

# Diasporas, Skills Transfer, and Remittances: Evolving Perceptions and Potential

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## I. INTRODUCTION

Modern diasporas are “ethnic minority groups of migrant origins residing and acting in host countries but maintaining strong sentimental and material links with their countries of origin—their homelands” (Sheffer, 1986: 3). Diasporas are attracting increasing attention for a variety of reasons. Beyond security concerns related to terrorism and civil unrest, in the international development arena, developing country governments and international donors are taking notice of diasporas’ potential contributions to economic development. Here, attention has primarily focused on the impressive totals of economic remittances (defined as transfers of money by foreign workers to their home countries), which now outpace official development assistance. Such remittances sent to developing countries are estimated at \$70 billion per year in 2004, \$125 billion in 2005, and \$167 billion in 2006 (World Bank, 2004; 2005; 2006). This alone is a significant evolutionary development as historically, national governments mainly focused on the security risks posed by organized diasporas, and, along with the development community, emphasized the brain drain phenomenon of out-migration.<sup>1</sup>

As elements of globalization contribute more and more to diaspora size, mobilization, and qualitative expansion of potential contributions, the time has come for more concerted research of actual and potential diaspora contributions and at least preliminary exploration of strategic policies and programs to support them. This volume seeks to contribute to this ongoing research agenda by analytically reviewing three

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case studies of diaspora knowledge transfer and exchange: People's Republic of China (PRC), Philippines, and Afghanistan. Together, the cases provide empirical and anecdotal data relating to skills transfer/exchange, its potential relationship to economic remittances, diaspora motivations, and home country policies and programs.

The purpose of this study was not to conduct a comprehensive assessment of the gain-or-drain question, but rather to consider three cases with the intention of highlighting constructive contributions. The orientation was consciously biased from the outset in order to rectify perceived imbalances in the literature and practice related to skilled migration and to expose a broader context of interlocking contributions and systems beyond the simplistic tradeoff assumptions of knowledge drain and remittance gain. None of the three cases could be considered comprehensive, though each provides some evidence and anecdotes to support its findings as well as the study's overall contention that there may be more to be gained than may often be realized.

Following a brief overview of the case studies, this introductory chapter provides a broader context for situating these cases, introducing in greater detail (i) debates surrounding brain drain versus brain gain, (ii) the economic effects of diasporas, (iii) sending governments' relations with their diasporas, and (iv) factors conducive to constructive diaspora contributions.

## II. DIASPORA KNOWLEDGE TRANSFER/EXCHANGE TO PEOPLE'S REPUBLIC OF CHINA, PHILIPPINES, AND AFGHANISTAN

The PRC case study recasts knowledge transfer as knowledge exchange, noting that the phenomena of study operate in both directions. The study emphasizes knowledge exchange as a social process. Biao traces the evolution of the PRC's policies vis-à-vis its emigrants, noting a significant shift from an emphasis on return in the 1990s, to a recent redirection to temporary return "to serve the motherland," where the national Government, knowledge user institutes (i.e., universities, research institutes, high-tech enterprises, and industrial parks), and some local government departments alike are soliciting knowledge exchange and engagement from the diaspora. The PRC Government maintains five central agencies that interface with overseas Chinese professionals, as well as several quasi-government agencies with funding to support knowledge exchange activities, representing the most formal and deliberate approach among the three case studies. The chapter reviews a variety of knowledge exchange programs and, building on a survey of participants in these and in overseas Chinese

professional associations, emphasizes the importance of informal networks and social processes for effective diaspora knowledge exchange.

Opiniano and Castro examine diaspora knowledge transfer in the Philippines. Like that of the PRC, the Government of the Philippines has experimented and established related formal policies. In this case, however, the Government has explicitly promoted skills training and emigration as part of its national development strategy, prioritizing remittances from skilled migrants (in 2001–2003 remittances were over 10% of gross domestic product) and viewing labor export as a means to ease unemployment. The chapter reviews the Philippines' past experiences with knowledge transfer activities—both governmental (the Science and Technology Advisory Council and the *Balik Scientist Program*) and intergovernmental (the Transfer of Knowledge Through Expatriate Nationals [TOKTEN] program of the United Nations Development Programme)—and examines the current activities and potential of Filipino professional diaspora organizations. The latter activities are often concentrated in health and education, may be either demand- or supply-driven, and do not always necessitate long- or short-term diaspora member return. Selected examples of Filipino diaspora knowledge transfer demonstrate high enthusiasm and great potential, but, to date, are small-scale and of limited impact.

The Afghanistan chapter (Hanifi) draws from an investigation of a US-based *hawaladar* (informal money transfer agent) and his clientele, as well as a review of selected knowledge transfer efforts. Following an overview of waves of migration to the US from Afghanistan and the resulting disconnect among Afghan communities in the US, the chapter analyzes survey data and interviews among the *hawaladar's* clientele. The findings suggest brain drain, some employment concentration (e.g., beauty salons, food stores and restaurants, real estate, and construction), and limited investment-directed remittances (though there is potential for more, with the *hawaladar's* facilitation). Knowledge transfer efforts are inhibited by competing identity groups within the diaspora, as well as by credential challenges, for example, within the medical profession. The younger generation of Afghan-Americans is demonstrating potential to overcome communal divisions and innovatively, though selectively, to contribute to homeland development.

### III. DIASPORAS: GAIN OR DRAIN?

A variety of pithy phrases concerning migration impacts and development have been moving through development industry circles. These range from the traditional “brain drain” (e.g., Özden and Schiff, 2005) to the increasing use of “brain gain” (e.g., Meyer

and Brown, 1999a; Hunger, 2002; Margolis et al., 2004) and subtle variations on these, including “brain strain” (e.g., Lowell et al., 2004), “brain waste” (e.g., Özden and Schiff, 2005), and “brain exchange” and “brain circulation” (Gamlen, 2005; Vertovec, 2002; Saxenian, 2002; Pellegrino, 2001). The latter two are often linked to discussions of globalization and its impact.

One difficulty of navigating this morass of terminology and implied outcomes is the fact that many of the communicators are comparing apples and oranges when contemplating what to classify as a gain versus a drain. For example, while remittances are almost universally affirmed as an important gain to recipient countries, how productive are they? And does their contribution outweigh the potential export of a country’s skills and knowledge? Is such human capital static and can one compare migrants’ skills and knowledge in receiving countries to what it would be had they not migrated? Do potential increases in education investment due to remittances yield equilibrium in terms of knowledge gains and losses? What role do remittance spillover effects have on skills, knowledge, and development indicators beyond receiving households? What about when an initial brain drain is transformed to a brain gain as diaspora members seek to give back, either through remittances or, more directly with respect to knowledge, through knowledge transfer and exchange?

Despite this complexity, some practitioners and scholars insist on a more definitive answer to the drain versus gain question; more commonly, others imply a bias in one direction or the other, either through their sample selections and/or policy conclusions. While seeking to highlight the complexity of the issues, a recent study by the Center for Global Development (Kapur and McHale, 2005) comes down firmly in support of the brain drain perspective, arguing that remittances cannot compensate for a country’s loss of a significant portion of its “best and brightest.” Interestingly, the Center for Global Development report is critical of the World Bank’s recent findings (Özden and Schiff, 2005). Yet the mere coupling of brain *drain* and remittances in the title of the World Bank report, *International Migration, Remittances and the Brain Drain* (Özden and Schiff, 2005), and the corresponding contents of the volume imply that the report takes the drain as its starting premise where human capital is concerned.

Özden and Schiff (2005) identify four positive externalities that are lost to the sending country as a consequence of skilled migration: (i) spillover productivity of other workers, (ii) public service provision (e.g., education and health), (iii) tax revenues, and (iv) public debate and policy and institution influence. The consequences of brain drain are most commonly noted with respect to health care. Public health systems in Africa are a case in point (see Schrecker and Labonte, 2004). The loss of

nurses in the Philippines (Alburo and Abella, 2002) and Jamaica (Thomas-Hope, 2002) pose serious challenges. Docquier and Marfouk (2005) confirm high brain drain levels in poor and isolated small countries in Africa and the Caribbean.

On the other hand, the so-called “new brain-drain literature” posits that opportunities abroad for skilled migrants produce incentives to invest in education and skills development in the homeland, yielding a “beneficial brain drain.” The universal application of this finding is increasingly scrutinized and despite attention to identifying critical factors that yield it, the beneficial brain drain itself is considered by some to be widely exaggerated (see, for example, Schiff, 2005; Gamlen, 2005). However, refuting one of the most accepted and lamented examples of brain drain, Clemens (2006) finds no evidence that African countries experiencing the highest health professional emigration rates consequently have systematically lower health staffing levels, suggesting a beneficial brain drain effect.

There is no doubt that there are some countries and skills areas that experience significant brain drain with potentially dire consequences for the country of origin. However, this introductory chapter (and the volume it supports) argues for a more nuanced approach to assessing gain-or-drain that accounts for the complexity of these phenomena. Many scholars and concerned institutions have been applying such an approach for some time. Yet it seems that some neophytes to the diaspora and development connection remain stuck in traditional and limiting paradigms.

An alternative perspective sees skilled migrants—or diasporas—as assets that can be mobilized (Meyer et al., 1997). Potential resource gains include remittances as well as skills and knowledge. In fact, recent perspectives on remittances promote attention to a broader perspective that includes social remittances, that is, skills transfer, and cultural and civic awareness/experience (Nyberg-Sorensen, 2004). The potential gains to the homeland derive not only from the skills and knowledge from the diaspora itself, but also from the “socio-professional” networks these migrants have joined overseas (Meyer and Brown, 1999a). In its recent migration report, the International Organization for Migration (IOM) (2005) confirms that these extended diaspora networks can yield investments in new technology, market intelligence, and business contacts (see also Hunger, 2002). At the macroeconomic level, migration can reduce unemployment (IOM, 2005), provide access to foreign exchange (Lowell et al., 2004; Gamlen, 2005), and yield other benefits through more sophisticated financial flows (Lowell and Findlay, 2002). The latter can include strengthening the portfolios of home country banks through the purchase of remittance-backed bonds and holding foreign currency accounts (Lowell et al., 2004).

Gain-or-drain results vary by region. Africa seems to suffer the greatest gap in terms of return on skilled migration. For example, it sends 10.4% on average of its skilled labor (Docquier and Marfouk, 2005), but the remittances it receives have not necessarily increased as a result, decreasing from \$10.7 billion in 1992 to \$7.8 billion in 2000 (Sander and Maimbo, 2005). And they remain low in significance as a percentage of gross domestic product compared to other regions. In his 2003 study of global remittances, Ratha reports that only two of the top 20 recipients were in sub-Saharan Africa (Lesotho and Uganda). The Latin American experience is mixed, with severe drain reported in the Caribbean (Thomas-Hope, 2002; Docquier and Marfouk, 2005). Significant brain drain from Latin America stemmed from the 1980s economic crisis (Pellegrino, 2001). On the other hand, Mora and Taylor (2005) show that most migration from Mexico is not from among the highly skilled (see also Ibarra and Lubotsky, 2005). A more promising region appears to be Asia, where economic openings and proactive government policies in some countries have inspired entrepreneurial and financial investments from the diaspora (Pellegrino, 2001; Iredale, 2001; Hugo, 2003; Docquier and Marfouk, 2005).

Recent research confirms that generalized answers to the gain-or-drain question, as well as the more specific questions noted above, are not possible. Benefits and costs accrue to sending countries, receiving countries, and to the migrants themselves (IOM, 2005; Özden and Schiff, 2005; Saxenian, 2002). Among other factors, the relative balance depends on the volume of migrants, as well as labor market conditions and the strategy and economic growth of the sending country (IOM, 2005). More specifically, gain-or-drain is determined by the particulars of the migrants, including the migrants' profession; remittance-receiving households; the sending country; the receiving country; and the time frame in which the outcomes are judged. The following section looks at potential economic gains from migration in greater detail.

## IV. ECONOMIC EFFECTS OF DIASPORAS

A discussion of the economic impact of diasporas must necessarily begin with an overview of remittances, as these are the focus of much attention and policy, and remain more prominent in terms of data collection and research than other potential contributions. Economic remittances have grown substantially in recent years. As noted above, they now significantly outpace global overseas development assistance (Nyberg-Sorensen et al., 2002), with estimates of \$70 billion per year in 2004, \$125 billion in 2005, and \$167 billion in 2006 (World Bank, 2004; 2005; 2006). The US

Agency for International Development estimates that of all US international assistance (public and private), individual remittances account for more than 30%, and they more than doubled in the 1990s (USAID, 2002).

Accordingly, international development agencies are beginning to direct attention to leveraging the impact of these contributions, for example, through promoting regulatory reforms (Martin, 2001), and brokering relationships to encourage diaspora investment (Gillespie et al., 2001). Home governments are increasingly soliciting remittances and offering supportive policy incentives (discussed below) (see, for example, Lowell and De la Garza, 2000).

However, economic remittances do not automatically contribute to national development. According to IOM, remittances tend to follow three spending phases, with attention to: (i) family maintenance and housing improvement, (ii) conspicuous consumption, and (iii) productive activities (Nyberg-Sorensen et al., 2002: 14-15). A large percentage of remittances does not extend to phase three. Furthermore, such remittances often do not reach the poorest of the poor, who may be less likely to have links to diaspora communities (Massey et al., 1999); and remittances to socioeconomically unequal societies may further polarization (Gardner, 1995). In their study of Mexico, Mora and Taylor (2005) found that remittances have an equalizing effect on incomes only in high migration areas. IOM's recent migration report (2005) also notes that remittance data analyses tend to ignore the proportion of gross transfers that are made to developed countries and among developing countries.

While there is reason to be cautious in making assumptions about the household use of remittances and their consequent productive contributions, IOM (2005) finds that recipients do have a high propensity to save, and remittances may pave the way to accessing investment capital. They can also more directly provide capital for small businesses when channeled through credit cooperative and microenterprises. While the highly skilled are not necessarily the largest remitters, they are more likely to make productive investments (Lowell et al., 2004). In its recent research, the World Bank reports that remittances can (i) reduce recipient household poverty, with spillover to other households; (ii) increase investment in education and health, as well as other productive activities; (iii) reduce child labor; and (iv) increase entrepreneurship (Özden and Schiff, 2005). With respect to poverty reduction, for example, remittances are especially important for addressing the *severity* of poverty, for example, in Guatemala (Adams, 2005). Beyond the beneficial brain drain hypothesis regarding incentives to invest in education, research also suggests that remittances enable and yield increased education investments.<sup>2</sup>

A relatively recent development, which seeks to better channel and coordinate remittances, is the emergence of hometown associations (HTAs) or regional clubs. Through such associations, resources can be channeled to specific development projects, sometimes identified by the targeted communities themselves, and/or coordinated with government funds and expertise (see Orozco, 2003; Orozco with Lapointe, 2004; see also Smith, 2001; Shain, 1999). HTAs in Mexico, for example, usually begin with health and education, sports and cultural projects, and then focus on physical infrastructure. HTAs have also begun to explore more targeted productive activities, such as job creation and direct investments (Orozco, 2003; see also Landolt, 2001). The US Agency for International Development has recently sought proposals for collaborative ventures with HTAs (Lowell et al., 2004).

Of course, a large portion of actual remittances remains unknown due to the use of informal remittance systems. These are systems that range from the unregulated to the illegal. Types include (but are not limited to) hand delivery/couriering, which may include *hawala* systems; money transfer as part of other business transactions; money transfer enterprises; and migrant association and microfinance institution-based transfers (see Pieke et al., 2005). Many of these interact with formal systems, making their identification problematic. Transfers may also be in kind, thus contributing to trade. A recent study commissioned by the Department for International Development of the United Kingdom finds that the more remittances are regulated, the larger the informal market is likely to be (Pieke et al., 2005).

The report concludes that efforts to formalize these systems for the purpose of harnessing the resources for development may be misguided as these systems emerge as adaptive responses to the constraints and opportunities presented to heterogeneous migrant groups. *Hawala* systems, for example, are based on trust and telecommunications and do not often require receipt of the money prior to transfer. They are typically less costly than formal systems. Many migrants find such systems particularly helpful in the early stages of their migration before they have been able to enter the formal banking market in the host country.<sup>3</sup> There is no evidence to suggest that informally transferred remittances are applied any differently to development objectives than formal remittances (Pieke et al., 2005), though *hawala* systems themselves have been scrutinized for illegal trade, money laundering, and general support for terrorism.

Beyond remittance-related efforts, diasporas contribute to the economic development of their homelands through foreign direct investment and transnational entrepreneurship, including support for entrepreneurs and small businesses in the

homeland. The Commission on Private Sector Development of the United Nations Development Programme notes that diasporas are “supporting entrepreneurs in their homelands with remittances, informal financing of small businesses, and business advice and mentorship” (Commission, 2004: 30). In fact, diaspora members may be much more effective than other foreign investors. First, they may be more likely to invest in economies that others would consider high risk, simply because they have better knowledge and relationship opportunities that other investors lack. Second, they can combine this knowledge with the skills, knowledge, and networks they have cultivated abroad, yielding important synergistic advantages.<sup>4</sup> India’s information technology success story is a widely cited case, where diaspora members have networked with their returned counterparts, contributing an estimated 16% of total foreign investment (Margolis et al., 2004; see also Saxenian, 2002).

More specifically, a sub-stream of the literature on transnationalism and international migration has begun to examine transnational entrepreneurs. For example, Landolt and Associates (1999; see also Landolt, 2001) developed a framework of transnational enterprises, identifying four types. Circuit firms concern themselves with the transfer of goods and remittances between countries; they include informal couriers as well as large formal enterprises. Cultural enterprises depend upon contacts within the home country for the purpose of importing cultural goods. Ethnic enterprises are based in the host country and provide goods imported from the home country. Finally, return migrant microenterprises are created by returned migrants who depend upon their former host-country contacts for their business. Transnational enterprises may rely on kin networks both in the home country and in the diaspora (see, for example, Portes and Sensenbrenner, 1993).

Regarding development objectives more generally, diasporas also organize philanthropic activities targeted to the homeland, either through diaspora organizations, or less formally and individually. Diasporas represent important opportunities for more formal development organizations to recruit expertise and solicit information for development programs, and to disseminate information about priorities and programming, potentially reducing duplication and cross-purpose efforts (Brinkerhoff, 2004). Diaspora organizations can act as important intermediaries between traditional development actors, and between diasporas and local communities, for example, identifying needs and priorities of local communities and communicating those to donor organizations, nongovernment organizations (NGOs), and diaspora members to solicit funding and expertise. Diaspora organizations may also demonstrate innovative programs and approaches that can be replicated and/or used to advocate for traditional

actor administrative and programmatic reforms (Brinkerhoff, 2004). Examples of both can be found in the experience of postconflict reconstruction in Afghanistan (Brinkerhoff, 2004) and Liberia (Lubkeman, 2004).

## V. SENDING GOVERNMENTS' RELATIONS WITH THEIR DIASPORAS

Home government perspectives on diaspora activities differ. In some cases, governments consider them an interference with state sovereignty. In other cases, governments see them as important contributors to social, political, and economic development. Accordingly, some states (e.g., India, Mexico, and the Dominican Republic) actively court the participation of their diasporas while others (e.g., Cuba) ignore or view them as enemies.

The stance of national governments with regard to their diasporic communities varies according to a range of factors, including the national ethos of the country of origin, the make-up of the community (e.g., refugees versus economically motivated emigrants), the importance of economic remittances to national development, and citizenship laws (Shain, 1999). For example, countries that include migrants as “official members of their political communities” include Brazil, Colombia, Ecuador, Mexico, and Portugal (Levitt, 2001). Not surprisingly, the legal rights of immigrants and the implications of dual citizenship have been increasingly debated, and these debates predate the recognized security threats post-September 11, 2001 (see Neuman, 1996; Benhabib, 1999).<sup>5</sup> States are increasingly challenged by the tension between preventing brain drain and controlling the activities of diaspora communities on the one hand, and not limiting their potential economic contributions on the other (see Alexseev, 2002).

Many governments seem to prioritize remittances and the direct transactions that come with them over brain drain.<sup>6</sup> Home governments are increasingly soliciting remittances and offering policy incentives (e.g., dual citizenship, tax-free investment opportunities, and matching funds) and investment options (e.g., remittance-backed bonds and foreign currency accounts) to encourage diaspora contributions (see, for example, Orozco with Lapointe, 2004; Lowell and De la Garza, 2000; Pires-Hester, 1999). Gamlen (2005) labels this a remittance capture engagement strategy. For example, through HTAs, resources can be channeled to specific development projects, sometimes identified by the targeted communities themselves, and/or coordinated with government funds and expertise (see Orozco, 2003; see also Smith, 2001; Shain, 1999). The Mexican Government has introduced a 3x1 matching incentive program to

encourage developmental investments, where HTA investments are matched at local, state, and national levels (see Orozco with Lapointe, 2004). Remittance capture can also be achieved by offering various investment options and supporting incentives, including remittance-backed bonds, foreign currency accounts, investment tax breaks, exemption from import tariffs on capital goods, duty-free shopping bonuses, and free passport issuance (Gamlen, 2005: 20).

The following sections examine diaspora contributions from the perspective of the diaspora, both generally and with respect to knowledge transfer and exchange.

## VI. FACTORS CONDUCTIVE TO DIASPORA CONTRIBUTIONS TO THE HOMELAND<sup>7</sup>

Three types of factors inform diasporas' mobilization to contribute to the homeland, particularly beyond individual family remittances: those related to their ability, their motivation, and the enabling environment (see Esman, 1986).

### A. Ability to Mobilize

Diasporas' ability to mobilize for homeland contributions can be explained, in part, through network theory and associated social capital. The most commonly identified factor necessary for effective mobilization is the creation of a sense of solidarity and community identity (see Pratkanis and Turner, 1996; for diaspora-specific discussions see King and Melvin, 1999/2000; Shain, 1999). That is, "When colleagues see the world together, they are likely to share the same understanding of the world. This makes collective action possible" (Navarro, 2003:138). A dense network of relationships, or bonding social capital, can engender trust (Coleman, 1988; 1990) and generate the shared identity required for collective action (see also Ostrom, 1990). Furthermore, "the more intense the interaction, the higher the likelihood of participation" (Dutton and Lin, 2001: 196).

Community identity is the foundation for acting collectively, as opposed to individually, and it enables the harnessing of diverse resources and capacities. These include material resources, skills, and organizational resources. To effectively mobilize, diaspora members must possess capabilities (personal and interpersonal skills, and experience) and confidence. Diasporas' specific skills and capacities (whether as individuals or associations) inform both the mobilization process and the nature and impact of their contributions to the homeland. Bringing these material resources, skills,

and capacities together requires an organizational or networking base (see Klandermans and Oegema, 1987), which enables diaspora members to contribute their perspectives, skills, and resources to the collective effort. A networking base also enables diasporas to reach beyond their own capacities to pursue heterogeneous networks, where individual actors act as bridges between diffuse sources of information and resources (Burt, 2000), representing bridging social capital.

Social capital is developed and manifested in associations (Anheier and Kendall, 2002; Putnam, 1993). For diasporas, bonding social capital is represented in the development of a diaspora community, complete with various types of diaspora associations or more formal organizations. Both bonding and bridging social capital are facilitated, for example, through Internet-based organizations, that is, digital diasporas (see Brainard and Brinkerhoff, 2004; Brinkerhoff, 2004; Brinkerhoff, 2005c), and through diaspora professional associations.

The importance of social capital and networks suggests a particular vocabulary for describing migration processes and their impacts. As Tilly (1990) argues, units of migration are not individuals, but networks. Put another way, “migration is a process that both depends on, and creates, social networks” (Vertovec, 2002: 3). Such a perspective serves to anthropomorphize migration and knowledge transfer/exchange, moving it beyond an invisible hand of supply and demand and better illuminating human (and political) motives, incentives, and strategies. Throughout his research on migration networks, Meyer has stressed the importance of human interactions and human mediation in migration processes (see, for example, Meyer, 2001). Such a perspective lends support to a new language to describe these phenomena: instead of migration, sending country, and receiving country, one might more accurately describe these processes using terminology that highlights the will to act and to do so through relationships, that is: diaspora, home country, and host country.

To sum up, bonding social capital (represented by dense, homogeneous networks) encompasses solidarity and community identity. It can contribute to developing a sense of efficacy, psychological empowerment, and a felt need to express identity. Bridging social capital (represented by heterogeneous networks) can play a part in developing organizational resources and capitalizing on opportunity structures in the host country.

## **B. Opportunity Structures/Context**

Esman (1986) refers to “opportunity structures” available for diasporas to mobilize for particular agendas. These opportunities may be present, or not, in the hostland,

homeland, and/or internationally. These may include: availability of economic opportunities; at least neutral regulation of diaspora activities generally and with respect to specific agendas; access to necessary infrastructure (political, technical, informational/communication); host country government proactive support of the diaspora, through targeted service provision for integration and potential reliance on the diaspora for input and action in support of its foreign policy vis-à-vis the homeland; a home country government that is neutral or actively solicits diaspora participation and contributions (e.g., through policies and programs as noted above); and private sector actors who recognize the market that diasporas represent for both home and host country business opportunities.

Opportunity structures are highly dependent on diasporas' access to power resources. Uphoff (1989, 2005) outlines six types of power resources: economic, social (social status based on social roles or on complying with socially valued criteria), political (ability to influence the exercise of authority), informational, moral (i.e., the perceived legitimacy of decision makers), and physical (coercion or violence, depending on perceived legitimacy of applied physical force). Related questions for assessing an enabling environment for diaspora contributions include:

- Does the regulatory environment support economic opportunities?
- Do diaspora members have access to positions of authority and respect within society, both for influence and for obtaining these positions for themselves?
- Do they have access to, and the ability to influence, decision makers?
- Do they have access to the information necessary or supportive of their effectiveness for a particular agenda?
- Is their cause perceived to be legitimate?
- Do they have access to physical resources?

### C. Motivation to Act

Diaspora groups and members may be more or less inclined to concern themselves with quality of life and policies vis-à-vis their home countries. Much will depend on “their inclination or motivation to maintain their solidarity and exert group influence” (Esman, 1986: 336). Political activism resulting from cultural identity, whether targeted to home or host country, is likely to be driven by “interests and obligations that result from migrants' simultaneous engagement in countries of origin and destination” (Nyberg-Sorensen et al., 2002). The higher the cost to status and security in their

adopted country, the greater the likelihood that the diaspora community will split and/or fail to mobilize (Esman, 1986).

The motivation for diasporas to mobilize, for whatever purpose, is likely to be for the expression of their identity, for maintaining or acquiring power or other resources, or both. The incentive of identity expression can be addressed through the formation of diaspora organizations, and it can be reinforced through activity on behalf of the homeland. For some, the expression of homeland identity is based solely on a sense of belonging, in response to feelings of marginalization in their adopted societies. The felt need to actively express identity may derive from various forms of marginalization (social, economic, political, or psychic), confusion, and a sense that the homeland identity will be lost without proactive expression (e.g., when overwhelmed by pluralism), or simply in response to social reinforcement and perhaps pride (Brinkerhoff, 2005a).

Process factors also influence diasporas' incentives to mobilize. Issues need to be framed in order to focus individuals' attention and energy and to enable effective coordination of their efforts (Snow et al., 1986). That is, some coordination and consensus on the direction of collective energy, including what is acceptable and what is not, is necessary. To sustain motivation, organizers must also generate a sense of efficacy and subsequent impact (see, for example, Klandermans, 1997; Kelly and Kelly, 1994; Hinkle et al., 1996).

## VII. FACTORS CONDUCTIVE TO DIASPORA KNOWLEDGE TRANSFER AND EXCHANGE

Naturally, the general factors supportive of diaspora contributions to the homeland are highly interdependent. This section discusses the conducive factors specifically for knowledge transfer/exchange, confirming this interdependence.

### A. The Origins of Transferable Knowledge

With respect to knowledge transfer and exchange, prior to considering diasporas' ability to mobilize, it is first necessary to consider just what is to be mobilized and how these knowledge resources are created. And who exactly are these diaspora members from whom such contributions are sought? Definitions of skilled migrants are quite varied, complicating any comparative assessments (see Pellegrino, 2001). Skilled migrants are most commonly defined as "those in possession of a tertiary degree or extensive specialized work experience" (Vertovec, 2002: 2). Williams and Balá (2005) argue for

a total human capital approach which, beyond qualifications, income, and occupational positions, accounts for tacit knowledge, including interpersonal skills and self-confidence.

Meyer (2001: 95) discusses how brain drain and the human capital approach “refer to a substantialist view of skills as a stock of knowledge and/or abilities embedded in the individual.” In addition to the networking implications of this limited view, discussed below, this perspective ignores the fact that knowledge is not static, nor is it represented only by the credentials the migrants achieved (whether before or after migration). That is, the receiving country may provide the experience necessary to enhance the migrants’ skills. This was true, for example, for Italian-born astrophysicist and 2002 Nobel laureate Riccardo Giacconi. In response to disgruntled compatriots’ questions about why he left Italy, he responded, “Scientists are like painters. Michelangelo became a great artist because he had been given a wall to paint. The US gave me my wall” (quoted in Margolis et al., 2004: 30).

Meyer and Brown (1999a) elaborate on what this “wall” might mean, noting scientific migrants’ work environment in the industrialized host country, which tends to be far superior to the developing country homeland in terms of funding, technical support, equipment, scientific networks, and experimental conditions. They apply the sociology of science and technology to further argue that the process of knowledge creation, transmission, and application requires not only social and institutional communities, also but socio-cognitive ones, which are rarely replicable as they rely upon local conditions and collective tacit knowledge built through daily group practice.

## 1. Networks

This view of the sociology of science and technology extends to its mobilization for homeland contributions. That is, diaspora knowledge transfer/exchange requires networks. Much has been written about networks’ contribution to migration and brain drain (see, for example, McKenzie [2005] on Mexico), but networks also facilitate knowledge development (as above) and transfer/exchange. Indeed, Meyer (2001) argues that it is through intellectual diaspora networks that brain drain is transformed into brain gain.

What are the implications of this networking perspective for knowledge transfer and exchange? Meyer (2001) convincingly argues that the brain drain perspective, whose defining concept is human capital, misses the mark by ignoring the implications and impact of social capital. He cites the findings of Greeve et al. (1999) that social

capital is the larger explanatory factor of firm achievement. With specific application to knowledge networks, he applies Callon's (1991) concept of socio-technical or techno-economic networks to describe how such networks link heterogeneous entities—including equipment, norms, and organizations—such that the potential of each link within the network is only as valuable as what it can mobilize in the network as a whole. Thus, this broader notion of network encompasses the opportunity structures discussed below.

The body of research on intellectual scientific diaspora networks is increasing. In 1997, Meyer and Associates published the first study of a diaspora knowledge network, focusing on Colombia. Only 2 years later, Meyer and Brown (1999a) identified 41 expatriate knowledge networks tied to 30 different countries. These are specific efforts to link diaspora professionals to the homeland for the purpose of transferring knowledge. The networks were categorized into four types: (i) student/scholarly networks, (ii) local associations of skilled expatriates, (iii) expert pool assistance through UNDP's TOKTEN program, and (iv) intellectual/scientific diaspora networks. Of the 41 identified, 15 were classified as intellectual/scientific diaspora networks with an explicit purpose of promoting the economic and social development of the homeland.

Many associations of skilled expatriates are evolving into formal professional associations, which are becoming increasingly active in intellectual/scientific diaspora networks. Already, in terms of recruitment and placement outside of migrants' homelands, professions themselves are viewed as networks (see, for example, Iredale, 2001; Brown, 2000). The highly skilled may rely more on such professional networks, as well as school-based networks and formal recruitment and relocation agencies, than on kin-based ones (Vertovec, 2002). In fact, such reliance is more likely to yield a match of skill levels to jobs than networks based on personal ties, which tend to foster ethnic profession and destination niches that can yield brain waste (see Poros, 2001). These professional associations, or networks, need not be diaspora-specific in order to play a role in fostering knowledge transfer to or exchange with the homeland. While experience varies among professions, they are increasingly becoming international; their operation "has become a transnational matter" (Iredale, 2001: 7).

The most notable examples of knowledge transfer and exchange highlight the role of diaspora identity-based professional associations (see Saxenian, 2002). These include, for example, the Silicon Valley Chinese Engineers Association, the Indus Entrepreneur, and the Korean IT Forum. These associations fulfill a range of social network roles, including facilitating the settlement—professional and otherwise—of recent migrants; professional and technical advancement; ethnic identity formation

and maintenance; and entrepreneurial investments in the homeland. Saxenian (2002) particularly highlights their role of bridging homeland producers and the global economy.

These examples highlight the importance of intermediaries to facilitate both entry into knowledge networks and the successful application of skills and knowledge in both host- and homeland. Intermediaries may include formal recruitment and relocation agencies, and professional associations, among others. Generally, intermediation might include facilitating the migration process, and ensuring transportability of qualifications (Vertovec, 2002). More specifically, Meyer and Brown (1999a:13) argue for a coordinating body to facilitate knowledge transfer: “The function of such a coordinating body would be to collect, organize and maintain the information needed for the systematic search of partnerships, but also to manage and promote the interests and actions of the multiple entities present in a network of this kind.”

The business literature has begun to promote the concept of market ecosystems. In a market-based ecosystem, private sector and social actors enact symbiotic relationships for wealth creation (Prahalad, 2004). Such an approach is particularly important for market development at the base of the pyramid.<sup>8</sup> Base-of-the-pyramid markets require multiple stakeholder relationships, including government, NGOs, communities, financial institutions, and other businesses. The symbiotic characteristic communicates that these actors each have a unique role and are interdependent in their efforts. Some such ecosystems will include a nodal firm that facilitates the functioning of the network, including an emphasis on “quality standards, mutual obligations, commitment to contractual relationships, and a shared set of values” (Prahalad, 2004: 69). Knowledge transfer/exchange networks could be viewed in much the same way. They necessarily incorporate actors beyond the skilled diaspora to encompass governments, NGOs, donors, and other intermediaries, and would likely benefit where one or more of these actors assumed roles similar to that of a nodal firm.<sup>9</sup>

## 2. Role of Information Technology

Information technology (IT) has emerged as an essential enabler of diaspora knowledge transfer and exchange (see, for example, Pellegrino, 2001). Among other things, it holds great potential for providing the information system proposed by Meyer and Brown (1999b), which would include a searchable database of diaspora members and their skills on the one hand, and opportunities/needs in the homeland on the other. It also supports less formal bridging social capital by fostering networks that encompass a broader range of potential actors (including skilled individuals outside of the diaspora),

directly connecting diaspora individuals and organizations, with homeland resources and organizations—both public and private—beyond national governments. Less formally, IT can be used to cultivate bonding social capital and community, which fosters will and ability to mobilize for homeland contributions (see Brainard and Brinkerhoff, 2004; Brinkerhoff, 2004; Brinkerhoff, 2005c; see also Pellegrino, 2001).

Through IT, knowledge transfer and exchange projects can be proposed, designed, and vetted. IT also enables diaspora knowledge contributions without necessitating short-term return or repatriation. This further challenges the human capital approach to brain drain, which assumes that knowledge moves only with the physical body (see Meyer, 2001). It also enables the sustenance and continued development of the socio-cognitive networks that yield and potentially maximize valuable knowledge. In fact, the Internet is the main tool of the intellectual/scientific diaspora networks studied by Meyer and Brown (1999a). It is IT that has enabled diaspora connections to the homeland to evolve from “sporadic, exceptional and limited links” to “systematic, dense and multiple” ones (Meyer and Brown, 1999a: 6).

## B. Opportunity Structures/Context

Beyond the presence of intermediary organizations discussed above, opportunity structures specific to knowledge transfer/exchange refer to homeland and host country characteristics, including the opportunities migrants find in host countries to further enhance their skills and knowledge. In questioning the very nature of the “brains” that get “drained,” Meyer (2001) posits that migrants seek opportunities to develop their skills and knowledge, and then apply these in supportive contexts inclusive of adequate resources, infrastructure, and professional norms. Astor and Associates (2005) support Meyer’s (2001) hypothesis. Their study of physicians from Colombia, India, Nigeria, Pakistan, and Philippines highlighted greater access to enhanced technology and a desire for increased income as reasons, among others, the surveyed physicians migrated. That is, such characteristics of receiving countries produce incentives for out-migration that may lead to further development of skills and knowledge.

Rather than support diaspora knowledge transfer and exchange, most of the attention to host country policy has revolved around the design and implementation of policy that would reduce these incentives or regulate the immigration of migrants whose skills and knowledge are in short supply in the homeland.<sup>10</sup> For example, Deen (2004) notes such policy disincentives for the United Kingdom and France. More commonly, regulatory policy relating to skilled migration is driven by the market and

through trade agreements, whose impact on the home country is variable (see Iredale, 2001). To date, very little, if any, attention is given to receiving country policy frameworks that would encourage diaspora knowledge transfer/exchange to the homeland, though the Department for International Development is investigating the range of diaspora contributions to the homeland, which could inform policy frameworks in the future (see Van Hear et al., 2004).

With respect to home countries, opportunity structures for diaspora knowledge transfer and exchange encompass both home country policies and society. Building on Uphoff's typology of power resources, a supportive context would entail:

1. government policies that enable diaspora economic opportunities, reward and publicize diaspora knowledge contributions, facilitate information exchange, and legitimate knowledge transfer/exchange projects; and
2. a homeland society that welcomes diaspora contributions, perceiving them as legitimate and valuable; does not criticize diaspora members for not returning; and confers prestige on participating diaspora members.

The two sets of supporting factors can be mutually reinforcing: home-government policy frameworks can promote supportive social responses, and society can seek to influence enabling policy frameworks.

More specifically, policy frameworks can foster incentives for diaspora knowledge transfer and exchange. Lowell et al. (2004) identify three policy areas for optimizing skilled migration: migration management, the "diaspora option" (originally proposed by Meyer et al., 1997), and democracy and development. Migration management seeks to create disincentives for skilled migration. Related policies have evolved from an emphasis on value recovery through taxation and repatriation programs (i.e., the return option, see Meyer et al., 1997; Meyer, 2001) to host country immigration regulations and international agreements limiting the immigration of skilled individuals from targeted countries (see Lowell et al., 2004; Gamlen, 2005; Iredale, 2001); and to addressing the causes of migration, that is, tackling economic and political development challenges (Lowell et al., 2004). More conventional return policies persist and their targeted design and application are encouraged, for example, for retirees and students (see Pellegrino, 2001).

The diaspora option, in turn, encompasses several potential approaches. This policy framework conceives the skilled diaspora as an asset to be captured (Meyer et al., 1997), and is the primary focus of this volume. Gamlen (2005) further distinguishes

three types of related diaspora engagement strategies: remittance capture, discussed above; diaspora networking; and diaspora integration. Diaspora networking refers to the bridging social capital discussed above, specifically networking that links the homeland to the diaspora.

The diaspora integration strategy recognizes the diaspora as a constituency that is marginalized from the homeland. Thus, related policies include, for example, the extension of citizen rights such as voting, and the organization of diaspora summits and diplomatic visits to diaspora organizations in their host countries. Mexico, a leader in the diaspora option generally, has even created positions for elected diaspora representatives in state parliaments. Diaspora integration policies confer social status, political influence, and legitimacy to the diaspora and its potential efforts to contribute to the homeland. Zambia's president, Levy Mwanawasa, provides an example that combines remittance capture with diaspora integration strategies. In a recent address to the Zambian community in the US he stated: "I know you expect me to say come home. I am not going to do that. I have no jobs to give you. Work here and send money home" (quoted in Manda, 2004: 74).

Finally, policies for democracy and development include strengthening institutions and human rights, education and targeted development; promoting civil society participation in the policy process; and intergovernmental agreements and harmonization, bilateral and multilateral agreements, and the General Agreement on Trade in Services (GATS) (see Lowell et al., 2004; see also Deen, 2004; Iredale, 2001). This policy area encompasses a broad range of potential actors—home and host country governments, international and intergovernmental organizations, NGOs, and diaspora organizations themselves. Indeed, the active interest in the diaspora of this broad array of actors is an important opportunity structure for the diaspora option more generally. Democracy and development in the homeland at once serve to address the causes of migration for some and provide incentives for diaspora contributions by enabling the contributions and enhancing a sense of efficacy that they can have an impact.

### C. Motivation to Act

These strategies and the particular policies that are adopted create important incentives and may frame issues in ways that enhance diaspora members' motivation to contribute to the homeland. Incentives range from the very simple, such as exemption from import tariffs on capital goods, duty-free shopping bonuses, and free passport issuance (Gamlen, 2005) to the more subtle social and moral legitimation that government and the

homeland society can provide. Much of the motivation to mobilize will derive from the diaspora itself—from individuals' own inclination to reinforce and express their homeland identity, and from the supportive diaspora communities and identities they co-create. For some, these identity motives will coexist with other motives, often including profit.

All of the actors referred to above—home- and hostland governments, international and intergovernmental organizations, other donors, multinational corporations, professional associations, NGOs, and other community organizations—can play important roles in framing issues in a compelling way that inspires diaspora contributions and enhances diaspora members' sense of efficacy and meaning of their potential contributions. The role of diaspora organizations themselves is essential in this framing process.

## VIII. CONCLUSION

Diaspora contribution to homeland development is a complex consideration with varying potential including tradeoffs between gains in some areas due to losses in others, and a range of mitigating factors, none of which is static. This chapter opened with several related questions and concludes with some tentative responses. The gain-or-drain question can never be answered definitively or universally.

The emphasis of governments and donors on remittances may be counterproductive in some respects, given that remittances may focus primarily on household sustenance, consumption, and emergency response and may detract attention from the broader significant potential diaspora contributions. That said, remittances, alone, are an important gain given potential spillover effects and some documentation of their impact in alleviating the severity of poverty. Whether or not these contributions compensate sufficiently for the loss of human capital in the homeland remains debatable, though arguments and evidences in support of a beneficial brain drain suggest that this question may be answered affirmatively and should be assessed on a case-by-case basis. When contemplating brain drain, it is important also to consider knowledge and skills as dynamic products of knowledge and socio-cognitive networks, yielding assets that would not have been possible without out-migration. The potential for diaspora knowledge transfer and exchange suggests greater opportunities for gain than may be currently recognized and realized.

In seeking to maximize gains, this overview has highlighted conducive factors, particularly with respect to knowledge transfer and exchange. As part of these, it has

introduced several policy options with implications for the opportunity structures for diaspora mobilization. The following case studies provide empirical and anecdotal evidence regarding knowledge transfer and exchange and the drain-or-gain question for Afghanistan, PRC, and Philippines. Together, the cases present different responses to the varied opportunities presented by migration, both on the part of governments and diaspora members. The volume concludes with an analysis of these experiences with respect to the factors conducive to diaspora mobilization and the variety of policy options homeland governments might adopt, and suggested policy implications.

## ENDNOTES

- 1 Of course, security remains a concern. Collier and Hoeffler (2001) found that diasporas substantially impact the risk of renewed conflict; after 5 years of postconflict peace, the presence of diasporas increases the likelihood of renewed conflict sixfold.
- 2 For example, see Cox-Edwards and Ureta (2003) on El Salvador; Adams (2005) on Guatemala; and Yang and Martinez (2005) on the Philippines.
- 3 The term *hawala* is used for systems operating in the Horn of Africa, the Middle East, Afghanistan, and Pakistan. Elsewhere such systems may be referred to as *hundi* (India and Bangladesh), *phoe kuan* (Thailand), black market peso exchange (Colombia), *padala* (Philippines), and *hui kuan* (Hong Kong, China) (see Pieke et al., 2005).
- 4 For a case study from Nepal, see Brinkerhoff (2005b).
- 5 For a discussion of these concerns in the post-11September 2001 environment, see Faist (2002).
- 6 For example, see Kaukab (2005) for the Pakistan case and Manda (2004) on Zambia.
- 7 This section draws on Brinkerhoff (2006), Chapter 2.
- 8 The base of the pyramid is where approximately 4 billion people live on less than \$1,500 annual per capita income (Prahalad and Hart, 2002).
- 9 Brinkerhoff (2005b) presents a case study of a diaspora entrepreneur from Nepal who plays this role, providing business development services to local small businesses in that country, linking these to the global economy, and working with the Government of Nepal to ensure an enabling IT legal framework to support business as well as economic development more generally. See <http://www.thamel.com>.
- 10 For a thoughtful review and analysis of receiving country policy, see Kapur and McHale (2005).

## REFERENCES

- Adams, Richard H., Jr. 2005. Remittances, Poverty, and Investment in Guatemala. In *International Migration, Remittances and the Brain Drain*, edited by Çađlar Özden and Maurice Schiff. Washington, DC: World Bank, 53-80.
- Albuero, Florian A. and Danilo I. Abella. 2002. Skilled Labour Migration from Developing Countries: Study on the Philippines. *International Migration Papers* 51. Geneva: International Labour Office.
- Alexseev, Mikhail A. 2002. Desecuritizing Sovereignty: Economic Interest and Responses to Political Challenges of Chinese Migration in the Russian Far East. In *How Governments Respond: Sovereignty Under Challenge*, edited by John D. Montgomery and Nathan Glazer. New Brunswick and London: Transaction Publishers, 261-289.
- Anheier, Helmut and Jeremy Kendall. 2002. Interpersonal Trust and Voluntary Associations: Examining Three Approaches. *British Journal of Sociology* 53(3): 343-363.
- Astor, Avraham, Tasleem Akhtar, Maria Alexandra Matallana, Vasantha Muthuswamy, et al. 2005. Physician Migration: Views from Professional in Colombia, Nigeria, India, Pakistan and the Philippines. *Social Science & Medicine* 61(12) (December): 2492.
- Benhabib, Seyla. 1999. Citizens, Residents and Aliens in a Changing World: Political Membership in the Global Era. *Social Research* 66(3): 709-744.
- Biao, Xiang. 2006. Promoting Knowledge Exchange Through Diaspora Networks (The Case of the People's Republic of China). This volume.
- Brainard, Lori A. and Jennifer M. Brinkerhoff. 2004. Lost in Cyberspace: Shedding Light on the Dark Matter of Grassroots Organizations. *Nonprofit and Voluntary Sector Quarterly* 33(3, Supplement) (September): 32S-53S.
- Brinkerhoff, Jennifer M. 2004. Digital Diasporas and International Development: Afghan-Americans and the Reconstruction of Afghanistan. *Public Administration and Development* 24(5) (December): 397-413.
- \_\_\_\_\_. 2005a. Diasporas and Identity: A Framework for Understanding Potential Threats and Contributions. *IGIS Working Paper #4*, Institute of Global and International Studies, George Washington University, October 27. Available: <http://www.gwu.edu/~igis/Working%20Paper%204.pdf> (accessed 3 February 2006).

- \_\_\_\_\_. 2005b. Diasporas, Information Technology and Base of the Pyramid Market Development: What can we Learn from Thamel.com? Academy for International Business Conference, Quebec City, 9–12 July.
- \_\_\_\_\_. 2005c. Digital Diasporas and Semi-Authoritarian States: The Case of the Egyptian Copts. *Public Administration and Development* 25(3) (August): 193-204.
- \_\_\_\_\_. 2006, in progress. Digital Diasporas, Identity, and International Policy Processes. Unpublished book manuscript.
- Brown, M. 2000. Using the Intellectual Diaspora to Reverse the Brain Drain: Some Useful Examples. Paper presented for UNECA. Available: [http://www.uneca.org/eca\\_resources/Conference\\_Reports\\_and\\_Other\\_Documents/brain\\_drain/word\\_documents/brown.doc](http://www.uneca.org/eca_resources/Conference_Reports_and_Other_Documents/brain_drain/word_documents/brown.doc) (accessed 9 January 2006).
- Burt, Ronald S. 2000. The Network Structure of Social Capital. In *Research in Organizational Behavior* 2, edited by Robert I. Sutton and Barry M. Staw. Greenwich, CT: JAI Press.
- Callon, Michel. 1991. Techno-economic networks and irreversibility? In *A Sociology of Monsters: Essays on Power, Technology and Domination*, edited by John Law. London: Routledge, 132-161.
- Clemens, Michael A. 2006. Do no harm: Is the emigration of health professionals bad for Africa? Forthcoming working paper, Center for Global Development, Washington, DC.
- Coleman, James S. 1988. Social Capital in the Creation of Human Capital. *American Journal of Sociology* 94: S95-S120.
- \_\_\_\_\_. 1990. *Foundations of Social Theory*. Cambridge, MA: Belknap-Harvard University Press.
- Collier, Paul and Anke Hoeffler. 2001. Greed and Grievances in Civil War. *Policy Research Working Paper* 2355. Washington, DC: World Bank.
- Commission on the Private Sector and Development. 2004. *Unleashing Entrepreneurship: Making Business Work for the Poor. Report to the Secretary-General of the United Nations*. New York: United Nations Development Programme.
- Cox-Edwards, Alexandra and Manuelita Ureta. 2003. International Migration, Remittances and Schooling: Evidence from El Salvador. *Journal of Development Economics* 72(2): 429-461.
- Deen, Thalif. 2004. Politics: Labor Migration has Plusses and Minuses, Says U.N. *Global Information Network*. New York: 30 November, 1.

- Docquier, Frédéric and Abdeslam Marfouk. 2005. International Migration by Education Attainment, 1990–2000. In *International Migration, Remittances and the Brain Drain*, edited by Çađlar Özden and Maurice Schiff. Washington, DC: World Bank, 151-200.
- Dutton, William H. and Wan-Ying Lin. 2001. Using the Web in the Democratic Process. The Web-orchestrated ‘Stop the Overlay’ Cyber-Campaign. *European Review* 9(2): 185-199.
- Esman, Milton J. 1986. Diasporas and International Relations. In *Modern Diasporas in International Politics*, edited by Gabriel Sheffer. London and Sydney: Croom Helm, 333-349.
- Faist, Thomas. 2002. Extension du Domaine de la Lutte: International Migration and Security Before and After September 11, 2001. *International Migration Review* 36(1): 7-14.
- Gamlen, Alan. 2005. The Brain Drain is Dead, Long Live the New Zealand Diaspora. *Working Paper No. 10*: Oxford: University of Oxford, Centre on Migration, Policy and Society.
- Gardner, Katy. 1995. *Global Migrants, Local Lives: Travel and Transformation in Rural Bangladesh*. Oxford: Clarendon Press.
- Gillespie, Kate, Edward Sayre, and Liesl Riddle. 2001. Palestinian Interest in Homeland Investment. *Middle East Journal* 55(2) (Spring): 237-255.
- Greeve, A., M. Benassi, and J. Harkola. 1999. Comparing the influence of human and social capital on performance. Paper presented at SUNBELT XIX, INSNA Conference, Charleston, South Carolina, February.
- Hanifi, Shah Mahmoud. 2006. Material and Social Remittances to Afghanistan. This volume.
- Hinkle, Steven, Lee Fox-Cardamone, Julia A. Haseleu, Rupert Brown, and Lois M. Irwin. 1996. Grassroots Political Action as an Intergroup Phenomenon. *Journal of Social Issues* 52(1): 39-51.
- Hugo, Graeme. 2003. Migration and Development: A Perspective from Asia. *IOM Migration Research Series No. 14*. Geneva: International Organization for Migration.
- Hunger, Uwe. 2002. The ‘Brain Gain’ Hypothesis: Third-World Elites in Industrialized Countries and Socioeconomic Development in their Home Country. *Working Paper 47*. Muenster: Center for Comparative Immigration Studies, University of Muenster, January.

- Ibarraran, Pablo and Darren Lubotsky. 2005. Mexican Immigration and Self-Selection: New Evidence from the 2000 Mexican Census. *NBER Working Paper no. 11456*. Washington, DC: National Bureau of Economic Research.
- International Organization for Migration. 2005. *World Migration: 2005: Costs and Benefits of International Migration*. Geneva.
- Iredale, Robyn. 2001. The Migration of Professionals: Theories and Typologies. *International Migration* 39(5): 7-26.
- Kapur, Devesh, and John McHale. 2005. *Give us your Best and Brightest: The Global Hunt for Talent and Its Impact on the Developing World*. Washington, DC: Center for Global Development.
- Kaukab, Shahana. 2005. Situation of Migration and Potential Available to Reverse the Brain Drain—Case from Pakistan. *Public Personnel Management* 34(1) (Spring): 103-112.
- Kelly, Caroline and John Kelly. 1994. Who Gets Involved in Collective Action?: Social Psychological Determinants of Individual Participation in Trade Unions. *Human Relations*, 47: 63-88.
- King, Charles and Neil J. Melvin. 1999/2000. Diaspora Politics: Ethnic Linkages, Foreign Policy, and Security in Eurasia. *International Security* 24(3) (Winter): 108-138.
- Klandermans, Bert. 1997. *The Social Psychology of Protest*. Oxford: Blackwell.
- \_\_\_\_\_ and Dirk Oegema. 1987. Potentials, Networks, Motivations, and Barriers: Steps towards Participation in Social Movements. *American Sociological Review* 52: 519-531.
- Landolt, Patricia. 2001. Salvadoran Economic Transnationalism: Embedded Strategies for Household Maintenance, Immigrant Incorporation, and Entrepreneurial Expansion. *Global Networks* 1(3): 217-42.
- \_\_\_\_\_, Lilian Autler, and Sonia Baires. 1999. From 'Hermano Lejano' to 'Hermano Mayor': The Dialectics of Salvadoran Transnationalism. *Ethnic and Racial Studies* 2: 290-315.
- Levitt, Peggy. 2001. Transnational Migration Taking Stock and Future Directions. *Global Networks* 1(3): 195-216.
- Lowell, B. Lindsay and Rodolfo O. De la Garza. 2000. *The Developmental Role of Remittances in U.S. Latino Communities and in Latin American Countries: A Final Project Report*. Washington, DC: Inter-American Dialogue and the Tomas Rivera Policy Institute, June.

- Lowell, B. Lindsay and Allan Findlay. 2002. Migration of Highly Skilled Persons from Developing Countries: Impact and Policy Responses—Synthesis Report. *International Migration Papers 44*. Geneva: International Labour Office.
- , Allan Findlay, and Emma Stewart. 2004. Brain Strain: Optimising Highly Skilled Migration from Developing Countries. *Asylum and Migration Working Paper 3*. London: Institute for Public Policy Research, August.
- Lubkeman, Stephen. 2004. Global Locals' and Political Process in War-torn Nations: The Liberian Diaspora in War-Making and Peace-Building. African Studies Association Annual Meeting, New Orleans, LA, November 11.
- Manda, Gilbert. 2004. Brain Drain or Brain Gain? *New African* 435 (December): 74.
- Margolis, Mac, with Sudip Mazumdar, Craig Simons, Kim Gurney, Maureen Chigbo, Liat Radcliffe and Jaime Cunningham. 2004. Brain Gain; Sending workers abroad doesn't mean squandering minds. For many countries, diaspora talent is the key to success. *Newsweek*. New York: 8 March: 30.
- Martin, Susan F. 2001. Remittance Flows and Impact. Paper prepared for the regional Conference on Remittances as a Development Tool, Organized by the Multilateral Investment Fund and the Inter-American Development Bank, 2001. Available: <http://www.iadb.org/mif/v2/files/susanmartin.doc> (accessed 9 January 2006).
- Massey, Douglas S., Adela Pellegrino, J. Edward Taylor, Ali Kouaouci, Joaquin Arango, and Graeme Hugo. 1999. *Worlds in Motion: Understanding International Migration at the End of the Millennium*. New York: Oxford University Press.
- McKenzie, David J. 2005. Beyond Remittances: The Effects of Migration on Mexican Households. In *International Migration, Remittances and the Brain Drain*, edited by Çađlar Özden and Maurice Schiff. Washington, DC: World Bank, 123-148.
- Meyer, Jean-Baptiste. 2001. Network Approach versus Brain Drain: Lessons from the Diaspora. *International Migration* 39(5): 91-110.
- and Mercy Brown. 1999a. Scientific Diasporas: A New Approach to the Brain Drain. Prepared for the World Conference on Science, UNESCO-ICSU. Budapest, Hungary, 26 June–1 July.
- and Mercy Brown. 1999b. The Rise of the Intellectual Diaspora Networks; Social Identification and Cognitive Association. International Social Network Conference, Charleston, US, February.
- , Jorge Charum, Dora Bernal, Jacques Gaillard, José Granés, John Leon, Alvaro Montenegro, Alvaro Morales, Carlos Murcia, Nora Narvaez-Berthelemot, Luz

- Stella Parrado, and Bernard Schlemmer. 1997. Turning Brain Drain into Brain Gain: The Colombian Experience of the Diaspora Option. *Science-Technology and Society* 2(2). Available: <http://sansa.nrf.ac.za/documents/stsjbm.pdf> (accessed 9 January 2006).
- Mora, Jorge and J. Edward Taylor. 2005. Determinants of Migration, Destination, and Sector Choice: Disentangling Individual, Household, and Community Effects. In *International Migration, Remittances and the Brain Drain*, edited by Çađlar Özden and Maurice Schiff. Washington, DC: World Bank, 21-52.
- Navarro, Sharon. 2003. Border Narratives: The Politics of Identity and Mobilization. *Latin American Politics and Society*. 45(3): 129-139.
- Neuman, Gerald L. 1996. *Strangers to the Constitution: Immigrants, Borders, and Fundamental Law*. Princeton, NJ: Princeton University Press.
- Nyberg-Sorensen, Ninna. 2004. The Development Dimension of Migrant Remittances. *Migration Policy Research Working Paper Series*, 1. Available: <http://www.iom.int/DOCUMENTS/PUBLICATION/EN/mpr1.pdf> (accessed 9 January 2006).
- , Nicholas Van Hear, and Poul Engberg-Pedersen. 2002. The Migration-Development Nexus: Evidence and Policy Options. *IOM Migration Research Series*, No. 8. Geneva: International Organization for Migration, July.
- Opiniano, Jeremaiah and Tricia Anne Castro. 2006. Promoting Knowledge Transfer Activities through Diaspora Networks: A Pilot Study on the Philippines. This volume.
- Orozco, Manuel. 2003. *Hometown Associations and their Present and Future Partnerships: New Development Opportunities?* Report commissioned by the U.S. Agency for International Development. Washington, DC: Inter-American Dialogue, September.
- with Michelle Lapointe. 2004. Mexican Hometown Associations and Development Opportunities. *Journal of International Affairs* 57(2) (Spring): 31-49.
- Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.
- Özden, Çađlar and Maurice Schiff, eds. 2005. *International Migration, Remittances and the Brain Drain*. Washington, DC: World Bank.
- Pellegrino, Adela. 2001. Trends in Latin American Skilled Migration: 'Brain Drain' or 'Brain Exchange'? *International Migration* 39(5): 111-132.
- Pieke, Frank N., Nicholas Van Hear, and Anna Lindley. 2005. *Synthesis Study: Informal Remittance Systems in Africa, Caribbean and Pacific Countries*. Oxford: ESRC

- Centre on Migration, Policy and Society (COMPAS) for Department for International Development (DFID) United Kingdom, European Community's Poverty Reduction Effectiveness Programme, and Deloitte & Touche, 15 January.
- Pires-Hester, Laura. 1999. The Emergence of Bilateral Diaspora Ethnicity Among Cape Verdean-Americans. In *The African Diaspora: African Origins and New World Identities*, edited by Isidore Okpewho, Carole Boyce Davies, and Ali A. Mazrui. Bloomington: Indiana University Press, 485-503.
- Poros, Maritsa V. 2001. The Role of Migrant Networks in Linking Local Labor Markets: The Case of Asian Indian Migration to New York and London. *Global Networks* 1(3): 243-159.
- Portes, Alejandro and Julia Sensenbrenner. 1993. Embeddedness and Immigration: Notes on the Social Determinants of Economic Action. *American Journal of Sociology* 98: 1320-50.
- Prahalad, C. K. 2004. *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits*. Upper Saddle River, NJ: Wharton School Publishing.
- \_\_\_\_\_ and Stuart L. Hart. 2002. The Fortune at the Bottom of the Pyramid. *Strategy+Business* 26: 1-14.
- Pratkanis, Anthony R. and Marlene E. Turner. 1996. Persuasion and Democracy: Strategies for Increasing Deliberative Participation and Enacting Social Change. *Journal of Social Issues* 52: 187-205.
- Putnam, Robert. 1993. *Making Democracy Work*. Princeton, NJ: Princeton University Press.
- Ratha, Dilip. 2003. Workers' Remittances: An Important and Stable Source of External Development Finance. In *Global Development Finance 2003: Striving for Stability in Development Finance*. Washington, DC: World Bank, 157-175.
- Sander, Cerstin, and Samuel Munzele Maimbo. 2005. Migrant Remittances in Africa: A Regional Perspective. In *Remittances: Development Impact and Future Prospects*, edited by Samuel Munzele Maimbo and Dilip Ratha. Washington, DC: World Bank, 53-79.
- Saxenian, Anna Lee. 2002. Brain Circulation: How High-Skill Immigration Makes Everyone Better Off. *The Brookings Review* 20(1) (Winter): 28-31.
- Schiff, Maurice. 2005. Brain Gain: Claims about its Size and Impact on Welfare and Growth are Greatly Exaggerated. In *International Migration, Remittances and the Brain Drain*, edited by Çađlar Özden and Maurice Schiff. Washington, DC: World Bank, 201-226.

- Schrecker, Ted and Ronald Labonte. 2004. Taming the Brain Drain: A Challenge for Public Health Systems in Southern Africa. *International Journal of Occupational and Environmental Health* 10(4) (October-December): 409-415.
- Shain, Yossi. 1999. *Marketing the American Creed Abroad: Diasporas in the U.S. and Their Homelands*. Cambridge, UK: Cambridge University Press.
- Sheffer, Gabriel. 1986. A New Field of Study: Modern Diasporas in International Politics. In *Modern Diasporas in International Politics*, edited by Gabriel Sheffer. London and Sydney: Croom Helm, 1-15.
- Smith, Michael P. 2001. *Transnational Urbanism: Locating Globalization*. Oxford: Blackwell Publishers.
- Snow, David A., E. Burke Rochford, Jr., Steven K. Worden et al. 1986. Frame Alignment Processes, Micro-Mobilization, and Movement Participation. *American Sociological Review* 51: 464-481.
- Thomas-Hope, Elizabeth. 2002. Skilled Labour Migration from Developing Countries: Study on the Caribbean Region. *International Migration Paper 50*. Geneva: ILO International Migration Programme.
- Tilly, Charles. 1990. Transplanted Networks. In *Immigration Reconsidered*, edited by Virginia Yans-MacLoughlin. New York: Oxford University Press, 79-95.
- US Agency for International Development (USAID). 2002. *Foreign Aid in the National Interest: Promoting Freedom, Security, and Opportunity*. Washington, DC.
- Uphoff, Norman. 1989. Distinguishing Power, Authority, and Legitimacy: Taking Max Weber at His Word Using Resource Exchange Analysis. *Polity* 22(2): 295-322.
- . 2005. Analytical Issues in Measuring Empowerment at the Community and Local Levels. In *Measuring Empowerment: Cross-Disciplinary Perspectives*, edited by Deepa Narayan. Washington, DC: World Bank, 219-246.
- Van Hear, Nicholas, Frank Pieke, Steven Vertovec, with assistance of Anna Lindley, Barbara Jettinger, and Meera Balarajan. 2004. The Contribution of UK-based Diasporas to Development and Poverty Reduction. Oxford: ESRC Centre on Migration, Policy and Society, University of Oxford, for the Department for International Development.
- Vertovec, Steven. 2002. Transnational Networks and Skilled Labour Migration. Presented at the conference on Ladenburger Diskurs "Migration" Gottlieb Daimler-und Karl Benz-Stiftung, Ladenburg, 14–15 February.
- Williams, Allan M. and Vladimir Balá. 2005. What Human Capital, Which Migrants? Returned Skilled Migration to Slovakia from the UK. *International Migration Review* 39(2) (Summer): 439-468.

World Bank. 2004. *World Development Indicators 2004*. Washington, DC.

\_\_\_\_\_. 2005. *World Development Indicators 2005*. Washington, DC.

\_\_\_\_\_. 2006. *Global Economic Prospects: Economic Implications of Remittances and Migration*. Washington, DC.

Yang, Dean and Claudia A. Martinez. 2005. Remittances and Poverty in Migrants' Home Areas: Evidence from the Philippines. In *International Migration, Remittances and the Brain Drain*, edited by Çağlar Özden and Maurice Schiff. Washington, DC: World Bank, 81-121.