

Out for Greener Pastures: A Case Study of Brain Drain of Educated Indians

Abstract

The concept of Brain Drain has attracted a lot of attention from researchers, policy makers and governments since decades. There are different perceptions to the issue of brain drain. Studies differ in their descriptions and definitions of this complex multidimensional concept. There are mixed views on its outcomes and effects; which keep changing from time to time and from country to country. The present study perceives brain drain or human capital flight as an emigration of educated, trained, talented and skilled individuals from one country to other countries. Today, India is poised as one of the fastest growing developing and emerging economy having the highest rate of economic growth in the world. In this situation, it becomes pertinent to study the magnitude, causes and consequences of brain drain in India. There is a need to investigate what leads to emigration of educated and skilled individuals from India to greener pastures beyond. The study endeavours to explore and determine the reasons for Indians leaving their home and making nests in foreign land. The study also attempts to suggest suitable solutions for retaining Indian brain in the country itself.

Keywords: Brain Drain, Educated Indians, Human Capital, Migration, Skilled.

Introduction

The nineties marked the intensification of globalisation process across the globe. Spearheaded by a massive drive of technological development and rise of service industry, coupled with the global phenomena; the demand for skilled, educated and talent equipped human resources surged in the developed world. This brought the issue of skilled emigration and Brain Drain into the centre stage of economic and political debate.

The concept of Brain Drain dates back to the 1960s when the British Royal Society coined this term in response to the skilled British and Europeans migrating to North America. An OECD Report (1987) defines brain drain in two ways: Brain exchange and Brain Drain waste. "Brain exchange implies a two-way flow of expertise between a sending country and a receiving country. Yet, where the net flow is heavily biased in one direction, the terms "brain gain" or "brain drain" is used. A further term, 'brain waste', describes the waste of skills that occurs when highly skilled workers migrate into forms of employment not requiring the application of the skills and experience applied in the former job". According to Johnson and Regrets (1998), brain drain is understood as brain circulation which refers to the cycle of moving abroad to study, then taking a job abroad and later returning home to take advantage of a good opportunity. The authors believe that this form of migration will increase in the future, especially if economic disparities between countries continue to diminish. This kind of circular migration was earlier observed in case of Malaysians who had gone for further studies to Australia. Similar phenomenon is being reported in recent times for Indians, Chinese, Taiwanese and South Koreans (Mollick, 2011).

Brain Drain is often viewed as impacting the economic growth of developing countries due to an outflow of much needed technically skilled people. The productive capacity of these nations diminishes on account of emigration of skilled manpower which eventually adversely affects their economic growth [Bhagwati (1976), Bohning (1982), Beine et al (2001), Commander et al (2004)]. Brain Drain has also been regarded as a loss of vital resources. It represents human capital mobility without compensation [Adams (1968), Salt (1997)]. This leaves the developing country at a disadvantage, tilting the economic benefits from human capital in favour of the host country.

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Chimboza (2012) looks at brain drain as the physical movement of highly qualified, skilled and educated people from one country to another with the resultant loss of diverse intellectual prosperity and innovative skills that would have otherwise contributed to economic development of the former.

Brain Drain can occur not only when individuals educated in their home country emigrate in search of higher wages or better opportunities, but also when individuals who studied and completed their education abroad do not return to their home country. Brain Drain is also believed to be detrimental in revenue generation for the home country. Also, it is usually not possible to completely offset the loss in productivity due to migration of skilled human capital to other nations. Therefore, brain drain tends to have an impact on economic welfare of nations.

The present study perceives brain drain or human capital flight as an emigration of educated, trained, talented and skilled individuals from one country to other countries. This study primarily aims at investigating the factors that lead to emigration of educated and skilled individuals from developing countries to other pastures beyond, in particular the case for the Indian subcontinent. With India poised as one of the fastest growing developing emerging economy having the highest rate of economic growth in the world, the study focuses mainly on the Indian experience. The study endeavours to explore and determine the reasons for Indians leaving their home and making nests in foreign land. The study also attempts to put across suitable solutions and suggestions for retaining Indian brain in the country itself.

The study has been designed to include *seven sections*. The *first section* introduces the study. The *second section* throws light on the magnitude of brain drain in the world in general and India in specific. A brief review of literature is covered in *section three*. The *fourth section* highlights the various factors responsible for brain drain from India, the consequences and impact of brain drain for India. The *fifth section* involves discussion on the objective of the study and methodology adopted for the study. *Sixth section* presents the findings and analysis of results while the *last section* concludes the study with important suggestions and solutions for retaining Indian brain.

Magnitude of Brain Drain: World and India

Nearly 250 million people live in countries in which they were not born. Largely, there is consensus among emigration studies that one-third to one-half of the developing world's educated and skilled live in the developed world. According to World Bank estimates, the stock of international migrants was estimated at 247 million in 2013. The South-South migration stood at 37 percent of the global migrant stock which was larger than South-North migration at 35 percent. The North-North migration was 23 percent whereas the North-South migration was only 5 percent. The people willing to drain out have been mainly targeting United States, Saudi Arabia, Germany, the Russian

Federation, and the United Arab Emirates as their destination among others.

The global average cost of remittances has been falling and migrants' remittances to developing countries are estimated to have reached \$ 436 billion in 2014. Among the developing nations; India, China, Philippines, and Mexico were the top recipients of migrant remittances. Remittances as a share of GDP are found to be larger in small countries (Central Asian Countries and Pacific islands) than that in relatively larger economies. This makes the smaller economies highly dependent on remittances and increases their vulnerability to shocks.

The exodus of skilled human capital is a vital component of economic growth. Although it is an international phenomenon, it is particularly hard on developing countries. It is usually observed that the more underdeveloped a country is economically, the more it loses by brain drain. India loses nearly 20 lakh people to the rest of the world as net migrants every year, which constitutes only 5 percent of its graduates. Higher studies cost India a foreign exchange outflow of over \$10 billion annually. India is the world's largest remittance recipient country receiving \$70 billion remittance inflows in 2014. Although India receives the largest inflows in terms of its external remittances receipts to support its development needs; it is not highly dependent on its remittances with a remittance rate of only 4 percent of its GDP. Against the usual belief, people leaving the country are not alone skilled individuals. Human capital flight from India includes skilled manpower, post graduates, graduates moving out for higher education, and unskilled workers as well for better wages and opportunities.

Review of Literature

The term Brain Drain has become a hot topic of discussion over the years. Earlier, it was understood as the emigration of educated and skilled workforce from poor to rich countries in search of better job opportunities and living conditions. Migration is a complex multidimensional problem. Its causes and consequences are varied and it has been subject to the scrutiny of administrators, scholars and researchers all over the world.

There is a long active debate going on the impact of brain drain on economic growth and on the relationship between emigration and national productivity. According to Mankiw, Romer and Weil (1992) and Lusthaus et al (1999) human capital is a vital input into the aggregate productivity function. Brain drain is expected to hurt the growth rate of the economies affected. Miyagiwa (1991) and Haque and Kim (1995) found evidence of negative effects of brain drain on economic growth and human capital training in the country of origin. According to Hamilton (2003), brain drain results in a subsidy to the rich countries because the growth of most developed countries also stems from the concentration of human capital itself (Castles and Miller, 2003). The World Bank, (2006) highlighted the serious problem of brain drain for the growth performance of developing countries. The argument being that it is by the knowledge, skills and

expertise of human capital that planning, production and delivery of services and goods are made.

There are several country specific studies on brain drain. It was observed that most employers in US organizations had a major concern of how to attract and retain talent (Deloitte, 2001). The cases of Barbados and Philippines are unusual examples of countries in brain drain debates. These two countries have no capacity to absorb all the human capital educated and trained in their countries. Hence, they deliberately train their citizens for export (Cervantes and Guellec, 2002). Milligan and Bohara (2011) investigated the effects of remittance income on childhood welfare in Nepal from two angles. One, its effect on child educational attainment and the other on child labour. The study found remittance income to have positively and significantly contributed to child welfare. Mujeeb (2017) tried to find out the factors behind the flood of Afghan migrants over the last couple of years. The study found unemployment as the major factor driving migration in Afghanistan. The results point towards a positive relationship of social pressure on youth leaving the country. Bredtmann, Flores and Otten (2018) analysed the effect of migrants' education on their remittance using microdata for five sub-saharan African countries. They found that education has a positive effect on the amount of remittances sent. They suggest that policies that favour skilled migration are beneficial for the amount of remittances received by the origin country.

A study on Indian brain drain by Desai, Kapur and McHale (2001) found that the 1 million Indians in the United States who represented only 0.1 percent of India's population earned the equivalent of about 10% of India's national income. It is noteworthy that despite the economic crisis of 2008, India continued to receive an increasing volume of remittances unlike the other nations which witnessed a decrease in remittance inflows. The estimated volume of remittances in 2010 for India was \$55 billion. Zachariah and Rajan (2012) examined the role of Kerala state's Gulf connection in migration. The study observed that emigration has resulted in income inequality in Kerala. They also found emigration from Kerala state to be declining. Varma and Kapur (2013) focus on the new emerging trends of brains being retained in India. They conducted a study on IIT students and found that they prefer settling down in India. Even if some students were interested in going abroad for higher education, they were keen on returning back to India for pursuing their careers ahead.

Indian Brain Drain: Causes, Concerns and Consequences

Brain drain has become a major concern of developing nations, especially India. India has witnessed a constant outflow of the country's talents for decades now. The United Nations Development Programme Report of 2001 estimated that 100,000 Indian professionals left the country every year to take up jobs in the United States (UNDP, 2001). This was particularly prominent in the IT sector in the 1990s.

Indians were getting trained in the public institutions but then got drained out to the US due to lack of right opportunities and working conditions at home. In 2000s, it was observed that a large number of those going out of the country were returning back and this attracted a lot of media attention too. However, only a small fraction of the skilled had actually returned. It is unfortunate that the country fails to hold back its talented youth.

India has lost its cream graduates to the rest of the world due to a hoard of reasons. Economic factors such as lack of options for their specialisation and underemployment, gnawing technological gap in the country, low level of economic development, lack of an environment conducive to growth, poor pay packages and income inequalities have been discouraging the Indian youth from staying back. With jobs just not matching the growing population, our graduates had no choice but to look out for greener pastures in foreign lands. Political instability, need for social security, corruption, nepotism and red-tapism, lack of transparency, unnecessary restrictive laws and policies are some of the political factors that are responsible for brain drain from the country. According to the World Bank Monitor (2011), social injustice is one of the top three reasons behind developing nation's brain drain. India's image has often been marred due to prevalence of rigid social customs and norms. Youth tend to move out of the country due to stifling environment at home ground, social discrimination and missing scientific tradition and culture. Desire for a better quality of life, want for qualification and recognition, higher career expectations and personal choices drive them to choose between their home country and the outside world.

As an outcome of the continuous brain drain, India is facing shortage of skilled and competent manpower. Shortage of supply has led to tremendous increase in wages of high-skill labour within the country. Often, wrong people take up important jobs or the capable are underpaid and underemployed. Skilled human capital is lacking for key public services which are pertinent for driving economic growth and development.

Many debate that brain drain is not really a big problem and there is too much noise than required. Researchers often argue that brain drain could be beneficial to the developing nations to a certain extent. Youngsters moving out of India could attain higher education and skills abroad and may bring back the advantages to their home country in terms of sharpened skills, technology and new ideas. Apart from a surge in foreign inward remittances, brain drain would encourage competitiveness and create scope for more capital intensive programs in India, generating opportunities for others too. The expertise of those in Diaspora could be roped in for national and regional development. In addition to direct advantages, the highly-qualified Indian expatriates abroad could bring in other benefits such as image improvement for the country, knowledge transfers, access to new markets and business

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networks. India could reap the benefits of brain drain not only today but continue to do so in the future as well. Wallsten (2003) stated that brain drain should be embraced as an effective and immediate way to bring relief and stability to poor nations, far faster than many government programs could. This view sees such benefits or return on investment outweighing human capital loss through brain drain.

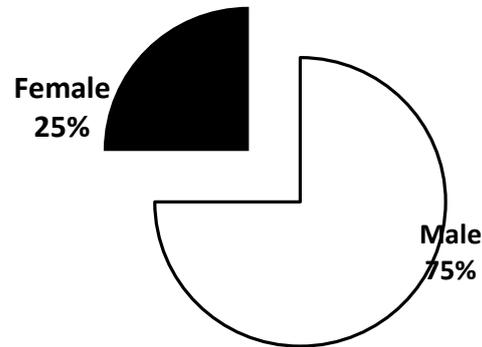
Recently, it is being observed that the brain drain trend has undergone a significant shift with Indian professionals returning back to their home country in increasing numbers. Several reasons have contributed to this changing trend. The recession in the western countries in the first part of 2000s led to loss of jobs for many Indians. The global economic crisis of 2008 adversely impacted the developed nations. India was relatively resilient and remained fairly insulated from its adverse effects. The pace of economic growth in India accelerated and rapid development in the IT-BPO sector benefitted Indian professionals in the sector. Opening up of the Indian economy and a growing private sector facilitated this favourable phenomenon for India. Indian science and technology potential has also been growing rapidly, increasing the demand for research scientists. With rapid expansion of higher education infrastructure and encouraging environment, India has been successful in attracting young researchers back home. In response to the economic boom in India, some of the world's largest companies have set up their offices in India. The growth is reflected in domestic industries, foreign investments, and better standard of living leading the way for attractive opportunities and packages within the country. India today has an enabling environment that is pulling back its educated and skilled. The return migrants become a bridge between the developed nations and India creating a knowledge base for others.

Objectives and Methodology of the Study

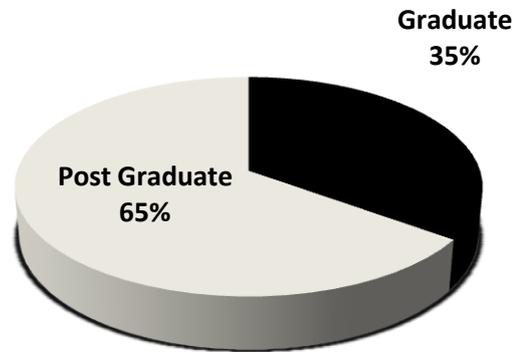
Broadly, the study investigates factors that lead to the emigration of educated and skilled from developing countries and the reasons for return migration. The specific objective of the study is to determine the pertinent motives for brain drain of educated and skilled Indians by undertaking a primary survey. The study also explores the reasons for reverse migration of the same Indians. Against this background, the study attempts to suggest measures and initiatives to address this brain drain problem.

For the purpose of the study, primary data collection has been carried out by implementing a short survey using the interview method. The target population is a section of the educated and skilled Indians who have already migrated out of the country. Sample size for the study or total number of respondents is equal to 40 educated Indian migrants. The respondents are currently in the age bracket of 25-50 years.

Gender Ratio of the Respondents



Ratio of Graduates and Post Graduates among the Respondents



Results and Analysis

Various questions related to Pay Packages, Education, Lifestyle, Family Pressure, Relocation, Opportunities, Technology, Future Prospects, Prestige Value, and others were asked to all the respondents in order to understand their reasons for deciding to move abroad from India. The analysis of their responses is presented in Table 1:

Table 1: Determinants of Brain Drain of Educated and Skilled Indians

S. No.	Reasons for Brain Drain	Respondents (%)
1.	Job Opportunity (Career and Salary)	25
2.	Education	15
3.	Better Lifestyle	20
4.	Job Relocation	7.5
5.	Others	32.5
5.1	Better Future for Family	7.5
5.2	Technology Gap	2.5
5.3	Domain Expertise	2.5
5.4	Prestige Value	7.5
5.5	Adventure	2.5
5.6	Spouse Migration	10

Important observations drawn from the Table

1 are:

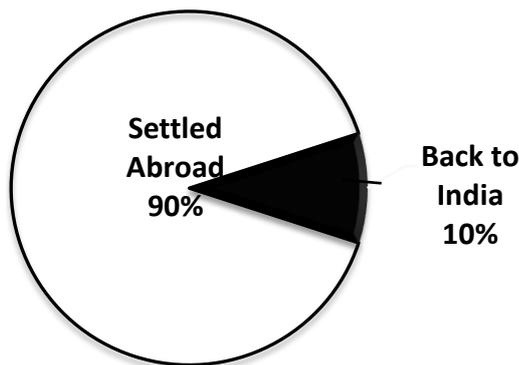
1. Better job opportunity is the most important reason propelling the educated and skilled Indians to leave their country. Of the total 40 respondents interviewed, 25% agree to have

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- moved out in search of a successful career and higher salaries.
2. The second most significant factor influencing brain drain in case of India is the desire for a better and improved lifestyle. In the present study, 20% of the selected respondents prefer the quality of life outside their home country.
 3. Only 15% of the Indians interviewed had left the country for higher education.
 4. Job relocation does not turn out to be an important factor in determining brain drain as only 7.5% respondents report it as the motive for leaving India.
 5. Among the other reasons for brain drain which constitutes over 32% of respondents, spouse migration appears to be the most significant determinant. More importantly, all of these 10% respondents are females who have migrated from India for reasons of marriage or migration of their spouse.
 6. Prestige value attached to going abroad and hope of giving a better future to family are found to influence around 7% of the respondents' decisions to leave their country.
 7. Domain expertise as the reason for leaving the country is not very prominent in influencing brain drain.
 8. Technology gap between India and other developed nations also does not turn out to be a significant variable. Even search for adventure and new experience is an insignificant determinant of brain drain from India.

Reasons for Reverse Migration

Among the total respondents, only 10% (04 respondents) came back to India in reverse migration. Rest 90% of the respondents settled in foreign nations.



The interview results reveal varied reasons for reverse migration of the 10% of educated Indians who had once left their country for greener pastures. The main reasons reported are family pressure, financial back up in home country, dilemma of owning a business in India against working for someone else in a foreign country, and emotional factors. All of the respondents belonging to this 10% category are male graduates belonging to business class families in India. One thing is clear that all of those respondents who have come back to India under return migration;

had sound business and financial back up at home to support them. Not a single respondent without a financial back up or sound business in India wished to come back to their roots.

Conclusion and Suggestions

Emigration of skills is caused by a variety of underlying economic, political and social forces which differ from country to country, from time to time, and from era to era. Therefore, the strategies to address the problem cannot be generalized. Every country requires its own basket of suitable remedies and measures to be adapted to discourage brain drain.

On the basis of results arrived, the study rests its conclusions that in case of the educated and skilled Indians; better job opportunity, higher earnings, improved lifestyle and better standard of living are the most important motives determining brain drain. Spouse migration is also an important factor leading to brain drain particularly in case of Indian females. Very few of the educated Indian migrants actually come back to India and those who are able to do so have a sound financial support system or business set up back at home. Family pressure and emotional issues also play a role in influencing this decision.

India has the world's largest youth population with more than 50% of its population below the age of 25 and more than 65% below the age of 35. It would be important to see in the times to come, how India would cater to their development needs or lose them to the rest of the world. Brain drain is expected to be a serious challenge with lack of opportunities for its mass of educated youth. In this era of globalization, the youth are competing not just within national borders, but worldwide.

The study suggests the following solutions to retain Indian brain:

1. Education systems in India are lacking as most public institutions are crowded and underfunded. There is a dire need for a massive revamping of the public educational systems on a mass scale.
2. Serious attention towards higher education and focus on skill development and specialisation is the key towards retention of valuable human capital in the country.
3. Reducing the number of educational visas that allow young people to attend college abroad could halter brain drain to a certain extent.
4. If job opportunities and competitive pay packages are available in India, there would be no need to look for pastures elsewhere.
5. To retain brain in the country, India needs to have a certain level of economic development and supportive infrastructure.
6. Programs and initiatives to encourage self-employment and innovative start-ups could be instrumental in preventing brain drain.

One key issue is that more attention should be laid on retaining the professionals and experts who are still in the country by providing an environment conducive for conducting research and growth. In the pursuit of retaining local talent and building capacities for a knowledge-based economy, some programs have already been implemented at national and

institutional levels with success. The government has embarked upon a scheme to fund science scholars for pursuing their post-doctoral research in India. The government, industry and India's elite universities and technical institutions have united to implement a series of measures to stem the tide of brain drain while also encouraging large number of researchers to return home. In the healthcare sector, medical students going to the United States for higher studies have to sign a bond with the government, promising to return to India after completing their studies. Initiatives like Skill India and Make in India have been instrumental in generating employment as well as creating quality human capital in the country.

Brain drain may have severe consequences for the nation leading to decline in productivity and growth accompanied by falling living standards. But the tide is slowly turning. With rapid industrial expansion, faster economic growth and an enabling environment; India has been successful in attracting young researchers back home. Initiation of focused programs, investments in research and development, promoting investments and enhancing economic stability would encourage the return of highly-skilled migrants back to India. While India is putting the best foot forward to curb brain drain, there are positive signs of reverse brain drain happening. With better economic policies and skilled human capital to execute them, India has lots of hope.

References

1. Adams, W. (ed.) (1968) *The Brain Drain*, NY Macmillan Company.
2. Beine, M., Docquier, F. and Rapoport, H. (2001) *Brain Drain and Economic Growth: Theory and Evidence*, *Journal of Development Economics*, 64(1), pp. 275-289.
3. Bhagwati, J. N. (1976) *The Brain Drain and Taxation: Theory and Empirical Analysis*, Amsterdam: North Holland Publishing Company.
4. Bohning, W. R. (1982) *Towards a System of Recompense for International Labour Migration*, Geneva: International Labour Office.
5. Bredtmann, J., Flores, F. M. and Otten, S. (2018) *Remittances and the Brain Drain: Evidence from Microdata for Sub-Saharan Africa*, *The Journal of Development Studies*, DOI: 10.1080/00220388.2018.1443208
6. Castles, S. and Miller, M. (2003) *Age of Migration International Population Movements in the Modern World*, Basingstoke: Palgrave Macmillan.
7. Cervantes, M. and Guellec, D. (2002) *The Brain Drain: Old Myths, New Remedies*, OECD Directorate for Science Technology and Industry, <http://www.oecdobserver.org.newsprintpage.php.aid673>
8. Chimboza, A. (2012) *From Brain Drain to Brain Gain: Addressing Human Capital Needs for Post Crisis Zimbabwe's Capacity Building*, Master of Philosophy Dissertation, University of Pennsylvania, Philadelphia, Pennsylvania.
9. Commander, M., Kangasniemi, M. and Winters, L. (2004) *The Brain Drain: Curse of BooN? A Survey of the Literature*, in: R. E. Baldwin and L. A. Winters (Eds.) *Challenges to Globalization: Analyzing the Economics* (Chicago: National Bureau of Economic Research), pp. 235-272.
10. Deloitte (2001) *Five Total Rewards Priorities*, Retrieved 2007 from http://iscebs.org/PDF/top5Survey_07.pdf 179 pp ISBN 0-908307 85 3
11. Desai, M. A., Kapur, D. and McHale, J. (2001) *The Fiscal Impact of the Brain Drain: Indian Emigration to the US*, Third Annual NBER-NCAER Conference, Neemrana, India, December 17-18.
12. Hamilton, K. (2003) *Migration and Development: Blind Fact and Hand-to-Find Facts*, Migration Policy Institute.
13. Haque, N. and Kim, S. (1995) *Human Capital Flight: Impact of Migration on Income and Growth*. IMF Staff Paper, 42(3), pp. 577-607.
14. Johnson, J. and Regets, M. (1998) *International Mobility of Scientists and Engineers to the USA 'Brain Drain' or Brain Circulation?*, Arlington VA National Science Foundation, Issue Brief, 98-316.
15. Lusthaus, C., Adrien, A. and Perstinger, M. (1999) *Capacity Development: Definitions, Issues, and Implications for Planning, Monitoring, and Evaluation*, *Universalial Occasional Paper*, Retrieved from website <http://www.universalial.com/files/occas35.pdf>
16. Mankiw, N. G., Romer, D. and Weil, D. (1992) *A Contribution to the Empirics of Economic Growth*, *The Quarterly Journal of Economics*, 107(2), pp. 407-37.
17. Milligan, M. A. and Bohara, A. K. (2011) *The Effects of International Remittance Income on Child Education and Child Labour: Evidence from Nepal*, *Indian Journal of Economics*, Vol. XIC, No. 362, January.
18. Miyagiwa, K. (1991) *Scale Economies in Education and the Brain Drain Problem*, *International Economic Review*, 32 (3), pp. 743-759.
19. Mollick (2011) 'Brain Brain' or 'Brain Exchange'. *What Is the Cost When Immigrant Entrepreneurs Go Home?* Knowledge@Wharton
20. Mujeeb U. R. R. (2017) *An Empirical Investigation of the Effects of Brain Drain on Developing Countries since 21st Century: A Case of Afghanistan*, *Journal of Business & Financial Affairs*, 6: 269. doi: 10.4172/2167-0234.1000269
21. Royal Society (1963) *Emigration of Scientists from the United Kingdom: Report of a Committee Appointed by the Council of the Royal Society* (London: Royal Society).
22. Salt, J. C. (1997) *International Movements of the Highly Skilled*, OECD Occasional Papers, 3.
23. United Nations Development Programme (2001) *Human Development Report, Making New Technologies Work for Human Development*, Oxford University Press, New York, 2001.
24. http://www.sciencemag.org/cgi/content/full/307/5714/1415?ijkey=iuKI6W4vRIE3.&keytype=ref&siteid=sci#ref*#ref
25. Varma, R. and Kapur, D. (2013) *Comparative Analysis of Brain Drain, Brain Circulation and*

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- Brain Retain: A Case Study of Indian Institutes of Technology, Journal of Comparative Policy Analysis, Vol. 15, No. 4, pp. 315-330, <http://dx.doi.org/10.1080/13876988.2013.810376>*
26. World Bank (2006) *Global Economic Prospects: Economic Implications of Remittances and Migration*. Washington D.C.
27. Zachariah, K. C. and Rajan, S. I. (2012) *Inflexion in Kerala's Gulf Connection: Report on Kerala Migration Survey, 2011, Working Paper No.450, Centre for Development Studies, Thiruvananthapuram.*