goals. The main challenge here is the lack of consensus among development communities on the level of priority to be assigned to this issue, as well as practical and logistical difficulties in harnessing the potential of remittances and diaspora engagement. For sending countries, the key issue is to raise awareness in ministries dealing with development and poverty reduction of the potential impacts of migration. (Ibid, p. 98)

Policymakers have the power to be creative and establish what might be referred to as an “education fund”. Companies wanting to recruit skilled workers to fill particular skills profiles should be asked to pay a “recruitment tax”. The tax can differ, depending on the profile of the workers hired. The money thus collected could be reinvested in the education of young professionals in the South. Such a fund could be created on a regional level (e.g. the European Community) or on an international level (United Nations). (Migration and development conference, p. 224)

The EU and the non English-speaking member states in particular are increasingly recognising that much more attractive entry conditions for high-skilled immigrants are needed for the EU successfully to participate in the global competition for talent. The recent flurry of national attempts to improve the legal basis for attracting high-skilled migrants, including the recent carte des compétences et talents in France, illustrate the progress that has been made in this debate.

However, there is one important feature that purely national initiatives will not be able to offer: immediate access to the entire EU labour market. For highly specialised immigrants this would undoubtedly be attractive. In particular, it would make migrants hesitate less about accepting a first job in a small or a non English-speaking member state. For example, an Indian high-skilled migrant with a job offer in Vienna will accept it much more readily if this guarantees access to the entire EU labour market. In the case that the first job turns out to be unattractive after all or the family has difficulties adjusting, the option value of being able to transfer to, say, Düsseldorf or Manchester (and not just within Austria to, say, Innsbruck) would be substantial. (Division of labour, rethinking Europe’s migration policy, p. 47)

With the floor opened up to broader debate, Jakob von Weizsäcker, Resident Fellow at Brussels European and Global Economic Laboratory (BRUEGEL), attacked the notion of ‘absorption capacity’ as a phenomenon to justify tighter measures. “This is wrong: absorption capacity is determined by the skills mix.” He said countries where foreignborns represented 10% or less of their population might have huge internal debates on immigrants, yet those with 20% might be totally relaxed about it. “The difference is that they have a better skills mix,” von Weizsäcker stated. He also claimed authorship credit for the Blue Card idea – and thanked the Commission for taking it up. (Does the European economy need more migrant workers, p. 5)

Expatriates do not need to be investors or make financial contributions to have an impact on their home countries. They can serve as “bridges” by providing access to markets, sources of investment,
and expertise. Influential members of diasporas can shape public debate, articulate reform plans, and help implement reforms and new projects. Policy expertise and managerial and marketing knowledge are the most significant resources of diaspora networks. The overarching focus on the knowledge and policy contributions of expatriates and diaspora networks distinguishes this book from a rapidly growing literature on international migration. *(International Migration of Talent, Diaspora Networks and Development, p. 3 - 4)*

Put another way, organizations shift from hierarchies in which subordinates execute their superiors’ plans to search networks in which collaborators, through the very process of identifying one another, come to define the tasks they will jointly accomplish. In a world of search networks, changes in labor markets (who works with whom) can easily lead to changes in product markets (what businesses make), and even in industrial organization (how firms are structured internally and connected to one another). *(Op.cit, p. 8)*

Host countries’ acculturation programs in soft skills will benefit from ongoing consultation with sending countries about the best ways to address cultural frictions that arise. By the same token, both sending and receiving countries can gain from meshing their efforts to support diaspora networks, and there is likely to be strong pressure from the high-skill members of such networks for them to do so. Both have interests in jointly regulating the working conditions and environmental responsibilities of decentralizing supply chains to prevent protectionist reactions to off-shore ventures by rich countries and local protests against multinational imperialism in poorer ones. *(Op.cit, p. 9)*

Support for the “brain gain hypothesis” comes from the fact that the GII holds out the promise for Southern countries of accessing the digital libraries of the North, of building international "collaboratories" where laboratories of the South and the North work together in a research world "without walls", and of creating rich, distance learning environments for sharing knowledge and skills. But, of course, the idea can be criticized as an expression of over-excessive confidence in technology driven cooperation. Not only is it hard to believe that people in the North can work with people in the South as “if they were there” but much of the literature concerning the GII makes the point that this infrastructure is not as universal as it might be and that, in fact, a digital divide is growing between the North and the South. *(Diaspora Knowledge Networks, p. 7)*

Evidence exists that there is a growing awareness of the need to design information portals to support the merit review process. One example is the portal constructed for the program *South African Network of Skills Abroad (SANSA)* which is sponsored by the South African government. Through this program, access is provided to information on approximately 86000 South African research projects from 1950 onwards (both current and completed research) as well as to the biographical profiles of individual researchers in South Africa, including their fields of interest and areas of specialisation. In addition the portal offers access to a list of research organisations, professional associations, journal submission requirements and forthcoming conferences. *(Op.cit, p. 16)*

The *Open Archive Initiative (OAI)* provides a technical solution to the need for including an archiving function in the design of DKN information portals. Interoperability standards are being developed for accessing papers stored on compliant servers through a unique portal and this is what will allow members of a diaspora to construct a common data archive despite being located in distant geographical sites. OAI documents are all coded using the same metadata tags (“body”, “date,” “author,” “title,” “journal” etc.) and consequently, no matter where they are located on the web, they can be searched and retrieved (“harvested”) as if they were all in one single collection. *(Ibid, p. 17)*

The most dynamic and sustainable Nodes were based on pre-existing *associations of Colombian students or professionals* in those countries or cities, thus providing a strong local basis for the operation of the Red Caldas. This is the case of ACIS in Switzerland and of PECK in New York, where these organizations already existed before the Red Caldas emerged, having been established by the local stakeholders. *(Role of Diaspora in Facilitating Participation in Global Knowledge networks, p. 22)*

The most successful cases of research partnerships emerged in those research areas where the National Research Program in Colombia assigned a high priority to international collaboration, playing a proactive role in assuring a strong Colombian participation in research partnerships of interest to them. When the respective National Research Program did not show the same level of interest, the
role of articulation of research partnerships was left in the hands of the Red Caldas Liaison Office. The latter did not have the same type of expertise to give an adequate support in the project-development phase. *(Ibid)*

It is important to point out that a “dual leadership” was a characteristic of the most dynamic and successful cases, since this quite often required a scientific leader in Colombia working shoulder-to-shoulder with a scientific leader in the other participating countries. *(Ibid, p. 23)*

For example, whilst some care is needed in drawing too much from a country of vastly greater scale and which is culturally very different, the Commission noted that investments by the 30-40 million expatriate Chinese living in 130 countries around the world account for some 45 per cent of that country’s total FDI, whilst saying that both remittances and return hold out prospects for a positive impact on development. However, it also cautioned governments against making “undue demands on the financial and other resources of the Diaspora”, noting that migrants and members of the Diaspora “must be left to make their own choices concerning the way and the extent to which they engage with the development of their countries of origin”. *(From Brain Drain to Brain Gain, Mobilising Albania’s Skilled Diaspora, p. 20)*

It is this, little studied, capacity of diasporic media that, together with a host of other diasporic cultural, political and economic processes, can transform diasporas from little more than aggregates of migrants into active and vibrant diasporic networks. Clearly, the research agenda on diasporic media and cultural practices needs to focus more on processes of diasporic identity formation and the institutions and practices supporting these. *(Rethinking the Concept of Diaspora: Mobility, Connectivity and Communication in a Globalised World, p. 63)*

The myriad Diaspora groups established around the world have come to appreciate the expanded role they can play in helping to develop their homelands, beyond simply sending remittances. While mobilizing financial resources is an important Diaspora-development connection, an even more important factor is the knowledge and skills transfers from expatriates that are valuable in facilitating development. This can be achieved more easily today due in large part to advances in ICT – i.e., through online professional networks that link Diaspora professionals with counterparts in their countries of origin.

Additionally, members of the Diaspora are in the position of simultaneously valuing and understanding two cultures (home and host countries), making them ideally suited to offer an alternative, and perhaps more effective way of communicating the development message. They understand the local context and are able to identify specific challenges, as well as know how to adopt strategies to avoid them. They are culturally hybridized (Brinkerhoff, 2003, pg. 2) and their transnational roots enable them to serve as a potentially important link between the two cultures, as well as to assemble considerable resources. This places Diaspora groups into a strategically important position in terms of advancing their homelands – socially, economically, and politically. They are a powerful force that can mobilize tangible foreign assistance efforts – a force that cannot be ignored by mainstream development actors. *(Diaspora-Development Nexus: The Role of ICT, p. 4)*

One exemplary case of a Diaspora utilizing ICT to benefit its home country is that of India. Its U.S.-based Diaspora has instigated significant investments back home from multinational companies in the information technology sector.8 This has not only enhanced the number of high-skilled jobs in India (and led to the creation and growth of the Indian software industry), but also has strengthened the country’s exports, thereby helping to improve its overall economic growth (Lowell, 2004, pg. 20). Another is UNIFEM’s Digital Diaspora Initiative,9 which undertakes projects that empower African women economically through capacity building in the use of ICTs, by harnessing the expertise of African ICT entrepreneurs in the Diaspora.(Diaspora-Development Nexus: The Role of ICT, p.9)

In addition to enabling Diasporas to maintain their religious roots, ICT-based tools such as the Internet, cell phones, etc. have revitalized certain religions outside of the homeland by opening up advanced means of communication – the Internet, for example, enables adherents to the Santeria religion (Lucumi) to discuss ritualistic matters via online forums that supplement in-person exchanges between Santeria priests and followers. Some web sites initiated by Diasporas start out with a social and/or religious agenda and end up expanding into more powerful gateways. Thamel.com14 launched a ritual service that enabled Nepalese in the Diaspora to purchase Khasi (a ceremonial goat) for the Dashain celebration. It quickly grew into a major information portal that connects Nepalese throughout
the world, including news reports, financial services, and a new business model called “Home Market Services,” which pursues business development opportunities between the export and homeland markets. (Op.cit, p.10)

Individual sending countries will presumably want to encourage the formation of diaspora networks by helping highskill emigrants stay in touch with one another and the home country and by creating individual and corporate incentives for their re-engagement with the domestic economy. A key aspect of increasing the attractiveness of the domestic economy to potential investors will be introducing problem-solving skills in the public school curriculum and in continuing education programs to create a domestic workforce with the skills required by the new wave of decentralizing firms. Broad provision of these skills will also increase the chances that young job seekers who do not find work at home will be able to take advantage of new career possibilities afforded by entry-level jobs abroad. (International Migration of Talent, Diaspora Networks and Development, p. 8)

Receiving countries have reasons of their own to encourage diaspora networks. Obstructing mobility in an epoch of decentralization imposes stay-or-go choices on energetic, ambitious, immigrant elite, potentially spurring the return en masse of high-skill expatriates. Promoting the circulation of high-skill labor from home country to adopted home and back reduces this risk and is therefore almost certainly in the long-term economic interests of the receiving countries. With their aging populations and low birth rates, traditional receiving countries will also likely find it useful to recruit immigrants for low-level jobs in the public service sector and manufacturing. But the blurring of managerial and executory tasks means that foreign entrylevel workers—even those familiar with the new problem solving—will need complementary training in “soft” social skills relevant to the host country if they are to use their abilities to good effect. (Ibid, p. 8)

Potential migrants notice this shift. Those with good educational prospects at home go abroad to take advantage of still better opportunities, finding jobs that enable them to learn more than they could at home. Those with fewer opportunities at home start to think about improving their prospects by going abroad, fearing that their long-term employability depends on doing so. Instead of looking for destinations with plentiful unskilled jobs, migrants begin to look for destinations that offer many possibilities for skill acquisition at work or school. As job ladders are transformed into more open, interfirm, and formally skilled labor markets and weak ties among migrants begin to communicate information about learning possibilities, migration chains become open mobility networks, that is, means for discovering where to go to learn how to prosper in the reorganizing economy. High-skill diasporas are a conspicuous example of such networks. (Ibid, p. 12)

In the event, despite—indeed, partly because of—its diaspora, Armenia was unable to realize its potential for rapid growth. The chief obstacle to development was a domestic elite composed, like the elite of many contemporary stalled states, of communist bureaucrats, security service officers, and managers of large stateowned enterprises. This elite did, and does, push aggressively for economic liberalization and privatization, but in a way that allows its own members, especially enterprise managers, to capture the major benefits of reforms. (Ibid, p. 17)

Compounding the problem, major diaspora organizations have never systematically tried to protect their members from the elite’s abuse. The diaspora tends to limit its public criticism out of concern for the government’s reputation. It has not attempted to rigorously evaluate the results of the massive assistance it has provided in the past decade. For this diaspora, like others in similar situations, the act of giving seems more important than the actual effect. (Ibid)

And yet this is precisely what the gatekeeping hypothesis implies: the brain gain literature assigns diaspora members the task of building knowledge production strategies for the South, but seldom acknowledges the fact that these strategies are, in fact, alternatives to other, more mainstream investment opportunities. The problem is consequently one of building social capital. In order to take part in the life of their laboratory, newly enlisted members of a scientific diaspora have to engage in confidence building; they have to convince their colleagues of their capacity to use with discernment the resources available to them in ways that will contribute to meeting the valued, sought-after goals of their institution. And this is where the difficulty lies: an investment in gatekeeping for the South often procures a lower return on social capital construction than an investment in solving the recognized problems on the research agenda of the North. (Diaspora Knowledge Networks, p. 9)
The main obstacle that was confronted in developing and implementing these projects was the difficulty in coordinating the German and Colombian funding sources, in order to assure the co-funding of collaborative research projects. There were several cases where it was possible to assure this co-funding between the two sources (generally COLCIENCIAS for the Colombian component and the Volkswagen Foundation, the Alexander von Humboldt Foundation and DFG for the German component). In other cases it was not possible to do so; some projects were approved in Colombia and not in Germany, and others were approved in Germany but not in Colombia. The “synchronization” between the two funding mechanisms is of central importance in developing collaborative research projects. *(Role of Diaspora in Facilitating Participation in Global Knowledge networks, p. 20)*

Internet obviously played a key role in the development of the Red Caldas. From the beginning it was e-mail interaction that made possible this network with an intensive use of mailing lists as an important communication instrument. At the same time, it reflected the limitations of the Internet technology at that time. The software that a few years later made possible effective real-time on-line interaction, and thus “dynamic electronic networks”, was still not available. It was simple e-mail interaction through the use of mailing lists that was used. This is one of the technological factors that led to the emergence of the Centralized Radial Network model, with interaction via a central Node instead of continuous dynamic interaction among all Nodes. *(Op.cit. p. 23)*

The limited interest shown by some National Research Programs on networking and on “going global” was one of the factors that led to little receptivity to the opportunities of collaborative research projects with colleagues around the world. When the National Research Program internalized this “world view” they integrated such criteria into the peer review system through which projects were selected, giving priority to the support of such projects. *(Ibid, p. 24)*

The great emphasis placed by the Red Caldas on the development and funding of collaborative research projects was at the same time a strength and a weakness of the system. It was a strength in the sense that it focused the attention of the network on this particular function and purpose. It was a weakness in the sense that it led the network to leave aside very important functions that the diaspora can play, such as other ways of participating in knowledge networks in order to have privileged access to the knowledge they generate and manage. There was little interest that was given to innovation networks and industry-based knowledge networks. With a few exceptions, most collaborative research projects were university-based. *(Ibid)*

One interesting contrast is between India and China, both of which have provided special investment arrangements for non-resident or expatriate nationals, but where in practice, levels of Diaspora engagement and investment have been much higher in China than in India. This contrast was reviewed in 2000 by a High Level Committee on the Indian Diaspora, which concluded that one reason why Indian expatriates have sent money to families, but have not invested, is because the Indian government has systematically ignored the Diaspora’s concerns. The committee’s recommendations included not only the cutting back of bureaucratic obstacles to investment and engagement of expatriates, but also efforts to strengthen pride and faith in their heritage amongst Indians abroad. Concrete measures have included the establishment of a government body to liaise between India and the Diaspora18; the creation of an Investment Information Centre; the dedication of a national public holiday to celebrate the contribution of eminent expatriates; the holding of a major Diaspora conference attended by the Prime Minister; and the opening of dual citizenship with certain countries. *(From Brain Drain to Brain Gain, Mobilising Albania’s Skilled Diaspora, p. 22 - 23)*

OECD (2007) argues that the term ‘second generation’ is not ideal, however, because: it does tend to suggest an ‘inheritance’ of immigrant characteristics, which may be true to some extent, but does not reflect the fact that the person in other respects, including language, education and indeed cultural outlook, may be indistinguishable from other native-born persons. Most young immigrants may have been educated abroad, at least in part (OECD, 2007). *(Diasporas and Development, Perspectives on Definitions and Contributions, p. 25)*

Yet the gap between the potential and actual contributions drawn earlier or between ‘promise and reality’ applies to these networks. Some of these networks seem to lose momentum after the initial launch. For instance, it is embarrassing to note that the link on the Digital Diaspora Network for Africa (DDNA) initiative 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 percent of 2,440 email contacts in the SANSA database were not working; only 428 responded to the survey and 40 percent of them mentioned that they rarely or never accessed the SANSA website (cited in Seguin et al., 2006). Lowell and Garova (2004) found two major issues with such networks: a) 34 percent of the networks surveyed (61 DKNs) were inactive; b) 27 percent of government assisted Networks had failed (4 of 15). Meyer and Wättiaux (2005) however, disagree and point out that two-thirds of 158 DKNs identified by them were active. (Op.cit, p. 36)

While Diaspora groups do have a significant role to play in the social, economic, and political development of their home countries, their efforts at times may be hindered. The groups themselves could lack the organizational skills and resources necessary to successfully administer assistance in their homelands. As well, they are traditionally small in size, with a tendency towards transient membership, and may suffer from unpredictable funding sources. In addition, a number of Diaspora groups in existence today are not legal entities, which can further complicate the issue of funding – in particular, prospective financial backing from multilateral and/or bilateral donor agencies. Typical funding models initiated by such donors are fairly clear-cut when the Diaspora group is an official body. Unofficial groups, however, may not meet eligibility requirements. Even authorized groups might get extracted from the funding process because they do not have proven experience in development work or the capacity to manage funds. This type of funding environment could require the establishment of a grant program that specifically targets the Diaspora, taking into account its special needs. (Diaspora-Development Nexus: The Role of ICT, p.4-5)

3. Strategies & Policies for Cooperation with Diasporas

Despite our enthusiasm, it should be stressed that the emerging sustainability paradigm is still very much in its infancy; science policies in the North remain almost exclusively focused on building national innovation spaces for reaping competitive advantages in international markets. However, things are timidly starting to change. One example is the 6th Framework program of the European Union. Not only is sustainable development one of the seven themes serving to structure research at the European level but at the same time a specific budget has been set aside to allow Southern researchers to participate in European research programs. (Diaspora Knowledge Networks, p. 12)

The “knowledge society” concept derives from a growing awareness of the direct relationship between a country’s capacity to produce, assimilate and use research results and its socioeconomic development. Some countries in the South have set out to build a high quality, internationally competitive research environment. China, India, South Korea, Taiwan and Singapore are examples of countries which have been successful in attracting back their highly qualified professionals who initially opted for working abroad. But most Southern countries are in an intermediary position. Faced with the pressing needs of their populations for immediate solutions to such things as poverty, health care, basic water, transport, telecommunication and other infrastructural questions, money simply doesn’t exist for improving the national research environment. (Diaspora Knowledge Networks, p. 13)

Ethno-Net Africa (ENA) is a network of African social scientists whose goal is to build an OAI – compatible archive containing information on ethnic conflicts and social change in Africa. The principle sources of information for this archive were African-based electronic newspapers and a wide variety of American and European web-sites. Natural language processing techniques were used to harvest the material and produce document sets meeting the needs of Ethno-Net members. These needs were determined by the membership structure of the Ethno-Net knowledge network. The nodes of the network are offices of National Monitoring Units located in Social Science Research Institutes of the different member countries (11 African countries participate in the network). Each NMU has its own specific research program and information requirements but, at the same time, the NMUs co-operate with one another in a variety of comparative research projects. The ENA information infrastructure was designed to support these two types of research activity by automatically classing information
available on the Web as being relevant to “profiles” describing in-house research or co-operative research. (Op.cit, p. 19)

The Virtual Laboratory concept is defined by the UNESCO working group that produced the Toolkit as “an electronic workspace for distance collaboration and experimentation in research or other creative activity, to generate and deliver results using distributed information and communication technologies.” (Vary, 2000). Virtual laboratories are emerging in a number of areas: the international human genome collaboration, the association of astronomical facilities called “the whole-earth telescope”, the planned construction of long-baseline interferometry laboratories, and global observation networks for the environmental sciences are just some examples. VL infrastructures are increasingly being used to support specific health/medical applications and creative activities in the social sciences and the humanities. The UNESCO Toolkit is designed to offer concrete solutions for organizing person to person, person to equipment and person to metamachine applications (Froitzheim, 2002). (Ibid, p. 20)

This network, which is coordinated by the Consultative Group on International Agricultural Research (CGIAR), is one of the largest undertakings in Global Science related to development issues. Its first major contribution is the so-called Green Revolution that produced the new varieties of basic food crops that helped to avoid famine in the sixties and seventies in India and other developing countries. This was a major technological contribution to addressing the needs of development, although at the same time it generated serious questions with respect to the sustainability of the new varieties and mono-crop production systems. (Role of Diaspora in Facilitating Participation in Global Knowledge networks, p. 19)

In contrast with other diaspora networks that are being analyzed in the World Bank Program, the Red Caldas exclusively concentrated on the scientific diaspora. Given this orientation, a great emphasis was placed on developing collaborative research projects to be carried out through concrete research partnerships. (Op.cit, p. 22)

We are referring here to the increasing importance of electronic networks that operate through the web, using the more recent technologies that allow for real-time on-line interaction among its members. The new technologies go much beyond the simple use of mailing lists to more dynamic possibilities of on-line real-time interaction among network members. This is opening the possibility of collective work through the web that generates new opportunities for e-learning in decentralized and globalized knowledge communities, evolving towards new organizational forms of the scientific community such as virtual research groups and virtual labs. (Ibid, p. 27)

One initial and efficient way to limit the brain drain, would be to seek its conversion to “brain exchange”. This would require the intensification of the scientific cooperation with universities, laboratories and research institutions in Western Europe and North America. Another alternative would be to seek membership of international institutions such as CEI, ESF, COST, EUREKA, etc., as well as larger organizations such as OECD, EU, NATO, etc. The intensification of this cooperation could increase the mobility of the Albanian academics and researchers within the international scientific community for joint projects, temporary employment on a contractual basis in universities and research institutions abroad, participation in conferences and seminars, exchange of information, joint publications, etc. from a base within Albania. For example, in late 1990s, Hungary had signed inter-governmental agreements for scientific cooperation with 24 countries (Andreff W, 1998). (From Brain Drain to Brain Gain, Mobilising Albania’s Skilled Diaspora, p. 15)

Some governments have made a particular point of highlighting the role played by the Diaspora. Mexico, for example, describes those abroad as ‘heroes’, whilst the Philippines has a ‘national hero month’ and confers awards on particularly industrious expatriates. (Op.cit, p. 22)

In several African countries, such as Sierra Leone, Ghana and Nigeria, “homecoming summits” have been organised, which although generally orientated towards promoting permanent return, have sought to encourage (e.g. through provision of cheap charter flights and special entertainments) a temporary visit during the holiday period which can then allow discussion of opportunities for partnership between the Diaspora and home country; (Ibid.)
TOKTEN involves the placement of highly-skilled expatriate professionals in short-term projects where there is a skill shortage in their country of origin. It is a ‘volunteer’ programme, although generous subsistence allowances are usually paid for the duration of the placement, along with reimbursement of expenses. Yet although it is one of the larger schemes of its kind, TOKTEN is not the only such scheme. For example, the International Organisation for Migration has developed its ‘MIDA’ programme partly in response to difficulties in promoting permanent return as part of its earlier ‘Return of Qualified Nationals’ programmes. These RQN programmes tended to be very expensive, and yet produce relatively few permanent returns; in contrast MIDA does not expect permanent return (although it is arguably still quite expensive, given the number of ‘missions’ completed (see box below). (Ibid, p. 24)

States hope that diaspora engagement policies will help them to manage the scale of their political and economic maneuvers; both by leveraging powerful expatriates to upscale their concerns into global-scale arenas, and by exerting control on urban-scale transnational dynamics through closer engagement with migrant civil society. For example, the Turkish state has attempted to engage ‘its’ diaspora in order to upscale its political agenda and gain entry to the EU (Østergaard-Nielsen 2003c), while New Zealand ultimately sees diaspora engagement as a device to help it climb its way back up OECD country rankings (L.E.K Consulting 2001; Science and Innovation Advisory Council 2002; Deutsche Bank 2003). On the other hand, a number of writers have suggested that the Mexican state seeks to extend its governance of Mexican nationals down into the urban and community scales of organization, containing and co-opting migrant political activity by inserting state representatives into civic associations. (Diaspora Engagement Policies: What are they, and what kinds of states use them?, p. 5)

On the basis of this argument concerning the transnationalization of governmentality, this paper identifies three higher-level types of diaspora engagement policy:

- capacity building policies, aimed at discursively producing a state-centric ‘transnational national society’, and developing a set of corresponding state institutions
- extending rights to the diaspora, thus playing a role that befits a legitimate sovereign, and
- extracting obligations from the diaspora, based on the premise that emigrants owe loyalty to this legitimate sovereign. (Op.cit, p. 5-6)

Symbolic policies discursively attempt to produce a homogenous national ‘diaspora’, with close ties of allegiance to the home-state. They comprise of a broad range of initiatives and programmes to increase emigrants’ sense of belonging to a transnational community of co-nationals, and to boost the profile of the state within this community. (Ibid, p. 6)

Some home-states attempt to reinforce claims of shared national identity by establishing or supporting programmes to teach national language and history amongst diaspora populations, and prominently observing national celebrations and cultural events within diaspora communities. Home-states often play role in shaping expatriate-targeted media, communications and public relations – partly to support these general aims of producing a homogeneous population, but also to send more specific messages aimed at mobilizing expatriates in particular ways, such as to return home, to remit money, or to help advance ‘national interests’ abroad. (Ibid, p. 7)

Institution-building policies furnish the state with technologies – systems and institutions – to ‘govern’ diaspora populations. A first step for many states is the implementation of surveillance. Monitoring efforts are typically conducted through the foreign service or the immigration bureaucracy, and aim to collect statistics on which to base strategic orientations towards emigrants. This process is often not merely a way of collecting inert data, but a way of selecting actors whom it would be profitable to deal with and forming long-term relationships with these actors (González Gutiérrez 1993). Of particular interest to states have been relationships with hometown associations that pool remittances to fund hometown development projects and often act as umbrella organizations for a broader range of emigrant associations and groups (see below on remittance capture). (Ibid, p. 8)

In Foucault’s terms, whereas institution building aims to construct objective capacities to realize relations of power, and symbolic nation-building policies aim to produce a relationship of communication, the extension of rights and the extraction of obligations – or the transnationalization of citizenship (Lee 2004) – constitutes the “finalized activities”, or “specific effects” of the exercise of
power (Foucault 1982). Insofar as transnationalizing citizenship extends “thin membership” (Smith 2003) to the diaspora, it also extends a kind of thin sovereignty over non-residents. (Ibid, p.10)

There are two main types of policy aimed at capturing knowledge transfers from expatriates. The first, which is perhaps most closely associated with the UNDP’s TOKTEN (Transfer of Knowledge Through Expatriate Networks) programme, involves facilitating temporary returns by expatriate researchers for short-term consultancies or fellowships in their home country. [...] Such problems are even more applicable in the case of the second type of knowledge transfer policy that has received interest among home states: the virtual cluster approach (Rod Oram, cited in Electronic Commerce Action Team (ECAT) 2002). The virtual cluster approach relies on a non-geographical model of industrial clustering. If industrial clusters rely on geographical and institutional proximity (Porter 1990), then expatriates cannot remain overseas and still contribute to the development of national knowledge economies. However, various writers have suggested that shared enculturation, rather than geographical and institutional proximity, may bind knowledge communities (e.g. Meyer 1999b; Allee 2000). (Ibid, p. 16-17)

Some Moldovan Embassies provide technical assistance to help diaspora groups get organized and establish formal associations. BIR also seeks to support these associations by registering them in a local database, and linking them up with Moldovan cultural programs and media outlets. The Moldovan government is keen to strengthen migrant associations in all the main destination countries, thereby enhancing very weak communication links between the Chisinau government and the Diaspora and mobilizing resources for Moldova’s development. Currently the positive impact of migrant organizations that are constructively engaged in development initiatives depends mainly on the transfer of remittances. One way to enhance the involvement of the diaspora in development processes in Moldova is for governmental and international organizations to provide matching funds for such financial transfers that are put to effective developmental use. (Recommendations of the Policy Seminar on Diaspora and Homeland Development, p.12)

Several targeted measures that host country governments, development agencies, PVOs, and NGOs can take to advance Diaspora engagement in developing nations include:
1) scaling up research efforts to better understand how Diaspora groups can be more effectively involved, including systemic investigations on non-financial influences, gender differences in remittance behavior, and other issues related to Diaspora and development;
2) engaging in formal and informal discussions between Diasporas and mainstream development agencies (together with implementing partners) in order to further promote Diaspora involvement in foreign assistance initiatives;
3) endorsing financial support to development-oriented Diaspora groups; and
4) fostering institution building between Diasporas and home country governments. (Diaspora-Development Nexus: The Role of ICT, p. 6)

The Committee notes that there are two existing Indian missions, London and Washington, which have officers of the rank of Minister to look after Diaspora and community matters. The very rationale for establishing posts in these Indian missions with the specific charge of liaising with the Diaspora is to allow for constant interaction and exchange of ideas between the Head of Mission and the local Indian community. It is, however, possible to think of various mechanisms to liaise with the Diaspora.

On the side of the Diaspora there is often fractiousness among Indians. In this situation, encouraging the setting up of advisory councils amongst them, to interact with the Indian mission representing the spectrum or opinions or the local Diaspora is perhaps the best solution. The collegiate functioning of advisory councils would be more cohesive and less divisive. Such local advisory councils should have flexible memberships to include participation of all possible shades and varieties of interests and opinions in the Diaspora.

On the government’s part, one possible route is the appointment of an Ambassador of Indian Diaspora. It has been represented to us that posting any such representative in any one of the countries is invidious and appears to confine the contact with Diaspora in that country alone. It also been represented to us that it tends to undermine the effectiveness and the authority of the Indian Ambassador or High Commissioner in that country. (Diaspora Relations and Organisational Structure, p. 53)
This book examines the interaction of expatriate talent and institutions in expatriates’ countries of origin in an attempt to make the potential of diasporas and their knowledge a reality. The critical importance of institutions in the home country is a central theme. However large and entrepreneurial networks of diaspora professionals are, home country institutions that are interested in and capable of implementing joint projects with expatriates are critical. The quality of these institutions varies widely: some are extremely capable; others are not. Diaspora networks link better-performing segments of home country institutions with forward-looking segments of the diaspora. The latter have the potential to generate a virtuous cycle that develops both home country institutions and diaspora networks. The question of how to trigger and sustain such a virtuous cycle that generates benefits for all parties involved—sending countries, receiving countries, and expatriates themselves—is a central concern of this book. *(Diaspora Networks and the International Migration of Skills, p. 8)*

While home country institutions remain the key to success, key individuals in positions of influence can sometimes remedie institutional weaknesses. The chapter provides a taxonomy of different types of diaspora networks and relevant interventions for triggering such networks. It also touches on a broader issue of economic development by noting that diaspora networks are just one example of search networks. The “new industrial policy” is a new generation of interventions that addresses economic development problems without picking winners based on a diversity of search networks. *(Op.cit, p. 10)*

A new and promising strategy emerged during the last decade; this is referred to as the « diaspora option ». The diaspora option seeks to mobilise highly skilled expatriates to contribute to the social and economic development of their country of origin. The diaspora option develops from a totally different position to traditional approaches in that it recognises that highly skilled expatriates, although they might still have loyalties to their country of origin, might not necessarily want to return home. The distinguishing feature of the diaspora option thus is that expatriates don’t have to return to the country of origin, but can contribute their skills and expertise to their home country from wherever they are in the world. The diaspora option sees the creation of intellectual, mainly science and technology networks of expatriates establishing links with their counterparts in their home country and participating in the development process of their country of origin. These linkages are largely, but not exclusively, facilitated by the advancement of information technology, especially the development of the Internet. *(Intellectual Diaspora Networks – their Viability as a Response to High Skilled Emigration, p. 1)*

These networks aim to establish and foster communication and exchanges between members living abroad and to link them to their counterparts in their country of origin. The educational, social, cultural and professional advancement of their members is also high on the priority list of the different networks. These are closely related to the main objective of all diaspora networks, which is the economic, political and social development of the countries of origin. *(Op.cit, p. 6)*

**Knowledge Societies** are characterized by the importance knowledge plays as a factor of production and as an organizing principle in contemporary societies (i.e. capacity to participate in their construction and in its benefits). In the context of the New Economy there are two contradictory processes that are taking place at the same time with respect to “knowledge flows” and “access to knowledge”. On the one hand, the rapid dissemination and adoption of information and communication technologies (ICTs) have facilitated knowledge flows between generators and users of knowledge, as well as among interested stakeholders, through the Internet and through a wide range of information dissemination facilities. At the same time, there has been an increasing privatization of knowledge due to the changing nature of knowledge itself and its increasing importance as a factor of production. This is reflected in the importance of industrial property rights (IPRs) and of other forms of “knowledge appropriation”. This second process tends to limit knowledge flows, given the evolution of knowledge in many fields from being “public goods” to being “proprietary technology”. The dialectical tension between knowledge as public goods and proprietary technology is one of the characteristics of globalized Knowledge Societies. *(Role of Diaspora in facilitating Participation in Global Knowledge, p. 25-26)*

An interesting new dimension is gradually taking shape with the widespread use of information and communication technologies (ICTs) and of the Internet. We are referring here to the increasing importance of electronic networks that operate through the web, using the more recent technologies that allow for real-time on-line interaction among its members. The new technologies go much beyond
the simple use of mailing lists to more dynamic possibilities of on-line real-time interaction among network members. This is opening the possibility of collective work through the web that generates new opportunities for e-learning in decentralized and globalized knowledge communities, evolving towards new organizational forms of the scientific community such as virtual research groups and virtual labs. (*Op.cit*, p. 27)

- Diversity of the diaspora should be recognized.
- Diaspora are partners and stakeholders for home countries.
- Both origin and destination countries need to play a pro-active supporting and facilitating role to engage the diasporas. (*Scientific diasporas and development*, p. 3)

- Diaspora or Transnational community: refers to stock of settled or long-term migrants: Transnational citizens
- Transnational communities – migrant communities, living abroad in different countries, but maintain ties (economic, political, social, cultural and emotional) with their homeland and with other diasporic communities of the same origin. (*Op.cit*, p. 4)

**Diaspora recognition:**
Global Commission on International Migration (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 (Guideline 15.10. promoting linkages with transnational communities and business initiatives.)
Secretary-General Report: UN High Level Dialogue (Governments understand that their citizens working abroad can be development assets. Fostering contacts with citizens abroad, and especially with those who are highly skilled, may facilitate the emergence of more active knowledge networking.)
EC communication on migration and development (2005); DFID policy paper on migration (2007) (*Ibid*, p. 6)

**Emerging models to leverage highly skilled diasporas**
- Top executives model –India (Indian executives in major multinationals influenced investment decisions to outsource knowledge-intensive operations to India: Technology and R&D outsourcing networks)
- A model of knowledge outsourcing –Armenia, India (Successful Diaspora members send back outsourcing contracts to firms back home: outsourcing networks)
- Mentoring/ Venture capital model –South Africa, Korea, Taiwan (China), Israel (Managers and owners of start-up firms overseas help develop and finance commercially viable projects at home: Venture capital networks)
- Diaspora members as investors –China
- Setting new strategic direction/ identification of new opportunities –Israel, Armenia, India (Diaspora members identify niches: translate global opportunities into business projects:)
- Return of talent model –China, Korea (Incentives (like special technology parks in China) for the talent to come back: brain circulation networks). (*Ibid*, p. 9-10)

**Diaspora knowledge networks (DKN)**
- First brain gain mechanism identified in the project - scientific diaspora networks.
- Facilitates the other two brain gain mechanisms: strategies of investment in research and experimental development; North-South research partnership programmes
- Enables virtual linkages, participation and return (*Ibid*, p. 11)
DKNs – success stories:
- Taiwan (China)- Hsinchu industrial park venture capital: India-Banglaore city- both modelled on the Silicon Valley
- GlobalScot: A program involving about 850 high-placed Scots all over the world: A part of Scottish Enterprise –Scottish Economic Development Agency; A highly successful network of expatriate professionals.
- ChileGlobal: Emerging example: ChileGlobal: a network of about 100 successful professionals of Chilean origin in the US, Canada and Europe; Tangible contributions of ChileGlobal: co-founding of high-tech firms in Chile (example: Interlink) (Ibid, p. 12)

DKNs- some problems
- Diaspora initiatives easy to start but difficult to maintain momentum unless concrete results materialize
- Problems identified by Lowell and Garova: Inactivity: 34% inactivity rate (21 out of 61 DKNs); Failure: 27% of govt. assisted Networks have failed (4 of 15) (Ibid, p. 13)

How can host countries help?
- Mapping diasporas
- Mobilising diaspora in technical cooperation programmes
- Supporting formation and development of diaspora networks
- Ensure policy coherence between immigration and development policies: Secure visa status and circulation-friendly visa regimes
- Co-development policies: e.g. mobilization through ‘brain circulation’ of the Malian scientific diaspora for the benefit of the University of Bamako: France/UNDP (Ibid, p. 15)

Networks connect migrants across time and space. Once begun, migration flows often become self-sustaining, reflecting the establishment of networks of information, assistance and obligations which develop between migrants in the host society and friends and relatives in the sending area. These networks link populations in origin and receiving countries and ensure that movements are not necessarily limited in time, unidirectional or permanent. (Transnational Networks and Skilled Labour Migration, p. 3)

Local labour markets can become linked through specific networks of interpersonal and organizational ties surrounding migrants (Poros 2001). By way of example, such patterns and processes of network-conditioned migration were extensively and comparatively examined in nineteen Mexican communities and confirmed by Massey, Goldring and Durand (1994). Indeed, Portes and Bach (1995: 10) propose that migration itself ‘can be conceptualized as a process of network building, which depends on and, in turn, reinforces social relationships across space.’ Migration is a process that both depends on, and creates, social networks. (Ibid.)

The networks utilized by migrants vary considerably depending on local histories of migration, national conditions and communal socio-cultural traits. There has been shown to be qualitative variation in types of networks used by different occupational classes (Shah and Menon 1999). High occupational groups, for instance, rely more on networks of colleagues or organizations and less on kin-based networks than unskilled workers. In any case, ‘The forms and characteristics of these networks may depend on their composition – friends, relatives, kin, acquaintances, professional colleagues, etc.,’ Meyer (2001: 93) observes, ‘but the result is similar: most positions are acquired via connections.’ (Ibid, p. 3-4)
Poros (2001) details how migration networks that are based on personal ties – while being the most common forms – may lead the migrant (a) into a limiting ethnic niche occupation or domain, and/or (b) into a downward occupational trajectory as the migrant, through a specific network, gains a post-migration job incommensurate with his/her level of training. Migration networks based on organizational ties (schools, professional associations, agencies) serve better to match skill levels and jobs, although they are open for competition and therefore less certain in conditioning migration outcomes. (*Ibid*, p. 5)

These are what Meyer and Brown (1999) call ‘distant cooperative work’ within an intellectual diaspora. Although such links have existed in one form or another in the past, they are now becoming systematic, dense and multiple. The United Nations Development Programme supports one such, major initiative in this field called TOKTEN (Transfer of Knowledge Through Expatriate Nationals; see www.unops.org). Country-specific TOKTEN programmes involve databases of people and assisted visits of skilled expatriates to engage in various development projects. The TOKTEN program for Lebanon presents one among many cases (see www.undp.org.lb/tokten). (*Ibid*, p. 7)

Meyer and Brown (*Ibid.*) have identified at least forty-one formal knowledge networks linking thirty countries to their skilled nationals abroad. The networks range from a few hundred to two thousand members. Meyer and Brown categorize these into five types: student/scholarly networks, local associations of skilled expatriates, expert pool assistance through TOKTEN, and intellectual/scientific diaspora networks. Just as such networks exist to ‘tap the diaspora’ for home country development, they can also be utilised for skilled labour recruitment and movement outside of the homeland. (*Ibid.*)
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<tr>
<th>Country</th>
<th>Name of Network</th>
<th>Type of Network</th>
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<tbody>
<tr>
<td>Arab Countries</td>
<td>The Network of Arab Scientists and Technologists Abroad (ASTA)</td>
<td>Intel/SciNet Diaspora Network</td>
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<tr>
<td>Argentina</td>
<td>Programa para la Vinculacion con Cientificos y Tecnicos Argentinos en el Exterior (Program for the Linkage of Argentine Scientists and Technologists Abroad) (PROCITEC)</td>
<td>Developing Intel/SciNet Diaspora Network</td>
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<td>Assam</td>
<td>Transfer of Knowledge and Technology to Assam</td>
<td>TOKTEN Programme</td>
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<td>China</td>
<td>Chinese Scholars Abroad (CHISA)</td>
<td>Student/Scholarly Network</td>
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<td>Society of Chinese Bioscientists in America</td>
<td>Local Association of Expatriates</td>
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<td>Chinese American Engineers and Scientists Association of Southern California (CESASC)</td>
<td>Local Association of Expatriates</td>
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<td>Colombia</td>
<td>The Colombian Network of Researchers and Engineers Abroad (Red Cedras)</td>
<td>Intel/SciNet Diaspora Network</td>
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<td>El Salvador</td>
<td>Conectandos al Futuro de El Salvador (Connecting to El Salvador’s Future)</td>
<td>Developing Intel/SciNet Diaspora Network</td>
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<td>France</td>
<td>Frognet</td>
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<td>India</td>
<td>Silicon Valley Indian Professionals Association (SIIPA)</td>
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<td>Worldwide Indian Network</td>
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<td>The International Association of Scientists and Engineers and Technologists of Bharatiya Origin</td>
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<td>Interface for Non Resident Indian Scientists and Technologists Programme (INRIST)</td>
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<td>Japan</td>
<td>Japanese Associate Network (JANET)</td>
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<td>Kenya</td>
<td>Association of Kenyans Abroad (AKA)</td>
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<td>Korea</td>
<td>Korean Scientists Engineers Association of Sacramento Valley</td>
<td>Local Association of Expatriates</td>
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<td>The Global Korean Network</td>
<td>Intel/SciNet Diaspora Network</td>
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*Ibid, p. 9*
It was recognized that this area of migration management will continue to be of great importance because it relates to broader measures aimed at combating transnational organized crime linked to

*Ibid*, p. 10
facilitating the irregular movement of people. In this context, one of the experts referred to the key importance of the United Nations Convention against Transnational Organized Crime and the Protocols against Smuggling of Migrants and Trafficking in Persons. It was observed that while migration and terrorism should not be linked too closely or in causal terms, migration systems and structures are part of the overall response to increased security concerns, and that new capacities for migration management at all stages in the chain of movement will need to be established and strengthened, including increased cooperation among concerned countries.  

(Workshop for policy makers report capacity-building in migration management, p. 3)

Notably, judicial processes used in the majority of host countries were criticized as too complicated and lengthy and, therefore, not easily accessible to temporary labour migrants. In this context, the participants were informed that the Philippine government had established a Joint Solidarity Liability programme in order to overcome this problem and offer its citizens protection over and above what is available in the host countries. This programme enables Philippine citizens to seek redress of their grievances upon their return from another country. (Op.cit, p. 4)

Careful attention must be paid to placing realistic expectations on diaspora faculty as significant pressure can be put on certain faculty members, especially in cases where their country/region of origin (e.g. China, India, and Brazil) is singled out as a federal government science and technology priority partner.

A second challenge raised relates to faculty relations. When conducting research in the country/region of origin, diaspora faculty spoke of experiencing competition at times with local faculty members. Diaspora faculty felt judged for leaving their country/region of origin by local faculty and, therefore unwelcome by their peers, including certain government bodies (such as research funding councils). Such tensions can impede collaboration and transfer of skills and knowledge if receptivity is lacking. (Policy dialogue on fostering effective engagement of Canadian university diaspora, p. 8)

According to the 2001 census, 13 percent of the population and 11.1 percent of Canadian university teachers are visible minorities. The second volume of the 2007-08 edition of AUCC’s flagship publication Trends in higher education focuses on Canadian university faculty. It revealed that the United States accounted for more than half of the new appointees (appointed from 1999 to 2004) who received their highest degrees outside Canada. (Op.cit, p. 24)

India Strategy: The SFU’s India Advisory Council was formed in the fall of 2006. It is composed of twenty community leaders from British Columbia’s Indo-Canadian community. Members were drawn from the fields of higher education, business and health to feed into the creation of the India strategy to push the BC-India relationship forward. Faculty involvement follows a 50-50 split between diaspora faculty and non-diaspora faculty. The council meets 2-3 times a year to establish a work plan for SFU and relevant counterparts in India. They continue to refine their work plan and working groups will be formed to promote the SFU’s India strategy. The SFU’s India Advisory Council has already done some of its own fundraising to support awards and scholarships for student internships in India, and Indian students studying at SFU. (Op.cit, p. 26)

The core strategy focuses on six key areas: 1) student mobility projects, including internships and field schools; 2) academic collaboration, more formalized dual degree programs as well as specialized scholars developing research relationships; 3) institutional partnerships with institutions in India; 4) student recruitment from India; 5) businesses looking to explore relationship with India; and 6) fundraising to support India initiatives. (Ibid, pg. 27)

China Strategy: SFU’s China strategy, though not exclusively focused on research collaboration for development, is an example of how diaspora faculty involvement can create the foundation required for successful institutional partnerships. China is important to SFU because of its cultural and historical significance, and more recently because of its economic status. The strategy supports engagement with China through student development, university teaching, research and service.

Africa Strategy: SFU is currently in the process of drafting a strategy for Africa that should be ready for internal review this fall. SFU is also in the final stages of developing a Certificate of African Studies
which is the result of an increase in faculty participation (both Africanists and diaspora faculty from Africa – especially faculty from the political science and history departments). (Ibid, p. 27)

ChileGlobal16, a non-profit organization, seeks to establish links with members of the Chilean diaspora in order to foster knowledge sharing and foreign investment in Chile. It is an international network of Chilean business owners and executives living abroad who are interested in contributing to Chile’s economic development. ChileGlobal recognizes that to accelerate progress in developing economies, an exchange of knowledge in technology transfer, technical know-how and investment capital must occur. Chile is following in the footsteps of other diaspora groups who have successfully invested in their home countries (such as the Scottish, Armenian, Chinese, Indian, Israeli, and Mexican diaspora). (Ibid, p. 29)

The World Bank has been exploring a number of ways to facilitate African diaspora participating in the development of Africa. Recently, the World Bank launched an initiative on Mobilizing the African Diaspora for Development. The World Bank is currently exploring a multitude of approaches including: 1) building on ongoing efforts via a blended strategy of "virtual" diaspora participation and institutional partnerships and networks; 2) governments to create enabling environments including operational policies for diaspora to provide services and products; and deploying professionals through national focal points; 3) business and investment promotion networks through mechanisms for diaspora and home country partners to access development funds; and 4) donor partners including the African Development Bank to support a diaspora Investment Fund based on global initiatives that exploit the benefits of diaspora remittances. A Memorandum of Understanding (MOU) between the African Union and the World Bank formalizes the collaborative efforts on this agenda. . (Ibid.)

The most well documented economic benefit that migrant workers bring to Moldova is remittances. Remittances now reach a level which is as high as the equivalent of 30 per cent of Moldova’s GDP. Over 80 percent of Moldova’s migrants remit funds and over 70 percent of these remit over half of their earnings. (Recommendations of the policy seminar on diaspora, p. 12)

Institutional Arrangements for Diaspora Programming and Policies to Promote Diaspora Networks

One of the main weaknesses in the relationship between Moldova and its diaspora is the inability of the government in Chisinau to communicate effectively with Moldovans abroad. The Moldovan government should find ways to strengthen its presence abroad through a broader network of embassies and consulates. Furthermore, Moldovan authorities should build up formal and informal communication networks and improve the use of mass media to further develop links with Moldovan nationals abroad. To inform its policy development, Moldova should establish a database of associations of Moldovan abroad.

- Relevant Moldovan authorities should develop and maintain a database with all the contact data of significant migrant organizations and community leaders. This information will help direct services, and strengthen the communication network between the diaspora and authorities in Chisinau. As a first priority, the MFAEI should explore the possibility of making the registration of Moldovan nationals abroad available online. The online registration would be in addition to registration in person at the Embassies.

- Most embassies are currently overburdened, and their abilities to address diaspora issues are limited by personnel/capacity constraints. In this regard, the creation of a unique agency dedicated exclusively to Diaspora issues could be very important and enhance the profile of the issue on the government’s policy agenda. A ‘Ministry of Diaspora’ should have a broad mandate covering all aspects of diaspora management, including the promotion of relations with Moldovans abroad, managing economic relations with diaspora communities, cultural and educational outreach, information management with diaspora communities, and protection of migrants’ rights.

- If the establishment of a new institution is not feasible, existing embassies should all appoint a focal point responsible for diaspora affairs. These focal points should receive appropriate training. Moldovan authorities should also seriously consider deploying specially trained labor attaches to certain key destination countries/cities. When selecting location for new diplomatic missions, MFAEI should take into account the demographic distribution of migrants in host countries.
In support of information outreach and networking efforts, MFAEI's existing network of "information corners" at several consulates should be expanded and their use – for the purpose of distribution of diaspora relevant information – should be intensified. Moreover, MFAEI and the Bureau of Interethnic Relations (BIER) should consider making more intensive use of the internet for the purpose of networking with Moldovans abroad. The BIER websites should be upgraded to make the interface more interactive – i.e. each migrant association should be supported in developing a profile through this website. The MFAEI website should be expanded to include more diaspora-relevant information.

Moldovan mass media should be more systematically mobilized to provide information to diaspora about developments in Moldova and about relevant policies and programs (e.g. programs related to return). Training may need to be provided to Moldovan journalists to sensitize them to issues of concern for diaspora communities. In addition, Migrant Associations should regularly receive a selection of Moldova’s printed newspapers/journals.

Senior members of the Moldovan government traveling abroad should systematically use the opportunity to meet with diaspora representatives. Such informal dialogues should simultaneously be institutionalized through a consultative process with a permanent secretariat. A formal consultative process could build on the existing Coordination/Advisory Committee on Immigrants, chaired by BIER.

In support of expanding the network of Migrant/Homeland Associations, selected diaspora activists should receive technical support with registering and managing NGOs, fund-raising, media campaigns, educational and cultural programming, and social protection, etc. It should be considered whether establishing an umbrella organization (NGO) in Chisinau for Moldovan Homeland/Migrant Associations would further networking and coordination. (Op.cit, p. 7)

4. Recommendations

Bringing together countries with different perspectives on migration management would allow states to share their experiences and develop their potential. In particular, cooperation between sending and receiving countries was seen to be essential for resolving a number of challenges related to the movement of people. Specifically, consultations and collaboration between countries of destination and origin can help to maximize the development impact of migration and to deal with its challenges, notably, labour migration management issues, remittances, protection of migrants’ rights and measures to support migrants integration, irregular migration and implementation of assisted voluntary return programmes and non-voluntary returns. (Workshop for policy makers report capacity-building in migration management, p. 5)

A clear distinction needs to be made between knowledge networks understood as a community of actors and knowledge networks understood as a collection of documents. Communities of actors and collections of documents should ideally be two isomorphic concepts and, indeed, in traditional librarianship we would expect that the data archive of a knowledge network would contain all the documents produced or used by the network to achieve its goals. But in fact communities of actors and collections of documents have dynamics of their own. (Diaspora Knowledge Networks, p. 18)

Here then is an outline of tasks that need to be carried out in order to implement the DKN proposal for scientific co-development:

1. Build an Internet Interaction Space in order to create a specific arena for diaspora involvement in projects of scientific co-development;
2. Develop an economic model for implementing the computer environment;
3. Develop indicators for measuring its impact on the merit review process;
4. Create training programs designed to install efficient working relationships between members of a scientific diaspora, computer scientists and information professionals.
5. Experiment the program within the context of a call for proposals aimed at supporting efforts in favor of a globally sustainable economic and social environment.

The budget required to fulfill these different tasks is estimated as being around 300000 €. A more detailed budget description will be provided upon request.

(Op.cit, p. 21 - 22)

The Albanian Government needs to identify and localize the Albanian students and scholars in the developed countries, by creating a Data Bank. This Data Bank, to be constituted perhaps from an autonomous institution, requires a continuous updating in order to reflect the fast quantitative and qualitative changes of the Albanian academic and scientific elite in the industrialized countries. It must serve for the universities, research institutions, public administration, think tanks, etc., as a pool out of which we can attract in case of need, temporarily or in the long-term, the Albanian academics, scientists and experts working in the developed industrialized countries. These latter - due to a higher efficacy in mastering the advanced research methods; the ability to assimilate the new research technologies and approaches; the higher self-confidence and the international contacts, - would significantly contribute in the consolidation of the scientific and academic standards of our universities, research institutions, public administration and think tanks. (From Brain Drain to Brain Gain, Mobilising Albania’s Skilled Diaspora, p. 19)

Before a programme of short-term return or knowledge transfer can be initiated, a first requirement for Albanian policy makers is to have reliable links with Albanians abroad. This needs to go beyond identifying where skilled Albanian professionals are currently living and working, to establish the trust and sense of common purpose that is essential for a meaningful partnership. As Newland and Patrick have noted in a study for DFID, “The initiative for successful involvement of Diaspora in development must come from within the Diaspora”11, but for this to happen in a way that is consistent with government policy, there needs to be a bedrock of common goals and values that are shared between government and the Diaspora. (Op.cit, p. 21)

The Albanian government, with the contribution of the international institutions, should establish a special program, in order to offer financial possibilities for the universities and research institutions to invite for short periods emigrant Albanian academics and researchers. It is important that universities should be part of these initiatives in order to ensure a certain interest and long term approach to bringing back and utilizing these capacities in the form of curricula formulation and education projects. (Ibid, p. 28)

Negative perceptions can be real obstacles to diaspora policy development, given that bitterness, suspicion, reluctance, resentment, stigmatization or discrimination can equally arise from diasporas, populations in the home country or governments. Trust can be strengthened through positive communication and through particular measures responding to diasporas’ requests (transportation, citizenship rights, property rights, banking needs, infrastructure development, etc.). Establishing dialogue through media, virtual networks, websites, visits to diasporas and building a common agenda with diasporas through regular meetings and visits favour positive communication. However, symbolic inclusion through dialogue and communication needs to be backed up by real inclusion through rights and partnerships, while technical arrangements might not be sufficient to build trust and collaboration. (Engaging Diasporas as Development Partners for Home and Destination Countries, Challenges for Policymakers, p. 56)

The example of programmes channeling remittances from consumption towards development projects, illustrates the potential risk of depriving diasporas of their decision-making mechanism. Remittances are private funds that cannot replace public investments or official development assistance, and policy can only facilitate their transfers and propose innovative programmes and tools allowing those who wish to invest in specific projects and schemes. (Op.cit, p. 57)

Dual citizenship, voting rights, property rights, pension and social security benefit transfers, savings schemes, identification cards that also offer remittance transfer services at low rates are all examples
of rights and services that can be provided to diaspora members and that formally acknowledge their transnational belonging. The granting of dual citizenship appears to be one of the most significant measures, formalizing the double belonging of diasporas. However, many countries still remain cautious on this issue. Diaspora groups have played a significant lobbying role in the granting of dual citizenship in Australia or India. Burundi, Philippines, Ghana and Armenia, among others, have granted dual citizenship in recent years with the objective of facilitating diaspora engagement. (Ibid, p. 58)

In many countries the Ministry of Interior is in charge of migration, the Ministry of Foreign Affairs of diasporas and other national and local agencies are responsible for aid and development matters – hence, the challenge of achieving internal policy coherence. The lack of collaboration among different governmental bodies can often be a cause for programme delay. Therefore, the incorporation of diaspora programmes into existing development and migration strategies is a key factor for policy success. Albania, for instance, devised a National Action Plan on Migration in 2005 that is a comprehensive migration package, including a whole development strategy integrating diaspora contributions. (Ibid, p. 60)

Better integrated migrants in education, employment, housing, social networks and communities can contribute more to their home countries than migrants with an uncertain status, who are unemployed, underestimated and isolated in their host communities. However, it is difficult to say whether in the long term the interest in the home country fades away. As Newland (MPI, 2003) sees it, the pro-diaspora policies are still too recent to judge whether people will “buy the larger notion of non-territorial membership” of their home country, or “proceed on the path of fuller integration” in their host society. (Ibid, p. 61)

Governmental authorities should engage diaspora communities as equal partners. Dialogue between the Serbian government and diaspora communities should be institutionalized and lead to concrete collaboration in educational and cultural programming, the Ministry for Diaspora providing the tools to diaspora associations and Embassies to implement such programs. The Serbian Government should support diaspora associations, build up formal and informal communication networks, and improve the use of mass media to further develop links with Serbian nationals abroad. To inform its policy development, Serbia should establish a database of Serbian nationals and their associations abroad. (International Conference on Serbian Diaspora and Homeland Development, p.3)

Whereas specific diaspora legislation is not considered a precondition for diaspora policy development, a diaspora law would be welcome as it would signal the centrality of the issue on the government’s agenda, and provide a legal basis for some of the existing initiatives of the Ministry for Diaspora, especially with respect to diaspora-homeland dialogue and formalizing the rights of members of the diaspora. (Op.cit, p.5)

One of the main weaknesses in the relationship between Moldova and its diaspora is the inability of the government in Chisinau to communicate effectively with Moldovans abroad. The Moldovan government should find ways to strengthen its presence abroad through a broader network of embassies and consulates. Furthermore, Moldovan authorities should build up formal and informal communication networks and improve the use of mass media to further develop links with Moldovan nationals abroad. To inform its policy development, Moldova should establish a database of associations of Moldovan abroad. (Recommendations of the Policy Seminar on Diaspora and Homeland Development, p. 7)

Policies should be developed to increase: the developmental impact of remittances, use of bank accounts and use of formal channels for money transfers. Temporary and permanent return migration schemes should be developed. Diaspora should be engaged for the purpose of joint development projects and the promotion of trade and investment. (Op.cit, p. 8)

Policies should be developed to increase: developmental impact of remittance, use of bank accounts and use of formal channels for money transfers. Temporary return schemes for highly qualified nationals should be piloted and evaluated. Diaspora should be engaged for the purpose of joint development projects and the promotion of trade and investment.
- There is not too much government can do to promote diaspora investment short of improving the general investment climate, facilitating access to credit, and introducing/maintaining conducive fiscal policies.

- Serbian financial institutions are to invest in measures to build trust with remittances recipients so that they will increase savings and use of formal remittances channels. To facilitate this process, these institutions need to promote Serbian banks to provide international transfer services and enhance competition. Private banks should be provided profit-based incentives, thereby getting them more involved in remittances-transfer business, including saving and investment services. Furthermore, these institutions should facilitate the use of debit cards for remittance transfers.

- To promote use of formal banking system, enhance financial literacy among remittance-receiving households, especially among elderly rural households that receive relatively small amounts. Information about remittance transfer services and their comparative (dis) advantages should be widely distributed.

- It is important to improve the data on remittances to understand the factors driving them, and to inform policy development which aims to maximize their developmental impact.

- The Ministry of Diaspora and partner agencies are to support pilot projects that promote the return of highly qualified (young) Serbs, through linking with vacancies, linking to credit to set up small businesses, set up information networks, provide custom and tax exemptions. In this effort, Ministry for Diaspora should work together with Ministries of Labour and Social Protection, and Ministry of Science. Such pilot projects would have both real and symbolic significance, as participating returnees could be featured in an anti-brain drain public information campaign - addressing the wide-spread sentiment among young Serbs that there is “no future” in Serbia.

- The Ministries for Diaspora, Education and Science should start a pilot program which subsidizes salaries of returning scientists during the first three years upon return. Universities and research centers will set criteria for these subsidizes posts, and commit to continue to employ them afterwards.

- Ministry for Diaspora together with the Chambers of Commerce Regional Centers, and in collaboration with local authorities, are to collect project ideas for community development to be presented through central database to diaspora associations. Priority should be given to projects that generate employment and promote social development of the communities of origin. The Ministry for Diaspora should consider making available matching funds for innovative pilot projects that aim to put financial transfers/remittances to effective developmental use.

- As a fund-raising measure, “Friends of” Associations may be established. The Ministry for Diaspora is to start with a pilot initiative, setting up a “Friends of Belgrade University” chapter in Chicago. The Ministry in partnership with the Belgrade University and Serbian Diaspora Philanthropists in the US are to support the start-up costs of this office for a period of two years. This office will raise funds in the US for Belgrade University, targeting also alumnae. Generally the Ministry for Diaspora is to invest more to develop the potential of diaspora philanthropy. (International Conference on Serbian Diaspora and Homeland Development, p. 2-3)

Governmental authorities should engage diaspora communities as equal partners. Dialogue between the Serbian government and diaspora communities should be institutionalized and lead to concrete collaboration in educational and cultural programming, the Ministry for Diaspora providing the tools to diaspora associations and Embassies to implement such programs. The Serbian Government should support diaspora associations, build up formal and informal communication networks, and improve the use of mass media to further develop links with Serbian nationals abroad. To inform its policy development, Serbia should establish a database of Serbian nationals and their associations abroad.
- An Inter-Ministerial Committee, including diaspora and civil society representatives, should be established to address all issues related to enhancing diaspora-homeland relations. Such an
institutionalised platform for dialogue on the diaspora-homeland interface should focus on concrete projects and policy initiatives, and should operate on the bases of a Committee-endorsed plan of action.

- Serbia’s Embassies and Consulates should be provided with tools to actively support the formal establishment and registration of Homeland Associations and Serbian Cultural Clubs. The Ministry for Diaspora and the Embassies are to provide networking support for the existing associations, which requires the registration of all associations at a central database. Finally it should be explored whether Serbs abroad could be mobilised through Serbian professional/vocational associations.

- In support of Embassies’ diaspora outreach efforts, relevant Ministry of Foreign Affairs officials should receive specialized diaspora training, which will aim at making their services more accessible for overseas Serbs, and also improve the image of the Republic of Serbia abroad.

- In support of outreach activities, the Embassies should develop and distribute a “Diaspora Handbook” which documents the rights as Serb citizens abroad, and include information relevant for those considering return to Serbia.

- The Serbian Government should put more emphasis on cultural promotion through cultural emissaries and support the celebration of national festivals and cultural events in destination countries (e.g. art exhibitions, musical events, film festivals, literary events, Serbian cuisine, live broadcast of Serbian sporting events, etc). The establishment of more Serbian Cultural Centers should be considered, especially in Germany.

- In order to maintain and strengthen the link between the migrants and their homeland, the Serbian government should intensify its existing efforts to provide Serbian children abroad free of charge Serbian language classes and textbooks. Considering the geographic dispersion of diaspora communities it may not always be possible to send teachers from Serbia. Accordingly, on-line tools should be developed for language instruction to Serbian children abroad, and teachers based in the destination countries should be trained. The need for Serbian-language kindergartens should also be explored.

- In all Ministry for Diaspora educational and cultural activities, the aim should be to prevent assimilation, but not to obstruct integration into host societies.

- The Ministry for Diaspora needs to establish a specialized organizational unit that will work specifically to address the needs of Serbian diaspora communities in neighboring countries. The needs and problems of these nearby diaspora communities differ significantly from those in other countries of destination.

- Circulation of Serbian diaspora experts (e.g. researchers and professors) should be encouraged so that they can spend a period of time in Serbian academic institution conducting research and teaching, facilitating the development of cross-border research projects.

- To promote collaboration with its diaspora, Serbia is to select “Ambassadors” - celebrities in the fields of culture, sport, business which would visit diaspora communities abroad and mobilize their involvement with the homeland.

- The Ministry for Diaspora is to provide leadership development training opportunities for young diaspora activists to become more involved in diaspora organizations. In support of establishing a network of young diaspora activists a “Young Diaspora Leaders” conference should be organized.

- The Serbian Government is to promote diaspora tourism, including summer camps for children and special educational visits for diaspora youth to Serbia. (Op.cit, p. 3)

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Diapsora, especially with respect to diaspora-homeland dialogue and formalizing the rights of members of the diaspora.

- A future Diaspora Law should be in accordance with legislative standards of the EU. The objectives of the Law should be strictly defined in the preamble of the Law.

- The Working Group welcomes the initiative of the Ministry for Diaspora to invite comments on the draft of the Law on Diaspora. To ensure this consultation process will include all the different stakeholders, public debate on the law should be conducted simultaneously in the Serbian Parliament and in the diaspora and civil society.

- The Law on Diaspora should establish a Council for Diaspora, which should include senior representatives from the Prime Minister's Office, the Ministry for Diaspora, the Ministry of Foreign Affairs, the Ministry of Economy and Regional Development, as well as an equal number of diaspora representatives that will rotate every two years. The law should stipulate the mandate and operational procedures for this committee.

- The Law on Diaspora should not regulate the representation of diaspora associations. Nevertheless, the Law should stipulate transparent criteria and procedures for diaspora association projects to be financially supported by the Serbian Government.

- A Law on Diaspora should complement - and not replace – a Diaspora Strategy / Plan of Action, which will be more operational in nature, and help ensure actual implementation of the law. Furthermore, both the Law and the Strategy should be fully in line with Serbia's migration management objectives defined in the National Migration Strategy.

- The Law on Diaspora should target Serbs and all ethnic communities that lived, or whose ancestors lived, on the territory of the Republic of Serbia.

- The Law on Diaspora is to formalize the rights of Serbian citizens abroad: dual citizenship, consular support, property rights, as well as out-of-country voting, etc. Out-of-country voting procedures should be regulated through the Election Laws. The Serbian Government should proactively advocate for transferability of social security rights (e.g. pensions and health insurance), possibly regulated through bilateral agreements. Bilateral negotiations should also aim at facilitating out-of-country voting. (Ibid, p. 5)