Fast tracking research and academic infrastructure development in the country can help bring back the brightest minds to India

Can revitalising research and academic infrastructure help in
BRAIN GAIN

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When HRD minister Prakash Javadekar announced the cabinet decision to approve the proposal for enlarging the scope of Higher Education Financing Agency (HEFA) by expanding its capital base to Rs 10,000 crore and tasking it to mobilise Rs 1,00,000 crore for revitalising infrastructure and systems in education (RISE by 2022), his intention was to boost the education sector. The idea was to give impetus to state-of-the-art labs and research facilities to help retain the bright young minds in India, and attract overseas Indians back to our universities.

Speaking about government initiatives towards talent retention, R Subrahmanyam, secretary, higher education, MHRD, said, "Under HEFA, the institutions will have modern infrastructure and well-funded research facilities. Of the Rs 10,000 crore investment, 50% is for research facilities which will attract the brightest talents." Subrahmanyam further stated, under the Prime Minister's Research Fellowship programme, "Direct PhD and jobs will be provided to our best talents. Last year, we got 135 successful applicants. This year, we will be recruiting twice the number – in December 2018 and April 2019." He added, the entrepreneurial culture — boosted by initiatives like Atal Innovation Mission for Entrepreneurship Promotion under which 120 incubation centres, nine IIT research parks and startup support from the department of biotechnology and science and technology have been started — can be a game-changer.

TALENT ACQUISITION

Talking about brain gain, Timothy A Gonsalves, director at IIT Mandi, says, "When I completed my BTech from IIT-Madras in 1976, about 80-90% of BTech students would go abroad for MS/PhD, mostly to the US, and only a few returned to India. Now, the numbers have gone down to 10%, which is encouraging. Since the nature of tech-driven work has improved in recent years, IITians are not as hungry as they used to be for options

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overseas." Gonsalves adds he was clear that he was going abroad for the education and experience, in order to

According to the government statement by Science and Technology ministry:
● Over 350 Indian scientists gave up jobs in reputed foreign institutions between 2014 and 2016 to return to work for domestic establishments
● Of the 373 scientists who returned to India under different programmes, 125 were absorbed in various institutions
● Under the Ramanujan Fellowship scheme, 123 scientists returned to India between 2014 and 2016, of whom 52 were absorbed
● Under the Ramalingaswami re-entry fellowship, 109 scientists returned home and 55 were absorbed while under the Inspire Programme

REVERSE BRAIN DRAIN

India is said to be among the first countries where reverse brain drain occurred. Earlier, India was known as the country where IT students left for the US for better education and career prospects. But the dot-com bubble (around 1995-2000) changed all that when IT specilists were forced to return to India due to the economic downslide and loss of jobs in the US. The reasons for return were also due to their need to return to their home soil, and security concerns in the post 9/11 period

come back and better serve India.

According to Gonsalves, engineers in India look for three factors: (1) a job that is technically and intellectually challenging, (2) material comforts and (3) quality of life. "There are gated communities, elite institutional campuses where the quality of life is excellent. However, in vast swathes of

the country, the quality of life is poor. If students migrate, it is because of the third factor." The solution, says Gonsalves, lies in providing uniformly good schools, good health care everywhere, and a clean environment.

R Nagarajan, dean, international and alumni relations, IIT-Madras, believes brain gain started way back in the 90s with the opening of the Indian economy. "But it gained momentum in recent years with fewer graduates going abroad while another 10-15% of the graduating students either joining a startup or forming one of their own," he adds. Nagarajan says returning to India happens either for personal or professional reasons.

While the former used to predominate earlier; it is now the latter which is gaining precedence.

He feels the Indian government needs to be more pro-active in its approach to address the concerns of NRIs (for whose children and women, being transplanted to India can be a cultural shock and a curb on their professional and personal freedom). "The government should come up with more outreach initiatives to let scholars and researchers know that India is no longer what it used to be when they left the country," Nagarajan says.

– Inputs by **Manash Gohain**