VISIONIAS
INSPIRING INNOVATION
www.visionias.in

EDUCATION IN INDIA

THE CORNERSTONE OF OUR FUTURE

INTRODUCTION

"The aim of education is gaining knowledge, not of facts, but of values" –William S. Burroughs

Knowledge creation and research are critical in growing and sustaining a large and vibrant economy, uplifting society, and continuously inspiring a nation to achieve even greater heights. As India moves towards becoming a knowledge economy and society, more and more young Indians are likely to aspire for higher education to attain necessary intellectual and technological proficiency.Thus, Higher education system in India must be suitably equipped in providing high-quality education to successfully transform India into a global knowledge superpower.

In this backdrop, it is important to understand what is higher education and why is it important? How has Higher Education in India evolved throughout history?What are the major challenges plaguing higher education ecosystem in India? What proposals have been made in the New Education Policy, 2020 for the betterment of Higher Education in India? What should be the roadmap for achieving the vision and goals of the NEP 2020? In this article, we will attempt to answer these questions.

WHAT CONSTITUTES HIGHER EDUCATION IN INDIA AND WHAT IMPORTANCE DOES IT HOLD?

Higher education, also called **post-secondary education,** third-level or **tertiary education,** is an optional final stage of formal learning that occurs after completion of secondary education.In India, Higher Education is usually defined as the education, which is obtained after completing 12 years of schooling or equivalent.

The education may be of General, Vocational, Professional or Technical nature. At the end of a course of higher studies, usually a named degree, diploma, or certificate is awarded to the student.

Types of Higher Education Institutions in India

The Institutions have been classified in 3 broad categories-

- **University and University Level Institutions** i.e., the Institutions which are empowered to award degree under some Act of Parliament or State Legislature.
- **Colleges/Institutions** which are not empowered to provide degree in their own name and therefore are **affiliated/recognised with Universities.**
- **Stand-alone Institutions** (not affiliated with Universities) which are not empowered to provide degree and therefore run Diploma Level Programmes, which includes Technical Institutes such as Polytechnics, Teacher Training Institutes (TTIs), Nursing Institutes etc.

IMPORTANCE OF HIGHER EDUCATION

For Individuals

Personality development by enabling psychological growth and intellectual growth.

Creating Valuable connections by meeting new people.

Upward Social mobility by breaking the cycle of disadvantage.

Enhanced standard of living with higher incomes, access to healthcare etc.

Better Job prospects due to higher skill levels and access to better platforms.

Preparing students for the world by providing them with rich experience alongside a broad knowledge base.

For society

Higher levels of civic engagement in directly encouraging modernization and overall transformation of the societies.

Driving innovation for social good in areas such as healthcare, environmental protection etc.

For the Nation

Democratic Culture is encouraged among students through free expression and fearless atmosphere.

Technological advancement of a nation by enhancing professional and technical skills.

Creation and diffusion of knowledge through research and training.

Creating leaders by training men and women in professional as well as personal domain.

HOW HAS HIGHER EDUCATION IN INDIA EVOLVED THROUGHOUT HISTORY?

Higher education is not a recent phenomenon for India; it has had long historical roots through which a modern system of education has evolved.

In Conversation!

HISTORICAL ROOTS OF HIGHER EDUCATION IN INDIA

Vinay: Hey Vini! How was your college trip?

Vini: Hey Vinay! It was amazing. We went to visit the UNESCO world heritage site of Nalanda University in Bihar.

Vinay: Wow! I've heard that it was one of the oldest Universities in the world. I wonder how colleges were in ancient India.

Vini: Well Vinay, there are a lot of similarities between colleges back then and the colleges we have today.

Vinay: Really?

Vini: Yes! Nalanda University had a vibrant multidisciplinary education with their curriculum including subjects like fine arts, medicine, mathematics, astronomy, politics, and the art of warfare.

Vinay: That must be why it attracted pupils and scholars from all over the world.

Vini: Yes! It even had dormitories for students like today's hostels and a very tough entrance examination with only about 20% selection rate.

Vinay: What about other institutions that were famous back then.

Vini: I don't know much about them Vinay. We can go ask Sharma Sir!

Vinay: Great idea!

LATER IN THE DAY

Sharma Sir: Hello Students! How can I help you today?

Vinay: Hello Sir! Vini told me a lot about Nalanda University and how it was similar to today's institutions. Can you teach us more about such centres in ancient India?

Sharma Sir: Sure! Did you know that as per the accounts of Tibetan pilgrim monks, it was at Vikramshila University in Bihar where the culture of awarding degrees and recognition first started?

Vini: Fascinating!

Sharma Sir: The students at the ancient Vallabhi university in Gujarat got placed into high government positions after graduating just like the modern campus placements.

Vinay: That is quite interesting.

Sharma Sir: Yes! And Takshashila University was specially known for its teachers who did extensive research work. It is believed that Chanakya wrote Arthashastra – an ancient Indian treatise on economic policy and military strategy – during his teaching tenure there. Similarly, Maharishi Charak composed his medical treatise Charak Samhita and Panini his grammar book Ashtadhyayi.

Vini and Vinay: Thanks Sir! We learned a lot today.

Sharma Sir: Your Welcome! Glad to see your curiosity for the subject.

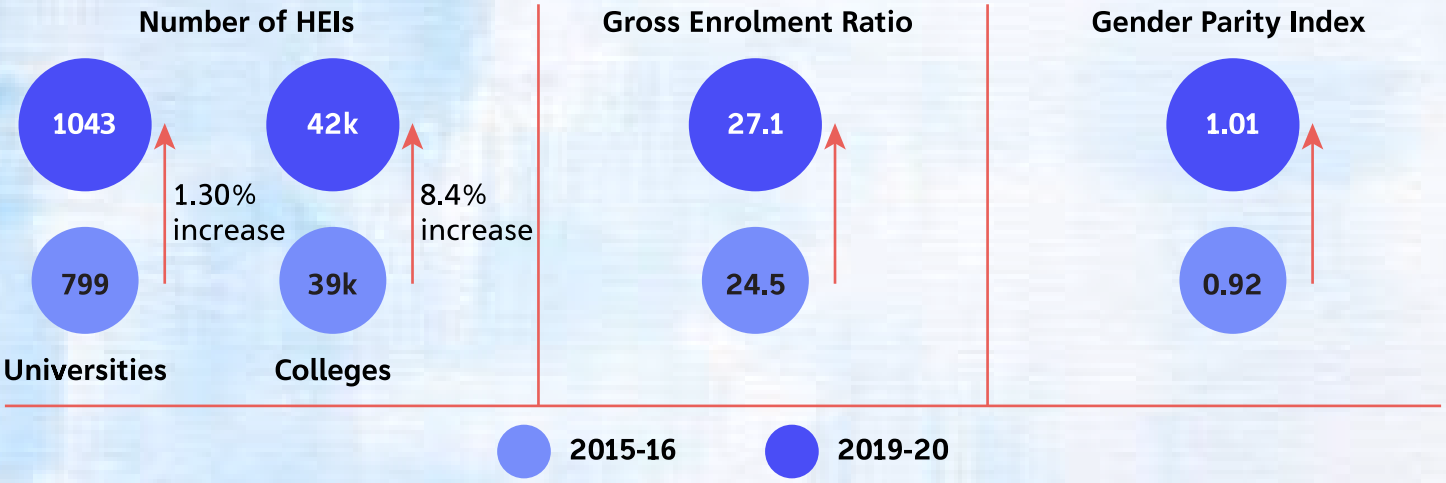
Growing throughout ancient India, the socio-historical journey of higher education in India added a **newer dimension during the Medieval period** in the form of **Maktab-Madarsa system** or Muslim system of education.

The system of Higher Education took a **clear structural shape during the Colonial period.** This happened with development of first **three official universities in Bombay (Mumbai), Calcutta (Kolkata) and Madras (Chennai).** Later, the Indian national movement also led to establishment of many **National education institutes like Jamia Millia Islamia, Bengal National University, Kashi Vidyapeeth, Bihar Vidyapeeth and Gujarat Vidyapeeth.**

At the time of Independence in 1947, India inherited a system of higher education which was not only small and limited in approach but also characterized by the persistence of large intra / inter regional imbalances. To overcome these issues, **several commissions were set up to propose recommendations to make changes in the educational system:**

Committees/Policies	Recommendations/Outcomes
Sarkar Committee (1945)	• **Higher technical institutes** to be formed based on the Massachusetts Institute of Technology in the four regions of India. • Led to setting up of the **five Indian Institutes of Technology** at Kharagpur (1950), Bombay (1958), Kanpur (1959), Madras (1960) and Delhi (1961).
Radhakrishnan Commission (1948)	• Based on its recommendations, **University Grants Commission (UGC) was set up in 1953** for the coordination of development and maintenance of standards in higher education. UGC became a statutory organization by the act of parliament in 1956.
Kothari Commission, (1966)	• Suggested **spending 6% of national income on education.** • Set in motion the **National Policy on Education (NPE) in 1968.**
National Policy on Higher Education (1986) and Revised National Policy of Education (1992)	• Set five main goals for higher education- **Greater Access, Equal Access** (or Equity), **Quality and Excellence, Relevance** and **Value-Based.** • Recommendations included- expansion of HEIs, development of autonomous colleges, redesigning of courses, enhancing quality research, training of teachers, increasing coordination between national and state-level bodies, fostering mobility between institutions. • Advocated establishment of an independent National accreditation agency. **National Assessment and Accreditation Council (NAAC) was established in 1994** as an autonomous institution of the UGC.
TSR Subramanian Committee, 2016 and K. Kasturirangan Committee, 2019	• The **New Education Policy, 2020** is based on the Draft National Education Policies submitted by these committees.

KEY ACHIEVEMENTS OF HIGHER EDUCATION SECTOR



Several schemes have been launched to upgrade India's Higher education system

Boost to Digital education	The National Mission on Education through Information and Communication Technology (NMEICT) was launched to leverage the potential of ICT, in teaching and learning process for the benefit of all the learners in Higher Education Institutions in any time anywhere mode. Key ICT Initiatives under the scheme include- • **SWAYAM-** India's own MOOC platform offering free online courses on almost all the disciplines. • **SWAYAM PRABHA-** provides 32 high quality educational channels through DTH (Direct to Home) on 24X7 basis. • **National Digital Library of India (NDL)-** to provide a single window access to learners for e-contents/resources. • **e-Yantra-** enabling effective education across engineering colleges in India on embedded systems and Robotics.
Financially strengthening HEIs	• **Rashtriya Uchchatar Shiksha Abhiyan (RUSA), 2013** aims at financing state institutions with respect to their governance and performance. • **Higher Education Financing Agency (HEFA), 2018,** a joint venture of MoE and Canara Bank aims to leverage funds from the market, donations, and CSR funds to be used to finance improvement in infrastructure in top institutions. • **Institution of Eminence (IoE):** 10 institutions in public sector and 10 institutions in private sector have to be declared as IoE to receive Rs. 1000 crore during next 5 years.
Promoting research	• **Revitalising Infrastructure and Systems in Education (RISE) scheme** funded by HEFA aims at Increased investments in research and related infrastructure in premier educational institutions. • **Prime Minister's Research Fellows (PMRF) Scheme** to enhance the quality of technical research. • **IMPRINT (IMPacting Research INnovation and Technology)** India, Joint initiative of IITs and IISc to boost original scientific and technological research. • **Impactful Policy Research in Social Science (IMPRESS)** to support the social science research in the higher education institutions and to enable research to guide policy making.

Quality improvement of HEIs	• **PARAMARSH-** A scheme to mentor institutions seeking National Assessment and Accreditation Council accreditation • **National Institutional Ranking Framework (NIRF) 2015,** to rank higher education institutions in India in order to encourage institutes to compete against each other and simultaneously work towards their growth.
Promoting Higher education for Women	• Department of Science and Technology (DST) launched schemes like **KIRAN, Women Scientists Scheme (WOS),Gender Advancement for Transforming Institutions (GATI), Consolidation of University Research for Innovation and Excellence in Women Universities (CURIE)** etc. to enhance participation of women in STEM.
International collaborations	• Attracting international faculty through schemes like **GIAN (Global Initiative of Academic Networks) and VAJRA (Visiting Advanced Joint Research).** • **Scheme for Promotion of Academic and Research Collaboration (SPARC)** aimed at facilitating academic and research collaborations between Indian institutions and the best institutions in the world. • **Study in India program** seeks to endorse India as a prime education hub for international students.
Financial support to students	• Through **Scholarship Schemes** like **Central Sector Scheme of Scholarship for College and University Students (CSSS), Special Scholarship Scheme for Jammu and Kashmir and Central Sector Interest Subsidy Scheme (CSIS)**

WHAT ARE THE MAJOR CHALLENGES PLAGUING HIGHER EDUCATION ECOSYSTEM IN INDIA?

Institutional and Structural issues

- **Low student enrolment:** Gross Enrolment Ratio (GER) in higher education in India is significantly low at **27.1 per cent** for 2019-20 (global average of 36.7 per cent), primarily because of shortage of educationally eligible population for enrolment in higher education.
  - In comparison, US has a GER of 88.2 per cent and China 49.1 per cent.
- **Inadequate Infrastructure and Facilities:** Apart from the highly recognized HEIs in India, most of the colleges and universities lack in the basic facilities like labs, research equipment, computers, library, hostels, transport, sports facility etc.
- **Inefficient Human resource Management:**
  - **Faculty shortages and a high student-to-faculty ratio:** It is believed that 30-40 per cent of faculty positions in HEIs are unfilled, primarily due to the non-availability of well-qualified faculty, resulting in gaps in the learning process.
  - **Inability of the HEIs to attract and retain well qualified teachers:** which can be attributed to factors like-
    - **Inadequate mechanisms for merit-based career management** and progression of faculty and institutional leaders.

- **Ad-hocism:** An estimated 40% of college teachers work on a non-permanent, ad hoc basis.
- **Limited opportunity for induction training** in HEIs for newly hired faculty.

➢ **Substandard and dysfunctional teacher education institutions (TEIs)** due to malpractices in the system, non-enforcement of basic standards for quality.

- For instance, majority of stand-alone TEIs - over 10,000 in number are not even attempting serious teacher education.

➢ **Lack of female leadership:** Fewer than 7 per cent of Vice Chancellors in India are women.

- **Suboptimal research ecosystem:**

➢ **Lack of competitive peer-reviewed research:** Number of Research papers published in India has increased continuously for the past few decades but have low citation impact if compared with other countries like Germany, United States, France, and China.

➢ **Research and innovation investment in India is, at the current time, only 0.69% of GDP** as compared to 2.8% in the United States of America, 4.3% in Israel and 4.2% in South Korea.

- **Brain Drain:** At present, the number for foreign students coming to India for the purpose of higher education as per AISHE 2019-2020, is mere 49,348, while India had more than 10 Lakhs students studying abroad in 2020.

- **Commercialization of Education:** The number of private universities in India jumped to 407 in 2019-20 from 276 in 2015-16, as per the data from the latest All India Survey of Higher Education (AISHE) 2019-20. Rise of private ownership and management of educational institutions whereby investments are made with the motive of earning profit, has led to issues like-

➢ **Students start viewing education as a means to an economic end,** disproportionately increasing demand for high earning, market driven courses such as management, engineering and medicine.

Commercialization Vs Privatization of Higher Education

- Privatisation in itself may not necessarily generate negative outcomes often associated with commercialization and might even be **beneficial for a resource constraint country like India.** Some **positive roles** that private HEIs can play in India include-

➢ Generating a **competitive ecosystem** for qualitative growth of public sector HEIs.

➢ **Meeting the growing** demand of higher education with rapid growth in population.

➢ **Reducing financial burden** on government.

➢ Enabling **decentralized expansion** of HEIs.

➢ Shaping of the **curriculum according to global, national and local needs.**

➢ Mobilisation of resources for provision of **state-of-the-art facilities** for students.

➢ **Provision of more flexibility to students and teachers** alike for experimentation and innovation in wider areas of research.

- Thus, with efficient and flexible regulatory frameworks which- promote qualitative development of private HEIs; focus on enhancing accessibility for students; and curb exploitative and unethical practices like exorbitant fee hikes, discriminatory treatments etc.,**privatization can effectively supplement and compliment Government's efforts** in transforming Higher education in India.

➢ **Profit Maximization** leading to high cost and reduced accessibility of higher education.

➢ **Education being seen as a consumable commodity** rather than a fundamental and universal right.

➢ **Declining focus on ethical and value-based education.**

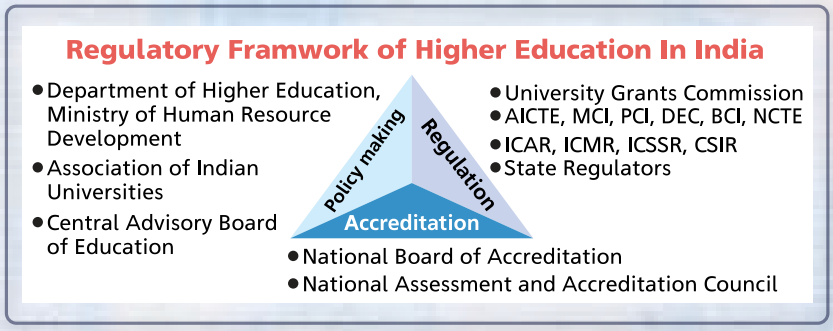
➢ **Lowered standards and quality of education.**

Inclusion and equity issues

- **Social Inequity:** Persistence of economic, social, locational, and regional disparities in access to higher education with under representation of marginalised sections such as women, students belonging to low income groups, SC, ST and minorities.
  - For instance, GER for Scheduled Castes and Scheduled Tribes is 23.4 per cent and 18 per cent respectively as against national average of 27.1%.
- **Low participation of women in STEM** due to factors like- negative stereotypes about women's ability in STEM, gender pay gap, lack of role models, pressures to conform to societal norms and trappings of domesticity, stressors related to marriage, childbirth etc., physical safety during the commute to college, sexual and other types of harassment in workplaces etc.

Governance and regulatory issues

- **Over-centralization, Mechanistic and rigid bureaucratic structures of the regulatory system** has led to problems such as heavy concentrations of power within a few bodies, conflicts of interest among these bodies, micro management of HEIs and a resulting lack of flexibility and accountability.
  - Moreover, **presence of regulatory institutions with overlapping functions** like, University Grants Commission (UGC), All India Council for Technical Education (AICTE) increase the complexity of the system.



- **Lack of professional management:** Professional and administrative training for educational administrators like Vice-chancellors, directors, registrars and other secretarial staff is insufficient and, in some cases, completely absent.
- **Lack of accountability and transparency:** Compliance by HEIs and stakeholders in implementing reforms and regulations to ensure efficiency and transparency is inadequate.For instance, the mechanism adopted by Universities in selecting VCs/Deans/Registrars/FOs are arbitrary and remain undisclosed.
- **Inadequate investments in higher education:** The current public (Government - Centre and States) expenditure on education in India has been around 4.43% of GDP and only around 10% of the total Government spending towards education.
  - Moreover, funding for government and government aided HEIs has, in recent decades, been skewed in favour of central universities with nearly, 65% of the University Grants Commission (UGC) budget being utilised by the central universities.
- **Lack of adequate capacity of existing accreditation bodies** to ensure participation of all higher education institutions in the accreditation process.

- **Lack of effective rating systems:** National Institutional Ranking Framework (NIRF) of universities and colleges is criticized for not giving full picture of higher education in India and being based on limited parameters.

Qualitative and Academic issues

- **Imbalanced, rigid and outdated syllabi and course structures:** These are reflected by-
  - **Rigid separation of disciplines and early specialization** and streaming of students into narrow areas of study.
  - **Pedagogical practices still primarily focus on rote learning and lecture methods,** with **less** emphasis on the development of cognitive skills and learning outcomes.
  - **Standardized testing and curriculum** that does not give much scope for the students to learn and develop at their own pace.
  - **Lack of regular updation of curriculums** with changing technological and scientific advancements.
  - **Focus on mere acquisition of information,** while neglecting social objectives, co-operation, manual work, training in skills and building up of character.

  - **Low focus on sports, arts and extracurricular development.**
  - **Low focus on vocational education:** The 12th Five-Year Plan (2012–2017) estimated that less than 5% of the Indian workforce in the age group of 19–24 received formal vocational education, in comparison to 52% in USA and 75% in Germany.
- **Little collaboration between HEIs and industries leading to poor employability:** India Skills Report 2021 finds that employability of graduates across disciplines is at a low 45%.
- **Dearth of Globally recognised institutions:** Only three universities from India rank in the top-200 positions in the latest QS World University Rankings 2022.
- **Issues arising due to digital shift during the COVID-19 crisis:** Insufficient formative assessments, mismatch between degrees and competencies has resulted in a crisis of legitimacy for examination and qualification systems.
- **Unhealthy competition to the neglect of mental health of students.**

WHAT PROPOSALS HAVE BEEN MADE IN THE NEW EDUCATION POLICY, 2020 FOR THE BETTERMENT OF HIGHER EDUCATION IN INDIA?

Goals of NEP, 2020 for Higher Education

- All higher education institutions (HEIs) shall aim to become **multidisciplinary institutions by 2040.**
- **At least one large multidisciplinary HEI** in or near every district by 2030.
- All HEIs shall aim to become **autonomous with an empowered BoG by 2035.**
- **Increase the Gross Enrolment Ratio** in higher education including vocational education from **26.3% (2018) to 50% by 2035.**
- **By 2025, at least 50% of learners** through the school and higher education system shall **have exposure to vocational education.**

This policy envisions a complete overhaul and re-energising of the higher education system and **proposes following key changes to the current system:**

Institutional Restructuring & Consolidation	• All higher education institutions to be consolidated into three types of institutions: ➢ **Research Universities -** equal focus on research and teaching. ➢ **Teaching Universities -** primary focus on teaching with significant focus on research. ➢ **Autonomous degree-granting colleges -** almost exclusive focus on teaching. • Affiliation of colleges is to be phased out in 15 years and a stage-wise mechanism is to be established for granting **graded autonomy** to colleges. • **Nomenclature of HEIs** such as 'deemed to be university', 'affiliating university', 'affiliating technical university' etc. **shall be replaced simply by 'university'.**
Holistic Multidisciplinary Education	• Undergraduate education to have **flexible curricula, creative combinations of subjects, integration of vocational education** and **multiple entry and exit points with appropriate certification.** • An **Academic Bank of Credit** is to be established for **digitally storing academic credits** earned from different HEIs so that these can be transferred and counted towards final degree earned. • **Multidisciplinary Education and Research Universities (MERUs),** at par with IITs, IIMs, to be set up as models of best multidisciplinary education of global standards. • **The National Research Foundation** will be created as an **apex body** for fostering a strong research culture and building research capacity across higher education.
Regulation	• **Higher Education Commission of India (HECI)** will be set up as a **single overarching umbrella body** for entire higher education, excluding medical and legal education. • HECI **to have four independent verticals -** ➢ **National Higher Education Regulatory Council (NHERC)** for regulation (excluding medical and legal education), ➢ **General Education Council (GEC)** for standard setting, ➢ **Higher Education Grants Council (HEGC)** for funding, ➢ **National Accreditation Council (NAC)** for accreditation. • **Public and private higher education institutions will be governed by the same set of norms** for regulation, accreditation, and academic standards. • All HEIs in India will aim to become independent self-governing institutions with a **Board of Governors (BoG).**
Internationalization of HEIs	• **Internationally relevant curricula,** meaningful opportunities for social engagement, quality residential facilities and on-campus support, etc. • An **International Students Office at each HEI** to be set up to coordinate all matters relating to welcoming and supporting students arriving from abroad. • **High performing Indian universities will be encouraged to set up campuses in other countries,** and similarly, selected universities e.g., those from among the top 100 universities in the world will be facilitated to operate in India. • A **legislative framework facilitating such entry** will be put in place, and such universities will be given **special dispensation** regarding regulatory, governance, and content norms on par with other autonomous institutions of India. • **Research/teaching collaboration and student/faculty exchanges** between Indian institutions and global institutions will be promoted. • **Credits acquired in foreign universities** will be permitted, where appropriate as per the requirements of each HEI, to be counted for the award of a degree.

Equity and Inclusion	**Steps to be taken by Governments** • Earmark **suitable Government funds and clear targets** for the education of **Socio-Economically Disadvantaged Groups (SEDGs).** • Enhance access by establishing more high-quality HEIs in aspirational districts and **Special Education Zones** containing larger numbers of SEDGs. **Steps to be taken by all HEIs** • **Mitigate opportunity costs and fees** for pursuing higher education. • **Provide more financial assistance** and scholarships to SEDGs. • **Ensure sensitization of faculty, counsellor, and students** on gender-identity issue. • Strictly enforce all **no-discrimination and anti-harassment rules.**
Reimagining Vocational education	• **National Committee for the Integration of Vocational Education (NCIVE)** to be established to oversee this effort. • **'Lok Vidya'**, i.e., important vocational knowledge developed in India, will be made accessible to students through integration into vocational education courses. • Indian standards will be aligned with the **International Standard Classification of Occupations** maintained by the International Labour Organization.
Optimal Learning Environments and Support for Students	• **Autonomy to Institutions and faculty to innovate on matters of curriculum, pedagogy, and assessment.** • **Moving away from high-stakes examinations** towards more continuous and comprehensive evaluation. • **Moving to a criterion-based grading system** that assesses student achievement based on the learning goals for each programme.
Others	• **Student activity and participation:** Opportunities for participation in sports, culture/arts clubs, eco-clubs, activity clubs, community service projects, etc.;Quality medical facilities and counselling systems in every HEI. • **Motivated, Energized and capable faculty:** HEIs will have clearly defined, independent, and transparent processes and criteria for faculty recruitment. • **Curbing commercialization of education:** All education institutions will be held to similar standards of audit and disclosure as a 'not for profit' entity; All fees and charges set by private HEIs will be transparently and fully disclosed; No arbitrary increases in fees/charges during the period of enrolment of student. • **Promotion of Indian Languages:** To ensure the preservation, growth, and vibrancy of all Indian languages, NEP recommends setting an Indian Institute of Translation and Interpretation (IITI), National Institute (or Institutes) for Pali, Persian and Prakrit, strengthening of Sanskrit and all language departments in HEIs, and use mother tongue/local language as a medium of instruction in more HEI programmes.

In Conversation!

WHAT ARE STUDENTS SET TO GAIN FROM INTERNATIONAL MOBILITY AND EXPOSURE?

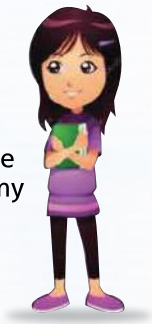
Vinay: Hey Vini! I see you are back from Japan. You went there on a Student Exchange Program, right?

Vini: Yes Vinay! My college had a collaboration with the Hokkaido University there.

Vinay: So how was your experience?

Vini: At first, I found it very difficult to adjust to the new culture, food, language. But the whole experience brought on some major changes in my personal values and skills.

Vinay: Really! What makes you say so?



Vini: Well for one, it helped me move away from an ethnocentric worldview, and develop cultural relativism.

Vinay: What does that exactly mean?

Vini: Staying with the host family in Japan, I got to closely experience their culture and traditional practices, enjoy their cuisine, interact with new people with different perspectives... This gave me the ability to understand a culture on its own terms and not to make judgments using the standards of my culture.

Vinay: Okay, so international exposure helped you develop cultural empathy and understand cross-cultural perspectives. What else did you learn?

Vini: My stay pushed me out of my comfort zone and made me more confident, adaptable, self-aware, and open-minded. I also got to forge new relationships and networks.

Vinay: That sounds great! I think I'll sign up for the student exchange program in my college as well!

WHAT SHOULD BE THE ROADMAP TO ACHIEVING THE VISION AND GOALS OF THE NEP 2020?

- **Inclusion and equity:**
  - **Provisions of hostels in urban areas** to improve access of students from remote areas.
  - Administrators in HEIs can identify student groups that are under-represented in campuses and **coordinate with schools to establish pathways of access for students** from such groups.
  - **Developing Diversity Policy (CDP)** for institutionalising social inclusion in campus.
  - **Encouraging women participation in STEM** by acquainting to female role models, mentors, early and engaging introduction of STEM subjects and sensitisation of teachers at school level itself.

India as a 'Vishwa Guru' (global study destination): What unique strengths does India have to offer?

The current number of foreign students studying in India remains quite low. So, the NEP, 2020 envisions to achieve the goal of **'internationalization at home'.** In this regards it becomes important to identify and build upon distinctive qualities that India has to offer to college going students.

Apart from its **cost effective and robust placement oriented technical and managerial education,** following traits can help India build a unique brand-

- **Interesting and niche courses** such as Yoga, Ayurveda or Buddhism.
- **Flourishing entrepreneurial and technology ecosystem** in key learning centres like Bangalore and Hyderabad.
- **Ease of communication** as most of the higher education is delivered in **English.**
- **Rich culture and beautiful landscape** that includes opportunities to experience local festivals, traditions etc. and opportunity to travel in incredibly diverse India.

- **Increasing Employability:**
  - Providing student support services at the institutional level that guide students to undergo **additional skilling as per current market needs.**
  - **Industries may be encouraged to be partners with educational institutions** directly for the development of curriculum, internships, live projects, career counselling and placements.
- **Operationalisation of Multidisciplinary Universities and HEI Clusters:** The process can be jumpstarted by Identifying institution having potential to become a Multidisciplinary Institution (MI) in the immediate future, based on Accreditation reports and NIRF ranking.
- **Reforming Governance structures:**
  - **Setting up a Task Force to streamline the processes and procedures for recognition of accreditors.**
  - **NAC should assess the changing nature and requirements of the higher education system—** nationally as well as globally — in every 3 years and release guidelines for additional focus areas/aspects for accreditation institutions/agencies and HEIs.
- **Effective Teacher training and recruitment:**
  - **Web-based Teacher Management Information System (TMIS)** can be developed to ensure efficiency and transparency in faculty management.
  - **Establish human resource management departments** as service departments to manage human resources, both academic and administrative.
  - **Academic planning, recruitment methodologies** including headhunting, retention strategies, staff development and training, personal and professional counselling, must be adopted.
  - Continuing professional development of teachers through **Teaching Learning Centre (TLC).**
- **Holistic learning and Quality education:**
  - **Introducing Physical education programmes** in all HEIs, including training in yoga and meditation.
  - **Dynamic curriculum:** The spirit of curriculum should be projects-driven and not exams-driven and AI, robotics, 3D printing, IOT, blockchain and other modern technological solutions need to be included.
  - **A participatory approach** that allows students to design their own courses based on their aptitude, need and desire can be adopted.
  - **Promoting effective global pedagogies and assessment practices** and developing technology-enabled learning ecosystems that are appropriate for current and future needs.
  - **Formalizing vocational education** at university level (see infographic).
  - **Student centric learning management** that recognises the needs and aspirations of student from diverse social and linguistic backgrounds.

- **Encouraging research:**
  - **Establishing Innovation centres in universities** to act as an interface between 'problem space' and 'solution space', identifying problems for industry, government and society, presenting them to faculty and students for research and/or consultancy.
  - **Incentivising faculty for high-quality research** and patents with quick advancement in their careers.
  - **Introducing undergraduate research** to serve as a feeder line for higher-level research.

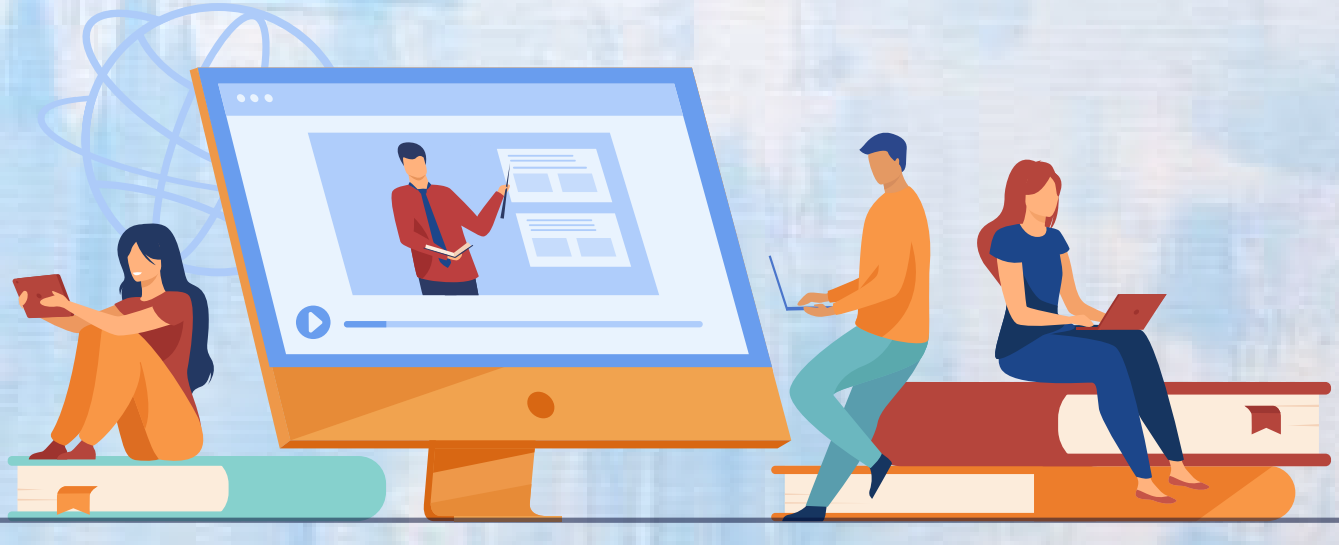
- **Implementation of the Internationalisation of Higher Education ("IHE Guidelines")** issued by the University Grants Commission: They encourage Indian HEIs to undertake strategic reforms aimed at-
  - **forming twinning arrangements with foreign HEIs** for offering various programmes.
  - **aligning the curriculum, faculty and infrastructure** of Indian HEIs with **global standards.**
  - adopting a **global citizenship approach.**(Global citizen is someone who is aware of and understands the wider world and actively works towards making our planet more equal, fair and sustainable.)
  - adopting brand building tools and **connect with Alumnis to enhance international profile** on the lines of a Student Alumuni Relationship Cell (SARC).

  - **enhancing technological capabilities** and undertaking newer forms of programmes such a **Massive Open Online Courses.**

Massive open online course (MOOC): Future of Higher Education?

UGC has recently decided to allow students to earn as much 40% of their requisite credits each semester from courses offered on SWAYAM, a government-sponsored platform MOOC.

- **What is a MOOC?** It is a program of learning offered by a university or other professionals, open via the internet to users worldwide, mostly free of charge. E.g., edX, Coursera, Upgrad, Udemy etc.
- **What do they offer?** They offer a wide variety of benefits over and above traditional modes of learning including **democratization of education** due to enhanced accessibility and affordability of high-quality education, **flexible course structures** for students to learn at their own pace, **wide array of topics reflecting dynamic nature** of technological and scientific advancements.
- **Where do they fall short?** They have certain inherent limitations like **difficulties in setting assessment** and quality control standards, **lack of faculty support** to resolve queries, **lack of access to lab facilities** and other resources needed in technical education etc.
  - Further, developing countries like India face issues like the lack of technological infrastructure, investment, diversified and multilinguistic population, low acceptance and awareness among learners.
- **What does the future hold?** MOOCs might not yet completely replace traditional structures in near future but are expected to play transformational role in **providing support to professional development, promote peer learning and support and encourage informal and lifelong learning.**



In Conversation!

WHY IS MULTIDISCIPLINARY EDUCATION IMPORTANT IN COLLEGES?

Vinay: Hey Vini! Have you ever given a thought about what career you want to pursue in your life?

Vini: Yes, I have! But I'm extremely confused between my two interests.

Vinay: Tell me more about them.

Vini: On one hand, I'd like to become a Climate Scientist so I can contribute to global research on the issue of Climate Change. On the other hand, I'm very interested in a career in Law that focuses on Social justice.

Vinay: So, why can't you do both?

Vini: How is that even possible?

Vinay: There are several educational institutes that offer Multidisciplinary education, where you can opt for courses across disciplines, based on your interests.

Vini: But wouldn't studying such starkly different courses across multiple streams impact my academic performance and hence my career?

Vinay: No! On the contrary, educational approaches that integrate the humanities with science have consistently showed positive learning outcomes, like increased innovation, critical thinking, and problem-solving abilities, thereby enhancing your scope and depth of learning.

Vini: Oh! Is that so. On top of that it would make my learning experience more engaging and enjoyable.

Vinay: Yes! You can even create a niche career for yourself in Climate law or conduct research on social impacts of Climate change.

Vini: That sounds great! But you know what the best part would be.

Vinay: What?

Vini: I don't have to make a choice; I can have it all!

CONCLUSION

A paradigm shift has been noticed in higher education now a days, from 'national education' to 'global education', from 'one time education for a few' to 'life long education for all', from 'teacher-centric education' to 'learner centric education'. These changes make new demands and pose fresh challenges to the established education systems and practices in the country. At the societal level, higher education must enable the development of an enlightened, socially conscious, knowledgeable, and skilled nation that can find and implement robust solutions to its own problems.

Importance of Higher Education

For Individuals

- Develops Personality.
- Enables creation of valuable connections.
- Facilitates Upward Social mobility.
- Enhances standard of living.
- Improves Job prospects.
- Prepares students for the world.

For society

- Higher levels of civic engagement.
- Drives innovation for social good.

For the Nation

- Encourages Democratic Culture.
- Pathway to Technological advancement.
- Enables Creation and diffusion of knowledge.
- Creates leaders.

Evolution of Higher Education in India

- **Ancient India:** Internationally renowned Universities like Takshashila, Nalanda, Vallabhi etc. with modern day features like multidisciplinary education, hostels, entrance examination, degrees, campus placements, research work etc.
- **Medieval India: Maktab-Madarsa system** or Muslim system of education.

Colonial period:

- System of Higher Education took a clear structural shape.
- Development of first 3 official universities in Bombay, Calcutta and Madras.
- Emergence of **National education institutes** like Jamia Millia Islamia, Kashi Vidyapeeth etc.

Post-Independence: Several commissions set up to improve HE-

- **Sarkar Committee (1945):** Led to setting up of the five IITs.
- **Radhakrishnan Commission (1948):** led to creation of UGC.
- **Kothari Commission (1966):** set in motion the National Policy on Education (NPE).
- **National Policy on Higher Education (1986) and Revised National Policy of Education (1992):** set 5 main goals for higher education- Greater Access, Equal Access, Quality and Excellence, Relevance and Value-Based.
- **TSR Subramanian Committee, 2016 and K. Kasturirangan Committee, 2019:** formed the basis of New Education Policy, 2020.

Challenges plaguing higher education ecosystem

Institutional and Structural issues

- Low student enrolment.
- Inadequate Infrastructure and Facilities.
- Faculty shortages & high student-to-faculty ratio.
- **Inability of the HEIs to attract and retain well qualified teachers** due to adhocism, lack of merit-based career management & induction training.
- Substandard teacher education institutions (TEIs).
- Suboptimal research ecosystem.
- Brain Drain and Commercialization of Education.
- **Inclusion and equity issues**
  - Economic, social, locational, and regional disparities in access to higher education.
  - Low participation of women in STEM.

Governance/regulatory issues

- Over-centralization, Mechanistic and rigid bureaucratic structures of the regulatory system.
- Lack of professional management, accountability and transparency in HEIs.
- Inadequate capacity of accreditation bodies.
- Low investment in higher education.
- Ineffective rating systems.

Qualitative and academic issues

- Issues with course structure and syllabi-
  - Rigid separation of disciplines and early specialization.
  - Pedagogical practices primarily focus on rote learning and lecture methods.
  - Lack of regular updation of curriculums.
  - Low focus on vocational education, character development, sports, arts and extracurricular.
- Little collaboration between HEIs and industries leading to poor employability.
- Dearth of Globally recognised institutions.
- Crisis of legitimacy for examination and qualification systems caused due to digital shift during the COVID.
- Unhealthy competition to the neglect of mental health of students.

Reformative steps proposed by New Education Policy, 2020

Institutional Restructuring & Consolidation

- All HEIs to be consolidated into three types of institutions: Research Universities, Teaching Universities & Autonomous degree-granting colleges.
- Phasing out Affiliation of colleges and granting graded autonomy to colleges.

Holistic Multidisciplinary Education

- **Academic Bank of Credit** for digitally storing academic credits earned from different HEIs.
- **National Research Foundation** for fostering a strong research culture.
- **Multidisciplinary Education and Research Universities** (MERUs) set up as models.
- **National Committee for the Integration of Vocational Education (NCIVE).**

Regulatory reforms

Higher Education Commission of India (HECI) with four verticals-

- National Higher Education Regulatory Council (NHERC).
- General Education Council (GEC).
- Higher Education Grants Council (HEGC).
- National Accreditation Council (NAC).

Internationalization of HEIs

- International Students Office at each HEI.
- High performing Indian universities encouraged to set up campuses in other countries.
- Legislative framework facilitating entry of foreign institutes.

Equity and Inclusion

- Government to earmark suitable funds and clear targets for the education of SEDGs and establish more high-quality HEIs in aspirational districts and Special Education Zones.
- HEIs to mitigate opportunity costs and fees, sensitize staff, enforce no-discrimination and anti-harassment rules and provide more financial assistance and scholarships to SEDGs.

Other Suggestions for-

- Development of optimal learning environments and support for student participation.
- Encouraging Student activity and Creation of Motivated, Energized and capable faculty.
- Curbing commercialization of education
- Promotion of Indian Languages in HEIs.

Roadmap to implementation of NEP, 2020

- **Inclusion and equity:** Provisions of hostels in urban areas; Identification of under represented student groups and Campus Diversity Policy (CDP); Encouraging women participation in STEM.
- **Increasing Employability:** through Industrial Collaboration and providing student support services at the institutional level.
- **Effective Teacher training and recruitment:** through Web-based Teacher Management Information System; Establishing human resource management departments and recruitment methodologies; Teaching Learning Centre (TLC).
- **Holistic learning and Quality education:** Projects-driven Dynamic curriculum including modern technological concepts; Introducing Physical education programmes; Participatory approach that allows students to design courses; Promoting effective global pedagogies and assessment practices; Formalizing vocational education at university level; Student centric learning management.
- **Setting up a Task Force to streamline the processes and procedures for recognition of accreditors.**
- **Identifying institutions having potential to become a Multidisciplinary Institution (MI)** based on Accreditation reports and NIRF ranking.
- **Encouraging research:** by establishing Innovation centres in universities; incentivising faculty for high-quality research and patents & introducing undergraduate research.
- **Implementation of the Internationalisation of Higher Education Guidelines:**
  - forming twinning arrangements with foreign HEIS.
  - aligning the curriculum, faculty and infrastructure with global standards.
  - adopting a global citizenship approach.
  - adopting brand building tools and connect with Alumnis.
  - enhancing technological capabilities.