

Brain Drain: Socio-Economic Impact on Indian Society

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ABSTRACT According to Oxford Advanced Learner's dictionary Brain Drain is "the movement of highly skilled and qualified people to a country where they can work in better conditions and earn more money". Brain-drain can also be named as "human capital flight" because it resembles the case of capital flight, in which mass migration of financial capital is involved. Indian Diaspora is a geographically diversified Diaspora, which is spread in as many as 110 countries. The Government of India estimated that there are 30 million Indian Diaspora spread across the world. The 30 million Indian human resource which is working for the developed countries are highly skilled. We are generating valuable human capital with our valuable money which is collected from the tax payers. But the tragedy is we are sending our skilled human resource for the development of developed countries. India is becoming a major supplier of human capital for the advanced economies. India is sending large numbers of these specialists compared to other important origin countries. Brain drain is the current socio-economic problem of our country. This paper mainly focuses on socio-economic aspects of brain drain.

Keywords: Brain Drain, Human Capital Flight, Indian Society

List of Abbreviations

EU – European Union

UNDP – United Nations Development Programme

R&D – Research and Development

GAO - Government Accountability Office

GDP – Gross Domestic Product

OECD - Organisation for Economic Co-operation and Development

I. INTRODUCTION

According to Oxford Advanced Learner's dictionary Brain Drain is "the movement of highly skilled and qualified people to a country where they can work in better conditions and earn more money". Cambridge Online Dictionary defines "when large numbers of educated and very skilled people leave their own country to live and work in another one where pay and conditions are better".. Brain-drain can also be named as "human capital flight" because it resembles the case of capital flight, in which mass migration of financial capital is involved. Brain drain is usually regarded as an economic cost, since emigrants usually take with them the fraction of value of their training sponsored by the government or other organizations. It is a parallel of capital flight, which refers to the same movement of financial capital. Brain drain is often associated with de-skilling of emigrants in their country of destination, while their country of emigration experiences the draining of skilled individuals. Brain-drain can have many reasons, for example-political instability of a nation, lack of opportunities, health risks, personal conflicts etc.

The term brain-drain was introduced by observing the emigration of the various technologists, doctors and scientists, from various developing countries to more developed nations like USA, UK, Germany, England etc. Now this phenomenon of brain drain has a conversed effect for a country in which people are getting migrated and brain-drain of a nation becomes brain-gain for that particular country. Usually all developing countries including India are suffering from brain drain and developed countries like USA are having brain gain from this phenomenon. More or less, all the backward countries are suffering from this problem. India is also one of the major nations in the world which is suffering from this brain drain seriously at the present moment.

The UNDP estimates that India loses \$2 billion a year because of the emigration of computer experts to the U.S. Indian students going abroad for their higher studies costs India a foreign exchange outflow of \$10 billion annually. Thousands of Indian scientists, doctors, engineers and other qualified persons have migrated and are staying in other countries. Every year hundreds of our best brains make frantic efforts to leave India. The demand for passports is increasing every year, even though more and more employment opportunities are being created within the country. The steady outflow of our nation's talent, especially those educated, at the cost of the tax payers' money, has caused concern to the government. Due to high salary and facilities Indian youth is moving abroad. One reason as to why the developed countries prosper is because of the high intellectual

migrants from the poor developing countries. This 'knowledge gap' is increasing and the poor countries are becoming poorer and rich countries are emerging as knowledge countries and they are ruling the world. In one other way globalization has helped in retaining the skilled people within the country, because a person can work for a foreign company sitting at home in India. But in reality he is working for an overseas country not for his own nation.

Indian Diaspora is a geographically diversified Diaspora, which is spread in as many as 110 countries. The Government of India estimated that there are 30 million Indian Diaspora spread across the world. The nature of settlement of Indian Diaspora can broadly be divided into two parts, namely 'old Diaspora' and 'new Diaspora'. The prominent countries that figure in the old Indian Diaspora are Malaysia, Mauritius, Trinidad and Tobago, Fiji, Guyana, and Suriname and the important countries with the new Diaspora are all the developed countries like – USA, UK, Canada, Australia and New Zealand. Apart from these two, a good number of Indians also live in the Gulf region. The geographical distribution of Indian migrant destination countries is defined by the level of qualification. The migration flows of the highly-skilled are oriented towards traditional Indian destinations, namely: the US, Canada, the UK and more recently toward non-English speaking EU countries. This wave was accelerated by Indian integration into the world economy. Semi-skilled and unskilled Indian workers are predominantly concentrated in the high-income countries of the Gulf Cooperation Council. These migrants have also been viewed for a long time as key providers of remittances. Current emigrants from India show an evolution of Indian labour migration, confirmed by the presence of highly-skilled flows towards the Gulf, a destination traditionally reserved for unskilled and semi-skilled Indians. The same trend is recorded regarding highly-skilled flows towards the US, Canada, Australia and Europe where unskilled Indian migrants mix with more qualified categories.

II. CAUSES OF BRAIN DRAIN IN INDIA

There are various reasons for the brain drain in India. The reasons usually include two aspects which respectively come from countries and individuals. In terms of countries, the reasons may be social environment (in source countries: lack of opportunities, political instability, economic depression, health risks, etc.; in host countries: rich opportunities, political stability and freedom, developed economy, better living conditions, etc.). In terms of individual reasons, there are family influence, and personal preference: preference for exploring, ambition for an improved career, etc. Keeping all these in mind we can identify some causes for the brain drain in India.

Higher Education : Higher education in India evolved considerably after independence in terms of the number of universities as well as in terms of access to higher education. Nowadays, the number of universities in India has grown some 35 times comparing to 500 colleges and 20 universities before independence which are enrolling more than 11 million students, more than 10 times before independence. Before independence education was limited and elitist: the current system is though more open with from 30-40% of enrolments from coming from the lower castes, and with women representing some 35% of the total number of students. The impressive increase in higher education has raised some questions over the adequacy of studies, resources, institutional quality and standards. Students moving to the abroad is keep increasing. The most preferred educational destinations are the U.S. and U.K. In the year 2006, of the 1,23,000 studying outside India, 76,000 have chosen USA (94,563 in 2007-2008, 83,833 in 2006-2007) as a country of their choice followed by UK, Canada and Australia. Most popular foreign universities are University of Southern California, New York University, Columbia University, University of Illinois at Urbana-Champaign, Purdue University, Indiana, University of Michigan, Ann Arbor, University of California, Los Angeles, University of Texas, Austin, Harvard University, Boston University, University of Pennsylvania.

Employment: - India has skilled and semi-skilled, employed and unemployed human resource. Low salaries and inefficient working conditions can be the first motive that triggers the movement to the countries with better living standards and facilities. There is huge difference in terms of salary in all three groups of countries namely developed, developing and underdeveloped. To demonstrate, Skilled workers aim to get pleasing salaries in return for their labour but the working conditions in their homeland don't fulfill their wishes. Therefore, those workers prefer to move another country in order to have better living conditions with high salaries. Employment is one of the strong reason for brain drain in India.

Lack of opportunities: In developed countries, researchers are provided with funds and necessary equipment to carry out study, which can be another motive that attracts those deprived of these opportunities. Most scientists in underdeveloped countries, do not possess laboratory facilities and researchers cannot get sufficient funds. Therefore, when developed countries offer these facilities, researchers and scientists naturally

prefer to migrate to these countries. The internationalization of knowledge creation and the rapid expansion of R&D activities determined the diversification of receiving countries for professionals and skilled workers from India. Traditional migration streams of highly-skilled Indian were directed toward the United States and the UK. In the 2000s, new non-English-speaking destinations emerged in Europe such as Italy, France, Germany and other European countries. The number of skilled Indian migrants moving to Australia, Canada, and New Zealand also increased.

Favorable migration policies: - Increasing economic interdependence among nations, growing demand for skilled labour in the knowledge economy not to mention demographic trends are all strengthening the position of India as a major supplier of young, educated and qualified manpower for the EU. Owing to its demographic profile and its English-speaking population, India, with its large reserves of highly-skilled workers, has emerged as one of the most prominent country to fill the supply gaps in the labour-deficient economies of the developed world. Taking into account EU economic objectives coupled with demographic and ageing effects, Member States have put in place selective immigration policies aimed at attracting highly-skilled professionals and tertiary-level international students from South Asia. In order to facilitate labour mobility, some EU countries signed labour-mobility partnerships with India. According to the Ministry of Overseas Indian Affairs, this kind of agreements was signed with Denmark, and negotiations are ongoing with other European countries, EU and non EU, including Poland, the Czech Republic, Norway, Switzerland and Hungary, Sweden and France. There are so many causes of the brain drain in India. First of all, there is the unemployment problem. Even a talented person cannot get job. India is lacking in facilities for higher research work. The top appointments are quite few in India. Thus the talented experts like to seek new pastures abroad.

III. SOCIO – ECONOMIC ASPECTS OF BRAIN DRAIN IN INDIA

➤ **India – the brain reservoir in the new knowledge based economy**

The growth in knowledge intensive activities in the developed world has led to a growing demand for Science and Engineering professionals. With an important reserve of trained people in this domain, India is becoming a major supplier of human capital for the advanced economies. India is sending large numbers of these specialists compared to other important origin countries. A relevant example is the number of Indian students in science and engineering enrolled in US undergraduate degree programs. India, China, and South Korea are the top countries of origin for foreign students in the United States in science and engineering: India with 68,000 students in 2009 accounts for the largest number of foreign students here, followed by China with 54 000 students. Together these countries account for almost 47% of all foreign science and engineering student enrolled in U.S universities⁹. Germany is also recruiting foreign students from India, notably in engineering and computer sciences. The United States remain the most important host country of highly-skilled Indian migrants with more than 80% of Indian skilled migration to all developed countries. In the host countries, Indian migrants are among the besteducated and highest-earning groups. The US Census Bureau's 2008 American Community Survey found that 74.1% of an estimated stock of 1.6 million of Indian immigrants held at least a bachelor's degree, and 68.9% were hired in management, professional, and related positions (Naujoks, 2009).

According to the US Government Accountability Office (GAO), 46.9% of highly-skilled workers admitted under the H-1B visa between fiscal year 2000 and fiscal year 2009 were born in India¹⁰. In 2004, the US was the favored destination of 62% of the 71,290 physicians emigrating from India while 32% chose the UK (Bhargava, Docquier, and Moullan, 2010). In the European Union, the UK is the first destination of highly-skilled Indian migrants attracting two thirds of the total number of Indian migrants in Western Europe (Khadria, 2008). Indians also represented more than 40% of the estimated 22,000 entries under the UK's Highly-Skilled Migrant Program.

➤ **Indian students: an important source of labour for developed economies**

An important place in the flows of well-trained Indian migrants is taken by Indian students. India, for example, accounts for 5.5% of the 2.8 million students studying outside their home-country. After China (421,100), the country sends the greatest number of students abroad: 153,300. In 2009, the EU-27 hosted 1.6 million foreign students in tertiary education.¹³ 53,930 were Indian citizens. The first destination was the UK (42,406) followed by Germany (3,629), Cyprus (1,588) and France (1,252)¹⁴. According to the table below, in 2009, India was behind only China in sending students in the EU-27. The other two main countries of origin were Morocco with 44,800 students and the United States with 32,100 students. Nigeria and Brazil, the two non-Asian big demographic pools send only, respectively half and one third of India's numbers.

➤ **Increase in the immigration of Indian migrants to the European Union (EU) due to favorable policies**

Over the last few years, the European Union has been seeking to put in place measures which comprise effective integration policies addressing education and labour market issues. This is proven by the number of Indian immigrants who acquired European Union citizenship. In 2006, 20,600 (2.8%) of 735,000 citizens granted by the European countries were Indians. In 2008, in a context of lower immigration figures, 15,200 Indians acquired citizenship of an EU Member State which represents 2.2% of the total number of acquisitions recorded in the EU. In 2009 this number doubled. Among 776,000 naturalized persons, 4% were Indian citizens, making Indians the third largest group after Moroccans (7.7%) and Turkish citizens (6.7%) to become citizens of an EU member State (Population Database - Eurostat). Such a trend would have to be checked over a number of years. For the moment, however, it tends to show the attractiveness of Europe to the highly-skilled Indian workforce.

Main EU member States granting citizenships to Indians in 2009

Total acquisitions in EU-27	United Kingdom	Portugal	Germany	Italy	Other
	% of total EU	% of total EU	% of total EU	% of total EU	% of total EU
31,100	85.3%	3.2%	2.9%	2.9%	5.7%

Source: Fabio Sartori, Acquisitions of citizenship on the rise in 2009, Population and Social Conditions, EUROSTAT, Statistics in focus 24/2011, p. 7

The formulation of more favorable immigration conditions for highly-skilled persons determined the strong presence of this category in the Indian immigration flows to Europe. Current Indian mobility to Europe is mainly a movement of students and skilled workers in IT, medicine, finance, academia and other areas. The predominance of the highly-skilled is revealed by the high level of residence permits granted to Indian nationals by European countries for employment and education. Among 201,398 new permits issued to Indians at the EU level, 37% were for employment and 26% for education purposes.

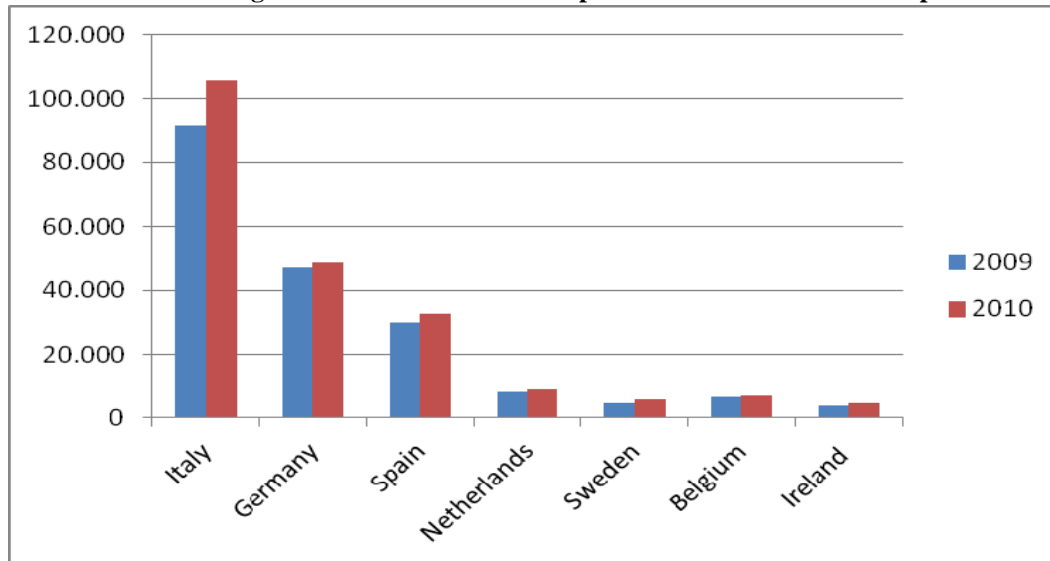
Immigration flows decreased by 21% compared to 2008, in 2009 Indian immigration increased by 16% reaching 108,341 which accounts for around 6% of all non-EU nationals. India-EU migration trend, in recent years, shows not only a gradual expansion, but also a diversification both in terms of source of flows and their destinations. Indian migration to Europe is a recent function of unskilled and skilled migrants with a growing element of skilled professionals, due to the EU immigration policies focused on skilled migrants. In 2008, India was the third non-EU source country (93,436) behind only Morocco (150,000) and China (97,000) (Eurostat). Despite the fact that the UK remains the main EU destination for Indian migrants, hosting 59%, in 2009, new European countries have emerged as attractive destinations. In 2001, only three European countries attracted over 1,000 Indian immigrants and three other attracted between 500 and 1000 Indians: in 2009, 10 EU Members states attract over 1,000 Indians.

➤ **India a supplier of young and well trained-people for European countries**

Increasing economic interdependence among nations, growing demand for skilled labour in the knowledge economy not to mention demographic trends are all strengthening the position of India as a major supplier of young, educated and qualified manpower for the EU. Owing to its demographic profile and its English-speaking population, India, with its large reserves of highly-skilled workers, has emerged as one of the most prominent country to fill the supply gaps in the labour-deficient economies of the developed world. Taking into account EU economic objectives coupled with demographic and ageing effects, Member States have put in place selective immigration policies aimed at attracting highly-skilled professionals and tertiary-level international students from South Asia. Through the European Blue Card, following the principles of the American Green Card, the EU intends to attract 20 million well-trained workers in the next 20 years (Sawahel 2007, Khadria, 2008b). Moreover, negotiations in early 2012 over the free-trade agreement launched in 2007 between the EU and India could reinforce the immigration of highly-skilled Indians to the EU, which will mean easier access for Indian workers to EU countries in return for access to India’s domestic market.

With a large and growing population of 1.15 billion, India will be a major player in international migration. According to the Indian Office of the Registrar General & Census commissioner, the population of India is expected to increase to 1.4 billion in 2026 overtaking China at that point. Population growth in India is set to continue and large numbers of young people will enter the labor force age group of those aged 15 to 64. By 2020, India will become the world’s largest pool of young people estimated at 820 million as compared to the present number of 400 million²⁰. Moreover, 3.5 million graduates and postgraduates are added annually to the talent base. No other country offers a similar combination and scale of human resources (NASSCOM)

Evolution of Indian migrant stock in the main European destinations in 2009 compared to 2010



Source: Population Database-Eurostat, International migration

IV. PROBLEM OF BRAIN DRAIN IN INDIA

Thus brain drain is a direct loss, of trained experts in many fields, to the under-developed and poor countries. On the other hand, it is a net gain to the advanced countries. According to a UNO report, every year thousands of experts are migrating from backward countries to advanced countries like USA, UK, Canada, Germany etc. The under-developed countries are spending millions of rupees on the training of these experts. But the advanced countries are utilizing their services without spending any money on their training. Every year, thousands of highly talented doctors, engineers, scientists and other intellectuals leave India and migrate to foreign countries. They generally go to U.S.A, UK, Canada, West Germany, etc for monetary gains and facilities for higher research. US is the biggest gainer from the loss of India due to brain drain.

In 2010, India with an estimated stock of 11.4 million emigrants was the second emigration country in the world, behind Mexico (11.9 million)¹. In absolute terms, India is among the countries which lose most highly-skilled workers to foreign markets. In 2000, India was, for example, the first sending country of physicians with 57,383 or 9.9% of the total number of physicians trained in the country going abroad. India and the Philippines supply most foreign-trained doctors and nurses to the OECD, notably to English-speaking countries. The emigration of health professionals has negative effects on India, especially in rural areas where the density of doctors is lower than in urban areas. Despite increasing internal demand, India still has a very low density of doctors (0.6 per thousand people in 2004) compared with 3 in the US and 2 in Canada. Compared with other large origin countries, India records higher expatriation rate of doctors: 8%; while the expatriation rate of, say, Chinese doctors is about 1%. This does not prevent, of course, India from having a large and powerful modern health sector; as in other countries, the migration of health professionals may coexist with a dynamic urban sector and the inequitable social distribution of medical resources at the country level.

Most of the students who go abroad for higher studies do not return to India. After seeing, the affluent life of foreign countries they lose all interest in their own country. Many Indians are teaching at various US Universities and other Institutions of higher learning. Some of them are placed on quite lucrative and high posts. There is another attraction of leading a higher standard of living in foreign countries, because the technical experts and intellectuals, are give special facilities there. In foreign countries, there is the advantage that while learning a person can also earn his own living. The stipends in foreign countries are sufficient enough. A frugal Indian Student living there can also save something to send home. There is no doubt that India is having vast natural and man power resources. If both these resources are put to the maximum utilization astounding advancement can be achieved in all fields. These technical and other talented reasons whom we lose every year, can greatly help in the development of our natural resources. The

government must take speedy steps to attract back home these talented sons of India who are living abroad. These experts can surely help in making India a great power in the world.

In this connection, even the people should also come forward and cooperate with the Government in solving this problem. The parents of the students should not encourage them to go abroad and settle there even if they are paid high salaries.

The doctors, engineers and scientists owe a duty to their motherland. Our nation is spending huge amounts of money on their training. These people should not betray their own nation by serving foreign nations. Today thousands of young Indian scientists and technicians are devoted to the cause of rebuilding our nation. The country has already achieved the nuclear status as well as become a space power. There are enough opportunities for all the Indian scientists and engineers settled abroad, if they come back to India. They should play an important role in future progress of our country and share the honour of participating in this sacred task.

V. BRAIN DRAIN V/S BRAIN GAIN

There is increasing awareness that migration can benefit both the ‘sending’ and the ‘receiving’ country. In the long run brain drain may be converted into brain gain: something particularly relevant to India. Until recently, the role of the overseas Indian community in the development of the homeland concerned only financial resources. Estimated at 30 million and with a presence in 189 countries, the Indian Diaspora produces an annual economic income of about \$400 billion, almost 30 percent of India’s GDP²⁷. Desai, Kapur and McHale (2001) found that the 1 million Indians in the United States who represent only 0.1 percent of India’s population earn the equivalent of about 10% of India’s national income. The estimated volume of remittances in 2010 was \$55 billion or 3.9% as a share of GDP. Naturally, these financial resources contributed to development processes in India. But in addition to direct financial advantage, Indian expatriates abroad, especially highly-qualified expatriates bring other benefits such as image improvement for the country, knowledge transfers, access to new markets, business networks.

VI. CONCLUSION

For the balance of power and for the staggered development of the world, it is very important to stop the phenomena of brain-drain. This will help a particular country to use all local skilled citizens for development and proliferation. But to hold these skilled workers at their native places, it is also important to provide them enough work opportunities and living facilities. For this purpose, developed nations should help developing countries with necessary money and resources. So that each and every human of this planet can have good standard of living and each and every nation can introduce itself as a developed nation. The UNDP estimates that India loses \$2 billion a year because of the emigration of computer experts to the U.S. Indian students going abroad for their higher studies costs India a foreign exchange outflow of \$10 billion annually. These statistics clearly shows the “human capital flight” of our country. This scenario must change for the sustainable growth of the nation.

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