

# Brain Drain: Why India's Skilled Graduates Move abroad and What We Can Do?

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## ABSTRACT

Brain drain is the large-scale movement of skilled and educated individuals—such as doctors, engineers, IT professionals, and researchers—from developing countries to advanced economies in search of better opportunities. India, with one of the world's largest youth populations, has long faced this challenge. Each year, lakhs of graduates migrate to the USA, UK, Canada, Australia, and other developed countries.

On the negative side, this results in a shortage of skilled manpower, weakens India's innovation ecosystem, and reduces the return on public investment in higher education. On the positive side, the Indian diaspora contributes through remittances, knowledge-sharing, investments, and global networking.

This paper explores why brain drain happens, the consequences for India, and the role of higher education institutions and the University Grants Commission (UGC) in converting brain drain into brain gain. Through case studies such as IIT Bombay's Research Park, IISc's Return Scientist Program, UGC's GIAN initiative, and Hyderabad's T-Hub startup ecosystem, the paper highlights practical ways forward.

The main conclusion is that India should not aim to stop migration but should instead focus on creating an environment where talent feels valued and connected, whether at home or abroad.

**Keywords:** Brain drain, India, migration, higher education, skilled graduates, UGC, solutions

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## INTRODUCTION

Brain drain refers to the phenomenon where a country loses its most educated and talented individuals to other nations, often permanently. The term came into popular use in the 1960s, when large numbers of British scientists migrated to North America. Today, it applies strongly to India, which has become one of the largest exporters of skilled manpower in the world.

India's migration pattern is unique because of the scale of its population. According to the World Bank (2023), India remains the top recipient of remittances globally, receiving more than USD 125 billion in 2022. Yet, behind this achievement lies the paradox: India invests heavily in higher education, but many of its brightest graduates contribute their most productive years to other economies.

For students and families, migration feels like a rational choice. Developed countries offer higher pay, modern facilities, and global exposure. But for India, this raises questions of equity and sustainability. How can a country aiming to be a global power afford to lose its best doctors, engineers, and scientists?

At the same time, migration is not entirely negative. Indian-origin professionals abroad—CEOs, researchers, and entrepreneurs—play a major role in strengthening India's global image and economic connections. This has led to a shift in thinking: instead of viewing brain drain only as a loss, policymakers now explore how to transform it into brain circulation or brain gain.

### **This paper investigates:**

1. Why Indian graduates move abroad.
2. What negative and positive effects brain drain creates for India.
3. What strategies can reduce the problem.
4. The role of colleges, universities, and UGC in finding solutions.
5. Case studies that demonstrate successful models.

## 2. Why Do Indian Graduates Move Abroad?

Migration is influenced by both push factors (problems in India) and pull factors (attractions abroad).

### 2.1 Push Factors in India

1. Limited High-Paying Jobs – India produces over a million engineers annually, yet industry absorption remains limited. Many end up in jobs that do not match their skills.
2. Weak Research Ecosystem – India's R&D expenditure hovers around 0.7% of GDP, much lower than countries like South Korea (4.5%) or USA (3%). This restricts opportunities for scientists.
3. Low Salaries for Professionals – Doctors in government hospitals or researchers in universities often earn a fraction of what they could abroad.

### Lack of Opportunities and Career Growth:

India's competitive job market and a scarcity of specialized roles force many educated professionals to seek opportunities overseas.

4. Bureaucratic Delays – University recruitment and promotions are often delayed by politics and corruption.
5. Urban–Rural Inequality – Talented individuals from rural backgrounds migrate to cities, and eventually abroad, due to lack of opportunities at home.

### 2.2 Pull Factors Abroad

1. Higher Salaries & Standard of Living – Salaries in the USA or UK are often 5–10 times higher for the same work.
2. World-Class Research Facilities – Advanced labs, generous funding, and global collaboration attract researchers.
3. Better Work Environment – Professionalism, meritocracy, and respect for talent encourage migration.
4. Pathways to Citizenship – Countries like Canada and Australia offer permanent residency options, making migration long-term.
5. Diaspora Support – Indian communities abroad provide emotional, cultural, and financial support to newcomers, making the transition easier.

Thus, migration becomes both a necessity and an aspiration.

## 3. Effects of Brain Drain

### 3.1 Negative Effects

1. Shortage of Professionals – Rural India struggles with shortages of doctors, teachers, and specialists, widening inequality.
2. Loss of Public Investment – The Indian government subsidizes higher education, but benefits are reaped by foreign economies.
3. Weaker Innovation – Low research output hinders India's global competitiveness. For example, despite having a large number of engineers, India files fewer patents than smaller countries like South Korea.
4. Regional Imbalance – States with fewer opportunities (like Bihar or Assam) lose their brightest minds more rapidly than others.

### 3.2 Positive Effects

1. Remittances – Migrants send money home, supporting families and strengthening India's foreign exchange reserves.
  2. Diaspora Networks – Indians abroad establish trade links, startup investments, and global partnerships.
  3. Knowledge Transfer – Returning migrants or virtual collaborations bring global best practices back to India.
  4. Soft Power – Prominent Indian-origin leaders in technology, academia, and politics enhance India's global influence.
- Therefore, brain drain is both a challenge and an opportunity.

## 4. Solutions for India

### 4.1 Strengthening Opportunities Inside India

- Boost Research Funding – Increase R&D expenditure to at least 2% of GDP.
- Competitive Salaries – Offer attractive packages for doctors, scientists, and professors.
- Industry–University Collaboration – Build strong internship and placement systems.
- Start-up Ecosystem – Support graduates with incubation centres, funding, and mentorship.

### 4.2 Engaging the Indian Diaspora

- Return Fellowships – Offer short-term fellowships for Indian-origin researchers to work in India.
- Virtual Mentorship – Create platforms where diaspora experts can mentor students online.
- Simplify Investments – Encourage NRIs to invest in start-ups with tax benefits.

#### 4.3 Policy Reforms

Transparent Recruitment – Reduce bureaucracy in hiring university faculty and hospital staff.  
Bond Systems – Require government-funded students/doctors to serve in India for a few years.  
Targeted Scholarships – Provide funding tied to national service.

#### 4.4 Social Awareness

Celebrate Role Models – Highlight scientists and entrepreneurs who stayed in India (e.g., ISRO's Mars mission team).  
National Pride – Encourage a cultural mind-set where contributing to India is seen as prestigious.

### 5. Role of Colleges, Universities, and UGC

#### 5.1 What Colleges Can Do

Introduce courses in emerging fields like Artificial Intelligence, Renewable Energy, and Biotechnology.  
Strengthen placement cells and start up incubators.  
Provide career counselling and mentorship programs.  
Build alumni networks to guide current students.

#### 5.2 What Universities Can Do

Develop research clusters with modern labs.  
Establish international collaborations and exchange programs.  
Ensure merit-based faculty recruitment.

#### 5.3. Strengthen Education and Research:

Improve the quality of higher education and research infrastructure within India to provide world-class alternatives to overseas institutions.

#### 5.4. Create Specialized Job Opportunities:

Foster the growth of more specialized roles and innovation-focused industries to absorb skilled graduates within the country.

#### 5.5. Incentivize Entrepreneurship:

Implement supportive policies, accessible funding, and streamlined processes to encourage entrepreneurship and job creation, turning brain drain into internal investment.

#### 5.6. Leverage the Diaspora:

Build bridges with the Indian diaspora abroad to facilitate their return through attractive incentives, making it easier for them to contribute to India's growth.

#### 5.7. Reform Business and Tax Policies:

Make business processes and tax structures more conducive to both local businesses and high-earning professionals to retain talent.

#### 5.8. Promote "Brain Gain":

Work towards transforming the brain drain into a brain gain by channelling human capital back into the country for its economic advancement and development.

Offer seed funding for innovative student start-ups.

#### 5.9. What UGC Can Do

Provide PhD/Postdoc fellowships at international salary benchmarks.  
Launch joint degree programs with foreign universities.  
Offer return incentives for Indian-origin faculty.  
Recognize universities that retain talent through awards and funding.  
Expand programs like GIAN, where global faculty teach in India.

### 6. Case Studies

1. IIT Bombay's Research Park – By linking students with leading industries, IIT Bombay created high-quality domestic jobs.
2. IIT Sc. Bengaluru's Return Scientist Program – Offered fellowships to Indian-origin scientists, successfully attracting talent back.
3. UGC's GIAN Program – Invites international faculty to teach in India, reducing the need for students to go abroad.
4. T-Hub, Hyderabad – A state-industry-university collaboration supporting startups, inspiring graduates to innovate within India.

These examples show that brain drain can be reduced with targeted interventions.

## CONCLUSION

Brain drain remains a pressing challenge for India, but it should not be seen as purely negative. Migration is a global reality, and instead of restricting it, India must build a system that encourages talent to stay engaged with the nation.

By improving opportunities, offering competitive salaries, strengthening universities, and engaging the diaspora, India can transform brain drain into brain circulation. The role of colleges, universities, and UGC is central in this process, as they shape the environment where graduates make career decisions.

Case studies from IITs, IISc, UGC, and T-Hub show that success is possible. The ultimate solution lies in making India a country where talent not only wants to stay but also feels proud to return.

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