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## **India in the Global Labour Market: International Economic Relations, Mobility of the Highly Skilled and Human Capital Formation\***

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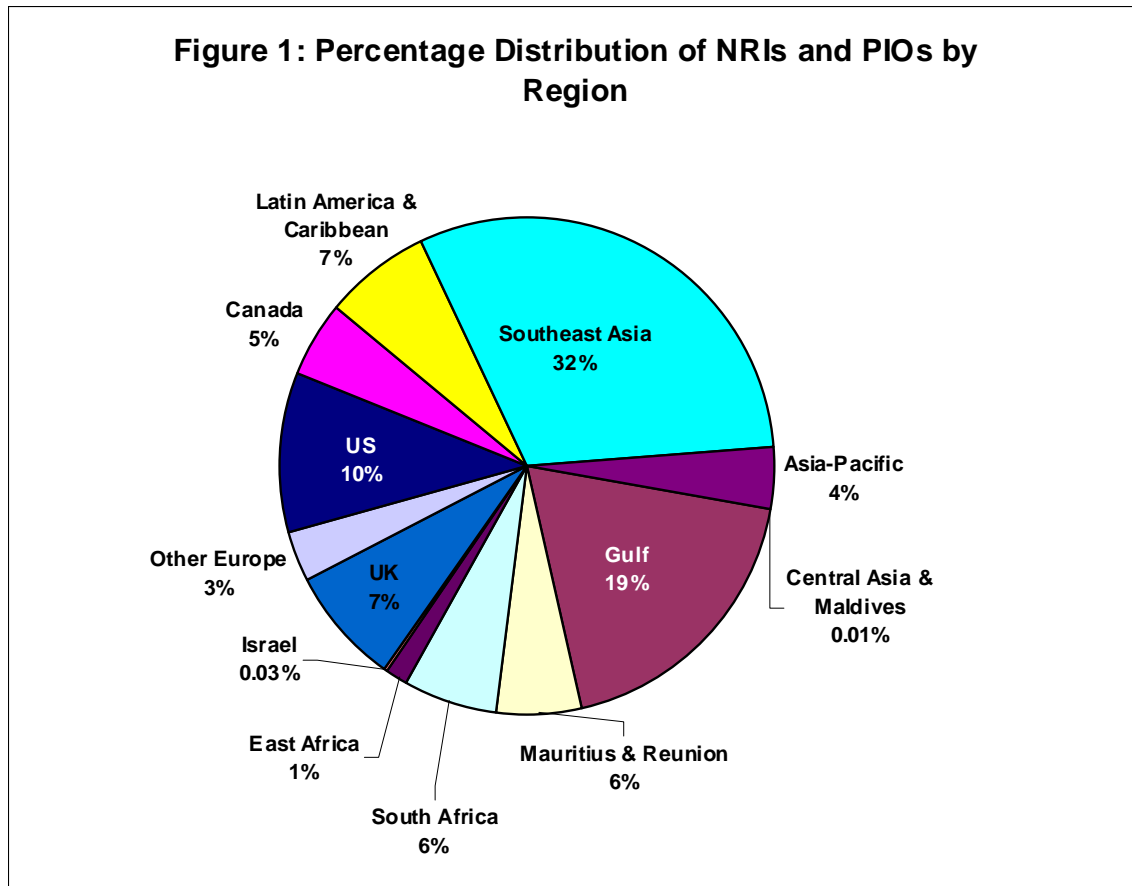
## Abstract

Beginning as a trickle in the 1950s, the skilled migration to the developed countries, that picked up in after the mid-1960s, gathered force with the more recent migration of the IT workers and, later nurses, contributing to the large presence of skilled Indian migrants in the labour markets of the United States, Canada, the United Kingdom, other European countries, and Australia-New Zealand. The Indian diaspora, which provides the overall basis of the size of this skilled Indian labour force in the global labour market, was estimated to be 20 million at the end of the 20<sup>th</sup> century and is now thought to have grown to 25 million. These figures also marks a positive reversal of the contemptuous sentiments expressed about the highly-educated or skilled knowledge workers supposedly ‘deserting’ India, as also about the indifference shown by the authorities concerned to the condition of the large scale labour migrants to the Gulf. With the genesis of this indifference rooted in the neutrality of the non-aligned movement spearheaded by Jawarhalal Nehru and later pursued by Indira Gandhi (when the destinations of the earlier Indian labour diaspora were the Caribbean, and South and East Africa), there is a novel international economic relations context here that poses a “double challenge” for public policy in India: one, to recognise and convince its diaspora of the strategic importance of migration, both as a challenge and an opportunity for India to view it as a tool of participation in the global labour market and; two, to rethink the process of human capital formation in India with a transnational perspective, so that it is redefined in terms of average labour productivity at home and incorporates the cooperation and collaboration of the migrants’ destination countries. Section 2 of the study is on the general contextual background of India, highlighting those aspects of the demographic, economic and dynamics of the internal/domestic labour market that have had a bearing on the evolution of the trends and policies of international migration from India that followed. Section 3 is devoted to the skilled and semi-skilled labour migration to the Gulf, beginning mainly as an overflow of the domestic labour market and in the light of the remittances it generates to India with the resultant implications for human capital formation. It also deals with the socio-economic impact of Gulf migration on the states of origin in India, with particular focus on skill and human capital formation in the state of Kerala. Section 4 is devoted to India’s transnational connectivity through high skill migration to the developed countries, including an analysis of how these connectivities have empowered the migrants to create capabilities to participate in the global labour market. In particular, it also highlights the socio-economic empowerment of Indian migrants in the developed-country labour market of the United States. Section 5 deals with the evolution of, and changes in the Indian thinking on migration and the policy debates and public discourse connected with them. Section 6 includes a list of measures undertaken by the Government of India with the aim of strengthening both international economic relations and for the participation of Indians in the global labour markets – mainly for the highly skilled, but also the semi/unskilled. The concluding section is a commentary on whether and how migration has changed society in India; contributed to its economic and social development, and empowered or could empower the country to face the challenge of international economic relations on the one hand and consolidating the base of human capital formation on the other. It also provides a discussion for evolving a methodology of how the Indian diaspora could be reclassified for analysing its role in the global labour market.

Apart from references and notes, an appendix relates to the status scenario of skill formation in India through higher and tertiary education.

**India in the Global Labour Market:  
International Economic Relations, Mobility of the Highly Skilled and Human Capital  
Formation**

**1. Introduction: An Overview of India in the World Labour Market**



Source: ICWA, Report of the High Level Committee on the Indian Diaspora, New Delhi: Indian Council of World Affairs, 2001.

Figure 1 presents the regional distribution of destinations across the world regions where an approximate 20 million-strong *stock* of the Indian migrants - Non-resident Indian citizens or the NRIs, and the foreign Persons of Indian Origin or the PIOs, the two together referred to as the “Indian Diaspora” in official as well as general parlance in India since the Report of the High-Level Committee on Indian Diaspora (ICWA 2001) -were recorded at the close of the twentieth century.<sup>1</sup> This stock has been a function of the flows of migration of unskilled, semi-skilled and skilled workers and their families from India to the world labour market over time.<sup>2</sup> It is common knowledge that the early migrants, who had formed the basis of this so-called Indian diaspora formation, mainly involved ‘cheap’ unskilled labourers leaving India in large numbers to meet the enormous quantitative demand for indentured labour. This demand arose in the nineteenth century immediately after the British abolished slavery in 1834, affecting the plantations and mines in the far away colonies in the Caribbean (Guyana, Jamaica, Trinidad), the Pacific (Fiji) and the Indian Ocean (Mauritius, South Africa, and East Africa), and south-east Asia (Malaysia, Singapore), as well as in neighbouring South Asian countries (Sri Lanka and Burma) – leading to what is sometimes called the ‘brawn drain’.<sup>3</sup> The ‘brain drain’ – an exodus of educationally-qualified and skilled workers, India’s cream of high-skill labour pool, to the developed countries started a century and a quarter later, that is, after India’s independence (Khadria 1999, 62-64). The work force comprised doctors,

engineers, scientists, teachers, architects, entrepreneurs, and so on. Beginning as a trickle in the 1950s, the skilled migration to the developed countries that picked up in the post-mid-1960s, escalated with the more recent migration of the IT workers and nurses that has continued in the twenty-first century, contributing, *inter alia*, to the concentration of skilled Indian migrants in the labour markets of the United States and Canada, the United Kingdom, and other European countries in the west, and Australia-New Zealand in the Antipodes in east. Simultaneously, the twentieth century witnessed large-scale migration of unskilled and semi-skilled Indian labour to the Gulf countries in west Asia, beginning in the wake of the oil-boom of the seventies - a trend still ongoing and now encompassing a small but a growing number of skilled and professional migrants as well.

The emotive concern about the highly-educated or skilled knowledge workers supposedly 'deserting' India, as well as the indifference shown to the large scale labour migration to the Gulf (with the genesis of indifference going back to the Indian diaspora in other destinations like the Caribbean, and South- and East- Africa) have both undergone radical transformation of perception by the beginning of the twenty-first century. On the one end of the spectrum, the venture capitalists and professional Indian immigrants have come to be seen as 'angels' with a perfected image of transnational "global Indian citizens" capable of bringing not only investment and technology to India, but also a part of the global labour market itself, with themselves returning in a circulatory mode of migration accompanying the business process outsourcing, or BPO as it is generically known in short, to India. On the other end of the spectrum, the large number of low, semi and unskilled labour migrants to the Gulf have been viewed as the main source of remittances that have come to India and contributed to the swelling of its foreign exchange reserve. Both these perceptions need to be analysed objectively, as there are positive as well as negative implications arising from these migrations for the countries of origin and destination to tackle together. There is a novel international economic relations context here setting a "double challenge" for public policy in a leading sending country that India is to face. First, it has to recognise and convince its diaspora of the strategic importance of migration both as a challenge and an opportunity for India that needs to be viewed as a tool of participation in the global labour market. Secondly, it has to rethink the process of human capital formation in India with a transnational perspective that redefines it in terms of average productivity of labour at home and incorporates the cooperation and collaboration of the migrants' destination countries.

## **2. Contextual Background: Trajectory of the Domestic Labour Market in India**

Studies on mobility of the highly skilled have been very few in India because, historically speaking, even migration as whole has never been considered an important demographic issue due to the small volume of internal migration relative to the total size of the population (Bose 1983, 137). However, these small-scale internal migrations within the sub-continent were replaced by large-scale external migration when the partition in 1947 created India and Pakistan. The region experienced the largest ever human flow as a result of the major political upheaval, which radically redrew the political map of the subcontinent. Withdrawal of the British from India and the partition were associated with a massive transfer of population estimated at 14.5 million between the short span of 1947-51 (Kosinski and Elahi, 1985, 4-5). Immediately after the partition, about five million Hindus and Sikhs left Pakistan for India and about 6 million Muslims moved into Pakistan from India (Elahi and Sultana, 1985, 22). As this politically triggered exchange created very serious and long-term problems of refugee settlement and integration, the prospects of intra-south Asian migration of labourers and workers to and from India became limited after independence.<sup>4</sup>

In contrast, voluntary migration to the world outside Asia, attributed mainly to economic and social attractions of the overseas labour markets, led to the emergence of principal flows of labourers through:

- a. Immigration to Britain, which was a traditionally favoured destination for temporary migration, but later attracted permanent settlers representing various social strata.
- b. The three traditional settlement countries, Australia, Canada and the United States became more attractive destinations once their highly selective immigration policies were modified. These developed countries, later joined by the United Kingdom and the other EU, attracted the highly skilled workers from India. The ultimate destination for the highly skilled, however, remained the United States.
- c. A new destination, that rapidly gained popularity, has been the Gulf countries of the Middle East (Keely 1980, Ecevit 1981, Weiner 1982). These oil-rich countries in West Asia mainly attracted semi-skilled and unskilled labour on a temporary circulating basis (Birks and Sinclair 1980). Some South East countries like Malaysia too became such a destination later on.

The first flow was mainly a legacy of the British colonial rule. But the two flows that followed - the subject matter of this paper - could be situated in the context of India's policy priorities in its international economic relations. Being directly related to the issue of employment and labour markets, the chosen path was, in turn, also linked to India's trajectory of planned development, including demographic development and internal migration across the states, but within the domestic labour market in India:

Although India's internal/domestic labour market has mostly precipitated rural-to-urban migration, and especially migration to the big cities, (that is, internal migration being viewed almost wholly as a concomitant of urbanisation), the decade of the 1970s witnessed new patterns of internal migration, whose significance lay not in its volume, but in its political, social and economic impacts, which in several cases have been profound. In different regional labour markets of India, there has been a growing conflict between the "sons of the soil" – the locals – and migrants from other states of India – the "outsiders" (Weiner 1978, p.3).<sup>5</sup> The roots of the conflict between the two entities lay in economic factors. Religion, caste, and language have been mere issues used for conflict in a situation where employment opportunities in the labour markets – both formal/organised and informal/unorganised - were not expanding and there was slow and even stagnating economic growth, with increasing disparities between different communities and regions.

These have been mainly due to the failures of numerous policies that were introduced to achieve a more desirable and balanced regional development in the country. Dispersal of industries, establishment of heavy industries in the new townships, land development schemes and the opening up of new agricultural areas, urban development programmes, especially those concerning slum dwellers and squatters etc. were some of the measures adopted. All these have had implications for migration patterns within India, but they failed mainly because, even when it became independent, India continued with the political and administrative structure inherited from the colonial Raj. While this had advantages for industrialisation and economic growth, there were serious negative aspects, the most significant being the 'denial of self-esteem' inherent in the 'divide and rule' policy the British had followed (Kelegana and Parikh 2003, 84-85). Directly or indirectly, this influenced the

repudiation of the British policies in adopting the objective of national integration by re-establishing India's own identity and culture. As such, India adopted an import-substitution strategy of industrialisation with widespread state intervention in the labour markets, promoted state-owned 'public-sector' enterprises in all sectors, and resorted to all-pervasive regulation and planning, including in the financial sector - all measures that it had not prepared itself for. India's slow economic growth was the result of all this. Initially, import substitution looked to be a rational policy, providing many opportunities for a newly independent country to manufacture the goods it needed and used to import. Soon, however, import substitution turned into the slogan of 'self-reliance', which meant technology imports were restricted to those 'appropriate technologies' that could be assimilated rather than the state-of-the-art cutting-edge ones. Curtailment of import content rather than domestic resource cost of production became the guiding parameter. Even when world trade grew at an unprecedented rate in the 1950s and 1960s, export pessimism was not given up by India's policy makers, and tariffs and quotas continued to restrict imports.

In addition, the strategy of industrialisation was based on a heavy-industry-first principle. The result was a preference for capital-intensive technique than a labour-intensive technique that would have been more appropriate for a highly populated labour-abundant country. Simultaneously, the policy of protecting the organised labour led to a kind of "labour aristocracy", wherein the real cost of organised labour has been way above the costs of unorganised labour. Labour laws made it extremely difficult to retrench any worker, and even economically unviable units were not permitted to close down; rather, they were taken over by the government. Bonus to the workers was considered as deferred pay not linked to productivity or even profitability of the enterprise. This had its toll on employment growth in India, as entrepreneurs found it strategically wise to promote subcontracting and restrict regular employment, leading to spread of ancillaries.

The pervasive controls over the economy provided enough scope for creating what economists call a 'rent-seeking society' where industrialists and traders, bureaucrats and politicians found it much more profitable to thrive on 'directly unproductive profit-seeking' (DUP) activities than those increasing the efficiency of domestic production and improvement in the functioning of the domestic economy (Krueger 1974, Bhagwati 1982). Domestic industry had no incentive to be efficient, as it was already protected from foreign competition through import restrictions against any domestically available product and from domestic competition through industrial licensing. The only groups that suffered were the consumers, who got poor quality products at high prices, and the skilled and unskilled job-seeking labourers facing vacancy shortage and low wages. The educated and highly skilled classes within the work force were co-opted into developing a vested interest in the system through open recruitment of graduates for the high social-status administrative services that absorbed many of the brightest and idealist youths into vocations other than what they were trained for.<sup>6</sup> The socialist slogans and the public sector which ostensibly protected them against the private capitalists, and a state that promised to eliminate poverty in fifteen years were able to win the loyalty of many educated Indians, many to be soon disillusioned.

The public sector was developed for a variety of reasons – to reduce concentration of economic power, to control the 'commanding heights' of the economy and to provide a means to balance industrial development across regions. One of the ways in which the 'commanding heights' were considered conquered was when more than two-thirds (that is, 67 percent) of employment in the organised sector was registered in the public sector, though generating only little over half (55 percent) of the value-added in the organised sector.

Despite miserably failing in generating surpluses, one objective that the public sector fulfilled was that of being a 'model' employer. This has been true at least from the viewpoint of those who got employed by it but not from the viewpoint of economic efficiency or those seeking jobs.<sup>7</sup> In 1980-81, public sector employees accounted for only 6.8 percent of the labour force, but were absorbing as much as 39.8 percent of the wages and salaries in the entire economy. The situation became even more skewed after the Fifth Pay Commission revision of government pay scales. More than 70 percent of the employees in the organised sector were affected in the late 1980s and the 1990s. *This further constrained the growth of employment of the educated and the highly skilled white-collar workers within the country, inducing many of them to leave the country in search of 'greener pastures' in the world labour market abroad.*

On the other hand, the trade union movement brought similar employment benefits to the semi-skilled and unskilled blue-collar workers in the unorganised labour market. They were able to extract job security with wages that were sticky downwards. In 2000, it was yet not possible even for privately owned organised sector industries to retrench a worker without a written permission from the state industries ministry, permission that was almost never given. The public sector also grew because of two other government measures - it nationalised insurance, banking, and coal industries and took over sick private industries that could not retrench workers. There were no groups that opposed this growth of the public sector. In the process of its growth, it created a large vested-interest group of employees as well as bureaucrats and politicians who enjoyed the power and privileges of running large enterprises, and giving employment to only a few favoured ones.

The development of village and small-scale industries (VSIs), which was an important element of India's development strategy basically meant to slow down rural-urban migration, and promote regionally balanced industrialisation and thereby equity, could have provided broad-based employment to millions of unskilled and semi-skilled workers in a dispersed manner across states and rural areas,. There was widespread political support for such a strategy. It seemed to restore the setback suffered by craftsmen and rural artisans during the British colonial rule and from the new tastes and products flooding the markets (Kelegana and Parikh 2003, 108). It also satisfied the large number of those who were not persuaded by the heavy-industry-first central-planning-based development pushed by Prime Minister Nehru and his supporters. It constituted a middle path between the Gandhian and Nehruvian approaches. However, the concessions to VSIs that led to their growth also created problems, like fake smallness and other corrupt practices on the one hand, and vested interest in remaining small even where there were economies of scale on the other. SSI reservation of low-tech items with large export potential such as garments, toys, shoes, and leather products has cost India enormously in terms of lost exports. India and China exported comparable amounts in 1975. Had India shared the global market with China, India today should have been exporting US\$55 billion worth of these products, instead of US\$15 billion (Kelegana and Parikh 2003, 118; See also Sen & Dreze 1996, 39). *The negative result was the stagnation in the employment of the unskilled and semi-skilled labour, leading to migration, first from rural to urban areas, and eventually to the Gulf in large numbers.*

Even the "new" urbanisation policy favouring small and medium-sized towns was not really new. Almost every Five Year Plan discussed urban development policies more or less in the same terms, but nothing concrete ever emerging (Bose 1983, 180). The persistent decline in the importance of small towns has been an indication of the deterioration of economic conditions in these towns and the consequent movement of population towards the big cities

in search of better economic opportunities. The state of affairs in the big cities worsened because of the gap between the professed policies and their actual implementation. The Urban Land and Ceiling Act (1976), for example, was to restrict migration to urban areas, but its effective implementation did not happen because of a lack of political commitment and because of frequent changes in government (Bose 1983, 181). The same was the fate of the new industrial policy designed to promote small-scale and cottage industries away from the larger cities. Much depended on the ability of the government to outwit the industrialists and entrepreneurs, who invariably took advantage of the loopholes in any such policy at the stage of its implementation.

Rural industrialisation programmes designed to increase non-agricultural activity in the rural areas certainly helped to raise the incomes of the people in these rural areas, but there is very little evidence that the employment structure was affected significantly. Moreover, most of these programmes, by improving the skills of the rural artisans, made them more acceptable in the urban labour market, and not in the rural areas they came from. As such, the training content of rural industrialisation programmes led to increase in rural-to-urban migration, or migration to the Gulf. The crucial factor about rural industrialisation was the location of industries. Industries located in small villages, with small population, faced the disadvantage of limited markets and did not survive for long. Overall, there have been far more failures than success in the implementation of urban policies. In spite of the efforts made in all the Five Year Plans to formulate policies and programmes to curb migration to the big cities, there is no evidence that such migration was in fact contained. The role of cities with a population of over a million continued to be increasingly dominant. There was thus a need to consider the process of urbanisation, not merely as a concomitant of industrialisation, but in the wider context of agricultural development and rural transformation, which alone could provide an effective deterrent to unending rural-to-urban migration and the virtual breakdown of the urban infrastructure too. There was also a need for an imaginative and innovative approach to the problem of unemployment in both rural and urban areas, based on generating mobility of labour in a planned manner so as to ensure the maximum utilisation of human resources, not in local areas alone, but in the country as a whole. (Bose 1983, 182). As this was missing, the rural labourers found their greener pastures in the labour markets of the Gulf, and urban educated youth in the developed countries. Reforms of 1990s only institutionalised these flows. It made India's external migration to labour markets abroad relatively more important than internal migration across the states – that is, in terms of their socio-economic impacts in India, although the dimension of the external mobility at two percent of the population involved has been half of the internal mobility involving four percent of India's population.

#### **4. Horizons of the Global Labour Market: Emigration of Indian Labour to Gulf**

Although Indians manned the clerical and technical positions of the oil companies in the Gulf after oil was discovered in the region during the 1930s, the overall number of Indians stayed small – an increase from 14,000 to only 40,000 between 1948 and the early 1970s. Following the 1973 spurt in oil prices, when large scale development activities started in the Gulf, there started an upsurge in the flow of workers and labourers from India. In the initial years of the 1970s, large scale human resource requirements in development activities in agriculture, industry, transport, communication and infrastructure in the six Gulf Cooperation Council (GCC) countries of Saudi Arabia, Bahrain, Kuwait, Oman, Qatar, and the United Arab Emirates were primarily met by immigrant labour from neighbouring Arab states like Egypt, Jordan, Palestine and Yemen. Gradually, however, India and Pakistan supplied most of such



unskilled labour, registering almost 200 percent growth between 1970 and 1975. In 1975, Indian expatriates constituted 39.1 percent, Pakistanis 58.1 percent, and other Asians 2.8 percent of the total non-Arab expatriates in the Gulf. Since then, Indian migration has overtaken that of Pakistan and other Asian countries of origin. Further, since the Kuwait war of 1990-91, Indians have replaced even the non-national Arabs in the Gulf, viz., the Jordanians, Yemenis, Palestinians and Egyptians. From less than 258,000 in 1975, migrant Indian population in the Gulf went up to 3.3 million in 2001 (Table 1), a number which is now estimated to have crossed 3.5 million.

**Table 1: Stocks of Indian Migrant Population in the Gulf Countries, Selected years: 1975-2001**

Country	1975	1979	1983	1987	1991	2001
S Arabia	34,500	100,00	270,000	380,000	600,000	1500,000
United Arab Emirates	107,500	152,000	250,000	225,000	400,00	950,000
Oman	38,5000	60,000	100,000	184,000	220,000	312,000
Kuwait	32,105	65,000	115,000	100,000	88,000	295,000
Qatar	27,800	30,000	40,000	50,000	75,000	131,000
Bahrain	17,250	26,000	30,000	77,000	100,000	130,000
Total	257,655	433,000	805,000	1,016,000	1,483,000	3,318,000

Sources: Rahman (1999), and Rajan (2004).

Admission to the labour markets of the GCC countries was not as difficult prior to the mid-1970s, but thereafter restrictions have been imposed by the host countries due to the fear of rapid growth of non-national population. Thus it has been difficult for families to accompany the non-national workers to these countries, particularly the unskilled contract labourers. Foreigners are not allowed to own businesses or immovable property in the Gulf countries; for running business enterprises they are required to have local citizens or agencies as major partners in their ventures, whether active or as ‘sleeping’ partner. When it comes to human resources, shortage of labour has been endemic in all the countries of the Gulf, for the entire range of work – from high-skill professionals like doctors and nurses, engineers, architects, accountants and managers, to semi-skilled workers like craftsmen, drivers, artisans, and other technical workers, to unskilled labourers in construction sites, farmlands, livestock ranches, shops and stores and households (Rajan and Nair 2006).

Indian migrant workers in the GCC countries cater to all the three categories of labour. Indian white-collar workers and professionals comprise approximately 30 percent of the total Indian workers in these countries. The highly skilled and technically trained professionals remain in great demand in the government departments and the public sector enterprises, and they also earn high salaries and attractive emoluments. They are also allowed to bring in their families, and children are allowed to stay with parents till their school education is completed. Like all other expatriates, Indians are not allowed to naturalise into citizenship; there are some exceptions in some countries, but they are limited to ethnic Arabs coming from other Gulf countries. In all Gulf countries, Islam is the state religion, and its tenets the law. Arabic is the only official language. The whole region is sparsely populated, with Saudi Arabia having the largest population of 23 million, and other countries in the range of 0.5 million to 3 million as of 2003.

Life in general is comfortable for the high-skill professionals and white-collar Indian workers in the Gulf. They are able to keep contacts with compatriots and nationals, form associations and participate in socio-cultural activities. These associations of Indians are formed along the

lines of place/state of origin in India, religion, language and the profession of the workers. Hundreds of such associations exist in various GCC countries, but they are concentrated in the United Arab Emirates and Kuwait, and are less common in Oman and Saudi Arabia. The professionals and the white-collar Indians have also established a large number of schools in the region which follow the Indian curriculum and are affiliated to Indian examination and certification bodies like the Central Board of Secondary Education. In total there are about 59 such schools run by the Indian expatriate communities – 31 in the United Arab Emirates, 10 in Oman, 9 in Kuwait, and 3 each in Bahrain, Qatar and Saudi Arabia. However, a large majority of 70 percent of the Indian migrant labour in the Gulf comprises semi-skilled and unskilled workers. Table 2 presents their occupational distribution till after the outbreak of the Gulf War in August 1990. The fall in numbers in 1991-92 is directly related to the Indian Government's curbs on the issuance of emigration clearance in the year following the Gulf War in 1990-91, when New Delhi ordered the evacuation of a large number of Indians from the Gulf. However, the classification more or less resumed to become typical of pre-Gulf War period soon after, although some changes might have taken place due to the demand in receiving countries tilting towards more skilled professionals as infrastructure development has progressed in the Gulf. On the supply side, Indian government's monitoring and control of labour migration has increasingly been to streamline the process of emigration, to some extent, in the last couple of years.

**Table 2: Emigration Clearances granted by Government of India till after the Gulf War of 1990-91: Unskilled and Semi-skilled Labour by Occupation, 1988-1992**

Category	1987-88	1988-89	1989-90	1990-91	1991-92
Labourer/Helper	91,196	40,657	58,779	45,028	17,345
Housemaid/House-boy	891	2,965	0	1,400	1,938
Mason	8,550	8,731	8,913	6,323	246
Cook	3,550	3,051	2,070	2,386	239
Tailor	5,115	4,361	3,722	3,231	163
Salesman	1,580	4,199	4,121	3,818	147
Carpenter	6,361	12,900	6,939	5,132	
Technician	3,539	1,450	3,389	2,642	136
Driver	6,562	6,334	6,724	5,123	131
Electrician	3,494	3,689	4,496	2,832	112
Mechanic/incl Air Con.	3,562	4,476	3,263	2,467	111
Agriculturer	0	0		452	108
Painter	2,273	2,501	1,867	1,866	65
Office Staff	3,916	2,211	1,385	1,087	56
Welder	1,497	1,222	3,272	1,291	55
Operator	1,309	1,855	1,342	1,001	39
Plumber	1,971	1,624	2,047	1,831	33
Foreman	927	906	983	764	30
Fixer/Fabricator	1,904	2,008	2,827	1,052	29
Supervisor	1,021	813	1,069	444	21
Paramedical staff	1,349	736	434	437	18
Engineering overseer	354	268	248	173	13
Surveyor	461	264	218	234	12
Fitters	0	1,690	0	0	0
Others	18,284	17,778	2,565	19,302	3,074
Total	169,666	126,689	120,673	110,316	24,266

*Source:* Various Annual Reports of the Ministry of Labour, Government of India, cited in Rajan (2003).

The demand for low category of workers like housemaids, cooks, bearers, gardeners, etc. has been large, though systematic all-India data are not easily available, except for the state of Kerala where an exclusive state-level ministry for overseas Keralite affairs has existed for many years.<sup>8</sup> Some data are now in the process of being collected and compiled by the newly formed Union Ministry of Overseas Indians Affairs. The workers in these vocations, however, do not enjoy the protection of any local labour laws. Women, working as housemaids or governesses face ill treatment in some Gulf countries, sometimes being subjected to even sexual abuse (GOI, MOIA 2006). Unskilled and semiskilled workers working in infrastructural and development projects generally live in miserable conditions and are accommodated in small cramped rooms in the labour camps. Often toilet and kitchen facilities are inadequate and working conditions harsh. Thus, adverse working condition, unfriendly weather, inability to participate in social and cultural activities, and long periods of separation from families and relatives leading to emotional deprivation are known to have wrecked the lives of low skilled Indian workers in the Gulf (Zachariah et al 2002; GOI, MOIA *Annual Report 2005-6*, 17; GOI, MOIA 2006).

The unskilled and semi-skilled workers have a high rate of turn over, as their contracts are for short periods of employment and work, usually not more than two years at a time. Those completing their contracts must return home, although a large proportion of them manage to come back with new contracts, permitted after a gap of one year. This has facilitated proliferation of recruitment and placement agencies in these labour markets, sometimes colluding with the prospective employers and the dubious ones rampantly duping illiterate job seekers. The employee is required to deposit the travel documents and passports with the prospective employer, who is thus empowered to exercise all kinds of control over the employee, including violation of the terms of contract of employment. There are even cases of some fraudulent employers based in Gulf countries who import labour for hawking or “body-shopping” them to others at attractive margins of commission.<sup>9</sup>

The various forms of exploitation of uneducated and unskilled Indian expatriate workers in the Gulf at the hands of the recruiting agents and prospective employers range from refusal to give promised employment, non-payment of promised wages, non-payment of over-time wages, undue deduction of permit fee and other fees from wages, unsuitable transport arrangements, inadequate medical facilities, denial of legal rights to redress complaints, use of migrants as carriers of smuggled goods, victimisation and harassment of women recruits in household jobs like maids, cooks, governesses, etc. (*Overseas Indian*, 2006, various issues).

Generally speaking, the Indian migrant communities in the Gulf, be they of any category, maintain close contacts with their kith and kin in India, involving frequent home visits. They also keep track of the political developments and socio-economic changes taking place in India through communication channels of newspapers, radio and the television. At times of natural disasters like earthquake in India, the Indian community in the Gulf has also come forward with donations, and deposits in India Development Bonds. A lion’s share of the remittances home has accrued from the unskilled workers whose consumption expenses in the Gulf are minimal because their families are not living with them.

### **3(a) States of Origin and Socio-economic Implications of Labour Emigration: The Case of Kerala**

Table 3 presents the labour outflow from India to the six GCC countries and Jordan in the Gulf in the twenty-first century till 2005.<sup>10</sup> Barring Saudi Arabia, Kuwait, and Jordan, the

remaining Gulf countries registered an increase in the flow in 2005 over 2004. The table also facilitates comparison of India's labour migration to the Gulf countries against an increasing flow to Malaysia in south-east Asia, a country which has overtaken at least five of the seven countries of the Gulf in recent years.

**Table 3: Indian Labour Outflow to the Gulf and other countries, 2000-2005**

Destination Country	2000	2001	2002	2003	2004	2005
United Arab Emirates	55,099	53,673	95,034	143,804	175,262	194,412
Saudi Arabia	58,722	78,048	99,453	121,431	123,522	99,879
Kuwait	31,082	39,751	4,859	54,434	52,064	39,124
Oman	15,155	30,985	41,209	36,816	33,275	40,931
Bahrain	15,909	16,382	20,807	24,778	22,980	30,060
Qatar	n.a.	13,829	12,596	14,251	16,325	50,222
Jordan	n.a.	n.a.	n.a.	n.a.	2,576	1,851
Malaysia (South-east Asia)	4,615	6,131	10,512	26,898	31,464	71,041
Other, incl. Indian Ocean Island Countries	62,600	39,865	83,193	44,044	17,492	21,333
Total	243,182	278,664	367,663	466,456	474,960	548,853

Source: compiled from GOI, MOIA, *Annual Reports 2004-5, 2005-6*, and *Overseas Indian*, vol. 1, no. 4, April 2006, p.2, New Delhi.

Most of these overseas Indian workers (OIWs) come from the three states of Kerala, Tamil Nadu, and Andhra Pradesh, though Karnataka overtook Andhra Pradesh by a big margin in 2005 (Table 4). However, Kerala is one state of India from which most of the semi-skilled and unskilled migrant workers to the Gulf have originated. This had led to the establishment and existence of a separate ministry for non-resident Keralites, and an international airport at Thiruvananthapuram. There has been a continuous decline in the emigration of workers in almost all states of origin until the 1999, followed by a slow increase thereafter. Some of the other states having sizeable number of total labour emigrants to the Gulf are Karnataka, Maharashtra, Punjab and Rajasthan. However, the emigration clearance data gives an underestimate of Keralite worker migration to the Gulf, because a person holding a graduate degree is exempt from emigration clearance and the number of such graduates is very high among the Kerala migrants to the Gulf, even for unskilled and semi-skilled jobs.<sup>11</sup>

According to one study conducted by the Centre for Development Studies (CDS), 1.36 million Keralites were working abroad and among them 95 percent lived in the Gulf countries (Zachariah et al 2003). Comparing the migration to Gulf from Kerala against all India, Kerala contributed an average of 25 percent of emigrants in 21<sup>st</sup> century, down from an average of 35 percent in the twentieth century. In other words, one out of every three or four Indians living in the Gulf has been a Keralite. A preceding study conducted in 1998-99 had concluded, "Migration has provided the single most dynamic factor in the otherwise dismal scenario of Kerala in the last quarter of the twentieth century....Kerala is approaching the end of the millennium with a little cheer in many of its homes, thanks to migration and the economic return that it brings. In Kerala, migration must have contributed more to poverty alleviation than any other factor including agrarian reforms, trade union activities and social welfare legislation" (Zachariah et al 2000). However, another study conducted four years later says, "In the early stages of Kerala emigration, the beneficial effects over-shadowed the adverse effects. Now that Kerala emigration has come of age, secondary effects, which are not so beneficial, are beginning to appear" (Zachariah et al 2004).

**Table 4: Workers Granted Emigration Clearance of Government of India, by Major Indian States, 1993-2005**

State	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Kerala	155,208	154,407	165,629	167,325	156,102	91,720	60,445	69,630	61,548	81,950	92,044	63,512	125,075
Tamil Nadu	70,313	70,525	65,737	64,991	63,672	69,793	47,402	63,878	61,649	79,165	89,464	108,964	117,050
A. Pradesh	35,578	34,508	30,284	29,995	38,278	30,599	18,983	29,999	37,331	38,417	65,971	72,580	48,498
Maharashtra	35,248	32,178	26,312	25,214	25,146	24,657	9,871	13,346	22,713	25,477	29,350	28,670	29,289
Karnataka	34,380	32,266	33,496	33,761	40,396	11,535	5,287	10,927	10,095	14,061	22,641	19,237	75,384
Rajasthan	25,243	27,418	28,374	18,221	28,242	19,824	9,809	10,170	14,993	23,254	37,693	35,108	21,899
Punjab	14,212	12,445	11,852	11,751	12,414	26,876	15,167	10,025	12,422	19,638	24,963	25,302	24,088
Others	68,156	61,638	53,650	62,956	52,174	80,160	32,588	35,207	57,913	85,701	104,330	121,587	107,570
Total	438,338	425,385	415,334	414,214	416,424	355,164	199,552	243,182	278,664	367,663	466,456	474,960	548,853

Source: Author. Various Annual Reports of the Ministry of Labour, Government of India, as cited in Rajan (2003) for data till 1999; GOI, MOIA, *Annual Reports* 2004-5, 2005-6, for 2000-05.

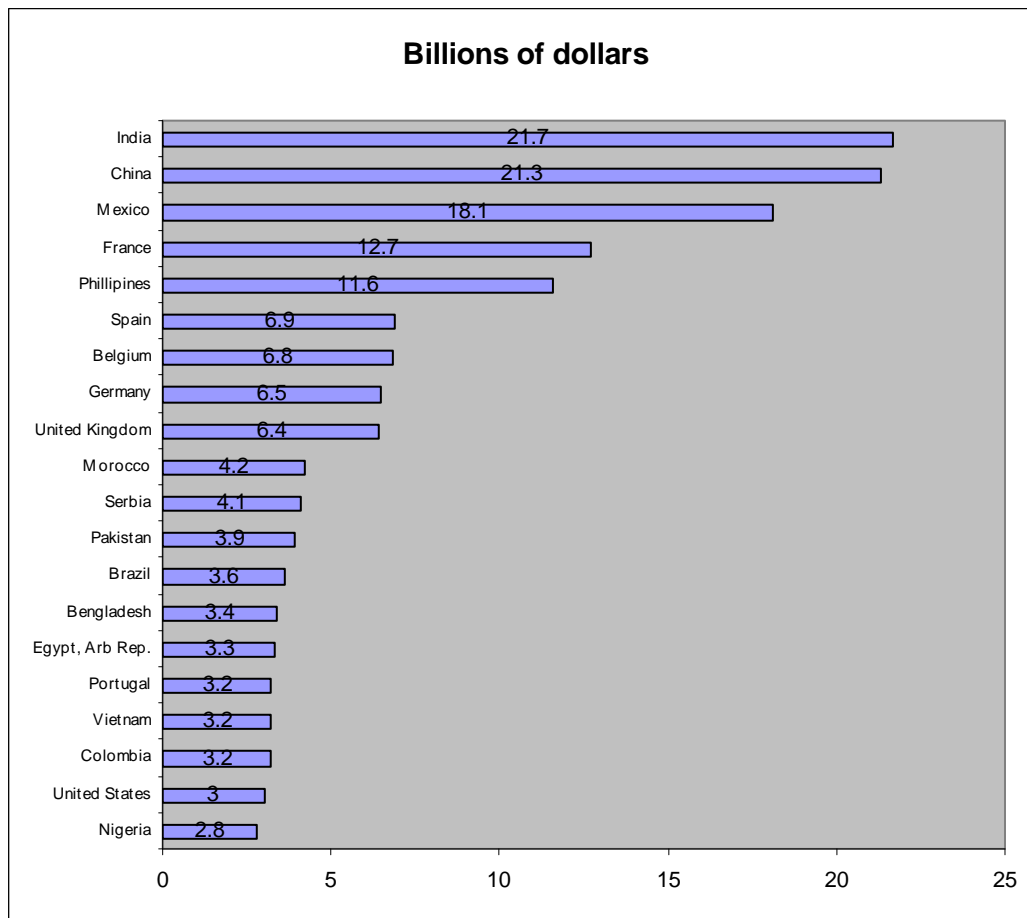
One important negative effect has been the rise in unemployment rate due to increasing education and ‘replacement migration’ in Kerala from other Indian states. Emigration had a role in increasing the population with higher levels of education and skills by boosting the willingness and the ability of the Keralite youth to acquire more education. Due to demonstration effect, a common aspiration is “to emigrate to the Gulf, earn a lot of money, get married, and live happily ever after”. In recent years, many countries in the Gulf have made it mandatory to have secondary level education for migrants to enter. This has led to considerable increase in the demand for secondary level education in Kerala.

An important aspect of Indian labour migration to the Gulf has been its lion’s share in the remittances sent home to India by the workers.<sup>12</sup> Beginning in the mid-1970s, there was rapid increase in remittances coming from the United States, Canada, the United Kingdom, present EU countries in Western Europe and Australia, but as migrants to these countries were gradually joined by their kith and kin to whom remittances were sent, these were gradually overtaken by larger proportions coming from the Gulf countries in West Asia, where the unskilled and the semi-skilled Indian labour migrated. Although there has been a gradual overtaking of remittances from the United States (44 percent) over the Gulf (24 percent) in recent years because the young and often unmarried cohorts of IT professionals in the West who have remitted to their parents, two factors cloud this trend to be interpreted as stable and long lasting. First, the fact that the 9/11 followed by recession that led to the laying off of large number of Indian IT professionals in the United States also caused them to remit more, whether they returned to India or not. Second, and more important, is the fact that with larger number of migrants, including those in the Gulf switching from informal to formal channels of banks having their headquarters in the United States, remittances moving through the headquarters got recorded as originating in the United States, even if these had come from the Gulf and elsewhere (RBI 2003-4, Chisti 2007, Ratha 2007).

The fact however remains that global remittances from all countries of the world to India have experienced a surge from the low level of US\$2,083 million in 1990-91, to US\$8,112 million in 1994-95, and followed by US\$11,875 million in 1997-98, US\$12,290 million in 1999-2000, US\$ 21,700 million in 2004 (Figure 2), and eventually to US\$27,000 million in 2006 (Ratha 2007). In terms of share of GDP at market prices, these constituted 0.7 percent in 1990-91, 2.5 percent in 1994-95, 3.1 percent in 1996-97, and 3.0 percent per annum of an accelerating GDP in 1999-2005.<sup>13</sup>

Irrespective of sources, remittances sent home by expatriate Indians working in the global labour market have supposedly contributed positively to the Indian economy. In the middle of 1991, India faced a serious balance of payments crisis. Foreign exchange reserves had fallen to a level hardly adequate to meet essential imports for just a few weeks. The Indian expatriates in the developed countries withdrew their dollar deposits from Indian banks at an alarming rate. These problems warranted immediate action for India to avoid defaulting on its international obligations or a collapse of its economy for want of critical imports (Kelegana and Parikh 2003, 111). It was the slowly but steadily growing remittances from the Indian workers in Gulf that saved the situation from getting worse for India.<sup>14</sup> Today, India is at the top of the list of countries receiving remittances from its migrants abroad, close to 10 percent of the worldwide remittances sent home by 191 million migrants<sup>15</sup> (Figure 2).

**Figure 2: Top 20 remittance-recipient countries, 2004**



Source: World Bank, 2005, *World Economic Outlook*, Washington D.C.

The share of remittances from Kerala's overseas workers has not been insignificant. Zachariah et al (2003, p.214-22) have estimated the total remittances to the state's households based on their survey carried out in 1998 in each of the districts. According to their estimates, total remittances to Kerala stood at Rs.35, 304 million, representing an average remittance of Rs 25,000 per emigrant, and a per capita receipt of Rs. 1,105 by the state population. As a rough proportion of Kerala's Net State Domestic product, this was close to 10 percent, which doubled to a proportion in the range of 20-22 percent by 2007.<sup>16</sup> They also constituted about 10 percent of the country's aggregate remittances of US\$12,000 million in 1998 at an exchange rate of approximately Rs. 33 to a dollar.

#### **4. Mobility of the Highly Skilled Indians to the Developed Country Labour Markets**

Just as the Gulf attracted most of the unskilled and semi-skilled labour from India, among the developed countries today, the focus on the Indian high skill migrant workers remains the United States. It has the largest stock as well as flow (up to 80 percent of Indian migration to the developed countries) of educated and professionally qualified personnel from India today. Historically, this would sound ironical today because the American 'exclusionist' Congressmen of the early twentieth century were a strong lobby to have successfully introduced, even in the face of vehement opposition and two defeated vetoes from President Woodrow Wilson, a 'literacy test' for immigrants so as to specifically restrict them from non-English speaking countries, in particular those of Asiatic origin like India and China.<sup>17</sup> The test was designed not to selectively attract the literate and educated Indians *per se*, but to keep out all 'Asian Indians'

(as the Indians are classified in the United States Census, to distinguish them from the native 'Red' Indians) as the 'least desirable' of all immigrants. This only confirms that Indian immigrants to the United States then - those working on the Pacific Coast lumber mills, docks etc. - were not the highly qualified *knowledge workers* but, mostly illiterate labourers at the lowest rung of the *service workers* - as per the classification given by Drucker (1993).<sup>18</sup> These early immigrants to the United States had mostly originated from the state of Punjab and, to a lesser extent, from Bengal, Gujarat and Uttar Pradesh. They had settled in the West Coast of the United States, primarily California, the state which continues to be in the forefront of resistance to immigration of foreign labour even now - by denying social security benefits, schools and health services to the illegal immigrants' from Mexico. s. After 1917, when the 'barred zone' included India, the Act of 1921 generally shifted restrictions from the qualitative to the quantitative domain, that is, from barring certain 'undesirable kind of persons' to enforcing a 'national origins quota system', formally introduced in 1924. The new system had introduced a numerical restriction based on the national origins of those nationalities that comprised the population of the United States in 1920, but because the population of Indians in the United States had stopped growing at any natural rate ever since the literacy test had come into force in 1917, the new immigration Act did not provide any quota for Indians. Subsequently, the system was rationalised on the basis of cultural and historical ties by the Immigration Act of 1952. The landmark 1965 Amendments to this Act finally did away with the 'national origins' quota system, thereby bringing Indian immigrants' right to enter the United States at par with that of the citizens of other countries. This was, in fact, the beginning of the end of the first phase of Indian immigration to the United States that had incorporated mainly the unskilled 'service workers', with the 1965 Amendments opening the floodgates for the high skill 'knowledge workers' of India.

It was, in fact, the Second World War which had marked the beginning of the transformation of Indian presence in the developed countries. From a presence that was miniscule, transitory and peripheral, it grew to one that was more substantial, permanent and central - a crucial watershed in the genesis of Indian diaspora formation through emigration to the developed world (Khadria 2006a, 2006b, 2007). The largest number of migrants in this period went to the United Kingdom, some because of the old colonial links, and others because of wartime experiences as soldiers and seamen. While some of the several thousand soldiers and seamen decided to stay back in Britain after the war, others returned from India to meet the post-war labour shortages there (Spencer 1997, Khadria 2006f). Subsequently, many more arrived after the 1947 partition of India that preceded its independence. This was subsequently strengthened by the nexus of kinship and friendship, mainly originating from the state of Punjab, which enabled others to tap the economic opportunities that were becoming available more and more in the larger and expanding labour markets abroad. Within the European Union (EU) now - one of the largest economic entities and integrating labour markets in the world today - two-thirds of the entire Indian diasporic community, therefore, still resides in the United Kingdom. Today, the Indian community in the United Kingdom is one of the highest-earning and best-educated groups, achieving eminence in business, information technology, the health sector, the media, and entertainment industries. Table 5 and Figures 3 and 4 testify to the growing significance of people of foreign origin in the twenty-first century United Kingdom, particularly from Asia, and within South Asia, the low-income countries of India, Pakistan and Bangladesh.



**Table 5: Population in the United Kingdom, Stocks by Ethnicity of Origin: Census 2001**

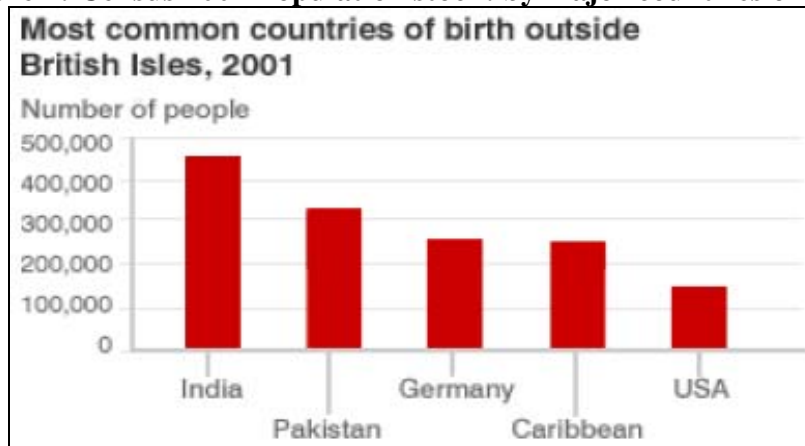
United Kingdom	Numbers and percentages		
	Total population		Non-White population (percentages)
	Numbers	Percentages	
<b>White</b>	54,153,898	92.1	.
<b>Mixed</b>	677,117	1.2	14.6
<b>Asian or Asian British</b>			
Indian	1,053,411	1.8	22.7
Pakistani	747,285	1.3	16.1
Bangladeshi	283,063	0.5	6.1
Other Asian	247,664	0.4	5.3
<b>All Asian or Asian British</b>	2,331,423	4.0	50.3
<b>Black or Black British</b>			
Black Caribbean	565,876	1.0	12.2
Black African	485,277	0.8	10.5
Other Black	97,585	0.2	2.1
<b>All Black or Black British</b>	1,148,738	2.0	24.8
<b>Chinese</b>	247,403	0.4	5.3
<b>Other ethnic groups</b>	230,615	0.4	5.0
<b>All minority ethnic population</b>	4,635,296	7.9	100.0
<b>All ethnic groups</b>	58,789,194	100.0	.

*Source: Census 2001, Office for National Statistics; Census 2001, General Register Office for Scotland; Census 2001, Northern Ireland Statistics and Research Agency*

**Figure 3: Growth of the main ethnic groups, 1991 and 2001**



**Figure 4: Census 2001 Population stock: by major countries of birth**



Source: BBC (2006).

In North America, anti-Asian sentiment was the characteristic of immigration policy in Canada prior to the Second World War. However, after the war, the changing composition of the Commonwealth exerted its influence on the Canadian government. After the Indian Prime Minister Jawaharlal Nehru visited Canada, Indo-Canadians were granted the right to vote too. The explicitly racist provisions in the Immigration Act were changed, lest Canada's image abroad as a humane and peace-loving country be tarnished. In 1962, new regulations to the Act were introduced, prohibiting the use of race, colour, and national origin as criteria for the selection of immigrants, and the points system that followed facilitated increasing immigration of the skilled, educated and qualified Indians. In the United States, until the Second World War, Indian immigration was mainly restricted to the presence of illiterate labourers – those working on the Pacific coast lumber mills, docks etc, and a few educated Indians, who were political refugees or students.<sup>19</sup> Roosevelt himself, as President of the United States, had written to the chairman of the House Committee on Immigration and Naturalization in support of the

withdrawal of barriers before a bill was moved in the House, saying, ‘Statutory discrimination against Indians now serve no useful purpose and [is] incongruous and inconsistent with the dignity of both our peoples’ (Jensen 1988, 279). The bill resulted in the 1946 amendments to the United States Immigration Act, which ended almost 30 years of exclusion of Indians by setting an annual number of 100 as their national quota. All this was partly a sequel to the lifting of barriers against Chinese immigrants in 1943, but a more immediate objective was also to ameliorate the growing antagonism of Indians towards American troops that were still stationed in India after the Second World War had ended. The small beginning was consolidated further by the visit of the Prime Minister Jawaharlal Nehru to the United States in October 1949, hastening change from the earlier phase of Indian immigration to the United States, which comprised mainly the unskilled workers, culminating with the 1965 amendments to the Act which finally opened the gates for absorbing the highly skilled and the professional Indians over the decades to come.

It was in the 1970s that the United States overtook both the United Kingdom and Canada as the prime developed country of destination for high skill Indian workers. Indians’ immigration to the United States, which was minuscule - less than one percent of global immigration from all countries during the 1950s and 1960s - registered rapid increase during the 1970s, reaching a peak of 3.8 percent in the decade. It tapered off in the 1980s till about 1991 but went on the upswing in 1992, touching almost 5 percent in 1999 and 2000 (rounded from 4.7 percent and 4.9 percent respectively in Table 6), and crossing a mark of 7 percent in 2004 (7.4 percent as in Table 6). Even in 2003, when security concerns in the post 9/11 phase had brought in a restrictive immigration regime in the United States, India’s share amongst global immigrants continued to increase (from 6.7 percent in 2002 to 7.1 percent in 2003). In the two top categories of high skill immigrants in 2001, viz., “professional and technical”, and “executive, administrative and managerial occupations”, Indians occupied very high proportions of 24 percent and 11 percent respectively (shown 23.8 percent and 11.1 percent respectively in column C under 2001). Even in the post 9/11 regime of tight immigration in 2003 and 2004, one in every four global immigrants “with an occupation” was an Indian (25 percent in column C for 2003, and 24.7 percent in column C for 2004).<sup>20</sup>

**Table 6: The Millennium Shift in the Flow of Indian\* Immigrants to the United States: Numbers (A), Percentages (B), and Percentage Shares amongst Global Immigrants (C)**

Pre 9/11 Years	1999 (INS data regime)			2000 (INS data regime)			2001 (INS data regime)		
	A	B	C	A	B	C	A	B	C
All Immigrants	30237	100.0	4.7	42046	100.0	4.9	70290	100.0	6.6
With Occupations	8016	26.5	5.7	3724	32.7	7.2	27073	38.5	11.3
Ecec/Adm/Mngrl	1112	3.7	7.1	1644	3.9	7.9	3062	4.3	11.1
Profssnl/Techncl	3492	11.6	9.4	8632	20.6	14.7	19935	28.4	23.8
Post 9/11 Years**	2002 (DHS data regime)			2003(DHS data regime)			2004(DHS data regime)		
	A	B	C	A	B	C	A	B	C
All Immigrants	71105	100.0	6.7	50372	100.0	7.1	70116	100.0	7.4
With Occupations	42885	60.3	34.5	20560	40.8	25.0	38443	54.8	24.7
Ecec/Adm/Mngrl	Global number: 29277			Global number: 22295			Global number: 31689		
Profssnl/Techncl	Global number: 79370			Global number: 46495			Global number: 73862		

Source: Author, using United States INS and United States DHS *Statistical Yearbooks*, various years.

Notes: \* By country of birth. \*\*County-wise occupational break-up of immigrant data not available in DHS regime.

The increase in the 1970s is generally attributed to the United States Immigration and Nationality Act Amendments of 1965, fully brought into force in 1968. Within the overall kinship-emphasis in family-reunification clause of the amendments, the new legislation gave priority to highly trained and educated professionals, at least for the first seven to ten years explicitly. As a result, this modern phase of Indian immigration to the United States was distinctly different from the earlier phase that had comprised mainly the unskilled workers and labourers. Urban, educated and, *ironically*, 'English speaking' masses of Indian population became distinctly visible in the United States, carrying a large share of India's human capital to the United States, and causing 'brain drain' for India because, as Jensen (1988, 280) recorded, 'Almost a hundred thousand engineers, physicians, scientists, professors, teachers, and their dependents had entered the United States by 1975'.<sup>21</sup> However, since the mid-1970s till 1982, the annual number of Indians entering the United States had levelled off to an average annual figure of 20,000 mainly because of the per country limit of quota under the United States immigration law. Thereafter, it was the number of those exempt from this limit which added to the total – the 'immediate relatives' of the increasing number of Indian-born naturalised United States citizens - averaging one-third of the immigrants over time. Thus, migration of highly qualified Indians to the United States actually did not come down; whatever decline registered since the mid-1970s was mainly a statistical and legalistic illusion of sorts and, in retrospect, proved to be temporary. India's brain drain to the United States had become less 'visible' rather than really declining after the mid-1970s. The 1965 amendments to the Immigration and Nationality Act, which formed the basis of all these, remained the principal determinant of Indian skilled immigration into the United States for one quarter of a century between 1968 and 1992.<sup>22</sup>

After 1992, it was the relatively less noticeable route of temporary migration that started to become predominant in the globalisation of labour. The 1990 Amendments, brought into effect in 1992, explicitly favoured the building up of the human capital capabilities of America by fulfilling its current and future requirements of highly skilled knowledge workers, finally bringing to relevance the immigration of Indians to the American labour market needs. Whatever few restrictive clauses these amendments had, like the introduction of a new definition for the highly skilled temporary workers, viz., the well-known non-immigrant H1-B visa category, with an annual cap of 65,000 visas per year worldwide, the United States Senate had to clear a bill for a limited expansion of these visas to 337,500 for the three-year period from 1999 to 2001. This was because the United States had faced a decline in human capital formation visibly in key undergraduate science degrees, an acute shortage of staff in high technology industries like software development, and exhaustion of the worldwide annual quota of H-1B visas too quickly in 1998, with 42 percent (or two out of every five visas) being issued to Indian IT software professionals. After 2001, when the number of H-1B visas issued to Indians went down (Table 7) because the American immigration scenario came to be determined more by the post-9/11 security concern in the United States and the subsequent recession that burst the IT bubble than by its actual labour market needs, the United States government has been under continuous pressure from different lobby groups, including the American industry and business, to relax the H1-B visa limit once again.

**Table 7: Number of Indian Citizens admitted as non-immigrant workers in the United States, by visa type, 2001-2003**

Country of Citizenship	Registered nurses (H1A)	Workers with specialty occupations (H1B)	Industrial trainees (H3)	Exchange visitors (J1)	Intra-company transferees (L1)	Workers with extraordinary ability (O1)
<b>India (2001)</b>	166	104,543	62	5,374	15,531	666
<b>India (2002)</b>	228	81,091	96	4,866	20,413	523
<b>India (2003)</b>	9	75,964	136	4,732	21,748	9

Source: United States DHS, Office of Immigration Statistic, 2003, 2002, 2001 Yearbooks of Immigration Statistics. No disaggregated data available for 2004 in the latest available Yearbook, 2004.

Thus, of the three global issues underlying the United States immigration policy viz., (a) ethnic balance in the population, (b) illegal immigration and (c) labour force needs, the Indian immigration has mainly catered to the last one. The high skill Indian knowledge workers did not enter the American geo-economic territory only through increases in the share of ‘occupational preference’ visas issued to ‘numerically limited’ category of “green card” immigrants. They also entered through ‘limited’ ‘family preference’ visas, as well as the two other unlimited ‘exempted’ categories, viz., ‘immediate relatives’ of the (India-born naturalised) United States citizens, and the ‘non-immigrant’ ‘temporary workers and trainees’ (under the H1-B category), but with the provision of adjusting to the status of permanent residents, viz., the ‘green card’ holders, subsequently.

Such emerging trends in the global labour market could thus be said to have offered an opportunity for India to provide the high skill workforce required for the knowledge economy beyond the national borders as personal services, such as teaching and nursing care would continue to expand on a global scale. India can become a magnet economy attracting high skilled and high waged investment capital from MNCs, and offer high value added services to the rest of the world. This would require that India adopt an outward looking approach to reach out to the global markets and focus on sectors where it has resource advantage. Trends of employment and growth rates of GDP in different economic sectors in India show that services (tertiary) sector is increasing in importance with declining importance of agriculture sector (Table 8). Services sector in India is growing rapidly over the last few years. Within the services sector, other business services (which include IT / ITES) have seen phenomenal growth in recent years with a significant proportion of the same coming from exports. According to World Bank (2004), India exhibits a strong revealed comparative advantage (RCA) in services, particularly software services as compared to goods. The country has leveraged its rich pool of human capital with quality educational institutions and large English speaking population. India is now an international services hub. It commenced with IT-enabled services - both voice & data - and has now expanded to all knowledge sectors: pharmaceuticals, biotechnology, and engineering design (NASSCOM, 2005a).

**Table 8: Indian Economy: Sector-Wise Share of GDP and Employment, 2004-5**

<b>Sector</b>	<b>Share of GDP</b>	<b>Share of Employment</b>
<i>Services</i>	57.2	23.8
<i>Industry</i>	22.0	17.2
<i>Agriculture</i>	20.8	59.0

Source: CSO, Economic Survey, 2005, Government of India

In the global knowledge economy, India is emerging as a key player accounting for 65 percent of the global industry in offshore IT and 46 percent of the Business Process Outsourcing (BPO) industry.<sup>23</sup> Offshore industries have been the engine of economic growth for India, accounting for six percent of the increase in GDP between 2000 and 2004, employing 700,000 people and providing indirect employment to nearly 2.5 million workers.

In the next five years, India's BPO industries is expected to play a major role in transforming India from a slow-growth to a high-growth economy, accounting for 17 percent of the GDP growth. This, it is expected, would sustain 8.8 million jobs. This would include nearly 2.3 million direct and, approximately, 6.5 million indirect and induced employment (NASSCOM, 2005b).<sup>24</sup> This is almost the same as the total number of jobs in the private organised sector at present. All this is an outfall of the empowerment of highly skilled Indian migrants in the developed country labour markets by the close of the twentieth century.

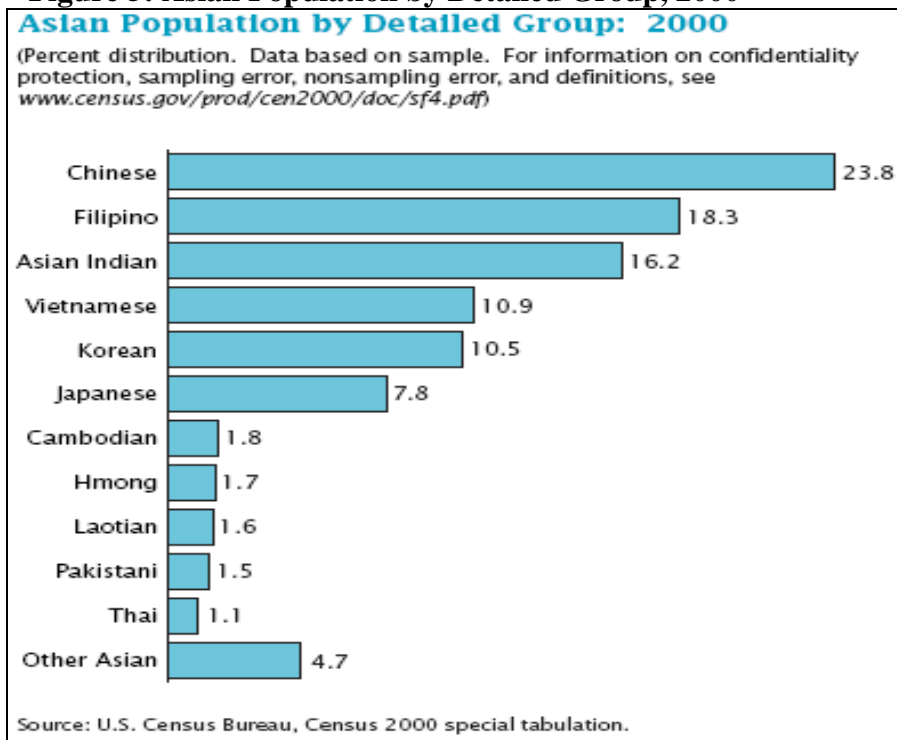
#### **4(a) Empowerment of Skilled Indian Migrants in Developed Country Labour Markets: The Case of the United States**

The strong profile of Indian immigrants in the United States supports the proposition that the mobility of human capital through migration of Indians has been the backbone of Indian high-skill diaspora formation there. No other diaspora in the United States preceding the Indian numerical rank acquired its position predominantly because of an American demand for its labour skills, which has been the main factor for admitting the Indian high skill workers on a large scale. It is hardly surprising, therefore, if in terms of the place in the United States economy indexed by variables like employment, occupation, education, or income of the immigrants, the Indian diaspora has continued to rank amongst the top through the 1970s till the present.<sup>25</sup> These top rankings for Indians in the United States hold well within the Asian nationalities too, when compared against the averages of all other regional or continental nationalities of the world, as well as that of the United States nationals themselves.

The radical transformation in the image and identity of the Indian diaspora members in the United States labour market is thus linked to their empowerment as measured by a number of socio-economic variables like, for example, the size of the diaspora, length of stay in the United States, age profile, educational profile, language proficiency, labour force participation rate, occupational profile, income profile, and also the incidence of poverty (in terms of its lack), and so on. These are indeed indices of their empowerment in terms of the geo-economic space that the Indian diaspora commands in the global labour market. Data on a selection of such indices for Indians in the United States are presented below in relation to all other Asian diaspora populations, by country of origin, as per a sample survey of the United States Population Census 2000.

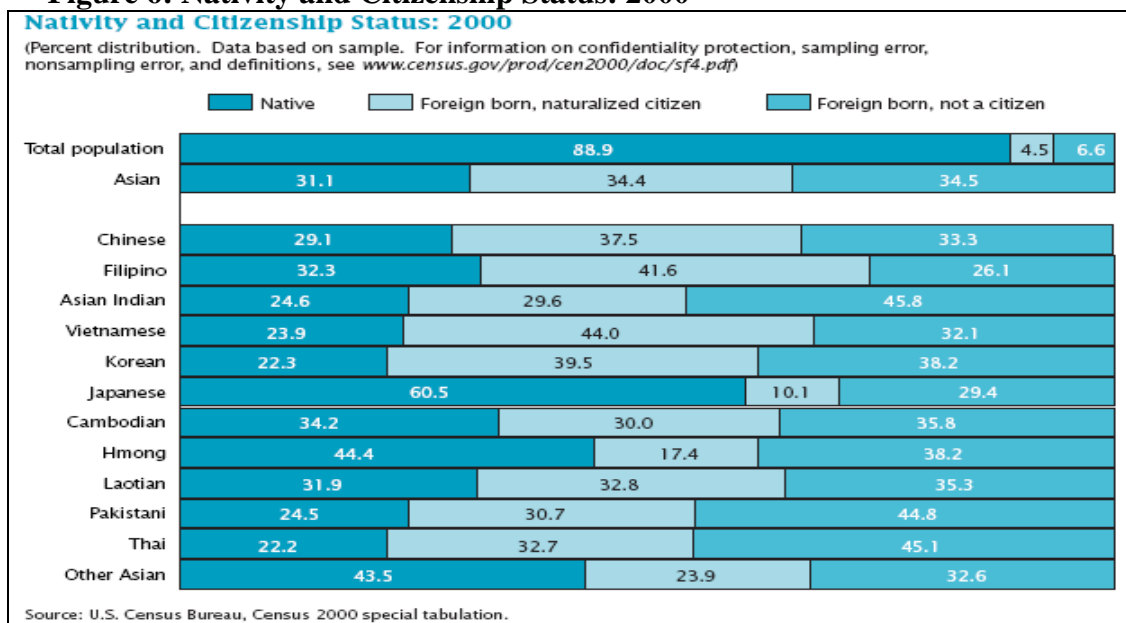
a. **Relative Size of Indian Population in the United States as index of Indian diaspora capabilities:**

**Figure 5: Asian Population by Detailed Group, 2000**



Size often does matter, and this is equally true in the case of diaspora presence in a host country. Figure 5 presents the wide range of the size of the Asian diaspora population in the United States, as of 2000, which does get reflected in the actual or potential role that the Indian diaspora, with 16 percent share in the Asian population and ranking third, is supposedly capable of playing in the global labour market, incorporating the host as well as in the home economy.

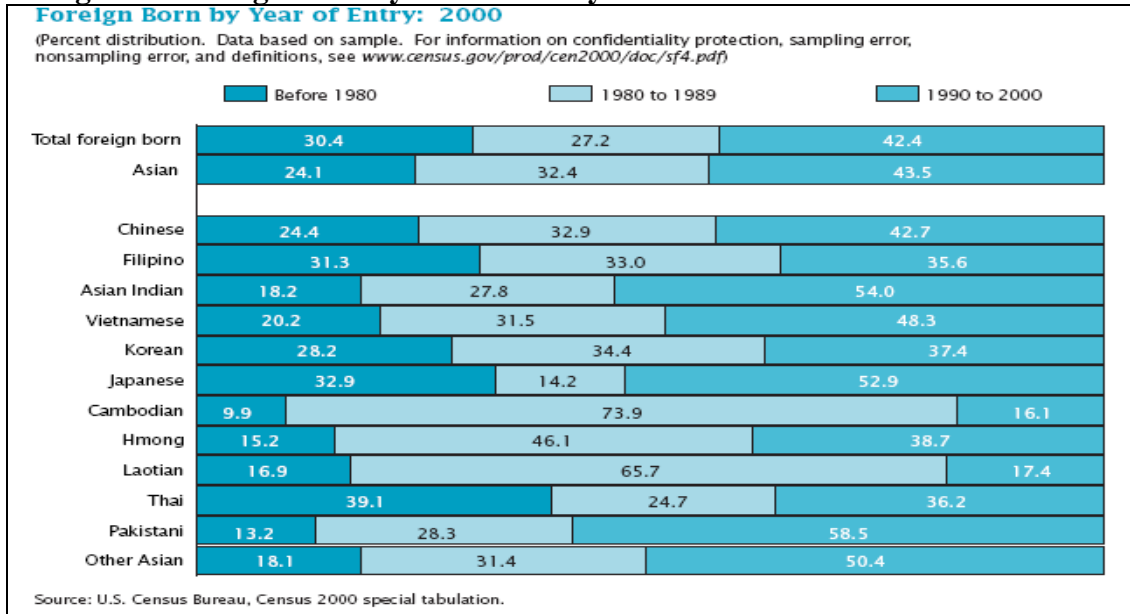
**Figure 6: Nativity and Citizenship Status: 2000**



As Figure 6 shows, the Indian population in the United States comprised 25 percent native-born, 30 percent naturalised United States citizens, and the rest 45 percent ‘permanent residents’, the latter two proportions being, respectively, lower than and higher than most other nationalities, reflecting their comparatively stronger ties with India.

**b. Length of Stay as an index of Indian diaspora capabilities in the United States:**

**Figure 7: Foreign Born by Year of Entry: 2000**



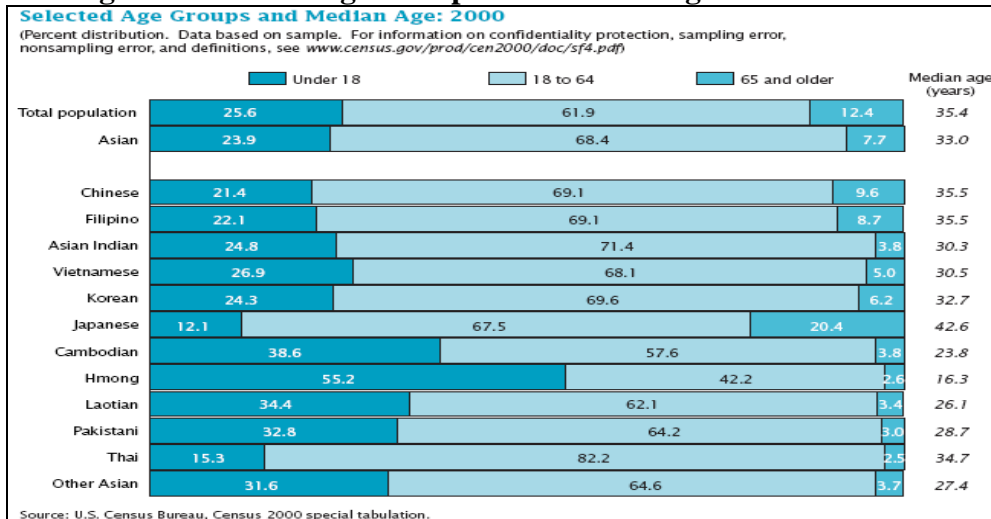
In 2000, the majority of the foreign-born Asian population (76 percent) comprised those who had entered the United States in the closing two decades of the twentieth century, a share which was higher than that of the total foreign-born population (70 percent) that had entered the United States over the same period (Figure 7). Forty-three percent of the foreign-born Asian population of 2000 had entered the United States in the final decade. Among the detailed Asian groups, over 50 percent of foreign-born Indians, next only to Pakistanis, were those who had entered the United States between 1990 and 2000.<sup>26</sup>

**c. Average Age as an index of Indian diaspora capabilities:**

Perhaps it would not be counter-intuitive to say that the younger a diaspora is, the more capable it would be to undertake rigorous, involved, and sustainable participation in the global labour market, incorporating the home as well the host economy. Asians had a median age of 33 years in 2000, that is, two years younger than the national median of 35 years, and Indians had a median age of 30 years, which was lower than the Asian median. Figure 8 presents the origin country wise distribution of average age and the share of working age population (18-64 years) of the Asian diaspora in the United States Putting the two together, the Indian diaspora shows an edge over others.



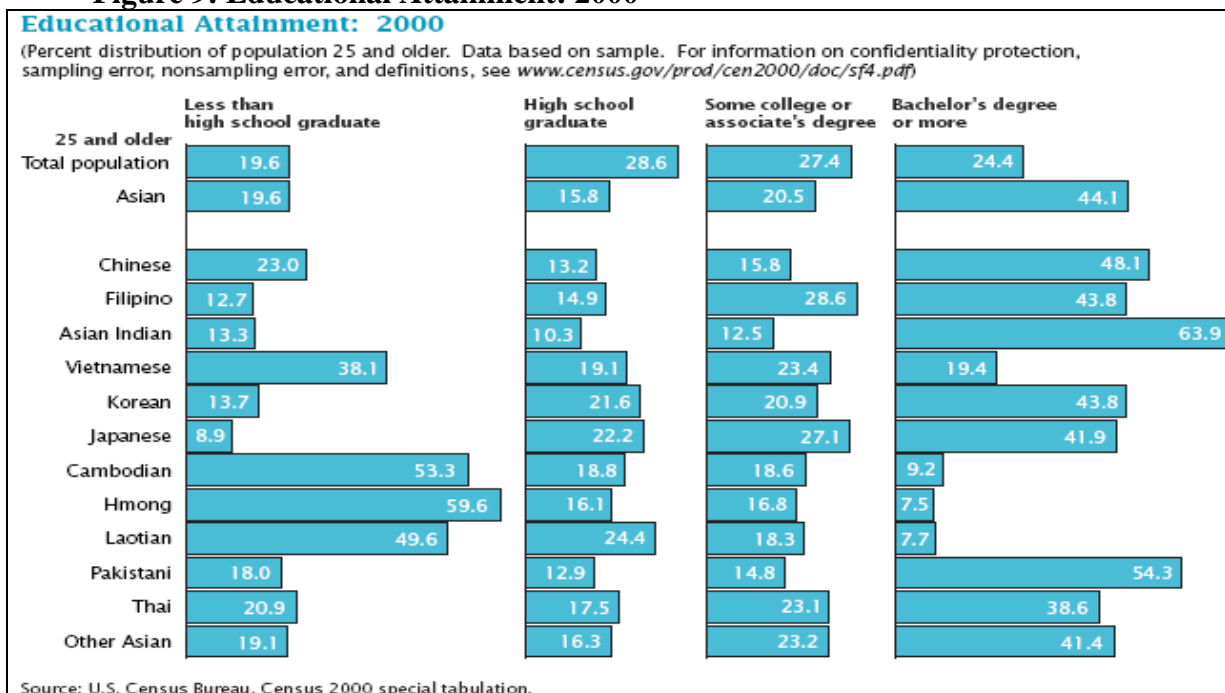
**Figure 8: Selected age Groups and Median Age: 2000**



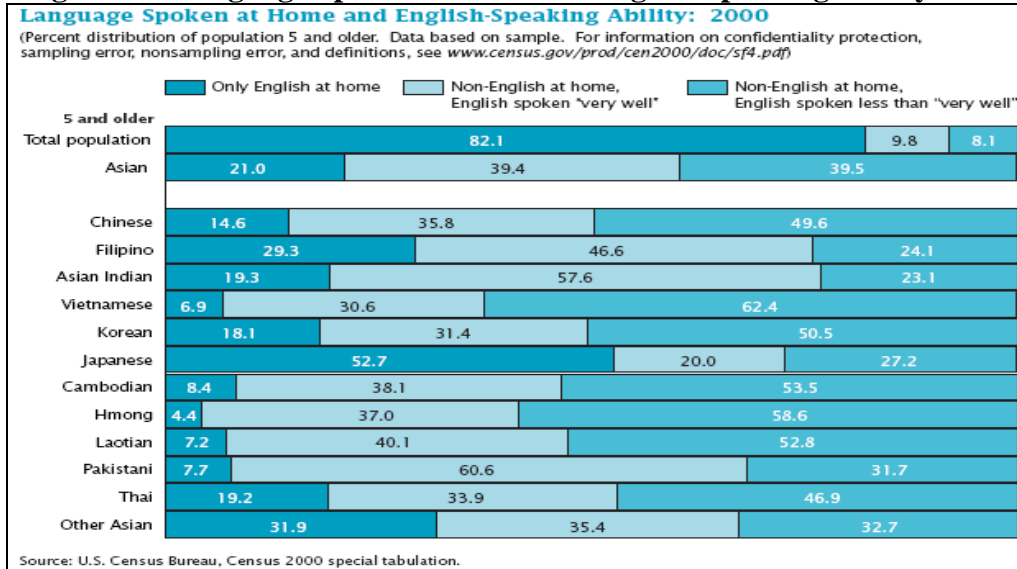
**d. Educational Profile and Language Proficiency as indices of Indian diaspora capabilities:**

In 2000, roughly 80 percent of both all Asians and all people in the United States 25 years and older had at least a high school education (Figure 9). However, a higher proportion of Asians (44 percent) of the total population (24 percent) had earned at least a bachelor's degree. Indians had the highest percentage with a bachelor's degree, about 64 percent; Pakistanis were also relatively better off than others. A slightly lower rank for the Chinese has perhaps been more than compensated by their much larger size of the diaspora, and therefore the absolute number of the highly educated. Command over the English language has been highest amongst the Indian and the Filipino diaspora (Figure 10). However, Indians had the highest command over both the native language and English, a trait very important to liaise between the host and the home countries, and thereby facilitate bilateral and multilateral relations.

**Figure 9: Educational Attainment: 2000**



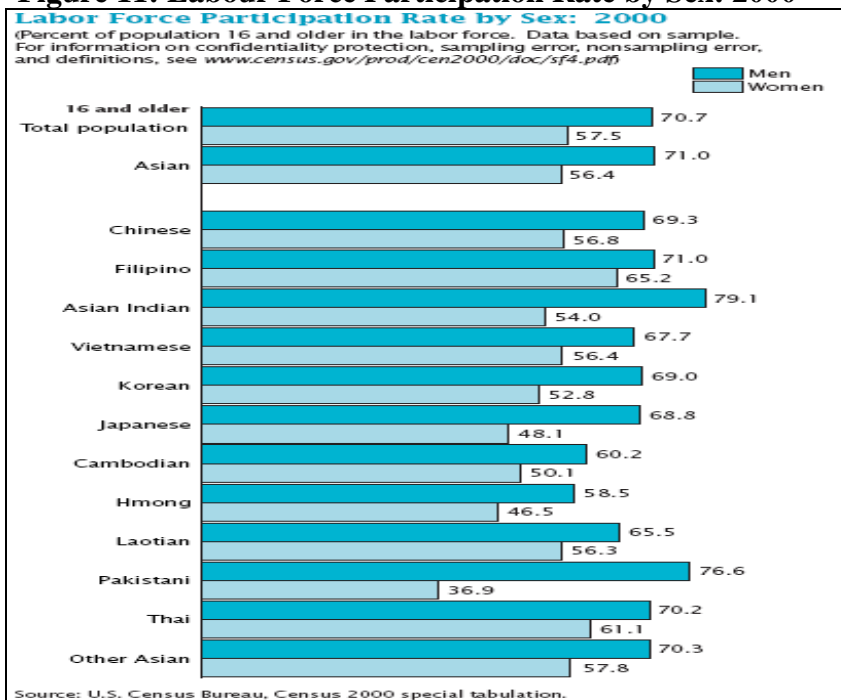
**Figure 10: Language Spoken at Home and English Speaking Ability: 2000**



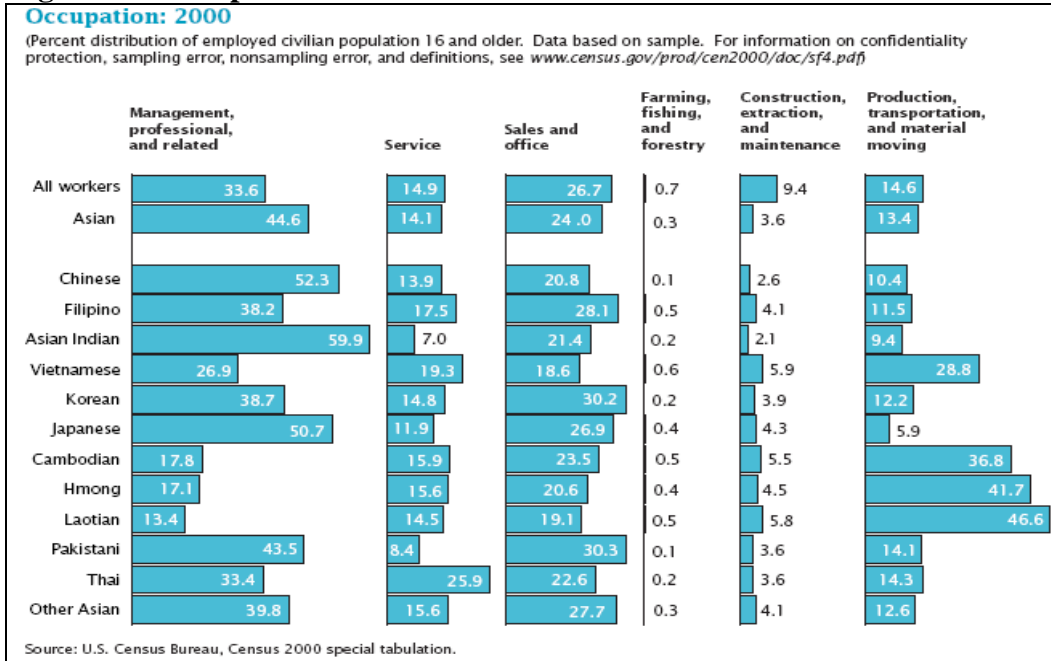
**e. Labour Force Participation Rate and Occupational Profile as the Indian diaspora capabilities:**

Labour force participation rate is an important indicator of diaspora empowerment and capability. Figure 11 shows Indian and Pakistani male participation rates to be above the average for all Asian average. Filipino, Thai, and Chinese have also done well, including Filipino women followed by the Chinese and the Vietnamese. However, the highest proportion of people employed in high-end jobs like management, professional, and related occupations was at 60 percent for Asian Indians (Figure 12), with less than 10 percent of them employed in production, transportation, and material moving jobs.

**Figure 11: Labour Force Participation Rate by Sex: 2000**



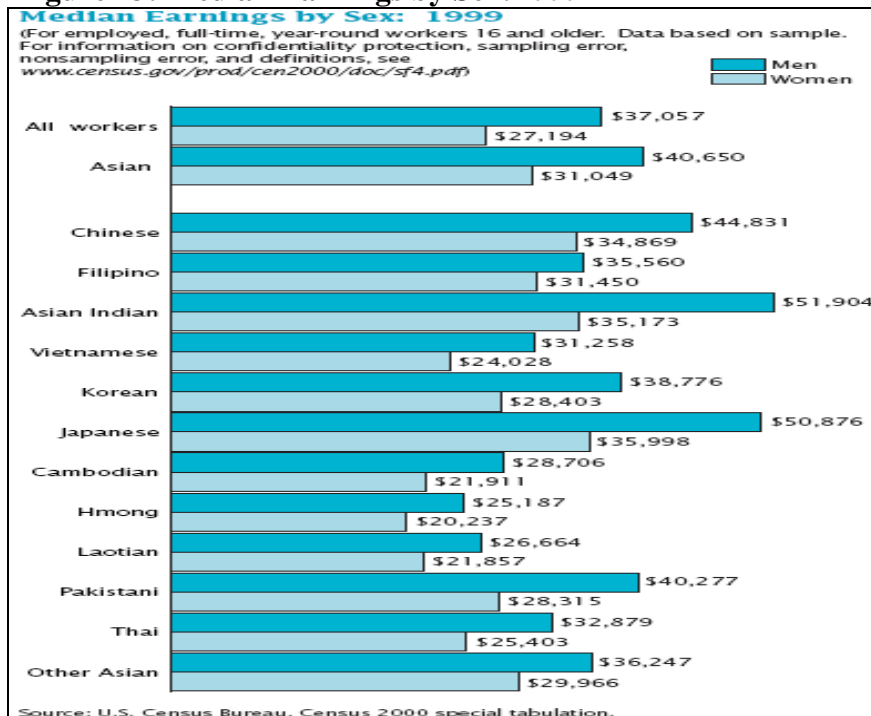
**Figure 12: Occupation 2000**



**f. Income Profile of the Indian diaspora as an index of capabilities.**

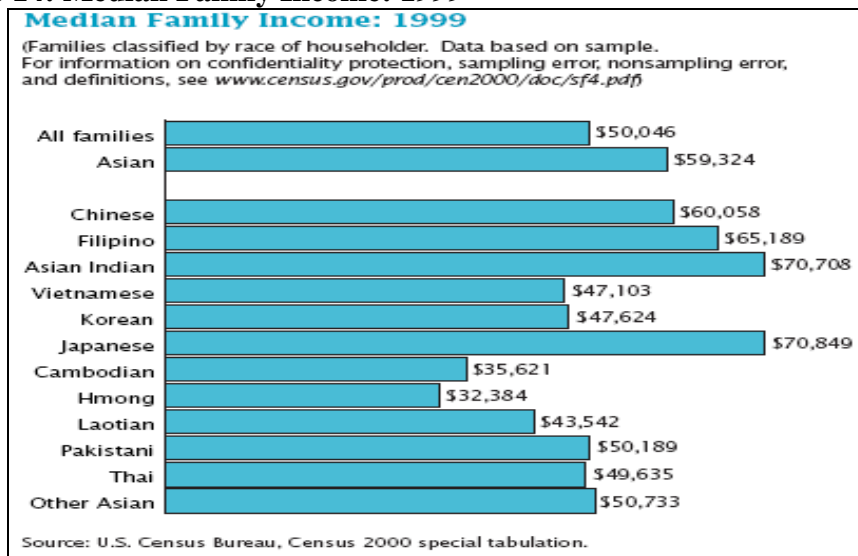
Earnings and income are important indicators of purchasing power and investible capacities of individuals and families. Full-time Asian men and women [workers] had higher median earnings than all men and women (Figure 13). Indian, Japanese, and Chinese men had higher median earnings than Asian men and all men. Indian men had the highest year-round, full-time median earnings (US\$51,900), followed by Japanese, with earnings of US\$50,900. Indian women too earned higher median earnings than all Asian women did and, slightly below them, the Japanese.

**Figure 13: Median Earnings by Sex: 1999**



The median annual income of Indian families, like those of the Japanese, was more than US\$10,000 higher than that of all Asian families (Figure 14).

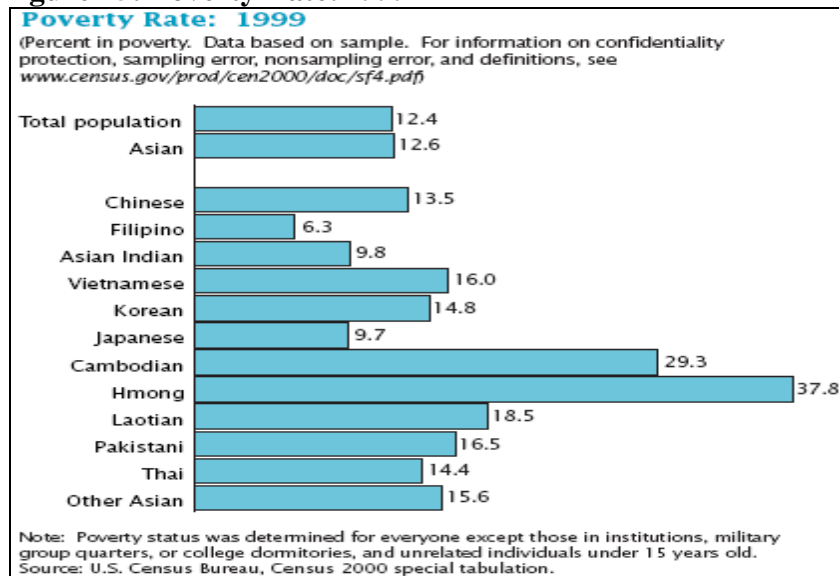
**Figure 14: Median Family Income: 1999**



**g. Absence of the Incidence of Poverty as indicator of well-being and capability:**

Diasporas can be incapacitated by poverty. Poverty rates for the Asian population and the total population were similar, even though median earnings for Asians were higher (Figure 15). In 1999, the poverty threshold for a family of four in the United States was US\$17,029, but more than 90 percent members of the Indian diaspora, as also of the Filipino and Japanese, were above this mark.

**Figure 15: Poverty Rate: 1999**



The above socio-economic profile of the skilled Indian diaspora in the United States reflects the empowerment of the Indian migrant workers in the labour markets of the developed countries over time. Within the European Union (EU) - the largest economic entity in the world today - two-thirds of the entire Indian migrant community still resides in the United Kingdom. Here too,

the Indian community is one of the highest-earning and best-educated groups in the British labour market, achieving eminence in business, information technology, the health sector, media, cuisine, and entertainment industries. In the Canadian labour market, with just 3 percent share in the country's population of 30 million, Indo-Canadians have recorded high achievements in the fields of medicine, academia, management, and engineering. The Indian immigrants' average annual income in Canada is nearly 20 percent higher than the national average, and their educational levels too are higher. In the east, there are 30,000 Indian citizens in Australia. New Zealand has also witnessed a rise in the entry of Indian professional immigrants; those engaged in domestic retail trade, medical, hospitality, engineering, and information technology (IT) sectors. Countries like Japan, Korea, and Singapore are also trying to attract Indian talent.

The twenty-first century profiles of the Indian diaspora in the United States indicate how the position of the Indian immigrant workers in the American labour market would have consolidated over the twentieth century to occupy high economic positions in the world economy. Perhaps this was largely because the initial Indian immigrant batches of the late 1960s had by then crossed the 'Chiswick-threshold' of a 13 to 15 years of stay in the host-country United States to get 'economically assimilated' into the local society and overtake the native population's averages in terms of labour market participation rates and income levels (Chiswick 1978). This has also led to the formation and proliferation of homeland diaspora associations. There are now over 1000 United States-based associations of Indians in North America, with branches in Canada, though perhaps only a quarter of them are active. These represent various interest groups in India, ranging from regions to states to languages, etc. Religion, caste, cultural and linguistic identities find significant space in these associations and networks, and often cleavages occur along these lines. However, some professional groups are involved in grass-root development activities in India as well as in the welfare of their members abroad in the professions. A few associations can be categorised by the main characteristics of their members, and/or their functions as in Table 9.

**Table 9: Indian Diaspora Associations of North America**

Category	Associations
1. Cultural/Religious Associations	Samband, Assam Association of North America, Telugu Association of North America, American Telugu Association (ATA), World Malayali Council, Bengali Cultural Association, Kenada Koota, Gujarati Samaj, etc.
2. Students/Alumni Associations	Mayur at the Carnegie Mellon University; Sangam at MIT; Ashoka at California University; Diya at Duke University; SASA at Brown University; Boston University, India Club, Friends of India, IGSA (Houston University) and Indian Students Associations at various universities.
3. Support Associations	MITHAS, Manavi, Sakhi, Asian Indian Women in America (AIWA), Maitri, Narika, IBAW (Indian Business and Professional Women), etc.
4. Professional Associations	AAPI, SIPA, NetIP, TiE, EPPIC, SISAB, WIN, AIIMSONIANS, AIPNA, ASEI, IPACA, IFORI, SABHA, and IACEF, etc.
5. Development Associations	Association for India's Development (AID), AIA, American India Foundation
6 General / Umbrella Network	GOPIO, NFIA, The Indian American Forum for Political Education (IAFPE), The National Association of Americans of Asian Indian Descent (NAAID), and Federation of Indian Associations (FIA), etc.

Sources: Government of India, Ministry of NRIs Affairs ([www.moia.gov.in](http://www.moia.gov.in)); website of Indian Embassy in the United States; [www.garmchai.com](http://www.garmchai.com); [www.nriol.com](http://www.nriol.com); [www.google.com](http://www.google.com); [www.indiandiaspora.org](http://www.indiandiaspora.org); [www.Indiaday.org](http://www.Indiaday.org).

In addition to becoming a great professional force in the labour market through the diaspora associations, Indians have also become a strong voting force in the United States as well as Canada. To form such a formidable voting force, one adds the number of India-born naturalised American citizens, that comprise almost one-third of all Indian immigrants (as referred to earlier), to the number of United States born second-generation Indian-Americans (already United States citizens). This has led Indian-Americans to become increasingly involved in the political system of the United States. Indian-Americans have traditionally exercised the highest political influence through their campaign contributions, and are actively involved in fundraising efforts for political candidates on the federal, state and local level elections. In recent years, they have begun taking a more direct role in politics, as well as continuing to help through their financial contributions. The same is the trend in Canada, though in a smaller and more obscure manner. The Association of Parliamentarians of Indian Origin has several hundred members from the developed countries like Canada, Germany, France, Britain and United States, apart from those belonging to developing countries like Malaysia, Trinidad, South Africa, Fiji, Surinam and Guyana, where Indian communities have existed for more than a hundred years. It is the second-generation of overseas Indians who have started taking an interest in local politics in the developed countries they live in, thereby influencing the labour market policies. There are about forty mayors of Indian origin in Britain, where Indians have a longer experience of active politics (*Overseas Indian*, April 2006, 10-11). Certainly, the proportion of naturalisation amongst the immigrants in North America would increase in the twenty-first century, now that the partial dual citizenship, the OCI (or the Overseas Citizen of India) granted by India, has become fully operational, and more and more NRIs amongst the diaspora choose to take up citizenship of the country they live in without having to give up their Indian citizenship rights altogether, thus acquiring increasing voting power for the Indian diaspora community as a whole in the destination countries they live in.<sup>27</sup>

##### **5. Hedging in a Forward Labour Market - Shortcutting Skill Formation Abroad through Mobility of the Semi-finished Human Capital of India:**

The Indians who fuelled the Silicon Valley's rise to the world's top electronics industry were B.Tech, Engineering degree holders (First Division) from Indian Institutes of Technology, who emigrated to the United States and there completed the post-graduate course. Similarly, many doctors who earned laurels in their respective fields in the United States had emigrated with their MBBS degree (First Degree) from the All India Institute of Medical Sciences (Table 10). Engineers from the Regional Engineering Colleges, Banaras Hindu University and so on - all institutions of excellence had also followed suit. Similarly, scientists with M.Sc/M.Tech degrees from universities like the Jawaharlal Nehru University, or the University of Delhi and engineer-managers with a degree in engineering followed by a Post-Graduate Diploma in Business Management from the Indian Institutes of Management (IIMs) had emigrated to pursue higher studies abroad, and then entered the world labour market in the United States. The motivation for these (largely tertiary) students to emigrate were: the relative underdevelopment of specialised research communities and intellectual climate in India; limited opportunities to pursue highly advanced scientific research; increasing bureaucratic and hierarchical climate of laboratories and; the relative absence of government policies to restrict the outflow of the skilled in a situation of soaring unemployment.

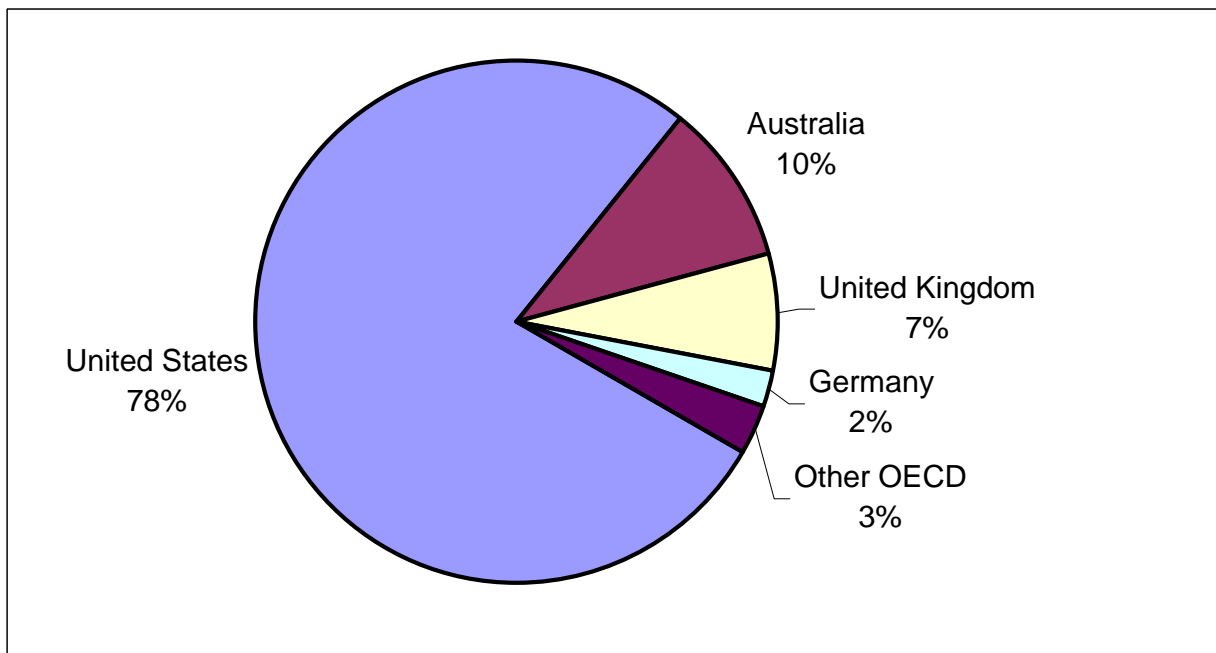
**Table 10: The 20<sup>th</sup> Century Brain Drain of Graduates of Top Institutions of Engineering and Medical Education in India**

<b>Indicators</b>	<b>Indian Institute of Technology Bombay, Mumbai</b>	<b>Indian Institute of Technology Madras, Chennai</b>	<b>Indian Institute of Technology Delhi, New Delhi</b>	<b>All India Institute of Medical Sciences, New Delhi</b>
Batches of Graduates	1973-77	1964-87	1980-90	1956-80
Year of Survey	1987	1989	1992	1997
Magnitude of Brain Drain	31 percent	27 percent	23 percent	56 percent

Source: Author, using various institution-based surveys sponsored by Department of Science and Technology, Government of India, cited in Khadria (1999).

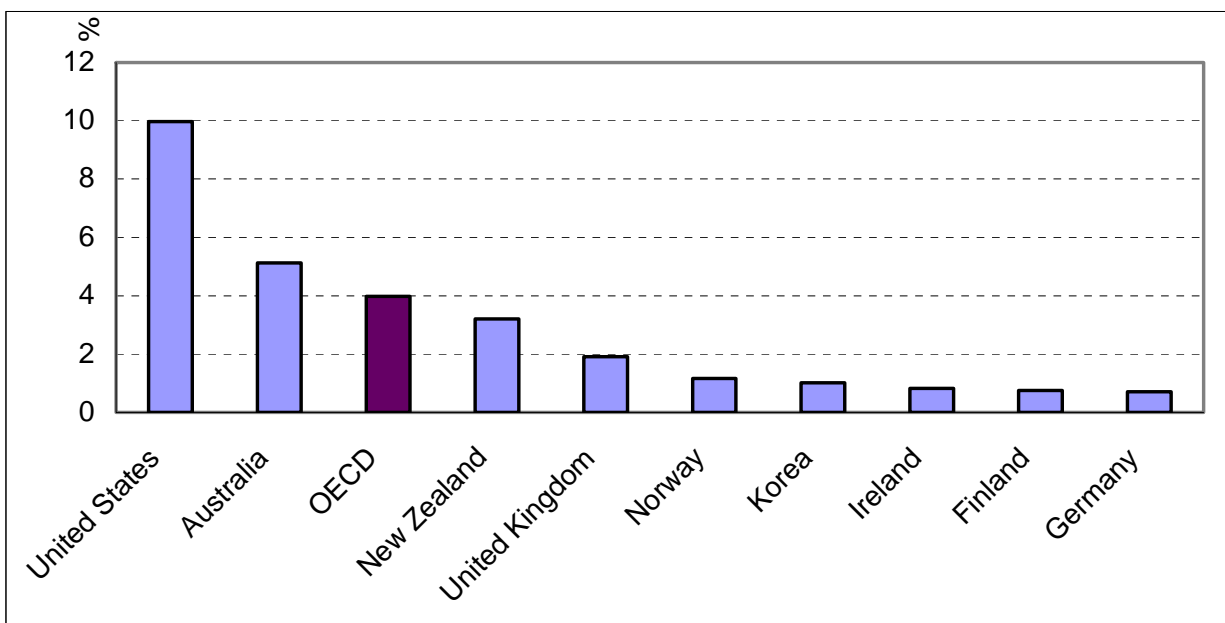
Traditionally branded as ‘brain drain’, the costs of such emigration involving the exodus of the highly skilled were known as the ‘investment loss’ of subsidies in higher education, and as the ‘skill loss’ of those undergoing training (Sen 1973). Thus, the highly skilled Indians have migrated to the developed countries not only through the ‘employment gate’; another stream of skilled migration has been taking place through the ‘academic gate’ (Abella 2006), as students - the ‘semi-finished human capital’ of India (Majumdar 1994). Data collated by the United States Institute of International Education’s *Open Doors 2005* survey revealed that in 2004-05 India retained its No. 1 position in the United States university enrolments (followed by China, Korea, Japan, Canada, and Taiwan) for the fourth year in a row (IIE 2005). In 2005-06, the numbers of applications from Indian students were reported to have registered a 23 percent increase over the previous year, the highest amongst all countries (*Hindustan Times*, 23 March, 2006). To serve the dual purpose of sustaining an expensive higher education system, and meeting *short-term* labour shortages, both the United Kingdom and the United States, with other countries following suit, have adopted a policy of allowing foreign students in their universities to stay on and work, rather than return to their countries of origin on completion of their degrees (*The Hindustan Times*, March 2005; Khadria 2006b). In addition, the destination countries gain a political bonus: The foreign students become their long-term ambassadors in the international relations arena.<sup>28</sup> India has therefore become a ‘must destination for internationally renowned educational institutions shopping for “knowledge capital” - that is, to woo the Indian student’ (*The Hindu*, Nov 26, 2000, Khadria 2001b). In October 2000, four countries had mounted education ‘fairs’ in Delhi and other Indian cities and, since then, it has become a regular feature of bilateral relations in India. Most diplomatic missions project these as ways ‘to facilitate the search of a foreign education to Indian citizens,’ but the countries also compete against each other for the generic Indian ‘semi-finished human capital’ - the student. Almost 80 percent of Indians migrating abroad for higher education went to the United States in 2001 (Figure 16), occupying a 10 percent share amongst all foreign students enrolled in the United States (Figure 17). In 2004, this share of Indian students amongst all foreign students in the United States went up to 14 percent. Figure 17 also shows that Indian students accounted for four percent of all foreign students enrolled in tertiary education in OECD countries in 2001.

**Figure 16: Distribution of Indian tertiary students in receiving OECD countries, 2001**



Source: OECD Education Database (cited in Khadria 2004a, 2004 b).

**Figure 17: Indian Students among All Foreign Students in Receiving OECD Countries, 2001 (percent)**



Note: Excluding data for Canada, Greece, Luxembourg, and Portugal.  
 Source: OECD Education database (cited in **Khadria 2004a, 2004 b**).

The growing competition among countries like the United States, United Kingdom, Canada, Australia, New Zealand Ireland Singapore and also non-English speaking countries like France, Germany, and the Netherlands has brought even the Ivy League institutions to India, and to other South Asian countries too, to look for and pick up the cream of students (*The Economic Times*, Nov 24, 2004).



## **6. Government Measures and Programmes for Better Management of Indian Migration to the World Labour Market: New Paradigms of South-South Cooperation for International Economic Relations**

The perceptions of the destination countries, in which the Indian professional migrants have settled to form a diaspora, have thus undergone a significant reversal, from treating them as potential ‘spies’ to ‘saviours’, despite the element of suspicion coming back into the arena because of the security concerns in the wake of growing international terrorism. Britain has come a long way since the days of Enoch Powell and his prophecy about ‘rivers of blood’ flowing if economic immigrants were allowed to settle in.

The change in values could be primarily attributed to the Indian diaspora itself ‘as it has defied the anticipated doom by rising to unforeseeable economic success.’<sup>29</sup> The reason why the paradigm shift in the societies and regions where Indians have settled is important for the hosts lies in their realisation that, given the appropriate help, resources, and local support, one type of diasporic actors - the suspected ‘tinker, tailor, soldier’, or ‘spy’<sup>30</sup>, if not outright ‘social parasite’ - can become the other, the social boon, or as someone has phrased it, the white West’s ‘great *off-white*<sup>31</sup> hope’! (Alibinia 2000)

The relationship of the Indian government with its diaspora was, however, not an issue to be thought of as a possible ingredient in India’s quest for nation building at the time of independence in 1947, nor when India became a republic in 1950 and adopted its Constitution and, not even subsequently, when it launched the first Five-Year plan in 1951 with a clear choice of socialistic path to development. The Indian official attitude towards the diaspora (that is, the PIOs, or the people/person of Indian origin with a foreign citizenship) continued to be one of indifference - triggered by India’s leadership of the non-alignment movement (NAM), whose policy remained one of non-interference with the immigrants’ countries of abode for forty years. As a result, the involvement of the non-resident Indians (the NRIs, or the expatriate Indian citizens) too in India’s post-reform development in the 1990s was particularly tardy. Even after the Government of India brought about reforms in the Foreign Exchange Regulation Act (FERA) and Monopolies and Restricted Trade Policies (MRTP) - allowing foreign investors to invest up to 51 percent in industries and other sectors without any prior approval from any Indian financial institution - NRI contribution as a share of total investment barely rose to seven percent in 1994 and then to eight percent in 1995 (Lall 2001, p. 176). It was only when the interest rates were hiked for foreign portfolio investors, that there was an appreciable rise in NRI investments. Even then, given the political instability in the country, like ‘hot money’, these too remained highly volatile.

Although FDI flows to India increased with reforms, as compared with other countries, India has been lagging behind, in particular to China, when it came to the share of ‘diaspora capital’. One reason was India’s indifferent attitude towards its diaspora. The Chinese diaspora has spread in countries both near and far. Apart from Taiwan and Hong Kong in East Asia, there are Chinese expatriates in Southeast Asia, the United States, Canada, Australia, and Europe. All of them are still considered Chinese by the government in Beijing with inherent rights to return to the country of their ancestors. Including Hong Kong and Taiwan, they total around 55 million, compared to India’s 20 million, or at present 25 million.

The Chinese diaspora retains links with their ancestral country through a network of associations prominent in the cities of their residence. Historically, Beijing’s policies towards its people abroad have been one of inclusion: China’s 1949 Common Programme pledged to protect ‘the

legitimate rights and interest of Chinese residing abroad'. In 1954, the Draft Constitution even provided for Overseas Chinese representation in the National People's Congress, and later China pledged to resolve problems of 'Overseas Chinese' through negotiations with the governments with which it had diplomatic relations (Lall 2001, p.199).

Besides China's attitude towards its diaspora, there was and still is, among the Chinese diaspora, a deep-rooted bonding with the Chinese culture, which has been consolidated by the existence of commonly practiced norms. Thus the perception of one-country, one-culture and one-government gave the Chinese a coherent whole to which they all could belong and from which draw an unambiguous identity. It created a kind of ethnic solidarity. On the other hand, apart from different political trajectories that separated Indians, Pakistanis, and Bangladeshis, even within India, the multi-cultural, multi-lingual, multi-religious diversity of India's civil society created subtle chasms amongst the diaspora.

Despite the debates, discourses, and perspective, the Government of India does not have any comprehensive policy on labour migration or overseas employment, be it for skilled or unskilled workers. However, the paradigm of policy stance in India could be said to have moved over time from one of restrictive regime, to one that is compensatory, restorative and developmental.<sup>32</sup> The Emigration Act, 1983, which replaced the earlier 1922 Emigration Act, has been designed mainly to ensure protection to vulnerable categories of unskilled and semi-skilled workers and women going abroad to work as housemaids and domestic workers. The Act provides for a regulatory and legal framework in respect of emigration of Indian workers for overseas employment on a contractual basis. Under the Act, it is mandatory for registration of all 'Recruiting Agents' with the ministry before conducting the business of recruitment for overseas employment. A Registration Certificate is granted by the Protectorate of Emigrants after taking into account the recruiting agent's financial soundness, trustworthiness, adequacy of premises, experience in the field of handling manpower, etc., and after obtaining a security deposit of a bank guarantee. The registration commenced from 1984 and, up to the end of 2005, Registration Certificates were issued to 4,589 recruiting agents (GOI, MOIA, *Annual Report 2005-6*). This includes nine State Manpower Export Corporations established by the governments of Uttar Pradesh, Andhra Pradesh, Kerala, Punjab, Tamil Nadu, Karnataka, Himachal Pradesh, Haryana and Delhi.

At present 2,100 recruiting agents are active and they are mainly located in Mumbai, Delhi, Chennai and in the state of Kerala. Registered agents are held responsible for complaints of recruited workers regarding non-payment or delayed payment of wages, unilateral changes in the contract, arbitrary change of jobs, denial of employment, and inhuman working and living conditions, etc. There have been illegal recruiting agents also operating in the field in a clandestine manner.

The newly formed Ministry of Overseas Indian Affairs, constituted in 2004, has taken the initiative to amend the Emigration Act, 1983, and introduce other measures that can be listed and elaborated as follows:

- An annual meet of the expatriate Indians at Pravasi Bhartiya Divas (PBD or the Expatriate Indians Day) "to deepen the engagement between India and its Diaspora through focus activities across sectors" (GOI, MOIA, *Annual Report 2004-5*).
- Introduction of *Pravasi Bhartiya Samman* awards to 15 overseas Indians each year "to recognise achievements of the Indian Diaspora and their contribution to strengthening of

India's relations with other countries, promoting the honour and prestige of India and fostering interests of overseas Indians" (GOI, MOIA, *Annual Report 2004-5*).

- Admitting, from 2006, the dual citizenship by granting Overseas Citizenship of India (OCI) to Persons of Indian Origin (PIOs) in all countries (except Pakistan and Bangladesh) and who were citizens of India or eligible for it as on 26 January, 1950, having accordingly amended the Citizenship Act, 1955 in 2005.
- Approval for amendment to the Representation of the People Act to permit Indian citizens who are away from their normal area of residence on account of employment, education or otherwise to be registered as voters in that area.
- An e-governance project to modernise the offices of the Protectorate of Emigrants, which administers the Emigration Act, 1983, and make emigration of uneducated workers simple, transparent and orderly.
- Because a substantial part of the remittances continue to come through informal channels primarily because of prohibitive costs and lack of convenience, the MOIA partnered with the UTI bank to develop and launch a 'Universal Integrated Electronic Remittance Gateway'. Mainly intended to benefit Indians working in the Gulf, the 'Insta-Remit' gateway will also serve as a valuable service for overseas Indians across the globe. The facility is already in operation between India and Doha since January 2006, and the knowledge portal to extend advisory services on investing in India, taxation issues and real estate investment opportunities in India are on the cards.
- To minimise failed marriages and stop the fraudulent ones between overseas Indian grooms and brides from India, the measures taken include compulsory registration of marriages involving an Indian spouse, parallel registration of the spouses in Indian Missions abroad, and establishment of additional family courts for amicable settlement of disputes. Working along with the National Commission for Women and the National Human Rights Commission, the MOIA would open gender cells in various states from where fraudulent marriages by NRIs and PIOs are reported and create awareness about right to information.
- Compulsory insurance policy called Pravasi Bhartiya Bima Yojana (PBBY) 2003 for all worker migrants recruited by agents, with an enhanced cover of Rs. 500,000 from 2006. At reasonable premium, increasing numbers of insurance companies are to provide cover for contingencies like death, physical disability while in employment abroad, transportation of the body in case of death, maternity benefits for women migrants, medical benefits for families of migrants in India, etc.
- Setting up of an Overseas Indian Workers' Welfare Fund.
- Signing of a Memorandum of Understanding between MOIA and the American Association of Physicians of Indian Origin (AAPI) to launch pilot projects in basic health cares in two states of India to begin with, viz., Andhra Pradesh and Bihar.
- Fifteen percent of all higher and technical education seats (except in medicine) in the country to be filled by Indians overseas on supernumerary basis over and above the

approved intake, and of these one-third by the NRIs in the Gulf and South-east Asia. This apart, a PIO University is to be set up soon.

- Scholarships Scheme for Diaspora Children (SSDC) starting from 2006-7 with the objective of making higher education in India accessible to the children of overseas Indians and publicise India as an education hub.
- Three or four three-weekly Internship Programme for Diaspora Youth (IPDY) per year, aimed at associating closely the second and younger generations of the Indian Diaspora with India
- Establishment of a centre called Pravasi Bhartiya Kendra (PBK) in Delhi as a focal point for interaction with overseas Indians and the world, eventually “to become a hub of various activities aimed at creating pride in the achievements of India and its Diaspora”.
- Institutionalisation of a Diaspora Knowledge Network (DKN) “to bridge the capacities and opportunities arising from the Indian Diaspora and the home country without any geographical barrier” (*Overseas Indian*, 1, 2, February, 2006, p.13). It would build an expertise corridor through an interactive ICT database of overseas Indians and their institutions, their knowledge profiles and their areas of interest on the one hand and relevant data on the development opportunities and challenges in various sectors of Indian agriculture, industry and services. For building Communities of Interest (CoIs) towards this end, collaborations with UNDP and UNESCO is already underway.

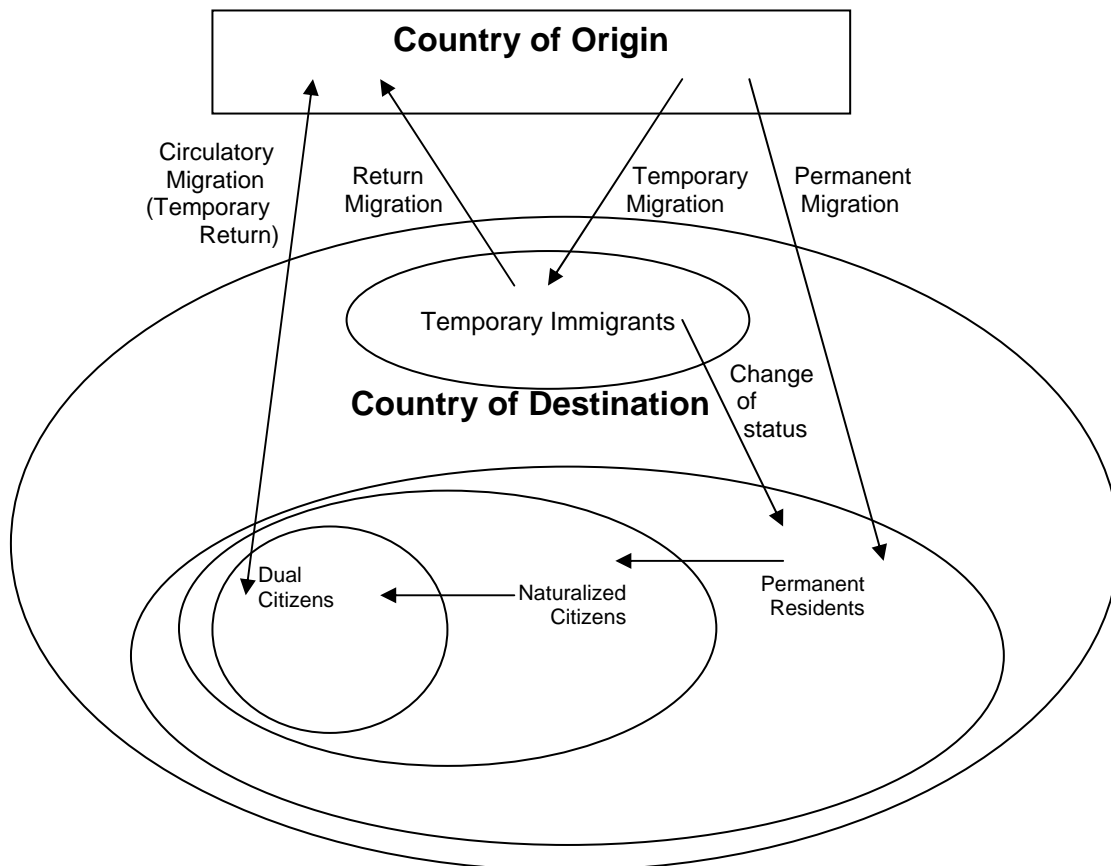
As for the illegal agents, the proposed amendment to the Emigration Act of 1983 would, it is expected, make the operations of India’s “fly-by-night” overseas recruitment agents more difficult, even if it does not go to the extent of totally grounding them (*Hindustan Times*, May 22, 2006). Number of illegal recruitment agencies against who cases have been filed was 25 in 2003, 39 in 2004 and 59 in 2005 and prosecutions ordered numbered 11 in 2003 and 9 in 2004 (GOI, MOIA, *Annual Report 2004-5*, *Hindustan Times*, May 22, 2006). In 2004, as a follow up of complaints registered against legal agents, 24 Registration Certificates were suspended and 2 Registration Certificates cancelled. In the last two years, 451 workers affected by “harassment” in the Gulf have been repatriated to India through the intervention of the Protectorate of Emigrants and the Indian consulates in the Gulf countries (*Hindustan Times*, May 22, 2006). A conference of India’s Heads of Mission in GCC countries held in Doha, Qatar in March 2006, and inaugurated by the Union Minister for Overseas Indian Affairs, was a first effort in the direction of coordinating the Indian consulates in the Gulf to work together in addressing and resolving the problems of Indian workers in the region (*Overseas Indian*, 1, 4, April, 2006). The draft amendment to the Emigration Act has proposed tightening of the law and increasing penalties for violations like shady deals and over-charging workers, from existing one-year jail term to 7-8 years, and penalty of Rs.25,000 to Rs.30,000 in place of Rs.1,000 to Rs.2000 respectively. Collusion between the Protectorate of Emigrants staff and the illegal agents has also been under the scanner (*Hindustan Times*, May 22, 2006).

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 e-version also being made accessible.

Of the government measures and programmes in India, the Overseas Citizenship of India (OCI) – the partial dual citizenship - is an important landmark in redefining the contours of a *migration policy* in the new millennium - not merely for India but for a transnationally ‘interconnected’ world that is perceived to be emerging.<sup>33</sup> This measure seems to be relevant mainly to the highly skilled migrants to the developed countries. By 2007, some 85,000 OCI cards were reported to have been issued (Pravasi Bharatiya, 2007 issue).

Although it is still too early to gauge the impact of OCI in its present-day infancy, some fallouts of this move towards dual citizenship could be projected. To my mind the most significant outcome of the tendency of both receiving and sending countries to introduce dual (or multiple) citizenship would arise from its countermanding some of the ill effects of the deliberate substitution of permanent migration by temporary migration that is being promoted by what is called “effective migration management”, under which return migration virtually turns out to be a forced migration.<sup>34</sup> In fact, this could be analysed generically in the context of an alternating move of policy emphasis towards a full circle for international economic relations through dual and multiple citizenship, which alters the status of most migrant workers from that of (a) a temporary immigrant to: (b) a permanent resident to; (c) a naturalised citizen to; (d) a dual/multiple citizen and then to; (e) a circular migrant - in effect, a *temporary* returnee, rather than statutory one-time returnee under a temporary migration policy (Diagram 1).

**Diagram 1: Research & Development in the Country of Origin of Researchers: Comparative Routes of Voluntary Circulatory Migration Vs Statutory Return Migration**



Source: Conceived and drawn by the author.

An extremely fast-track example of such policy transition amongst recipient countries is currently visible in the growing primacy of student immigration in the developed receiving countries described earlier. Overseas students are normally admitted on temporary visas in most countries. The growing competition among countries like the United States, United Kingdom, Canada, Australia, New Zealand, Ireland, Singapore, and non-English speaking ones too, like France, Germany, the Netherlands, etc. for enrolling foreign students, have brought their higher education institutions to Asian countries, and in particular to India (*Economic Times*, Nov., 24, 2004).<sup>35</sup> In this process, there is an element of hidden exploitation, as well as non-transparency, because often foreign or non-native Asian apprentices working in the laboratories or research hospitals in destination countries are unpaid or underpaid, and the so-called post-graduate ‘degrees-by-research’ with free-ship and scholarship (as opposed to full-tuition charging ‘degrees-by-course-work’) are meant to attract foreign students to some kind of ‘tied-research’.<sup>36</sup>

In the United States, figures collated in the *Open Doors 2004*, the annual survey of the United States Institute of International Education reveals that in 2003-04 university enrolments, Asian students retained five of the first six rankings – first India, followed by China, then Korea, Japan, Canada, and Taiwan (IIE 2004). In 2004-05, India retained its top position.<sup>37</sup> For the fall 2006, enrolments too, Indian applications registered the largest increase of 23 percent, closely followed by China’s 21 percent (*Hindustan Times*, 26 March, 2006). To serve the dual purpose, that is to sustain their expensive higher education systems, and to meet short-term shortages of researchers and other workers, both the United States and the United Kingdom have recently adopted a policy of allowing foreign students in the American and British universities respectively to stay on and work, rather than return to their countries of origin on completion of their degrees. In New Zealand, and more recently in Singapore, policies have been announced to encourage foreign students to take up jobs at the end of their study, followed by permanent status, and eventually citizenship.<sup>38</sup> The loss of skilled human resources to sending countries inherent in such student emigration would perhaps get mitigated to some extent if unilateral naturalisation is straightaway substituted by bilateral or multilateral agreements on dual and multiple citizenship. The latter would facilitate circulatory migration for development engagement of the diaspora in both the host and the home countries, rather than only in the former. Interestingly, by way of encouraging to-and-fro mobility - or what is presently known as “circulatory migration” - between nation states of which a migrant settler is holding the citizenships, it would lead to a kind of reversal from permanent to temporary migration, though with a difference.<sup>39</sup> The difference would arise primarily from the return migration to the country of origin - the flow which is intrinsic in temporary migration - becoming (a) more voluntary and (b) less permanent in nature.<sup>40</sup> The newly intensified circulatory migration would thus involve what may be appropriately called “temporary return” of highly skilled migrants to the country of origin. In properly understanding the fallout of this paradoxical, reversed look at permanent migration, one needs to address the generic costs and benefits to the host and home countries – the determinants that would drive their policies towards or away from dual or multiple citizenship - particularly in the context of the political economy of globalisation and development. The emerging contours of these costs and benefits for India have remained uncharted so far (Khadria 2006e).

To the home countries like India particularly, this may provide a novel way of South-South cooperation. Dual citizenship can, hypothetically speaking, even pave the way for multiple citizenship, or at least multiple nationality across countries that may have had a common cultural heritage, apart from being once part of a common colonial empire, such as India, Pakistan, Bangladesh, Sri Lanka, Myanmar, Nepal and Bhutan. The dual citizens of each of these

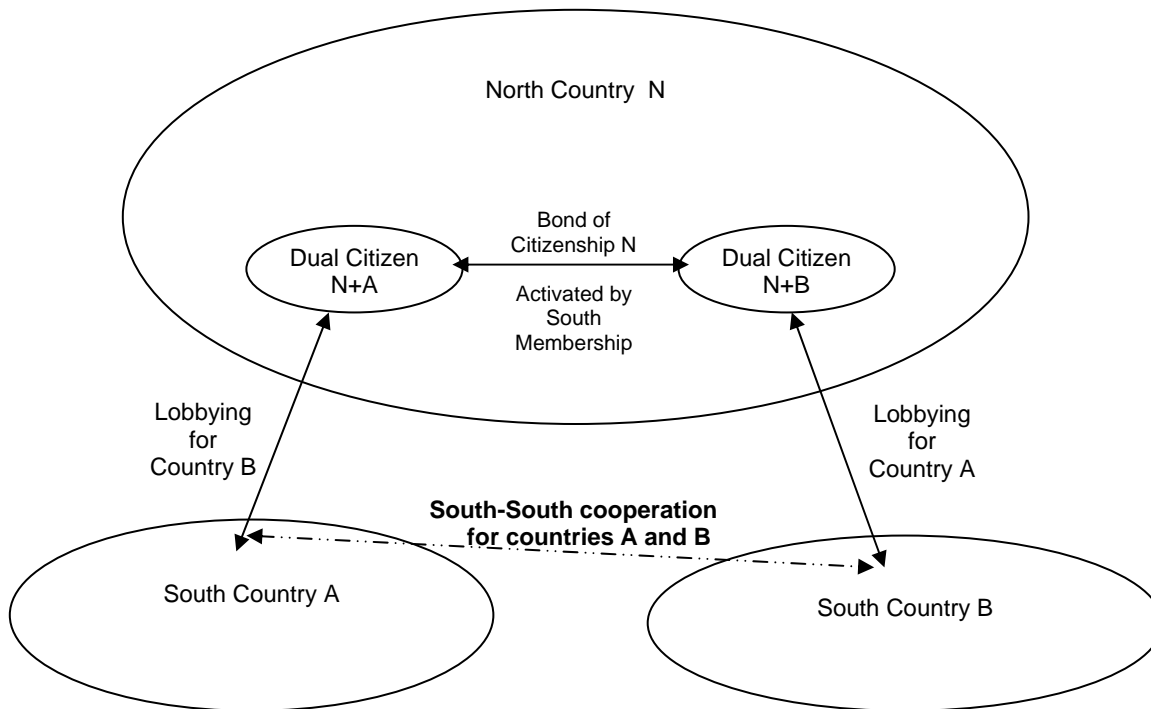
countries living in a third-country outside Asia, or in relatively high-income countries even within the region like Japan, Korea, Taiwan, Singapore and so on, could come together to moot such an idea of a common nationality, as different from common citizenship.<sup>41</sup> The returning nationals need not then be necessarily encouraged to return to their own low-income homeland every time they wished to engage their skill, labour and time into an anti-poverty programme, so to say, but to another poor country within the region for participating in a development-related activity there. The added advantage of this possibility would be that the economies of scale arising from the large population of the low-income countries in the region would be together counted as functional human capital. However, there is a flip side too in the prospects of a pan-Asian South-South cooperation that one must keep in mind. Ideally, any analysis of dual citizenship focusing on low-income Asian countries should incorporate the legal provisions as well as the incidence of dual citizenship for its nationals abroad – in countries both (i) outside the Asian region and (ii) within the region. However, intra-Asian dual citizenship would perhaps stand rather discouraged for in-migrants, although it would be welcome for emigrants from overpopulated or poor countries within the region as a South-South cooperation strategy.

Incidence of citizenship seekers from the poorest countries outside the region would be anyway minimal, because of job-search and travel costs involved, unless this involves cross-border movements across neighbouring states only. Similarly, incidence of citizenship seekers from rich and developed countries, whether from within the Asian region or outside, would be rare in relatively poorer countries for the simple reason that migrants would usually move from poorer to richer countries. This leaves the domain limited to dual citizenship for the emigrants of Asian nationals in the developed countries, a few within the region but largely outside of it. What is perhaps required, *through* and *for* South-South cooperation, is a long-term policy that is aimed at establishing Asia's link with an Asian Diaspora for sustainable socio-economic development of the region as a whole, where inter-country exchange and cooperation is in-built. This could begin through a fusion between economic groups like ASEAN, SAARC, and other such alliances.

One perhaps cannot generalise, but surely dual or multiple citizenship can play a role in initiating or strengthening the South-South-cooperation for development-related projects – in bringing different nationalities of origin together by creating a multi-polar link of diasporic relationship between citizens of different countries residing in a single host country. For example, an Indian-American dual citizen in the United States could become the medium of arbitration and co-operation between the two governments of India and China when his or her colleague is a Chinese-American citizen through whom he/she could lobby the Chinese government. Such a bilateral situation could be simulated multilaterally too, when “club members” comprising naturalised American citizens hold two citizenships – one of the United States and the other from one of the various Asian countries of their origin. When the countries of origin do not allow dual citizenship, the members would have neither the legitimacy nor a strong emotional bond to get involved in such endeavours.

For voluntary NGO activities, the scope of such cooperation would be even greater. In fact, the to-and-fro circular migration between the host and a home country, as facilitated by dual citizenship, could then be further extended to become triangular, quadrilateral or even multilateral circular migration of dual nationals. They could go to a country of which he/she is not a citizen, but whose co-member in the club is (Diagram 2). This would facilitate engagement of the Indian diaspora resources in what I would call “third-country development” in many poor nations of the South.

**Diagram 2: South-South Cooperation through DMC**



Source: Conceived and drawn by the author.

To operationalise such cooperation between members of the Asian countries of the South to begin with, it should be possible to create regional or continental umbrella networks of the diasporas along the line of the Indian diaspora in North America cited earlier.

## 7. Policy Debates and Public Discourses in India: Changing Perceptions about Skill Formation and Emigration from India

At the time of independence, India had a moderate number of universities but it lacked both highly trained scientific and technical human resources and an institutional base in science and technology (S&T) to embark upon the industrialisation and modernisation programmes planned under the Nehruvian leadership of the early decades. In the domain of higher technical education, the first Indian Institute of Technology (IIT) was established nine years after India's independence, at Kharagpur in 1956.<sup>42</sup> The five IITs, modeled on the Massachusetts Institute of Technology (MIT), were created to train the best engineers who would play an important role in assimilating technological change and revolutionising India's industrialisation programme. The IITs not only created space for hundreds of faculty members, but also attracted a good number of them back from abroad and initiated a policy of training them abroad as well. As all the IITs in the beginning had intellectual and material support from various advanced donor countries such as the United States, USSR, Germany, and the United Kingdom, they introduced the guest faculty system from the respective countries and this contributed substantially to the introduction and implementation of several academic innovations. The exchange put Indian scientists in touch with the cutting-edge of technological research and advanced training to be transposed to Indian conditions (Indiresan and Nigam 1993).

The historical growth of other science and technology (S&T) institutions and the expansion of the university sector, legitimated by various committees set up by the government during the



1940s and 1950s, indicate that the problem of brain drain was not a major concern in India's skill formation during this period. The same was true of the period ending in the 1960s. The problem of brain drain did not come into sharp focus either in the literature on science and society or in the official discourse on science policy matters till the late 1960s. Rather various institutional and individual measures were initiated and adopted by S&T institutions to attract the best Indian talent from abroad instead of worrying about their emigration.<sup>43</sup> The Council for Scientific and Industrial Research (CSIR), which instituted a National Register of Scientific and Technical Personnel in the late 1940s, created a special section – the “Indians Abroad” section of the National Register - in 1957 towards this end, which of course did not succeed.<sup>44</sup>

The migration of the highly skilled from India to the developed countries was first seen as brain drain when the Nobel Prize of 1968 in medicine brought global recognition to gifted Indian scientists Har Gobind Khorana, who had migrated to the United States and naturalised as an American citizen around that time. This also coincided with the landmark 1965 amendments to the United States Immigration and Nationality Act - brought into effect in 1968 – that made migration of Indian professionals a mass phenomenon. The onus, however, was put on the migrants as ‘deserters’ of the ‘motherland India’, either openly or subtly.<sup>45</sup> From time to time, various restrictive measures to contain the problem were conceived, but there has never been a consensus (that is, except in the medical sector, where some restrictions were introduced, but with too many escape clauses to make the control at all effective (Khadria 2002).

The most striking feature of the period was that the necessary policy attention and adequate space was just not given to the problem of brain drain in the policy statements relating to science and technology. Even education policy documents of the time did not provide for effectively devising any kind of mechanism to check the problem. The Kothari Commission had observed: “Not all who go out of India are necessarily first-rate scientists, nor are they of critical importance to the country's requirements.” But it did warn that the problem was “of sufficient importance to merit a close and systematic study” (GOI, 1966, section 198 on ‘Brain drain’, chapter 16). The government, in taking perhaps only the first half of the Commission's observations on brain drain seriously, entirely overlooked the necessity of understanding the problem for any time bound policy intervention. As a result, the National Policy of Education (NPE) 1968 (based on this Commission's report), that was to guide the contours of higher education system in India for at least two decades to come, did not put any emphasis on the problem of brain drain. It missed the point that the failure of India's industrialisation programme to absorb the increasing number of highly qualified skilled personnel from educational institutes, coupled with the shrinking employment space in the science agencies, led to a serious problem of supply and demand (Blaug et al 1969).

The policy discourse during this period thus did not pay attention to the problem it deserved in the face of stark realities of oversupply of the highly skilled personnel, unemployment and the exodus of trained human resources to foreign countries.<sup>46</sup> In fact, a cursory examination of the policy documents reveals that brain drain did not at all figure as a policy problem, despite public discourses in the media making a hue and cry about it (Krishna and Khadria 1997). For instance, the 1983 Technology Policy Statement – which underlined the importance of attaining self-reliance in science and technology and gave a serious call to strengthen indigenous technological base – completely overlooked the problem of brain drain in the face of dismal figures of graduate unemployment, and brain drain of the IIT engineering graduates and AIIMS medical graduates (See Table 8). As noted earlier, Indian politicians and the bureaucracy did not seem to be worried much about what the brain drain was doing to the country. Similarly, emigration of unskilled and semi-skilled to the Gulf too was not considered worrisome and, indeed a welcome

relief from population pressure, with the added bonus of remittances coming in. Thus, when the United Nations (1982) asked the government agencies questions - included in the periodic surveys of 1981 - relating to the patterns of population distribution and the levels and direction of internal and international migration and also requested them to identify their main concerns and policies, the response was as follows: for internal migration it was like “spatial distribution requires adjustment” leading to policy that “attempts to restrict growth of large metropolitan areas and increases the rates of growth of small and medium towns through investment policy”; for international migration it was like “levels of international migration (are) not significant and (therefore) satisfactory” for skilled emigration and; for labour emigration “remittances from workers in the Persian Gulf are appreciated” for labour emigration (Kosinski and Elahi 1985, 9-12).

In fact, it was the Gulf war of 1990-91 that had woken up the Indian policy makers about the vulnerability of its workers in the Gulf labour markets, and the importance of their remittances to the economy.<sup>47</sup> The increase in petroleum prices, associated with fall in remittances of Indian workers in Kuwait and Iraq in early 1990s and the added expenditure of airlifting Indian citizens from the Gulf then<sup>48</sup> had stressed the Indian economy enough to precipitate the reforms that started in early 1990s. However, with shifts in the paradigm of migration, it was the perception of high-skill emigration to developed countries that had changed much more dramatically than that on labour migration to the Gulf. Thus, in the mid-1980s, the political perception of "brain drain" suddenly gave way to the perception of "brain bank" abroad, a concept dear to Rajiv Gandhi when he took over as the prime-minister of the country in 1984 when Indira Gandhi was assassinated. Through the 1990s, the gradual success and achievements of the Indian migrants in the United States - particularly led by “body shopping” of the software professionals to the United States from Bangalore, India’s Silicon Valley, and working towards averting the looming global crisis of Y2K - drew real attention of the developed countries in the West and the East alike (Van der Veer 2005, 279). What followed was a change of attitude in India too, towards its migrants abroad, now being given a singular identity called the “Indian diaspora” or even “Indiaspora” as was once proposed.<sup>49</sup> The paradigm shift in the perception about professional migrants leaving India, thus took place in phases - from the ‘brain drain’ of the 1960s and 1970s to the ‘brain bank’ of the 1980s and 1990s, and subsequently to ‘brain gain’ in the twenty-first century.

However, towards the end of the twentieth century, when the IT bubble burst in the wake of the American recession, hordes of techies were sent back to India, having lost their H-1B visa contracts. Western European countries in the EU, including the United Kingdom, now appeared to be a more sustainable destination for the Indian professionals, and East/South East Asia seemed to be an emerging destination for the Indian ‘brain bank’. However, these countries themselves were facing their own problems, and as theirs was only a derived demand dependent on the demand in the United States, it was short-lived. For example, Germany’s Chancellor Gerhard Schroeder’s scheme of issuing 20,000 ‘Green Cards’ to computer specialist from non-EU countries - mainly India (between 7,000 to 10,000) and Eastern Europe - launched on August 1, 2000 was met with street protests and a wave of xenophobia, with its call of "*kinder stat inder*", swept across Germany.<sup>50</sup> As a result, Indian industry’s perception about emigration of skilled professionals from India first dithered, but eventually took a new turn when opportunities of employment multiplied within India under the emergence of business process outsourcing (BPO) – MNCs moving their capital to India rather than labour moving out of India – triggering return migration of Indians as a boon to the country’s economy.<sup>51</sup>

Table 11 shows the number of IT professionals leaving India (for on-site work) at 64,000 in 2001-02, projected to decline to 21,000 in the year 2004-05. This declining trend was anticipated due to the growth of software development within India, particularly in cities like Bangalore, Hyderabad, Gurgaon and Noida (the last two near New Delhi). Software professionals were getting infrastructure and remuneration packages comparable to what they would get abroad. The number of IT professionals returning to India was projected to increase from 20,000 in 2002-03 to 29,000 in 2004-05. The projected stocks and flows were based on enrolment trends in IT-related courses of two-to-three years' duration offered by the degree and diploma colleges in India in 2002.

**Table 11: Cumulative Stock, Net migration, and Annual Flow Estimates of IT (software) Labour Supply in India (thousands)**

	2000-01	2001-02	2002-03	2003-04	2004-05
Existing stock (excluding ITES professionals)		360	429	542	675
India: New IT labour		133	158	173	192
No. of IT professionals leaving India		64	64	64	21
No. of IT professionals returning to India		-	20	24	29
<b>No. of IT professionals</b>	<b>360</b>	<b>429</b>	<b>542</b>	<b>675</b>	<b>875</b>

Note: The stock figures exclude ITES (IT enabled services) professionals.

Source: Khadria (2004b) using data from NASSCOM (2002).

This see-saw of the trend – between that of “work-seeking” by Indian workers in the labour markets abroad leading to mass emigration, and that of their return to India, followed by subsequent re-emigration in response to large scale “worker-seeking” by foreign employers – has altered India’s official and public response to the changing immigration quotas of the developed host countries. India’s current pro-active stance towards its population overseas, incorporating a substantial scientific diaspora, is reflective of this paradigm shift only. Migration of skills has come to be looked at as globalisation of labour through circulation of the Indian talent and skills – out of India and back to India. Not merely economic, but political mileage that the NRIs and PIOs can command for India in their countries of abode has also become a focus of pride in recent years, particularly with liberalisation, globalisation and world competitiveness becoming the agenda of the nations - whether developed or developing.<sup>52</sup>

While political pride has dwelt on the geo-politic presence of Indian skills abroad, Indian media perceived the real problem in brain drain to be that of the quality of residual manpower left behind in the process of circulation of skills abroad.<sup>53</sup> In fact, the NASSCOM Strategic Review (2005a) and the NASSCOM-McKinsey Report (2005b) stood testimony to the media’s apprehensions not only in terms of India facing huge shortage of IT-related and BPO-related skills, but also in terms of independent India’s age-old concern with urbanisation mentioned earlier. The report said that, currently, only about 25 percent of the technical graduates and 10-15 percent of general college students were suitable for employment in the offshore IT and BPO industries, respectively. It estimated that, by 2010, the two industries would have to employ an additional workforce of about one million workers near five Tier-I cities including New Delhi, Bangalore, Hyderabad, Chennai and Mumbai and about 600,000 workers across other towns in India. The report warned: "Cities are at a breaking point and further growth will have to come from entirely new business districts outside Tier-I and Tier-II cities."(*Economic Times* 17 Dec, 2005). "As countries from around the world enter the market and competition for off-shoring contracts intensify, India must improve the quality and skills of its workforce," the report released at Nasscom’s ‘India Strategy Summit 2005’ in Bangalore said. On talent supply, it said

India would need a 2.3 million strong IT and BPO workforce by 2010 to maintain its current market share. The report projected a potential shortfall of nearly 0.5 million qualified employees - nearly 70 percent of which would be concentrated in the BPO industry. In fact the BPO industry has also started attracting foreigners to India in search of employment.<sup>54</sup> Whereas provision regarding entry, regulation and prevention of ‘foreigners’ *into* India and Indian citizenship are found in the Constitution, the Citizenship Act 1955, the Passport Act 1967, the Criminal Procedure Code and other regulations, there has been no systematic legal policy framework to deal with emigration *out of* the country. With respect to emigration of the unskilled and semi-skilled to the Gulf, to south-east Asia or anywhere else, the government’s role has been that of a *facilitator in finding gainful employment for the maximum number of persons, which has been a major development concern since India’s independence*, whether within or outside the country.

## **8. Practical and Analytical Initiatives for Policy**

### **8.1 A Critical Assessment of the Socio-economic Impact in India**

How does one practically assess whether migration of Indian workers and tertiary students to the global labour markets abroad has changed society in India as a south-country of origin?, Has it adequately contributed to the country’s social and economic development? In other words, what have been the socio-economic gains and losses arising from migration? These questions have traditionally been raised in suggesting cost-benefit analysis at the micro-level for the individual migrant and the household, and at macro level for society and the economy as a whole. But to what extent have those studies been undertaken, or the data been generated and made available for pursuing them?

Even if it is assumed that the micro-level assessment of benefits and losses to the households left behind in India can more accurately identify and measure the benefits, there has not been many satisfactory surveys of the psychic trauma that is inevitably the result of long separation of a family member, except for a few studies carried out in Kerala. For example, emigration of married men who left behind all household responsibilities to their women may have transformed about one million women into efficient home managers, but this does not make up for the social and psychological problems of the “Gulf Wives” and the loneliness of the “Gulf Parents” who, unlike the families of the skilled migrants, could not accompany their men to the destination countries (Zachariah et al 2003, 329-39; Zachariah and Rajan 2004, 48). Increase in temporary migration over permanent migration of even skilled migrants to developed countries has also led to the creation of what I have elsewhere called ‘nomadic families’ on the one hand and a new kind of ‘forced return’ on the other for the skilled migrants. But these have not been assessed or analysed (Khadria 2006e).<sup>55</sup> Another related but unattended facet of Indian migration has been the gender issue. No comprehensive data are available on women migrants as dependents or workers, not to speak of in-depth analyses of the trend and impacts. Some receiving-country data are available, like the United States Census or the United Kingdom workforce data indicating the proportion of women amongst Asian Indian ethnic group population, which comprises migrants, or particular professional groups like Indian nurses and the Singapore data on Indian maids. Beyond this, analyses of the gender dimension of Indian migration have remained, by and large, either stereotypical or case-study based.<sup>56</sup>

In terms of the impact on migrant workers themselves in the destination countries (and therefore on their families back in India), there are commonalities and similarities of exploitation, which have emerged between unskilled migration to the Gulf and skilled migration to South-east Asia (Khadria and Leclerc 2006). Of course, there has been concern expressed and diplomatic action

taken for the safety and welfare of Indian migrants whenever a crisis has erupted, be it the Gulf war, the Iraq war, the random abductions of Indian truck drivers, the recent beheading of an Indian engineer by the terrorists in Afghanistan, or the sudden arrests of Indian IT professionals in Malaysia or the Netherlands and so on (Hindustan Times, Times of India, Straight Times, April-May, 2006). However, India virtually exerts no control over migration flows of highly skilled categories. Even unskilled migration flows are controlled only to the extent they fall under the purview of the Emigration Clearance Required (ECR) category of passports (which are planned to be made more flexible as per a recent statement of the Minister of Overseas Indian Affairs, reported in *the Hindu*, Sept., 2007), with limitations mentioned earlier. As a result, what has not been looked into is how the possibility of migration itself has created a sense of desperation amongst the low-income Indian populace to emigrate for the sake of upward socio-economic mobility of the family they leave behind, even at the risks that accompany such migrations. Similarly, there have been no studies on the impact of the skilled workers' migration on skill formation. Nor has there been any on career and educational choices. In the field of education, there have been a lot of choice distortions and inter-generational or even inter-community conflicts, but the issue has, to date, remained un-analysed, if not un-noticed<sup>57</sup> (Khadria 2004b; NCAER 2005).

At the macro level, the attempts have not progressed beyond identification of the indicators, viz., remittances, transfer of technology, and human capital embodied in the returning migrants (what I have elsewhere termed as the three 'M's, respectively, for "Money, Machines and Man-hours" flowing back to the countries of origin) (Khadria 1999, 2002). Even in the case of macro-economic assessment of the much talked about remittances, there has been a "silent backwash flow" that have begun from the South countries of origin like India to the North countries of destination like the United Kingdom, Australia, and the United States - in the form of 'overseas student' fees that is paid to the host countries (Khadria 2005, 2006a). This has not been estimated and analysed so far. The rise in the disposable income of the Kerala households, arising from remittances, has had their effect on the consumption pattern in the state. It has enhanced family investment in education and skill formation for migration (Zachariah and Rajan 2004)<sup>58</sup>. Consumerism and house building activities have drained the state of the development potential of its remittance receipts. It has led many families to financial bankruptcy, leading even to suicides. Apart from this, the increasing economic and political clout of the 'new rich' in Kerala has created a climate of resentment among the other less fortunate sections of the society (Zachariah and Rajan 2004).

The volume of remittances from Indian labour migrants *in the Gulf* have drawn a lot of attention, but the quantitative assessments in the other two areas, that is, the transfer of technology and return migration, has been highly inadequate - areas that are seen as the positive outcome of *high skill migration to the developed countries*. Most studies have not gone beyond talking about the need to assess the quantitative outcomes in terms of the volume of the flow of technology collaborations and the number of returnees. Difficulty in collecting information because of data scarcity has been the main constraint for the researchers in going beyond this point. However, sporadic information on transfer of technology has not revealed a very positive outcome and it would appear, instead, that the 'reverse transfer of technology' - a term used by the UNCTAD studies carried out in the 1970s - from countries of the south to north still seems to be continuing in the form of brain drain of IT professionals and so on (Khadria 1990). Return migration has become topical in the context of 'outsourcing' of business processes to India, which picked up after the IT bubble burst in the United States., Here too, there has been no systematic assessment of the number and quality of the returnees, although some studies emphasise the return to India as unsustainable, because the returnees tend to go back after a short stay in India (Saxenian

2005). Some involvement of circulating returnees have, of course, been noted in NGO activities for socio-economic development at the grass-roots level in India, but these have remained largely anecdotal (as cited in Khadria 2002).

What, according to me, would be a useful policy tool is an “adversary analysis”, whereby the contribution to social and economic development in countries of origin would be assessed from the point of view of the stakeholders in countries of destination and vice versa.<sup>59</sup> To do this in a multilateral international-relations framework at fora like the GATS under WTO, the benefits of three ‘M’s (Money, Machines and Man-hours) to south countries of origin can be weighed and even pitted against the advantages of the three ‘A’s (embedded in “Age, wAge, and vintAge”) arising to the destination countries of the north. The three ‘A’s are the advantages derived by the developed countries primarily through higher migrant turnover in-built in temporary and circulatory immigration, and operationalised by: (a) bringing in younger migrants to correct the age-structural change in their ageing population; (b) keeping the wage and pension commitments low by replacing older and long-term permanent migrants with younger and short-term temporary migrants and; (c) stockpiling the latest vintage of knowledge embodied in younger cohorts of skilled workers (Khadria 2006a, 194). It remains to be judged and explored as to what are the relative costs of these to the origin countries like India, in relation to the benefits to the destination countries like those in the Gulf and those in the developed north.

The changed perceptions of the destination countries, in which the Indian professional migrants have settled to form a diaspora, might play a catalyst’s role in this exercise. The changed values are now attributed to the Indian diaspora itself that has defied the anticipated doom by rising to unforeseeable economic success in the destination countries of the north, leading to paradigm shift in the societies and regions where Indians have settled.<sup>60</sup> The reason lies in the realisation of the host countries that, given the appropriate help, resources, and local support, one type of migrants – once thought of as being ‘social parasites’ or the ‘tinker, tailor, soldier, spy’ - can become the other, the social boon, or as someone has phrased it, the white West’s ‘great *off-white* hope’! (Alibinia 2000, Khadria 2007b).

Presently, India has emerged as the most sought-after country of origin for the supply of *knowledge workers* in the developed countries of the north, and *service workers* in the Gulf countries of west Asia.<sup>61</sup> Other countries like Singapore and Malaysia in south-east Asia have also emerged as recipients for an increasing number of Indian workers, both skilled and unskilled (Khadria and Leclerc 2006). This has led to a major paradigm shift in India too – to look at migration as a process leading to the formation of the ‘Indian Diaspora’, an option for turning the challenge of migration into an opportunity, and therefore *gainful*<sup>62</sup>. What remains for India as well as these host countries in the emerging international economic relations paradigm is to judge where the loyalty of the Indian diaspora would lie and whether Indian migrants would no longer be treated by India as the ‘deserters of the motherland’, and as ‘social parasites’ by the host countries. In other words, will the Indian Diaspora be really considered a great ‘off-white hope’ - not only of the developed countries of the north but of the world at large?

The diaspora option, because it is holistic in identity, would also foster the emphasis that the GCIM (2005) report made when it stated: “...the traditional distinction between skilled and unskilled workers is in certain respects an unhelpful one, as it fails to do justice to the complexity of international migration....While they may have different levels of educational achievement, all of them could be legitimately described as *essential workers* (emphasis added).” While the dichotomy between skilled and unskilled migrant workers is unwarranted,

lately, India has drawn disproportionately high worldwide attention to the success stories of its highly skilled human resources doing remarkably well in the world labour markets – the IT professionals, the biotechnologists, the financial managers, the scientists, the architects, the lawyers, the teachers and so on. There is a rush of takers for them in the developed countries – the German Green Card, the American H1-B visa, the British work permit, the Canadian investment visa, the Australian student visa, the New Zealand citizenship - all mushrooming to acquire Indian talent embodied in workers as well as students. In contrast, the Indian labour migrants in the Gulf have been considered more of a responsibility than pride for India. To neutralise this imbalance and empower the Indian labour migrants, the interest of the stakeholders in the Gulf (and South-east Asia too) are gradually being looked into, and innovative programmes like those listed earlier in this paper are being introduced. The developments following the institution of the “Pravasi Bhartiya Divas” and constitution of a separate ministry reflect a break from the past – a confidence emanating from a paradigm shift towards India taking pride in its diaspora, and vice-versa.

What is required, however, is a long-term policy that is aimed at establishing India’s links with the Indian diaspora for sustainable socio-economic development in the country. To arrive, though, at a ‘win-win’ situation in international relations for all the three stakeholders – India as a south country of origin, the Indian migrants as part of its diaspora and the host destination countries of the north - two specific conditions must be met. First, there must be a ‘necessary condition’ of dominant or significant global geo-economic presence of the Indian workers. Second, there is need for a ‘sufficient condition’ of India deriving *sustainable* benefits from that global geo-economic presence of its migrants. In terms of the large demand for Indian skilled as well as unskilled workers abroad, and the migrants establishing excellent records of accomplishment in the labour markets of the destination countries, the first condition is automatically fulfilled. To satisfy the ‘sufficient condition’, the flows of remittances, transfer of technology, and return migration must all be directed not towards trade and business, but towards the removal of two kinds of poverty in India - the ‘poverty of education’ and the ‘poverty of health’ – areas where migration has so far failed to change the society in the country of origin by contributing to its economic and social development.

Large masses of the illiterate/uneducated population, incapacitated further by their poor health status are the root causes of India having one of the lowest levels of average productivity of labour and the resultant lowest average wages in the world - a paradox when Indian diaspora members, on the average, makes up amongst the largest contributing ethnic communities in the global labour market outside India. For example, it is indeed paradoxical that the average per-hour contribution of each employed worker within India to the production of India’s gross domestic product (GDP) has been amongst the lowest in the world - a mere 37 cents as compared to the United States’ 37 dollars, that is, one-hundredth of the latter. This is naturally ironical, because the same average Indian employed abroad contributes very high average share to the GDP of the host country (Khadria 2002). The Indian diaspora networks and business associations abroad could, therefore, play the catalyst’s role – be it economically, politically or culturally - in raising the average productivity of mass Indian workers at home by thinking health and education in India as areas of investment for diaspora resources, rather than focusing on immediate ‘profit-making’ ventures in the industry and business.

This is a “double challenge” for India’s of public policy. First, it has to convince its own diaspora community to reverse their thinking about the development process in India. They must think of it as a “bottoms up” creation and enhancement of sustainable labour productivity through development of education and health, rather than a “top down” development through

participation in business and industry - one comprehensive, the other dispersed - one long-term, the other immediate. It is not just a matter of being willing. In many instances, it would entail long periods of struggle to create the capabilities of decision-making, and priority-setting and discernment amongst the leaders of the migrant community to appreciate the logic that only with a strong purchasing power can a large population provide the sustainable market in which their host countries would be able to sell their products effectively and profitably.

Secondly, India must be able to convince the countries of destination (and the other countries of origin as well) as to where lies the distinction between most 'painful' and most 'gainful' socio-economic impacts of migration of its workers – both skilled and unskilled – to the global labour markets. The “adversary analysis” of benefits (and costs too) in multilateral fora would help countries tide over their dynamic conflicts of interest for a 'win-win' situation. It would also help a country like India press for international norms in the Mode 4 negotiations of the GATS. Mode 4 involves the issue of movement of natural persons as service providers under trade, which is just another description for promoting the temporary entry of migrant workers, as opposed to circular mobility through permanent migration and dual or multiple citizenship.

At multilateral dialogues, the vulnerability of the migrants and the instability of trends underlying the “open-and-shut policy” of the destination countries could be the two key aspects that the south countries of origin ought to negotiate out of international migration as the most hurting ones. The crucial point that the temporary route - operationalised by the “open and shut” migration policies of the recipient countries - has been full of vulnerabilities for the migrants at the micro level (e.g., those beginning with the varying consular practices; and one that leads to instabilities of the ‘cobweb disequilibrium’ variety in skill formation in the education and labour markets of the source countries at the macro level) must be conveyed emphatically. India and those interested in engaging with India would both stand to gain in the long run in having and sustaining such a holistic and long-term perspective of the dynamics of the global labour market and its inherent conflicts of interest.

## **8.2 Analytical Preparations for Policy Initiatives: A Matrix of Models and Actors in Indian Diaspora**

Prior to initiating policies for linking international economic relations, the mobility of the highly skilled and human capital formation in the broader context of 'India in the Global Labour Market', one needs to conceptualise a methodological or analytical process that would help clearly define and delimit the universe of discourse: Some typologies for the Indian 'diaspora' - the actors on the stage of international relations.

One seldom come across any definite discourse that has dealt with clearly perceived categories that could be called 'models' of Indian diaspora in international relations, economic or general. On the other hand, 'actors' would perhaps be a more obvious category in the Indian diaspora as a holistic entity. Some models could be based on how the actors are going to be viewed on the stage of international economic relations in the twenty-first century – either with suspicion, or with awe. Secondly, they can also reflect a transition from the first to the second, over time.



### The Matrix of Typologies of Actors and Models in Indian Diaspora

Typology of of Actors  Typology of Models		A						B	C	D
		i	ii	iii	iv	v	vi			
I	PIO	√	√	√	√	√	?			
	NRI	√	√	√	√	√	√			
II										
III										
IV										

Source: Conceived and constructed by the author.

A framework of an underlying matrix that I had attempted elsewhere comprised a limited number of typologies of models and a few typologies of actors (Khadria 2007b). The first I had called Model I, Model II, etc. - a set on the side of the rows - and the second, Actors A, B, etc. - another set on the side of the columns. This kind of underlying matrix, I had argued, would pave the way for addressing each of the binaries of models and actors that one could allocate to the cells created in the sub-matrices, still keeping the issues together under a holistic umbrella.

The next step was to name the models and actors in each typology of the matrix for placing the issues in one cell or the other. In the prototype matrix drawn (and reproduced here), I had named the models as the PIOs (short for 'persons of Indian origin', the foreign citizens) and the NRIs (non-resident Indian citizens, residing abroad) in Typology I; and in Typology A of actors, I had listed them as the (i) unskilled labourer, (ii) the semi-skilled workers, (iii) the traders, (iv) the entrepreneurs, (v) the professionals, and (vi) the students under a typology of actors. The tick mark signifies the appropriateness of the binary, whereas the question mark makes it a doubtful combination.

In an extension of these typologies in Model II, the 'twice banished', and the returnees form another possible typology of models; in Model III, the temporary migrants, the circulatory migrants, and the sojourners form the third typology; in Model IV, are the indentured workers and their earlier variants – the slaves, soldiers, policemen, the lascars, the maids etc. The present-day refugees/asylees, the voluntary migrants come under still another typology where the degree of coercion could be the index. One could also have a typology of models based on plain geographical location, or complex geo-political occupation of the global space by the Indian diaspora. There could still be one more typology comprising the 'brawn drain', brain drain, brain bank, brain gain, etc. as categories of models.

Similarly, in the extended typology of actors, one could have: Typology B, with the principal ‘seed migrants’, the dependant spouses, the pre-generation parents, the second-generation progeny, other relatives, and even sponsored friends as a second typology. Typology C could be the diasporic associations based on provincial, linguistic, art and culture, religious, and professional groupings. Another important one, Typology D, could comprise men, and women as separate actors. Finally, one could also have *occupational actors* like doctors, nurses, engineers, information technologists, architects, lawyers, masons, drivers and so on.; Or, one could have two separate actor typologies for *generic actors* like the writers, teachers, scientists, inventors, innovators, the information technologists, managers, white-collar workers, blue-collar workers and so on.

Irrespective of how one would find slots in the matrix - whether *implicitly* in a fuzzy manner, or *explicitly* by creating well-defined typologies - as a next step, one would still need to probe further in terms of *contextualising* a myriad of models and actors with international economic relations, *per se*, before positioning India in the global labour market. However, it must also be recognised that international economic relation in itself is a mystical category as it covers a whole lot of space with distinctly different (but not disjointed) aspects of civil society: the political, the cultural (which may include the religious), and the security-related - to name some of the most important ones only – also included, and therefore intricately subsumed by the broader and more holistic canvas of international relations.

One way or the other, implicit or explicit, it seems the field is poised for the challenge of addressing a new perspective in the study of *international labour markets*, which is gradually taking the shape of a more holistic *global labour market*.<sup>63</sup> One novelty in this perspective could lie in the *deconstruction* of the interface of what is now holistically called ‘the Indian diaspora’ with the other holistic field of international relations and playing with the interpretation of phrasing that interface - in terms of identifying each of them as the dependent variable under one construct and the independent variable under a different construct. In other words, we have a choice here to say that the ID (short for the Indian Diaspora) is the dependent (or determined) variable, and IR (short for International Relations) the independent (or determining) variable, or *vice versa*. For example:

- (i) We may wish to know how international relations (IR) – through the immigration policies – have been and will be instrumental in determining the selection of *the actors* in the Indian Diaspora (ID), for example, by setting or controlling the skill-based quantitative and qualitative immigration quotas for ‘seed migrants’ in the labour market, or by determining the family-reunification clauses in the family preference quotas, and so on. Similarly, for *the models*, the IR would – by tampering with the entry and stay rights of temporary entrants, like Indians migrating as exchange visitors or as intra-company transferees and those coming under the transition categories like the H-1B visas; or by manipulating the flow of permanent residents holding the so-called ‘green cards’ and the like; and even by altering the criteria of citizenship through naturalisation or birth abroad – determine the roles the ID had assumed in the past and/or would be called upon to play in future in the host societies.
- (ii) *Alternatively*, one may say that we want to learn how the actors and models of the Indian diaspora, as pressure groups of ‘immigrant labour’ in host societies, and now increasingly in India too as their country of origin and/or dual-citizenship, affect international relations: (a) bilaterally between India and the destination countries and (b)

multilaterally with and amongst nations globally. This too could be examined in the historical context, or contemporarily, as things stand.

One may choose to address it either way, (i) or (ii), although it is my impression that if one were to make a rough assessment, the policy stance in India has lately been more to do with the second perspective of how the Indian diaspora could influence, to the advantage of India, the bilateral and multilateral relations from across the borders. The policy concerns in the host countries have, dealt with, at least on the face of it, the first perspective in terms of looking at questions of assimilation of Indians (as well as all other foreigners) into the local society more than into their economy. The novelty of the conceptualisation could lie in a fusion between the two policy approaches.

Even in the context of South-South cooperation in Asia, the above methodology may be applied to look at a particular category of the diaspora. In addition, to arrive at a win-win situation for all the three stakeholders – the Asian south countries of origin, the Asian migrants as a regional diaspora, and the host destination countries of the high-income North - another methodological requirement could be that two specific conditions are met: (a) A “necessary condition” of dominant or significant global geo-economic presence of Asian workers; and (b) a “sufficient condition” of the home countries in Asia deriving *sustainable* benefits from that global geo-economic presence of their migrants. Considering the large demand for skilled as well as unskilled workers abroad from the region, and keeping in mind that the migrants have established an excellent record of accomplishment in the countries of their settlement, it can be said with some degree of confidence that the first condition has more or less been fulfilled.<sup>64</sup> To satisfy the ‘sufficient condition’, though, that the poor Asian countries derive significant gains from the global geo-economic presence of their migrants, it would be necessary to ensure that the diaspora resources – that is, the flow of remittances, cross-country transfer of technology, and return and circular migration - must not be all directed towards trade and business, but substantially towards the removal of two kinds of poverty in the region – what I have earlier referred to as the “poverty of education” and the “poverty of health” – two areas where migration has so far failed to contribute for the society of the countries of origin. Large masses of the illiterate and uneducated population, incapacitated further by the poor condition of their health are the root causes of Asia having some of the lowest levels of average productivity of labour, and therefore lowest average wages in the world - a paradox because members of the Indian or Chinese or Filipino diasporas form, on the average, the largest contributing ethnic communities in their countries of destination.<sup>65</sup> The Asian and South-country diaspora networks and associations abroad could, therefore, play the catalyst’s role – be it economically, politically or culturally - in raising the average productivity of mass Asian workers in their respective home countries by thinking of health and education in the region as the Millennium Development Goals’ (MDG) priority areas for diaspora’s engagement, rather than focusing on immediate but unstable ‘profit-making’ ventures in industry and business.

Is it wise to try and imitate China only partly in this endeavour - just it’s top-down path of leveraging the ‘diaspora capital’ for development and avoiding the bottom-up route that China followed long ago through mass education and health? Perhaps, given the speed of globalisation, low-income countries of Asia, like India, do not have a choice here. They would require a basket of long-term bottom-up and short term top-down deployment of diaspora resources. They will have to choose a middle path by complementing short-run and long-run strategies of development – business and industry for the short-run targets of immediate employment generation, but education and health as long-term aim of generating employable human capital. The latter particularly needs to be geared towards raising the average productivity of labour at

home and sustaining it. Such a mix would ameliorate a lot of migration woes, when the sending countries could acquire immunity to emigration (and immigration too, as a highly productive labour force can feed the poor immigrants pouring in from lesser developed lower-income neighbouring countries). It is my belief that the universe of policy discourse in Asia must adjust and benefit from the gift of the century - the paradigm shift in economic relations and the political scenario through globalisation.

## APPENDIX

### India's High-Skill Stocks and Flows

India, in 1981, had a total of 7 million workers in the 'professional, technical and related' fields who could be classified as Human Resources in Science and technology (HRST) professionals (of which researchers are a smaller sub-set). By 1991, the figure rose to 10.2 million and in 2004 it was estimated to be 26.8 million (NCAER 2005). As a proportion of the country's total workforce, this rose from 3.1 percent in 1981 to 3.6 percent in 1991 and to 7.3 percent in 2004. The percentage of such HRSTO rose by 3.7 percent annually between 1981 and 1991 and by 7.7 percent between 1991 and 2004.

While the number as well as the proportion of HRSTO and HRSTE has gone up steadily since 1981, the same cannot be said about the utilisation of these resources. As in the case of all educated classes in India, there has been poor utilisation of HRSTE too. In 2004, only a third (35.2 percent) of the total HRSTE was pursuing an occupation that could be considered core-HRST.<sup>66</sup> Thus, close to two-thirds of HRSTE were misemployed or underemployed. In other words, only about 35 percent of those holding HRST jobs were educationally qualified for those jobs, the rest had just passed the 12<sup>th</sup> standard or even less. Indeed, this ratio has got worse with the passage of time, because in 1981, around 43 percent of those who were HRSTE were employed in HRST professions (that is, were core HRST). By 1991, this ratio fell to 34.8, and in 2004 it more or less stood at the same level (35.2 percent). In 1981, six million workers were at least diploma holders/graduates (HRSTE) and, of these, just around 2.6 million were core HRST (Khadria 2004b). In that year, around 1.6 million diploma holders/graduates were working in 'clerical and related' jobs. Of the total seven million HRSTO in 1981, only 2.6 million were educationally qualified for their jobs.

India's work force without diploma or graduate degrees, that is the non-HRSTE work force, is currently estimated at around 327 million. This means that around 89 percent of the country's work force has an educational qualification of only high school or below. However, the growth rate of this work force is declining - while the non-HRSTE work force rose by 2.3 percent annually in the 1980s, it rose at a much lower rate of 1.4 percent in the 1990s *due to the fact that the work force was getting more educated*. In 1981, for example, while around 97 percent of the country's work force could be considered non-HRSTE, in 1991 it fell to 96 percent. While just a little over two percent of this non-HRSTE work force was employed in what could be called science and technology professions (that is, of scientists, engineers, nurses, architects, teachers, and chartered accountants, among others), this rose to nearly four percent in 2004, mostly due to the fact that *the growth in this employment segment has risen the fastest in the 1990s*.

The total stock of graduates in India was estimated to be around 22 million in 2003-04 (which is comparable to 23.6 million figure of Census 2001) (Table 12).<sup>67</sup> Total enrolment in higher education was 10.4 million, whereas the out-turn each year was 2.5 million. Subject-wise, the enrolment share of students pursuing degrees in arts was 46 percent, science 20 percent, and commerce 18 percent. The remaining 17 percent students were enrolled in professional courses.

**Table 12: Indian's Graduate Pool in FY 2003-04**

	<b>Engineering Degree Holders</b>	<b>Engineering Diploma Holders</b>	<b>Arts Degree Holders</b>	<b>Science Degree Holders</b>	<b>Commerce Degree Holders</b>	<b>All Graduates</b>
<b>Stock (as of 2003)</b>	1,200,000	1,750,000	11,500,000	4,985,000	5,933,000	21,986,000
<b>Out-turn (in 2004, estimate)</b>	155,000	130,000	1,150,000	540,000	480,000	2,460,000

Source: Institute of Applied Manpower Research, New Delhi; and Ministry of Human Resources Development, Government of India.

The doctoral programmes in India are the mainstay of public sector universities. These universities have played a crucial role in granting Ph.D. degrees in S&E fields. Table 13 shows how there has been a quantum jump in this area in India at the turn of the century and afterwards.

**Table 13: Ph. D. Degrees Awarded in India.**

<b>Subject</b>	<b>1982-83</b>	<b>1988-89</b>	<b>1990-91</b>	<b>1991-92</b>	<b>1993-94</b>	<b>1999-2000</b>	<b>2000-01</b>	<b>2002-03</b>	<b>2003-04</b>
<i>Science</i>	2,893	3,044	2,950	3,386	3,504	3,885	3,734	4,976	5,408
<i>Engineering</i>	511	586	620	620	348	723	739	833	908

Source: University Grants Commission (UGC) of India.

There has been no significant presence of foreign education provider in S&E fields in India. Nevertheless, to meet demand in some non S&E professional fields like business management, hotel management etc., a considerable number of small foreign operators have collaborated with private Indian entities, primarily operating on a profit-making principle. The big universities have primarily been trying to woo the Indian students to take admission overseas and, to that end, education fairs have become an annual feature of the Indian higher education scenario (We conducted a survey at such a fair that took place in Delhi in September 2005).

Unfortunately, huge shortfall in trained manpower is expected in India, particularly due to non-suitability of large proportion of the graduates for the jobs available (NASSCOM 2005a, 2005b). India faces a paradox – high rate of graduate unemployment co-existing with huge skill shortages. To address the concerns arising from the growing graduate unemployment, the *National Policy on Education (NPE), 1986* had vouched for a program of vocational education. This was intended to prepare students for identified occupations. In pursuance of this objective, a scheme for vocationalisation of education at the university and college level was started in the year 1994-95 by the UGC. However, present unemployment rate of graduates at 17.2 percent in India is significantly higher than the overall rate of unemployment. Nearly 40 percent of the graduates are not productively employed. Of the total unemployed population of 44.5 million, graduates number 4.8 million (GOI, *Census 2001*). This number is now estimated at 5.3 million. The UGC, therefore, redesigned the vocational programmes in the year 2003-04 to bring in greater flexibility, but it does not seem to be catching on.

In India, the students' demand for higher education is normally based on their aspirations, societal and parental expectations and not necessarily based on signals from the job markets. The demand is satisfied by what is being supplied in the education market. The top ten emerging job opportunities in India, according to leading newsweekly, *India Today* (March 7, 2005), are by and large in the non S&E and non-research fields - hospitality, biotech, education and training, animation, aviation, research and development, event management, fitness consultancy, fashion designing and the NGO sector. The formal higher education in S&E streams hardly provides any openings in many of these areas.

It is not clear what 'research and development' field implies here. It is my hunch that this refers to market research rather than scientific research. As a result, although there is increase in absolute numbers, percentage enrolment in science has declined at the undergraduate level from 33.2 percent in 1971 to 21.7 percent in 1997; and at the postgraduate level from 26.1 percent in 1971 to 22.2 percent in 1997. This percentage drop in students opting for science largely reflects enhanced opportunities in commerce or law. This is not unusual. In today's market driven social order, good students are rarely interested in taking basic science as their career. This trend is seen in almost all countries. However, unlike the developed countries, this would have a cascading effect in India. India is not able to attract talent from outside; rather it loses nearly all talented students who happen to study basic sciences on their own or who drift to such courses in the absence of their preferred professional subjects (Lakhotia, 2005).

In spite of a large system of higher education, there are only few universities in India that compete with the world's best institutions. In the Shanghai University ranking of World-class Universities, only three universities, namely – Indian Institute of Science (Bangalore), IIT (Kharagpur) and Calcutta University - figure in the world's Top-500 for the year 2004. The 2006 London Times Higher Education Supplement (THES) ranking of world's top 200 universities included three each from China, Hong Kong and South Korea and only one from India (an Indian Institute of Technology at number 41 – the specific campus was not mentioned). The recent ranking of technical institutions based on peer review of 2375 academics placed seven IITs above other global technical institutions like Stanford and Georgia Tech. IITs were ranked at third spot after MIT and the University of California at Berkeley. The latest THES Quarterly Survey of 2006 included four from India – IITs, IIMs, Jawaharlal Nehru University (JNU), and University of Delhi (DU).<sup>68</sup>

Though all universities in India are expected to have research focus and have comprehensive teaching and research programmes, data on doctorates, particularly in science, engineering and medicine suggests that only a few institutions have real research focus. Eighty-five percent of S&E doctorates come from just 20 odd universities in the country. Sustained research efforts made by the faculty are eventually reflected in recognition of their work at the national level. It is noted that only about 20 out of the 120 traditional universities have at least one fellow in one of the three science academies, namely – Indian National Science Academy (INSA), Indian Academy of Sciences (IAS), Bangalore, and National Academy of Sciences (NAS), Allahabad. Both these facts suggest that sustained research efforts are an exception rather than a rule in Indian universities. There is a serious and growing concern about the quality of Ph.D.s in the country. Requirement of Ph.D. for appointment and promotion as faculty member had undesirable consequences. The fact that the highest number of PhDs are awarded not by the most reputed universities suggests widely varying standards of quality control for the Ph.D. degree. In some universities, student is awarded a Ph.D. degree within 18 months and in others students take three to five years, sometimes even longer to complete their Ph.D. There have also been cases of plagiarism. Quality is a major issue in social science research as well. Doctoral

theses in social sciences often apply a descriptive approach to specific limited topic without really relating it to a wider socio-political and economic context. There is need for a more analytical and comparative approach in doctoral research and relating it to society, policy and the economy.

Given these shortcomings within the Indian higher education system, as I have quoted in the main text of this study, India has thus become a ‘must destination for internationally renowned educational institutions shopping for “knowledge capital” - that is, to woo the Indian student’ (*The Hindu*, Nov 26, 2000). According to the *Open Doors 2004* estimates of 2003-4, for two-thirds (67.3 percent) of the overall 572,509 international students in the United States during the year, the primary funding for education in the United States came from the students’ “personal and family” source, the United States sources supporting only 25.7 percent students. (*Economic Times*, Nov. 15, 2004). The American economy thus reaps a handsome US\$13 billion annually from more than 500,000 students who come to the United States to study (*Economic Times*, Nov. 29, 2004). *Open Doors 2004-05* data from campuses indicate that nearly 72 percent of all international students reported that their primary source of funding came from personal and family sources or other sources outside the United States. The proportion of students relying primarily on personal and family funding increased by 1.5 percent, to 67 percent of all international students in 2004-05, and an even higher percentage at the undergraduate level (81 percent). Rising tuition costs and weak economies of some developing sending countries place a substantial economic burden on students and their families. On the other hand, the United States Department of Commerce data continues to rank United States higher education as among the five largest service sector exports (IIE 2006). Similar estimates exist for the U.K. (Findlay and Stam 2006, Khadria 2006c). During his visit to the UN meet in New York in 2004, the Indian Prime Minister Dr. Manmohan Singh, in fact, made an appeal to the developed countries like the U.K. to reduce their overseas-student fees, which were at least three times more than the home-student fees (*Hindustan Times*, Sept., 25, 2004). Analysis of data from other countries in the EU, Canada, Australia and the New Zealand too would substantiate the proposition that the developed immigration countries are already on the path to capitalise on the “trade in educational services” even with GATS not fully stepping in, and that there is now a new trend of a backwash flow of remittances out of the home countries of the migrants.<sup>69</sup> If the trend of immigrant integration and assimilation in destination countries did not stop at naturalisation, but extended right up to dual and multiple citizenship (DMC) and beyond – into circular migration - then the issue of a distinction between the home student’s fee and overseas student’s fee would have to be viewed by the states in a new light, which could be optimal for the both sets of countries. Same principles could be applicable to the other domains of bilateral and multilateral relations, like, for example, double-social security and double-tax avoidance and so on, leading to new avenues for development investments in both the host and the home countries.



## Notes

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- <sup>1</sup> According to a 1979 Indian Ministry of External Affairs estimate, the number of persons of Indian extraction residing abroad was 10.7 million (Weiner 1982, p. 32, cited in Kosinski and Elahi, 1985, p. 4). Although representing a mere 1.6 percent of the national population at that time (rising to 2 percent in 1999 at 20 million out of 1 billion), coming next to the British and the Chinese diasporas, the numbers have been impressive by international comparison. However, no qualitative group-wise classification of the global distribution of 'Indian Diaspora' is available beyond broad country-wise quantitative distribution of numbers. These one-time stock estimates are not complemented by flow data, which are of limited available from select destination country sources of the US, UK, Australia etc. Even European data are gross population data only.
- <sup>2</sup> Here, for this study, I make a distinction between the international labour market and the global or world labour market. I define the global labour market to be inclusive of the Indian market, as different from the international labour market, which, under normal connotation, would exclude the domestic labour market within India. For related discourses in the subject and on paradigm shifts in the field of international migration, see some of my other writing as listed in the references. See also, Drucker (1991), GCIM (2005), and Martin (2001). See, also the postscript on methodology in this study.
- India has also been an attractive destination country for migrant labourers from the neighbouring countries in the sub-continent, both irregular and illegal, primarily from Bangladesh and Nepal, and to some extent Bhutan. Tibet is also sometimes mentioned, but that is a disputed region.
- <sup>3</sup> See Tinker (1974, 1976, 1977) for these colonial migrations from India.
- <sup>4</sup> As indicated by the sponsored return of former economic migrants (from Sri Lanka to India) or refugees (Bangladeshis in India). Infiltration of migrants, either legal or otherwise, met with negative reaction, sometimes extremely violent (as in Assam). In addition to the major flows related to post-war partition, there were, however, some minor migrations related to political events in the area. Increasing Chinese pressure culminating in the invasion and incorporation of Tibet and the subsequent suppression of the Tibetan uprising of 1958-59 led to substantial outflows (Elahi and Sultana, pp.17-18).
- <sup>5</sup> Cited in Bose (1983, 137).
- <sup>6</sup> This has continued in contemporary times as a study by Khadria (2001c) estimated.
- <sup>7</sup> Refer to Blaug et al (1969).
- <sup>8</sup> For this paper, I carried out a search for latest data beyond 1991-92, but the data are not easily available. For aggregate state-wise date, see Table 4.
- <sup>9</sup> MOIA and the Protectorate of Emigrants, Government of India has started compiling the number of complaints received on these counts, and the action taken. See GOI, MOIA, *Annual Reports, 2004-5, 2005-6*.
- <sup>10</sup> No documentation of international migration data exists in India, not to talk of its various sub-categories. There is indirect documentation of low-skilled emigration of workers in terms of their being ECR (Emigration Clearance Required) category of passport holders and as such from the number of clearances granted by the Protectorate of Emigrants, Government of India. However, these proxies can be an overestimate due to not all of them leaving the country. On the other hand, these numbers are normally an underestimate of actual migration because many categories are not covered, for example, those above 12 years of schooling certificate holder; migrants staying abroad for over 3 years and re-migrating, income-tax payers, spouses and dependent children up to 24 years of age of ECNR categories, those going to specified countries, etc.
- <sup>11</sup> Southern states such as Kerala, Tamil Nadu and West Bengal have highest number of graduates in the country. There are no data on the state level exemption of emigration clearances but at an all-India level, it has shown an increasing trend during the last 10 years.
- <sup>12</sup> Remittances are officially known as Private Transfer Payments in India's Balance of Payments Accounts.
- <sup>13</sup> Reserve Bank of India, *Report on Currency and Finance*, various years.
- <sup>14</sup> Of course, there were the other controversial steps taken by the Government of India in this regards, like, for example, the IMF loan, sale of gold reserves, and subsequent reforms.
- <sup>15</sup> *Population Headlines*, No.310, March April 2005, ESCAP, Bangkok.
- <sup>16</sup> See "Study reveals unemployment has declined by half in Kerala", *The Hindu*, September 18 2007, New Delhi edition, p. 7, which put remittances to Kerala in 2006-7 at Rs. 245,000 million as equivalent to 20 percent of its Net State Domestic Product (NSDP); and Chishti, M. 2007, "The Rise in Remittances to India: a Closer Look", February, 2007, Washington DC: Migration Information Source, <http://www.migrationinformation.org>, which, accessed on 18 September, 2007 put it at 22 percent.
- <sup>17</sup> This is particularly important as regulation of foreign immigration has remained a highly sensitive issue of public policy in the United States for long (Harwood 1986; Moore 1986; Martin and Widgren 1996; Tietelbaum and Weiner 1995). Careful reading of political history reveals that this was an issue over which President Woodrow Wilson had "found himself wholly out of agreement with his Congress" (Baker 1937, 104). In 1914, the House had passed the Burnett Immigration bill, providing a 'literacy test', which was to exclude all foreigners who could not read some language, but mainly every Chinese and Indian immigrant settler in the US.

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Wilson in fact vetoed the bill twice before it was finally passed over his veto in February 1917. Ironically, and as if to rebuff this infamous law of exclusions, more and more educated and skilled Indians (and Chinese, of course) gradually replaced the uneducated and the illiterates, almost wholly by the end of the twentieth century. It is perhaps due to wisdom of history that the recent suggestion of the UK Home Office Minister in-charge of Immigration and Asylum Lord Rooker about making a working knowledge of English compulsory for people applying for British citizenship led to the British Government's unease rather than outright support (see "Britain says it prefers English-speaking migrants", by Vijay Dutt, *The Hindustan Times*, August 19, 2001).

<sup>18</sup> For a shift from specifics to generics in high skill migration, see Khadria 2001a.

<sup>19</sup> Amongst the students, who were organizing Indians against the British rule in India, were the son of the Maharaja of Baroda at Harvard, and the son of Rabindranath Tagore at Illinois. In fact, Tagore had himself visited the U.S. and praised America for its international leadership. But he later denounced the Asian exclusions and refused to return to the US because of 'utter lack of freedom' there (Jensen 1988). After the war, things changed.

<sup>20</sup> Data in column B for all years show percentage shares of Indian immigrants, taking the total number Indian immigrants as 100. Data in column C are percentage shares of Indian immigrants amongst global immigrants admitted into the US from all countries of the world. However, as no country-wise break ups of occupational groups are available from 2002 (that is, in the post 9/11 regime) onwards, Indian shares are also not available. For this period, the publication of U.S. immigration statistics was taken over by the US Department of Homeland Security (DHS) from Immigration and Naturalization Service (INS), perhaps due to a policy of curtailment in data availability due to growing security concerns.

<sup>21</sup> 'Ironically', because, as mentioned earlier, in 1917 the US Congress had, against the opposition of two unsuccessful vetoes from President Woodrow Wilson (as mentioned in note 8) had introduced the 'literacy test' in English effectively to stop Indian immigrants from entering the territory of the United States.

<sup>22</sup> Under these Amendments, immigrants subject to a 'numerical limitation' of 270,000 worldwide and 20,000 per country per year were allocated to a six-category 'preference' regime of the US visa system—two under the 'occupational labour force needs' of the US economy and four under the 'family-reunification objective' of the US population policy.

<sup>23</sup> BPO generally refers to Business Process Outsourcing, the practice of running business processes sent by companies to either their own units or to other providers in offshore locations.

<sup>24</sup> The latest NASSCOM-McKinsey Report (2005) in fact testifies an apprehension in terms of India facing huge shortage of IT-related as well as BPO-related skills. The report said that currently only about 25 percent of the technical graduates and 10-15 percent of general college students were suitable for employment in the offshore IT and BPO industries respectively, and estimated that by 2010 the two industries would have to employ an additional workforce of about one million workers near five Tier-I cities including New Delhi, Bangalore, Hyderabad, Chennai and Mumbai and about 600,000 workers across other towns in India (Economic Times 17 Dec, 2005). "As countries from around the world enter the market and competition for off-shoring contracts intensify, India must improve the quality and skills of its workforce," the report released at Nasscom's 'India Strategy Summit 2005' in Bangalore said. On talent supply, it said India would need a 2.3 million strong IT and BPO workforce by 2010 to maintain its current market share. The report projected a potential shortfall of nearly 0.5 million qualified employees -- nearly 70 percent of which would be concentrated in the BPO industry. In fact the BPO industry has also started attracting foreigners to India in search of employment.

<sup>25</sup> See, also Khadria 1999.

<sup>26</sup> From the point of view of diaspora's participation in homeland development, however, the interpretation of length of stay could be counterintuitive. The longer it is, it may be assumed, the more assimilated into the local society has the diaspora begot, and therefore, more likely it is to participate in the development of the host land. As a dual, they may be more detached from their homeland. The homeland-development participation curve of the diaspora could therefore be an-inverted U-shape function of the length of stay abroad – initially being low, then increasing at an increasing rate, and subsequently tapering off with time.

<sup>27</sup> As of December 27, 2006, about 85,000 OCI documents are reported to have been issued (*Pravasi Bharatiya Divas 2007*, Commemorative Issue, Employment and NRI Times).

<sup>28</sup> They play important role in world politics as they have done in the past as, for example, the Indian celebrity students in the US did during India's independence struggle! See fn. 9.

<sup>29</sup> Today, Britain is an endless repository of success stories of the Indian professional diaspora, ranging from Lord Swraj Paul, to steel magnate Laxmi Mittal, to icons like Nobel Laureate Amartya Sen, who has , however, now 'circulated' to the United States.

<sup>30</sup> These are allegorical adjectives for doubtful loyalties adapted from the title of Le Carre's best-seller of the 1970s – itself borrowed from a well-known nursery rhyme.

<sup>31</sup> To imply, in a tongue-in-cheek manner, the brown-skinned Asian Indians.

<sup>32</sup> An elaboration of these regimes is available in Khadria (2002).

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- <sup>33</sup> The incidence of dual nationals in the world is no doubt on the increase, despite the global legal frame being, in principle, hostile to it (Feldblum 2000, pp. 475-478). Because such opposition is increasingly in conflict with a globalized world connected by rapidly improving communications, transport, and commerce, the hostility has become practically ineffective.
- <sup>34</sup> Paradoxically, on the other hand, as recent publications (OECD 2004) testify, the growth of permanent settler admissions in the developed countries has grown slowly, whereas that of temporary worker entrants has grown more rapidly in the initial years of the twenty-first century. This has been the result of a proliferation of restrictions on stay rights, and therefore ‘returns’, leading to exclusion over inclusion. The latter has been the direct fallout of a new trend of emphasis on return migration as part of ‘effective migration management’ policies in the receiving countries in Europe and North America (IOM 2004). In the case of legal migration, particularly those involving the educated and the highly qualified migrants, the British work permit, the German ‘green card’, or the American H-1B visa and even the proposed so-called ‘GATS visa’ under Mode 4 (pertaining to “Movement of Professionals”) are all examples of policies to encourage temporary migration rather than permanent settlement. Developing countries of origin in Asia, viz., India, Pakistan, Bangladesh, and Sri Lanka have been particularly overwhelmed by the bandwagon of a return migration policy for migrant workers. Even the growing phenomenon of business process outsourcing (BPO) to these low-income (and therefore, low labour-cost) economies of South Asia is also being projected as a joint-product of emphasis on return migration policies at the upper end of the skill spectrum, popularly called the “brain gain”. See, also BBC News, ‘India attracts Western tech talent’, by Zubair Ahmad, Bangalore, 5 September 2006, [http://news.bbc.co.uk/2/hi/south\\_asia/5272672.stm](http://news.bbc.co.uk/2/hi/south_asia/5272672.stm)
- <sup>35</sup> See, also Khadria (2002).
- <sup>36</sup> Such examples are aplenty in countries like Singapore, where such practices could be seen being pursued in the National University Hospital and the Science Faculties of the National University of Singapore respectively. See, *The Straits Times*, for publicity and reports on admissions to such institutions.
- <sup>37</sup> Of the five top countries accounting for almost half (47 percent) of all international students in the United States in the year, India remained the largest sending country for the fourth consecutive year with a total of 80,466 students, a modest 1 percent increase over the previous year’s enrolments. This rate of growth was considerably slower than the double-digit increases experienced over the past three years (12 percent in 2003-04, 23 percent in 2002-03, and 29 percent in 2001-02) (IIE 2005).
- <sup>38</sup> The negative effects of such key trends in countries of origin like India have started becoming evident in terms of shortage of teachers in the technical schools (*Economic Times*, 10 Nov 2004). India’s biggest global brand, the publicly subsidised Indian Institutes of Technology (IITs), is starved of qualified teaching staff. By an estimate, some 380 critical vacancies at the seven IITs across the country have no takers. With future teachers being wooed abroad, India would be left high and dry in its capacity to produce human capital, the backbone of Indian democracy.
- <sup>39</sup> There is an important distinction between the two, however, that needs to be taken note of. An incidence of return under a return migration *policy* has social costs that a return under *market forces* might not have because of the degree of constraint involved – ranging between compulsion and autonomy - in the decision-making about emigration and/or return to the country of origin, compulsion being higher in the former and none in the latter. For example, when return is imminent, it is likely that in most cases only the primary worker would emigrate, and the immediate family, comprising the spouse and the children, would stay put in the country of origin for most of the time. The family dilemma arises because of the possible bindings with the job held by the spouse and/or schooling of the children in the home country. Under such circumstances, temporary migration entails a compulsory separation between the migrant worker and other members of the family, making the family ‘nomadic’, so to say. It makes the return of the worker a kind of ‘forced migration’, although all the decisions within the concerned migrant’s family seem to remain ‘voluntary’. Return migration associated with BPO, on the other hand, has been triggered more by open market forces of supply and demand rather than statute. The major contrast is that under temporary migration, the tendency of change is towards eventual return of the migrant, whereas under permanent migration it is towards naturalization. It is the latter which, when followed up by DMC, would eventually encourage return migration through circulation and not compulsion. DMC would, in this respect, be more likely to eliminate whatever small or big element of compulsion is likely to be there in “induced return” or “forced return”, and replace it with “voluntary temporary return”, in turn leading to circulatory migration.
- <sup>40</sup> While for most developing countries, permanent return of talent is unrealistic, so-called brain circulation networks can be developed to create conditions for the expatriate to engage with their home country, in particular in the area of knowledge transfer, business creation and promotion of technology-intensive FDI. There are three main types of “brain circulation”: Diaspora networks of scientists and R&D personnel; business networks of innovative start-ups; and networks of professionals working for multinationals. To be efficacious for the home countries, each of these networks has to be designed in accordance with its own nature.

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Scientific networks, for instance, are quite easy to start, but difficult to sustain while the opposite is true for influential professionals in multinationals (See, Kuznetsov 2006). For the role of skilled diasporas in Asian development, see the special issue of *Asian Population Studies* (2007).

<sup>41</sup> Common nationality may be based on a framework similar to that of the EU whereby ease of mobility, work etc. can be facilitated, without giving political and other sensitive rights. Of course, the presence or absence of political impediments can hinder or help this process between certain sets of countries.

<sup>42</sup> As a follow up of the Sarkar Committee recommendations, the IIT Act 1956 was passed by the parliament.

<sup>43</sup> Leading scientists such as Homi Bhabha, S. S. Bhatnagar, and D S Kothari made relentless efforts to identify potential young Indian brains working abroad and persuade them to return for assuming responsible positions in Indian laboratories. It is well known that Homi Bhabha used to first identify a talent and then build the group or sub-area of research around that personality. The Tata Institute of Fundamental Research (TIFR) in Bombay was built by Bhabha this way.

<sup>44</sup> From 1957, this section of the National Register maintained the database for persons holding postgraduate degrees in science, engineering, medicine, agriculture and social sciences. In an effort to create avenues for attracting Indian scientists and technologists from abroad, the CSIR in 1958 launched a scheme called the 'Scientists Pool'.

<sup>45</sup> Even socially, crossing the seas was at one time considered a taboo in high-caste communities, e.g. as depicted in Munshi Premchand's novels and stories. Perhaps it was the cumulative effect of the nexus between the diaspora and the aspiring migrants that led to the crumbling of such taboos over time, resulting in swelling streams of migrants joining the Indian diaspora wherever it grew.

<sup>46</sup> Among the policy discourses and documents related to science and technology during this phase, viz., the Third S&T Conference; the first ever Science and Technology Plan of 1974; the Technology Policy Statement of 1983; and the annual session of the Indian Science Congress were important sources which directed the S&T policy at the macro level. The annual Indian Science Congress sessions, which have played an historic role in the professionalisation of science in India since the early decades of the twentieth century, only paid 'lip sympathy' to the problem of brain drain in the 1970s and 1980s.

<sup>47</sup> This is one reason why the Indian preparedness helped India take immediate steps in evacuating Indians (and some Sri Lankan and Nepali nationals too) from Lebanon when war broke out there recently in 2006, and Beirut came under heavy attack from Israel.

<sup>48</sup> A feat that had got Air India into the Guinness Book of Records!

<sup>49</sup> There is enough evidence of diaspora-India interaction that has been documented in the media lately. It was around this time that the Indian government appointed the High-Level Committee on Indian Diaspora. Realizing that it has lagged far behind the other, emerging, Asian giant China, in wooing its diaspora into financial and manufacturing sectors, India has lately been pro-active in creating an enabling legal structure to leverage the diaspora resources into them. Even if a late realization, by the close of the twentieth century the Indian government understood that to woo the Indian diaspora, it would have to work more on the bureaucracy to actually provide the long-promised "single window clearance" to FDI, joint ventures, and technical collaborations. It realized that, unlike China, it did not court its expatriates and offered only limited special incentives for the section of the diaspora who had the willingness, the ability, and an interest to invest in India. With all the skills of the NRI community, India could have tapped into the diaspora resources of a rich and successful community settled abroad who had good reason to 'help' India develop. Perhaps, it was the failure with the NRIs that made India turn towards the PIOs with the offer of a dual citizenship, the Overseas Citizenship of India (OCI), to make them participate in the development of their motherland.

<sup>50</sup> "Children instead of Indians" was the slogan given by the leading opposition politician Juergen Ruetggers, *BBC World Service News*, "German Right under fire on immigration", Thursday, 6 April, 2000, 20:12GMT. See also "IT pros may get German green cards", *The Hindustan Times*, New Delhi, 13 April, 2000.

<sup>51</sup> The trend of exporting Indian IT or software professionals was not new. Indian companies have been at it for the last two decades: The practice, of doing on-site software development (in the US) being called "body shopping", was predominant in the 1980s and early 1990s, mainly because the track record of Indian software companies was not proven, and the telecom infrastructure was not fully developed for undertaking jobs in India at that time. As Indian companies made their mark in executing large and complex projects, and telecom and satellite links improved, the trend of offshore software development (that is, in India) began. This trend had augured well for the industry, boosting its export earnings a great deal.

<sup>52</sup> The following statements from the former Prime Minister Atal Bihari Vajpayee's address to the Global Organization of Persons of Indian Origin (GOPIO) at New Delhi in January 2001 (*World Focus* 2001) is reflective of the perception of the Indian polity towards the highly qualified and experienced emigrants of India settled abroad. Expressing the pride of the Indian nation on the legendary success stories of Indian entrepreneurs abroad, he is reported to have said, "From high-tech chip laboratories to curry restaurants, from renowned hospitals to famous educational institutions, from well-known research centres to leading think-tanks -

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everywhere you find an Indian who has overcome all odds to establish himself through skilled education and hard work." He also said, "Many of you owe your current success to the quality education which you have received in Government-run institutions, be they Indian Institutions of Technology or medical colleges. You now owe it to your motherland to associate yourselves with India's search for rapid and enduring social change and economic progress", and again, "I would like to emphasize that we do not merely seek investments and asset transfer. What we seek is a broader relationship - in fact a partnership among all children of mother India, so that our country can emerge as a major global player." Finally, he said, "My government's policy is to assist the overseas Indian community in maintaining its cultural identity and strengthening the emotional, cultural and spiritual bonds that bind them to the country of their origin."

<sup>53</sup> For example, the media would caution, "We may end up with a huge army of people doing second class, labour intensive software-development work and operations like managing call-centres and customer-services for foreign companies", churning out what is being called the 'techno-coolies'. On the great demand for Indian software professionals in the developed countries, the media would say, "Good for them but what about India's own requirements?" (*The Hindustan Times*, 17 Sept. 2000) Whenever a foreign delegation came calling, and one heard a plethora of statements from the IT lobby in the Indian Government and outside exulting, "India may well be on way of becoming software *superpower* of the world", the media would retort, "... the reality is that it may end up becoming the IT professionals' *super bazaar* of the world." India shall be reduced to rolling out graduates and specialists for multinational corporations of the world, burning scarce resources that go into India's higher education system.

<sup>54</sup> Nearly 800 Americans are working or interning at information technology companies in India, and the number is expected to grow, according to India's National Association of Software and Services Companies, or Nasscom (Associated Press News, *The Economic Times*, April 2, 2006). Workers from abroad are also seeking lower-end jobs, such as answering phones at call centers, for a pittance compared with what they could earn in their home countries. They have been labeled "adventure workers": Americans and Europeans joining the Indian workforce. Although there are no exact estimates of the number of foreigners answering phone calls in India, the National Association of Software and Services Companies (NASSCOM), the industry trade association, has estimated that there are more than 30,000 expatriates working in Indian IT and offshoring companies, three times the number only two years ago. The total number of foreign nationals working in India is estimated to be more than 50,000, with more than 12,000 registered at the IT hub Bangalore (*Asia Times Online*, Jan 19, 2006 [www.atimes.com](http://www.atimes.com)).

<sup>55</sup> The normal issue of forced migration in terms of Indians applying for refugee status in Europe, USA or elsewhere has not drawn much attention in India. Refugee issues are limited to asylees and asylum seekers in India rather than from India.

<sup>56</sup> For example, one such neglected gender dimension of high-skill emigration has been the denial of right to work for the H-4 dependent visa holding spouses, mostly wives, accompanying the celebrated H-1B Visa holder Indian male migrants in the US, leading to financial and mobility dependency on husbands followed by discrimination, exploitation, and sometimes mistreatment. See Devi (2002) as cited in Van der Veer (2005, 283).

<sup>57</sup> The present agitation over reservation of seats in higher education is a case in point.

<sup>58</sup> At the same time, remittances have led to the opening up of a large number of new schools and colleges on the one hand, and to enabling the youth to buy a costly private education on the other hand – both contributing to unemployment amongst the current generations of Kerala youth who no longer want to work in traditional lines of occupations. Secondly, an equally important 'adverse' effect has been the emergence of "replacement migration" of labour into Kerala from the other Indian states. Apart from the fact that wages have gone up in Kerala to be highest in India due to shortage of unskilled and semi-skilled workers, labourers from other state also accept low wages and poor living conditions to work in Kerala, adding to unemployment of the local generations of youth.

<sup>59</sup> See Khadria 2007

<sup>60</sup> Today, Britain is an endless repository of success stories of the Indian professional diaspora, ranging from Lord Swraj Paul, to steel magnate Laxmi Mittal, to icons like Nobel Laureate Amartya Sen.

<sup>61</sup> The classification was provided by Peter Drucker (1993).

<sup>62</sup> See Barré et al, eds. (2003) on diaspora as a policy option.

<sup>63</sup> As mentioned in an earlier note, for this study, I do not look at international labour market and the global labour market as perfect synonyms. The global labour market here covers the domestic labour market within India too, as different from the international labour market, which, under normal connotation, would exclude the domestic labour market within India.

<sup>64</sup> Engagement of diaspora resources would depend on the capability of the diaspora members to actually participate in such endeavours. One example is the length of stay (See Chiswick, 1978). In other words,

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capabilities for development engagement of the diaspora would be the indices of access to the enabling determinants of empowerment listed under section 4(a) of this study - 'capabilities' a la Amartya Sen (1999).

<sup>65</sup> For example, it is indeed paradoxical that the average per-hour contribution of each employed worker within India to production of India's GDP has been amongst the lowest in the world - a mere 37 cents as compared to the United States' 37 dollars, that is, one-hundredth of the latter. This is naturally ironical, because the same average Indian contributes very high average share to the GDP of the host-country (Khadria 2002).

<sup>66</sup> For these definitions of HRSTO and HRSTE, see Khadria 2004b, and Auriol and Sexton 2001.

<sup>67</sup> See, Agarwal, P. (2005), Higher Education in India: Need for a Strategic Paradigm Shift and Framework for Action, Working Paper No. 179, Indian Council for Research on International Economic Relations, mimeo.

<sup>68</sup> [http://www.indiaedunews.net/Universities/IITs,\\_IIMs,\\_JNU\\_figure\\_in\\_top\\_world\\_education\\_rankings\\_1754/](http://www.indiaedunews.net/Universities/IITs,_IIMs,_JNU_figure_in_top_world_education_rankings_1754/). Visited on 23 Sept., 2007

<sup>69</sup> Partly, the home countries' policies (or lack of policies) are also responsible for this. A few years ago, the Indian government, for example, faced with a huge accumulation of foreign exchange reserve (which has now amounted close to US\$200 billion in 2006) allowed a US\$25,000 transfer of funds per annum by any single Indian citizen to anywhere in the world. Recently, in 2007, this limit has been doubled.

## References

- Abella, M., 2006, 'Global Competition for Skilled Workers and Consequences', in Kuptsch, C. and Pang, E. F., eds., *Competing for Global Talent*, International Institute for Labour Studies, ILO, Geneva, pp. 11-32.
- Alibinia, A., 2000, 'The Great Off0White Hope', *The Hindustan Times*, New Delhi, 26 Sept.
- Asian Population Studies*, 2007, Special Issue on Skilled Diasporas in Asian Development, vol 3, no.2, Guest Editor: Khadria, B., London: Francis and Taylor.
- Auriol, L. and J. Sexton, 2001, "Human Resources in Science and Technology: Measurement Issues and International Mobility", in OECD (2001), *International Mobility of the Highly Skilled*, Paris.
- Baker, R. S., 1937, *Woodrow Wilson—Life and Letters: Facing war, 1915 -1917*, vol. 6, Garden City, New York, Doubleday, Doran & Co.
- Barré, R., V. Hernandez, J-B. Meyer and D. Vinck, eds., 2003, *Scientific Diasporas*, IRD, Paris.
- BBC, 2004, Viewpoints on Migration: Should Borders be Open, April 13, [http://news.bbc.co.uk/1/hi/in\\_depth/3512992.stm](http://news.bbc.co.uk/1/hi/in_depth/3512992.stm)
- BBC, 2006a, Born Abroad: An Immigration Map of Britain, visited on August 24, [http://news.bbc.co.uk/2/shared/spl/hi/uk/05/born\\_abroad/countries/html/india.stm](http://news.bbc.co.uk/2/shared/spl/hi/uk/05/born_abroad/countries/html/india.stm)
- BBC, 2006b, 'India attracts Western tech talent', by Zubair Ahmad, Bangalore, September 5, [http://news.bbc.co.uk/2/hi/south\\_asia/5272672.stm](http://news.bbc.co.uk/2/hi/south_asia/5272672.stm)
- Bhagwati, J. N., 1982, 'Directly Productive Unproductive Profit-seeking (DUP) Activities', *Journal of Political Economy*, 90, 5, pp. 988-1002.
- Birks, J. S. and Sinclair, C. A., 1980, *International Migration and Development in the Arab Region*, International Labour Office, Geneva.
- Blaug, M., Layard, P. R. G. and Woodhall, M., 1969, *The Causes of Graduate Unemployment in India*, Penguin, London.
- Bose, A., 1983, 'Migration in India: Trends and Policies', in Oberai, A. S., ed., 1983, *State Policies and Internal Migration: Studies in Market and Planned Economies*, Croom Helm, London, pp.137-182.
- CSO, 2005, Various publications of the Central Statistical Organisation, Government of India.
- Chiswick, B. R., 1978, 'The Effects of Americanization on the Earnings of Foreign-born Men', *Journal of Political Economy*, 86, pp. 897-921.
- Devi, S. U., 2002, 'Globalisation, Information technology and Asian Indian Women in the US', *Economic and Political Weekly*, October.
- Dreze, J. and Sen, Amartya, 1996, *India: Economic Development and Social Opportunity*, Oxford University Press, Delhi.

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- Drucker, P., 1993, *Post-Capitalist Society*, New York, Harper Collins.
- Ecevit, Z. H., 1981, 'International Labour Migration in the Middle East and North Africa: Trends and Policies', in Kritiz, M. M., Keely, C. B., and Tomasi, S. M., eds, 1981, *Global Trends in Migration: Theory and Research on International Population Movements*, pp. 259-275, Center for Migration Studies, New York.
- Economic Times, The*, New Delhi issue, various issues as cited in the text.
- Elahi, K. M. and Sultana, S., 1985, 'Population Redistribution and Settlement Change in South Asia: A Historical Evaluation', in Kosinski, L. A. and Elahi, K. M. eds., *Population Redistribution and Development in South Asia*, D. Reidel Publishing, Dordrecht, pp. 15-35.
- Feldblum, M., 2000, 'Managing Membership: New Trends in Citizenship and Nationality Policy', in Alieinikoff, T.A. and Klusmeyer, eds., *From Migrants to Citizens: Membership in a Changing World*, Carnegie Endowment for International Peace, Washington, D.C.
- Findlay, A., and A. Stam, 2006, International student migration to the UK: Training for the global economy or simply another form of global talent recruitment? Paper prepared for a meeting on 'International competition for S&E students and workers', Institute for the Study of International Migration, Georgetown University, Washington, 30-31, March.
- GCIM, 2005, "*Migration in an Interconnected World: New Directions for Action*" Report of the Global Commission on International Migration, Geneva.
- GOI, *Census 1991*, Registrar General of India, Government of India, New Delhi.
- GOI, *Census 2001*, Registrar General of India, Government of India, New Delhi.
- GOI, MOIA, 2006, Proceedings of the Conference of the Indian Ambassadors of Gulf Countries, at Doha, Qatar, March 20-21, Ministry of Overseas Indian Affairs, Government of India, New Delhi, unpublished mimeo.
- GOI, MOIA, *Annual Report 2004-05*, Ministry of Overseas Indian Affairs, Government of India, New Delhi.
- GOI, MOIA, *Annual Report 2005-06*, Ministry of Overseas Indian Affairs, Government of India, New Delhi.
- Harwood, E., 1986, 'American Public Policy and U.S. Immigration Policy', *The Annals of the American Academy of Political and Social Sciences*, vol. 487, Special issue on Immigration and American Public Policy, September, pp.201-212.
- Hindustan Times, The*, New Delhi edition, various issues, as cited in text.
- Hindu, The*, Various issues, New Delhi Edition.
- ICWA, 2001, *Report of the High Level Committee on the Indian Diaspora*, Indian Council of World Affairs, New Delhi.
- IIE, 2004, *Open Doors 2004: Report of International Educational Exchange*, Institute of International Education, Washington D.C.
- IIE, 2005, *Open Doors 2005: Report of International Educational Exchange*, Institute of International Education, Washington D.C.
- Indiresan, P. V. and Nigam, N. C., 1993, 'Indian Institutes of technology: Excellence in peril', in Chitnis, S. and Altbach, P. G., eds., 1993, *Higher Education Reforms in India—Experience and Perspectives*, Sage, New Delhi.
- IOM, 2004, *Return Migration: Policies and Practices in Europe*, IOM International Organization for Migration, Geneva.
- Jensen, J. M., 1988, *Passage from India—Asian Indian Immigration in North America*, Yale University Press, New Haven.
- Keely, C. B., 1980, Asian Worker Migration to the Middle East, Working Paper, Population Council, Center for Policy Studies, New York.

- 
- Kelegana, S. and Parikh, K. S., 2003, 'Political Economy of Growth and Reforms in South Asia', in Ahluwalia, I. S. and Williamson, J., eds, 2003, *The South Asian Experience with Growth*, Oxford University Press, New Delhi, pp. 80-145.
- Khadria, B., 1990, "Patents, Brain Drain and Higher Education: International Barriers to the Diffusion of Knowledge, Information and Technology", *Social Scientist*, Serial No. 204, vol. 18, no. 5 May, pp. 3-18, New Delhi.
- Khadria, B., 1999, *The Migration of Knowledge Workers: Second-Generation Effects of India's Brain Drain*, Sage Publications, New Delhi.
- Khadria, B., 2001a, "Shifting Paradigm of Globalization: The Twenty-first Century Transition towards Generics in Skilled Migration from India", *International Migration*, Special Issue: International Migration of the Highly Skilled, vol. 39, No. 5, pp. 45-71.
- Khadria, B., 2001b, "Offshore Universities and the Paradox of Factor-Endowment and Factor-Use in Trade-in-Services", paper presented at the *Sixth Biennial Oxford International Conference on Education and Development: Knowledge, Values and Policy*, 19-21 Sept. 2001, Oxford.
- Khadria, B., 2001c, *Report of a Sample Survey in JNU and IITD for Estimating the Social Cost of Civil Services Examination*, mimeo., New Delhi, Union Public Service Commission, Government of India.
- Khadria, B., 2002, "Skilled Labour Migration from Developing Countries: Study on India", *International Migration Papers* 49, International Labour Office, Geneva.
- Khadria, B., 2003, "Case Study of the Indian Scientific Diaspora" in, R Barre *et al* eds., *Scientific Diasporas: How Can Developing Countries Benefit from Their Expatriate Scientists and Engineers?* Institut de Reserche pour le Developpment (IRD), Paris.
- Khadria, B., 2004a, Migration of Highly Skilled Indians: Case Studies of IT and Health Professionals, *STI Working Paper 2004/6*, OECD, Paris.
- Khadria, B., 2004b, Human Resources in Science and Technology in India and the International Mobility of Highly Skilled Indians, *STI Working Paper 2004/7*, May, OECD, Paris.
- Khadria, B., 2005, "Migration in South and South-West Asia", Regional Study No. RS 6, Policy Analysis and Research Programme of the GCIM, Geneva: Global Commission on International Migration, September.
- Khadria, B., 2006a, 'Post-War Migration', 'Migration of Professionals', and 'Business and Entrepreneurs', in "The Age of Globalisation", chapter in *The Encyclopaedia of the Indian Diaspora*, General Editor: Brij Lal, Editions Didier Millet, Singapore, pp. 66-75; 80-81.
- Khadria, B. (2006b), "Embodied and Disembodied Transfers of Knowledge: Geo-politics of Economic Development", in Carton, M. and J-B Meyer, eds. *Knowledge for Development*, l'Harmattan, Paris, pp. 191-203.
- Khadria, B., 2006c, "International Competition for S&E Students and Workers: An Evaluation of Trends and Policies in India and Southeast Asia", Paper prepared for a meeting on 'International competition for S&E students and workers', Institute for the Study of International Migration, Georgetown University, Washington, 30-31, March.
- Khadria, B., 2006e, "Uncharted Contours of a Changing Paradigm: Skilled Migration and Brain Drain in India", *Harvard International Review*, Vol. 28, Issue 1. Invited contribution for the Web-exclusive Symposium on featured topic: Immigration, <http://www.hir.harvard.edu>
- Khadria, B., 2006f, "Migration Between India and the UK", *Public Policy Research*, Vol.13, Issue 3, Sept-Nov., 2006, pp.172-84.



- 
- Khadria, B., 2007a, 'Tracing the Genesis of Brain Drain in India through its State Policy and Civil Society', in Green, N. and Weil, F., eds., *Citizenship and Those Who Leave: The Politics of Emigration and Expatriation*, University of Illinois Press.
- Khadria, B., 2007b, "Conceptualising the Typologies of Indian Diaspora in International Economic Relations: 'Tinker, Tailor, Soldier, Spy', Or A 'Great Off-White Hope' of the New Century?" ISAS Working Paper, 26 January 2007.
- Khadria, B., 2007c, "Adversary Analysis and Optimising the Macro-economic Stakes of Transnational Divide in Migration for Development", Working Paper No. 21, Centre on Migration, Citizenship and Development (COMCAD), University of Bielefeld, Germany.
- Khadria, B. and E. Leclerc, 2006, "Exode des emplois contre exode des cerveaux, les deux faces d'une même pièce?", *Autrepart : Revue des sciences sociales au sud*, No. 37, Special issue on La Migration des Emplois Vers le Sud, IRD Editions, France.
- Kosinski, L. A. and Elahi, K. M. eds., 1985, *Population Redistribution and Development in South Asia*, D. Reidel Publishing, Dordrecht.
- Kosinski, L. A. and Elahi, K. M., 1985, 'Introduction', in Kosinski, L. A. and Elahi, K. M. eds., *Population Redistribution and Development in South Asia*, D. Reidel Publishing, Dordrecht, pp.3-14.
- Krishna, V.V. and Khadria, B., 1997, 'Phasing Scientific Migration in the Context of Brain Gain and Brain Drain in India', *Science, Technology & Society*, 2, 2, July—Dec., pp.347-386.
- Krueger, A. O., 1974, 'The Political Economy of Rent-seeking Society', *American Economic Review*, 64, 3, 99. 291-303.
- Kuznetsov, Y. ed., 2006, *Diaspora Networks and the International Migration of Skills: How Countries Can Draw on Their Talent Abroad*, World Bank Institute, Washington, D.C.
- Le Carre, John, 1974, *Tinker, Tailor, Soldier, Spy*, Franklin, USA.
- Lakhotia, S. C., 2005, 'India's ambitions to be a world leader in S & T depends upon a drastic overhaul of the university system,' *Current Science*, 88, 11, June 10.
- Lall, M. C. 2001, *India's Missed Opportunity – India's Relationship with the Non Resident Indians*, Ashgate, Aldershot.
- Majumdar, Tapas, 1994, 'Old World is the New World', *The Telegraph*, Calcutta, 8 August.
- Martin, P., 2001, Economic Trends and Professional Labour Migration: US Experience and Implications for Asia, Report presented at the Workshop on International Migration and Labour Markets in Asia, February 1-2, Tokyo: *mimeo*.
- Martin, P. and Widgren, J., 1996, 'International Migration: A Global Challenge', *Population Bulletin*, vol.51, no.1, April.
- Moore, S., 1986, 'Social Scientist's Views on Immigrants and U.S. Immigration Policy', *The Annals of the American Academy of Political and Social Sciences*, vol. 487, Special issue on Immigration and American Public Policy, September, pp. 213-217.
- NASSCOM, 2002, *Strategic Review 2002, Chapter 5: 'Knowledge Professionals'*, National Association of Software and Service Companies, National Association of Software and Service Companies, New Delhi, pp. 63-82.
- NASSCOM, 2005a, *The IT Industry in India: Strategic Review 2005*, National Association of Software and Service Companies, New Delhi.
- NASSCOM, 2005b, *Extending India's Leadership of the Global IT and BPO Industries*, Nasscom-McKinsey Report 2005, National Association of Software and Service Companies, New Delhi.
- NCAER, 2005, *India Science Report*, National Council of Applied Economic Research, New Delhi

- 
- OECD, 2004, *Trends in International Migration: Annual Report 2003 Edition*, Organisation for Economic Co-operation and Development, Paris.
- Overseas Indian*, 2006, vol. 1, Nos. 1-4, January-April, Monthly publication of the Ministry of Overseas Indian Affairs, Government of India, New Delhi.
- Pravashi Bharatiya*, 2007, Monthly publication of the Ministry of Overseas Indian Affairs, Government of India, New Delhi.
- Premi, M., 1990, 'India', in Nam, C. B., Serow, W. J., and Sly, D. F., eds., 1990, *International Handbook on Internal Migration*, Greenwood Press, New York, pp.189-206.
- Rahman, A., 1999, 'Indian Labour Migration to West Asia: trends and effects', *Manpower Journal*, 35, 2, July-Sept.
- Rajan, I. S., 2003, "Dynamics of International Migration from India: Its Economic and Social Implications", paper presented at the Ad Hoc Expert Group Meeting on Migration and Development, 27-29 August, United Nations Economic and Social Commission for Asia and the Pacific, Bangkok.
- Rajan, I. S., 2004, 'From Kerala to the Gulf: Impacts of Labour Migration', *Asian and Pacific Migration Journal*, 13, 4.
- Rajan, I. S. and Nair, P. R. G., 2006, 'Saudi Arabia, Oman and the Gulf States' in Lal, B. V., General Editor, *The Encyclopaedia of the Indian Diaspora*, Editions Didier Millet, Singapore, pp.222-233.
- Reserve Bank of India, *Report on Currency and Finance*, various years
- Saxenian, AnnaLee, 2005, 'From Brain Drain to Brain Circulation: Transnational Communities and Regional Upgradation in India and China', *Studies in Comparative International Development*, Fall.
- Sen, Amartya, 1973, 'Brain Drain: Causes and Effects', in Williams, B. R., ed., 1973, *Science and technology in Economic Growth*, Macmillan, Edinburgh.
- Sen, Amartya, 1999, *Development as Freedom*, Oxford University Press.
- Skeldon, R., 1985, 'Migration in South Asia', in Kosinski, L. A. and Elahi, K. M. eds., *Population Redistribution and Development in South Asia*, D. Reidel Publishing, Dordrecht, pp. 37-64.
- Spence, I. R. G., 1997, *British Immigration Policy Since 1939: The making of multi-racial Britain*, Routledge, London.
- Straits Times*, The, Singapore, various issues.
- Teitelbaum, M. S. and Weiner, M., eds. 1995, *Threatened Peoples, Threatened Borders: World Migration and U.S. Policy*, New York, W. W. Norton and Co., for the American Assembly, Columbia University.
- Tinker, Hugh, 1974, *A New System of Slavery: Export of Indian Labour Overseas, 1880-1920*, Oxford University Press, Oxford.
- Tinker, Hugh, 1976, *Separate and Unequal: India and Indians in the British Commonwealth, 1920-1950*, Vikas, New Delhi.
- Tinker, Hugh, 1977, *The Banyan tree: Overseas Emigrants from India, Pakistan and Bangladesh*, Oxford University Press, Oxford. U.S. National Science Foundation, *Science and Engineering Indicators 2000*.
- U.S. Census Bureau (2004), 'We the People—Asians in the United States', Census 2000 Special Reports CENSR-17, December, Department of Commerce.
- U.S. Department of Homeland Security, *Statistical Yearbook*, various years, Washington D.C.
- U.S. INS, *Statistical Yearbook*, various years, Immigration and Naturalization Service, Department of Justice, Washington D.C.

- 
- Van der Veer, P., 2005, 'Virtual India: Indian IT Labor and the Nation-State', in Hansen T. B. and Stepputat, F., eds., 2005, *Sovereign Bodies: Citizens, Migrants, and States in the Postcolonial World*, Princeton University Press, Princeton.
- Weiner, M., 1978, *Sons of the Soil: Migration and Ethnic Conflict in India*, Oxford University Press, Bombay.
- Weiner, M., 1982, 'International Migration and Development: Indians in Persian Gulf', *Population and Development Review*, 8, 1, pp. 1-36.
- World Bank, 2004, *World Development Report: Making services work for poor people*, Washington D.C.
- World Bank, 2005, *World Economic Outlook*, Washington D.C.
- World Focus*, 2001, Special Issue on Indian Diaspora—Its Positive Contribution, No. 255, March.
- Zachariah, K. C. and Rajan, S. I., 2004, 'Gulf Revisited', Working Paper Series 363, Centre for Development Studies, Thiruvananthapuram.
- Zachariah, K. C., Mathew, E. T. and Rajan, S. I., 2000, 'Social, Economic and Demographic Consequences of Migration in Kerala', Working Paper Series 303, Centre for Development Studies, Thiruvananthapuram.
- Zachariah, K. C., Mathew, E. T. and Rajan, S. I., 2003, *Dynamics of Migration in Kerala: Dimensions, Differentials and Consequences*, Orient Longman, New Delhi.
- Zachariah, K. C., Prakash, B. A. and Rajan, I. S., 2002, 'Working in the Gulf: Employment, Wages and Working Conditions', in Zachariah, K. C., Kannan, K. P. and Rajan, I. S., 2002, *Kerala's Gulf Connection*, Centre for Development Studies, Thiruvananthapuram, pp.129-97.