माँ शाकुम्भरी विश्वविद्यालय, सहारनपुर

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पत्रांक 299 /एके0/एम0एस0यू0/2025–26 दिनांक: 01-08-25

सेवा में,

प्राचार्य/प्राचार्या
समस्त सम्बद्ध महाविद्यालय,
(राजकीय, अनुदानित एंव स्ववित्त पोषित)
जनपद - सहारनपुर, मुजफ्फरनगर व शामली।

विषयः– मुख्य सचिवों के पाँचवे राष्ट्रीय सम्मेलन के संबंध में।

महोदय,

कृपया उपर्युक्त विषयक, संयुक्त सचिव, उ0 प्र0 शासन के पत्र सं0-1958/सत्तर-3-2025-1936101 दिनांक 30.07.2025 का सन्दर्भ ग्रहण करने का कष्ट करे, जिसके माध्यम से अवगत कराना है कि उच्च शिक्षा अनुभाग-3, उत्तर प्रदेश शासन द्वारा प्राप्त निर्देशों के अनुसार निम्नलिखित बिदुंओ पर आपकी प्रतिक्रिया अपेक्षित है-

1. "Knowledge Economy: Human Capital" विषय पर एक परिशिष्ट (संलग्नक-1) तैयार किया जाना है। इस परिशिष्ट के संबंध में महाविघालय के प्राचार्य एंव शिक्षकों के सुझाव दिनांक 04.08.2025 तक नीचे दिए गए लिंक के माध्यम से अपलोड करना सुनिश्चित करें।

https://forms.gle/UryMUanEtQW2rvQM9

2. उपरोक्त विषय पर क्षेत्रीय स्तर पर एक विशेष टिप्पणी/विशेष नोट (संलग्नक-2) तैयार कर दिनांक 05.08.2025 तक नीचे दिए गए लिंक पर अपलोड करना सुनिश्चित करें।

https://forms.gle/EpaJGL5TGXqQoaZZ8

अतः उक्त के आलोक में मुझे यह कहने का निदेश हुआ है कि कृपया उपरोक्त दिए गए निर्देश के क्रम में समयांतर्गत अग्रतर कार्यवाही करने का कष्ट करें जिससे कि कृत कार्यवाही की सूचना शासन को प्रेषित की जा सके। प्रकरण अत्यंत महत्त्वपूर्ण है। अतः व्यक्तिगत ध्यान अपेक्षित है.

(संलग्नक यथोपरि)

1-8-25
कुलसचिव

प्रतिलिपि निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

1. प्रेम कुमार पाण्डेय, संयुक्त सचिव, उ0 प्र0 शासन।
2. कुलपति कार्यालय को मा0 कुलपति जी के संज्ञानार्थ।
3. अभिलेख खण्ड।

कुलसचिव

संख्या-1958 /सत्तर-3-2025-1936101

प्रेषक,

प्रेम कुमार पाण्डेय,
संयुक्त सचिव,
उ0प्र0 शासन।

सेवा में,

1. **कुलपति,**
   समस्त राज्य/निजी विश्वविद्यालय,
   उत्तर प्रदेश।
2. **निदेशक,**
   उच्च शिक्षा, उ0प्र0,
   प्रयागराज।

उच्च शिक्षा अनुभाग-3 लखनऊः दिनांक : 30 जुलाई, 2025

विषयः मुख्य सचिवों के पाँचवे राष्ट्रीय सम्मेलन के सम्बंध में ।

महोदय,

अवगत कराना है कि सचिव, उच्चतर शिक्षा विभाग, भारत सरकार, नई दिल्ली के अर्द्ध0शा0 पत्र संख्या-1-21/2025-TS.II दिनांक 15.07.2025 (छायाप्रति संलग्न) के माध्यम से दिये गये निर्देश के क्रम में मुख्य सचिवों के पॉचवे राष्ट्रीय सम्मेलन की तैयारी के अगले चरण में उप विषय "Knowledge Economy: Human Capital" पर सभी हितधारकों (Stakeholders) से इनपुट एवं फीडबैक प्राप्त की जानी है।

(1) उक्त संदर्भित पत्र के क्रम में आपके क्षेत्रान्तर्गत आने वाले शिक्षा के सभी हितधारकों से उप विषय "Knowledge Economy: Human Capital" पर प्राप्त इनपुट एवं फीडबैक के (संलग्क-1) सारांश को सलंग्न गूगल लिंक पर दिनाँक 05.8.2025 तक अपलोड किया जाना है। लिंक निम्नवत है :-

Google link for upload- https://forms.gle/NKwPLT7F71H7YiQt9

(2) उक्त के अतिरिक्त आपके क्षेत्रान्तर्गत आने वाले शिक्षा के सभी हितधारकों से उप विषय "Knowledge Economy: Human Capital" पर राज्य विशेष नोट (संलग्क-2) तैयार किया जाना है। तत्क्रम में राज्य विशेष नोट तैयार करने हेतु सुझाव गूगल लिंक पर दिनाँक 10.8.2025 तक अपलोड किया जाना है। लिंक निम्नवत है :-

Google link for upload-https://forms.gle/SmnJqD5BtersQcSn8

2- इस संबंध में मुझे यह कहने का निदेश हुआ है कि कृपया उपरोक्त दिये गये निर्देश के क्रम में अग्रतर कार्यवाही करते हुये कृत कार्यवाही से शासन को अवगत कराने का कष्ट करें। प्रकरण अत्यन्त महत्वपूर्ण है। अत: व्यक्तिगत ध्यान अपेक्षित है।

संलग्नक-यथोक्त।

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भवदीय

(प्रेम कुमार पाण्डेय)
संयुक्त सचिव।

Theme- "Higher Education: Knowledge Economy"

Raising State Public Universities to Global Standards

5th National Conference of Chief Secretaries – November 2025

Ministry of Higher Education, Govt. of India

Introduction

State Public Universities (SPUs)

- **SPUs: The Backbone of Indian Higher Education**

  Majority Enrollment: SPUs enroll over 81% of India's higher education students. This makes SPUs the primary providers of higher education from diverse socio-economic backgrounds.

  Affordability and Access: SPUs are crucial for ensuring affordable access to higher education.

  Regional Impact & Social Inclusion: SPUs serve pivotal role in regional development and uplifting disadvantaged groups.

- **Critical for NEP 2020 and Viksit Bharat:**

  NEP 2020 Targets: Aims to achieve a GER of 50% by 2035, which would require doubling the current enrollment from about 4.33 crore to nearly 9 crore students.

  Skills and Employability: SPUs are expected to deliver world-class education and employability skills, which is essential for India's vision of becoming a developed nation (Viksit Bharat) by 2047.

Key Message:

- SPUs are central to India's educational future.
- Raising them to global standards is vital for achieving NEP-2020 goals, regional development and vision of Viksit Bharat.

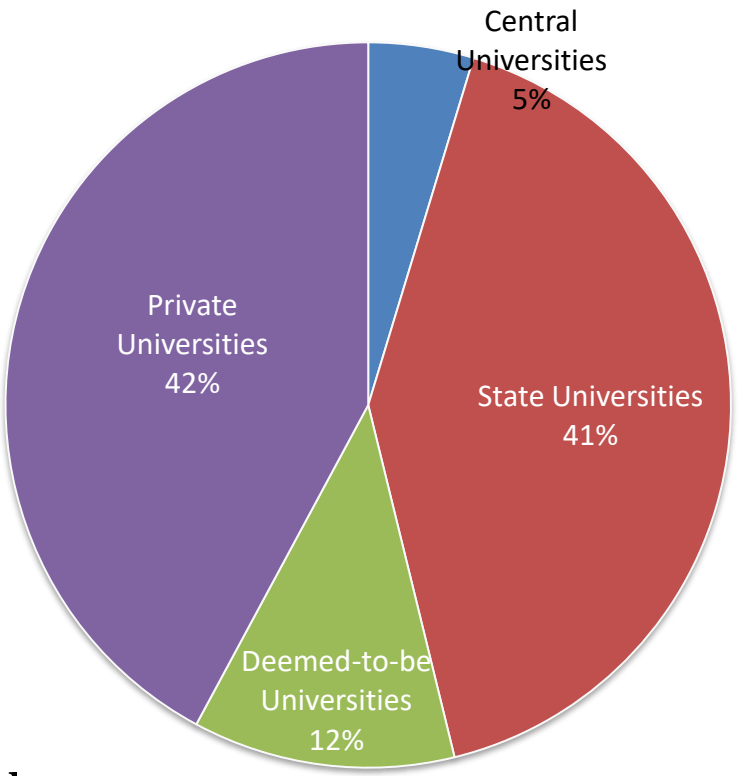
Universities in India: Current Situation

State Public Universities are the backbone of higher education in India, serving the vast majority of students and playing a crucial role in expanding access and opportunity

Total recognized universities: 1,215

- Central Universities: 57
- State Universities: 504
- Deemed-to-be Universities: 142
- Private Universities: 512

(Source: UGC Website)



Key Highlights

- State universities serve **over 3.25 crore (32.5 million)** students through **46,000 affiliated colleges**
- Account for **~81% of total student enrollment** in HEs in India

State Universities

Sr. No.	State	Region	Universities
1	Tamil Nadu	South	46
2	Karnataka	South	44
3	Uttar Pradesh	North	44
4	Maharashtra	West	38
5	Rajasthan	North	37
6	Gujarat	West	33
7	Madhya Pradesh	West	24
8	Andhra Pradesh	South	22
9	Delhi	North	21
10	Haryana	North	21
11	Odisha	East	20
12	West Bengal	East	19
13	Punjab	North	17
14	Uttarakhand	North	17
15	Telangana	South	16
16	Assam	North East	13
17	Chhattisgarh	East	11
18	Himachal Pradesh	North	10

Sr. No.	State	Region	Universities
19	Bihar	East	9
20	Kerala	South	9
21	Jharkhand	East	8
22	Jammu and Kashmir	North	7
23	Arunachal Pradesh	North East	3
24	Sikkim	North East	3
25	Tripura	North East	3
26	Chandigarh	North	2
27	Meghalaya	North East	2
28	Puducherry	South	2
29	Goa	West	1
30	Manipur	North East	1
31	Mizoram	North East	1
32	Nagaland	North East	1
33	Andaman and Nicobar Islands	South	0
34	Dadra and Nagar Haveli	West	0
35	Daman & Diu	West	0
36	Ladakh	North	0

Source: NAAC Website

Current Situation

NAAC Accreditation Status

- Only ~25-30% of HEIs are NAAC-accredited.
- Total HEIs accredited : 481 Universities & 15501 Colleges
- Out of these, very few have A++ or A+ grades.
- Major challenges: Faculty shortages, infrastructure, and governance.

NAAC Grade	CGPA Range	Institutions (est.)
A++	3.51 – 4.00	~24
A+	3.26 – 3.50	~54
A	3.01 – 3.25	~120
B++ / B+	2.51 – 3.00	~200+
Below B	≤ 2.50	Remaining

State Universities (38) in Uttar Pradesh have been accredited with a NAAC ranking (A++ : 08, A+ : 04)

NIRF Rankings 2024 – Highlights

- **Top Indian Universities (NIRF Overall):** Indian Institute of Science (IISc), JNU, BHU, Jadavpur University, Kolkata & Delhi University.
- Rise in rankings of private universities.
- Focus on parameters like teaching, research, graduation outcomes and perception.

Source: NAAC : June, 2023

Top Indian University/Institutes In QS World University Rankings (19th June, 2025)

- India has achieved high in the QS Rankings, with 54 institutions featured in the 2026 list - a significant rise from 46 in 2025 and 45 in 2024. With this, India has become the fourth most represented nation globally, followed by the USA, UK and China.
- Eight Indian universities are new entrants this year, the highest from any country, marking India's position as the fastest-growing G20 nation in the QS rankings, with a remarkable 390% increase in representation over the past decade.
- **IIT Delhi - Rank 123:** Climbed to the 123rd position globally, jointly ranked with the Georgia Institute of Technology, USA.
- IIT: Bombay- 129, Madras- 180, Kharagpur - 215
- IISc Bangalore - Rank 219
- University of Delhi - Rank 328
- Anna University - Rank 465
- Savitribai Phule Pune University-556
- Jadavpur University-768
- Panjab University: 901-950

Type of University	QS Ranked
Public Sector	32
Private Sector	22

Rnak band	Total Indian HEIs	SPUs
1-500	10	1
501-1000	27	3
1000-1500	17	

	Institution	Academic Reputation		Employer Reputation		Faculty Student		Citations per Faculty		International Faculty		International Students		International Students Diversity		International Research Network		Employment Outcomes		Sustainability		Overall
Index	Name	AR SCORE	AR RANK	ER SCORE	ER RANK	FSR SCORE	FSR RANK	CPF SCORE	CPF RANK	IFR SCORE	IFR RANK	ISR SCORE	ISR RANK	ISD SCORE	ISD RANK	IRN SCORE	IRN RANK	EO SCORE	EO RANK	SUS SCORE	SUS RANK	Overall SCORE
124	Indian Institute of Technology Delhi (IITD)	67.9	142	95	50	21.9	792	93.1	86	3.2	801+	1.9	801+	6.3	801+	66.9	590	50.5	340	79.9	172=	65.5
465	Anna University	15	701+	19.4	674	9.2	801+	99.8	23			1.6	801+	6	801+	47.3	801+	17.8	763	64.5	409=	33.8
569	Savitribai Phule Pune University	11.1	701+	20.3	647	47.1	420	63.8	257			3.3	801+	7.5	801+	54.7	773	30.4	547	43	801+	29.3
677	Jadavpur University	23.2	544	10.5	701+	13.7	801+	55.8	319			1.1	801+	5.5	801+	44	801+	19.5	733	61.4	470	26.1
924	Panjab University	9.4	701+	11.5	701+	10.3	801+	43.5	433			3.2	801+	7.5	801+	33	801+	39.6	441	50.9	684=	-
	India							0.8														

Top Global Universities – QS & THE Rankings

Rankings are based on academic reputation, faculty-student ratio, citations per faculty, employer reputation, and international faculty/students

University	Country	QS 2026 Rank	QS 2025 Rank	THE 2024 Rank
Massachusetts Institute of Technology (MIT)	USA	1	1	5
Imperial College London	UK	2	6	8
Stanford University	USA	3	5	2
University of Oxford	UK	4	3	1
Harvard University	USA	5	4	4
University of Cambridge	UK	6	2	5
ETH Zurich	Switzerland	7	7	11
National University of Singapore (NUS)	Singapore	8	8	19

Top Rankings: USA, UK, Switzerland dominate.

Global Benchmarks and Trends

- **Top Rankings**: US, UK, Switzerland dominate.
- **GER**: South Korea (94%), US (88%), EU (70%).
- **R&D Spending % GDP :**
  - South Korea, Sweden, US (>3%).
  - UK & China: >2.4%.
- **Patent Leaders**: China, USA, Japan.
- **USA**: Top research commercialization and technology transfer from universities to industry.
- **EU:** Strong regional partnerships via Erasmus+ and Horizon.
- **South Korea:** Innovation-focused education and rapid technology adoption..
- **Nordic countries:** Global leaders in Equity, sustainability, and digital innovation.

Policy and Funding Models

- Knowledge clusters: Silicon Valley, Shenzhen, Oxford-Cambridge.
- Strong public R&D funding: NSF (US), ERC (EU), MOST (China).
- Open access push by UNESCO and OECD.
- Multilateral platforms: World Bank KEI, UNESCO SDG reports.

Comparison: Indian SPUs vs Global Universities

Indicator	Top Global Universities (Average)	Indian SPUs (Average)	Gap Observed
Faculty-Student Ratio	**01:10**	**01:40**	Very poor (regular positions are not sanctioned dependent on contractual faculty)
Government Funding Support	Strong state support with competitive grant models	Heavily dependent on limited state grants	Minimum Support and Low autonomy
R&D Fund as % of GDP	3.5% to 6.3%	0.6% (38th rank)	Less motivation in R&D
Publications /year	1500+	100-200	Very low output
Patents	Significant	Rare commercialization	Low industry linkage & Lack of Effective Policy
DOI of Publications and Records	>90%	<10%	Low citation & visibility
Digital Footprint of Academic Work	High	Low	Limited digital reach, low citation
Global Research Collaborations	Multiple international funded projects	Few collaborative projects with global partners	Lack of international engagement
Technology Transfer & Startups Incubation	Promotion of incubators & university spin-offs	Few functional incubators, low startup output	Untapped innovation potential
Global Faculty %	30-50% (MIT-32, Cambridge-43%)	<1%	Minimal diversity
International Students %	20-40% (MIT-34%, Oxford-42%)	<.01% (46878 in 4.33 Crore, 2021-22)	Poor international outreach
Industry Collaboration	80+	<10	Underutilized potential
Alumni Global Contribution	High (Nobel laureates, leaders, innovators)	Limited global alumni impact	Minimal global presence
Consultancy & Revenue Generation	High income from industry consultancy & IP licensing	Minimal consultancy activity	Missed revenue, industry disconnect
Infrastructure	High End Labs, Classrooms & Digital Tools	Very Less	Needs Improvements
Placement Mechanism	Individualized, student-led	Campus placement drives	Fewer job connections
Examination System	CIE, open-book, holistic	End-term exams, rote-focused	Exam-oriented learning
QS/THE Ranking	Top 200	4 in Top 1000 (2026)	Low global standing

Top 5 Global Universities– Strategies and Outcomes

Example/System	Key Strategies	Outcomes/Impact
Harvard University	Heavy research investment, global faculty recruitment, interdisciplinary focus, strong alumni network, extensive endowment support	Consistent #1 global ranking, world-leading research output, high graduate employability, global influence
Massachusetts Institute of Technology (MIT)	Innovation-driven research, industry partnerships, entrepreneurship culture, selective admissions, global collaborations	Top global ranking, pioneering technological advances, high startup creation, strong industry impact
Stanford University	Silicon Valley integration, venture support, cross-disciplinary research, strong fundraising, global talent attraction	Top global ranking, major tech innovation hub, high research commercialization, leadership in entrepreneurship
University of Cambridge	Research excellence, global recruitment, collegiate system, international partnerships, heritage branding	Top global ranking, Nobel laureates, global research leadership, broad academic influence
University of Oxford	Research intensity, internationalization, collegiate system, industry engagement, historic reputation	Top global ranking, high research and teaching quality, global policy influence, industry partnerships

Real-World Examples

University	Goals	Approach	Outcome
University of Manchester	Lead in social responsibility and advance UN SDGs	Core focus on social responsibility; financial support for disadvantaged students; sustainability initiatives; SDG integration	#1 in THE Impact Rankings for SDG11 & SDG12; recognized as a global leader in sustainability
Stanford University	Foster innovation, entrepreneurship, and interdisciplinary research	Silicon Valley integration; startup support; cross-disciplinary research centers; global talent recruitment	Major tech/business innovation hub; high startup creation; top global rankings
ETH Zurich	Achieve STEM excellence with a global outlook	Heavy research investment; international recruitment; global collaborations	Renowned for innovation; attracts top global talent; strong international reputation
University of Toronto	Lead in sustainability and social impact	Sustainability in curriculum/operations; diversity, equity, inclusion; SDG-aligned research	Good Rankings: Sustainability 2024; strong societal impact
National University of Singapore	Leading global university through internationalization and research excellence	Global partnerships; interdisciplinary research; focus on sustainability and community engagement	Top-ranked in Asia and globally; strong research output and global influence

Key Challenges

Global Competency Gaps

- **Faculty Vacancies:**

  Across central and state universities, faculty vacancy rates are indeed between 40–60%, especially in SPUs. (*Parliament Standing Committee Reports (2022–2024)*).

- **Infrastructure and Digital Divide:**

  A noted that fewer than 10–15% of SPUs have access to dedicated, well-maintained research labs, international journals, or high-end equipment. (*NITI Aayog and UGC review (2023)*)

- Hampers academic excellence and research output.
- Barrier to implementing modern pedagogical approaches and digital learning.

Low Internationalization

- **Foreign Student Enrollment:**

  Only about 0.01% of are foreign nationals—46,878 out of 4.33 crore in 2021-22. The largest share of international students comes from Nepal (28%).

- **Barriers to Internationalization:**

  Limited research funding, inadequate infrastructure, low citation and insufficient support for international students.

Vacant Positions: Key Points & Validation

Current Challenges in Faculty Recruitment at SPUs

- **Approval Bottlenecks**: Delays due to mandatory clearances from State Governments.
- **Lack of Standardization**: No uniform national selection criteria.
- Non-merit-based selections in many states.
- **Vacancies**: Over **40%** faculty positions remain unfilled, primarily in state and non-central HEIs.
- Dependent mostly on Contractual faculty, as a result less quality teaching, research & innovation outputs

Proposal: National Indian Educational Services* (NIES) Exam for University Faculty Appointments

- **Inspired by IAS, NIES (National Indian Educational Services)** for a **unified academic recruitment framework**.
- **Transparent & Merit-Based**: Nationally conducted exam with centralized criteria.
- **Decentralization with Uniformity**: Empanelled candidates can be posted across State Universities.
- **Reduces Dependency**: Less reliance on slow state-level approvals.
- **Talent Mobility**: Encourages qualified candidates to serve across institutions.

**NCPCR (2016), NEP-1986, Section-13.2, HRD Minster (2016) reply in Lok Sabha*

Current Challenges

- Inequitable access and digital divide in rural institutions
- Wide quality disparities among HEIs.
- Brain drain: ~1.8 million (18 lakh) Indian students abroad in 2025 (📈 **~80% increase** from 2019 to 2025 📈 **~38% increase** from 2024 to 2025 alone)
- India produces 1.5M engineers & 300k MBAs yearly.
- Only 47% graduates are employable (India Skills Report 2023
- Talent migration from developing to developed countries.
- Skill mismatch with curricula.
- Funding gaps and regulatory constraints
- Non-eligibility of foreign PhD holders as Assistant Professors in HEIs
  - As per **UGC Regulations (2018)**, a candidate who earns a **PhD from a top 500 global universities** (as per QS, THE, or ARWU rankings) is **exempted from the UGC NET/SLET/SET requirement.**
- Share of Higher Education Budget:
  - State Public Universities are catering 81% students while getting only 44% of Central funding
- Up-scaling of current faculty with emerging technologies
- Lack of effective industry academia collaboration for competiveness for trade and industry
- Ranking in International rankings

Possible solutions

Repositioning Higher Education as a Strategic Asset in India's Knowledge Economy

A Vision for Long-Term Development and National Growth

India's higher education must move beyond its current role as just a service sector delivery to become a strategic pillar of economic and innovation-driven growth. **This vision aligns with**

- NEP 2020
- Viksit Bharat @2047
- Sustainable Development Goals.

How India can achieve this transformation: It requires **systemic reforms, strategic investments, institutional autonomy** grounded in research, global best practices and policy recommendations.

What is India's overall goal :

To transform the country into a vibrant knowledge society and global knowledge superpower

Effective uniform implementation of vision articulated in the NEP 2020, which aims to:

- **Increase Access and Equity:** Raise the GER to at least 50% by 2035.
- **Enhance Quality and Innovation:** Empower world-class institutions that foster innovation, global collaboration and high-quality education.
- **Promote Research and Global Competitiveness:** by increasing investment in research and international partnerships, and supporting the growth of Institutions of Eminence (IoEs).
- **Digital footprints of Academic works :** by mandatory DOI of all academic work
- **Modernize Infrastructure and Digitalization:** Develop cutting-edge infrastructure, leverage digital learning, and integrate new-age technology tools suited to 21st-century needs.
- **Encourage Multidisciplinary and Holistic Education:** holistic development, critical thinking, and employability.
- **Attract International Talent and Investment**: encourage top Indian institutions to expand their global presence.

Elevate Higher Education in National Policy

- **Integrate higher education into national development frameworks** (Digital India, Make in India, Atmanirbhar Bharat, Industrial and innovation policies, Human capital development strategies).
- Treat universities as **knowledge hubs for regional development**, not just degree-granting institutions.
- Allocate a fixed percentage of GDP to higher education (aiming for **2–3%**, currently ~1.2%).
- **Effective involvement of Stakeholders in Policy Development:** Engage universities, students, employers, unions, and communities in policymaking.

Enhance Institutional Autonomy and Governance

- Grant full academic, administrative, and financial **autonomy to top-performing HEIs** under a robust accountability framework.
- Reform regulatory bodies (UGC, AICTE, etc.) to become **facilitators**, not gatekeepers—implement NEP 2020's effectively.
- Encourage **decentralized decision-making** and competitive performance-based grants.

Strategic Priorities for Elevating State Universities in Research and Innovation Ecosystem

- Adopt a multi-metric evaluation framework including publications, patents, and student outcomes, focused on peer-reviewed research.
- Strengthen translation of research into tangible outputs like patents, policy papers, and technologies.
- Invest in world-class research infrastructure and labs.
- Increase funding for high-impact, interdisciplinary research.
- Foster international research collaborations & innovation and entrepreneurship .
- Establish a Research Park and translational ecosystem using Central Government grants.
- Consider innovation and real-world impact in faculty promotions.
- Invest in talent development and up-skilling
- Digital integration of academic publication to ensure universal accessibility.

Goal: Create a dynamic, resilient ecosystem that drives economic growth and societal progress

Establish Strong Industry-Academia Linkages

- Promote **innovation ecosystems within HEIs** through industry-financed research labs, startup incubators, and co-designed curriculum.
- Institutionalize **applied research consortia** between universities, MSMEs, and public sector enterprises.
- **Industry-Aligned Curricula:** Integrate **apprenticeships and live projects** into degree structures.
- Forge partnerships with top international universities.
- Collaborate with industry for internships, and placements.
- Pursue global accreditations and actively participate in world rankings.

Way Forward

Key Reforms Initiated by NEP 2020 ensuring vision of Viksit Bharat

- **Academic Bank of Credits (ABC)** established to ensure flexible academic mobility across institutions.
- **Anusandhan National Research Foundation (ANRF)** created to boost high-impact research and innovation.
- **Higher Education Commission of India (HECI)** proposed as a single overarching regulatory body with four verticals:
  - **National Higher Education Regulatory Council (NHERC)** – for regulation.
  - **National Accreditation Council (NAC)** – for accreditation.
  - **Higher Education Grants Council (HEGC)** – for funding.
  - **General Education Council (GEC)** – for academic standard-setting.
- **Internationalization of higher education** encouraged:
  - Positioning India as a **global study destination**.
- **Technology integration in education:**
  - **National Educational Technology Forum (NETF)** to promote the use of technology in education.
  - **National Digital Education Architecture (NDEAR)** for building digital infrastructure in education.

Indian higher education will become a key driver of social change, innovation, and national development, ensuring that the vision of a Viksit Bharat is realized

Major Digital and Policy Reforms in Indian Higher Education

- **National Testing Agency (NTA)**, established in 2017, sees registrations of around **1 crore students annually**.
- **Academic Bank of Credits (ABC)**, launched in **July 2021** under the "One Nation, One Student ID" initiative, has:
  - Registered **30.56 crore students**.
  - On boarded **2,141 Higher Education Institutions**.
- **UGC Regulations (May 2022)** were introduced to **foster academic collaboration** between Indian and foreign HEIs.
- **National Credit Framework (NCrF)** was released in **2023** to integrate school, college, and vocational credits.
- **Anusandhan National Research Foundation (ANRF)** was legislated in **August 2023**:
  - Replaces the **Science and Engineering Research Board (SERB)**.
  - Received a **₹50,000 crore budget allocation** to boost research in India.
- **UGC Regulations, 2023** enabled **top foreign universities** to establish campuses in India.
- **One Nation One Subscription (ONOS)** Scheme launched in **January 2025**:
  - Grants access to **13,000+ research journals**.
  - Benefits **1.8 crore students, faculty, and researchers** with high-quality academic content.

What India Needs to compete globally : Key Takeaways

- Encouraging **joint & dual degrees, global campuses, and credit transfers**
- Participating in **global rankings and accreditations**
- Hosting **foreign faculty and researchers** through streamlined visa and funding programs

Create a Knowledge Economy Measurement Index

Develop and track a **"Higher Education Contribution Index"** based on:

- Research output and commercialization
- Employability and skills development

Reorient Curriculum Towards Future Economy Needs

- Make curricula **multidisciplinary, skill-integrated**
- Embed **emerging technologies** (AI, data science, blockchain, clean tech) across disciplines.

Academia-Industry Interface

- Limited Industry-Academia Collaboration
- Need for Industry Mentorship for Student and Faculty-led Entrepreneurship:
- Inadequate Industry Participation in Curriculum and Pedagogical Development:

India's Imperatives to Attract Global Scientific Talent

Research, Innovation, and R&D: Science-policy insulation to ensure research independence

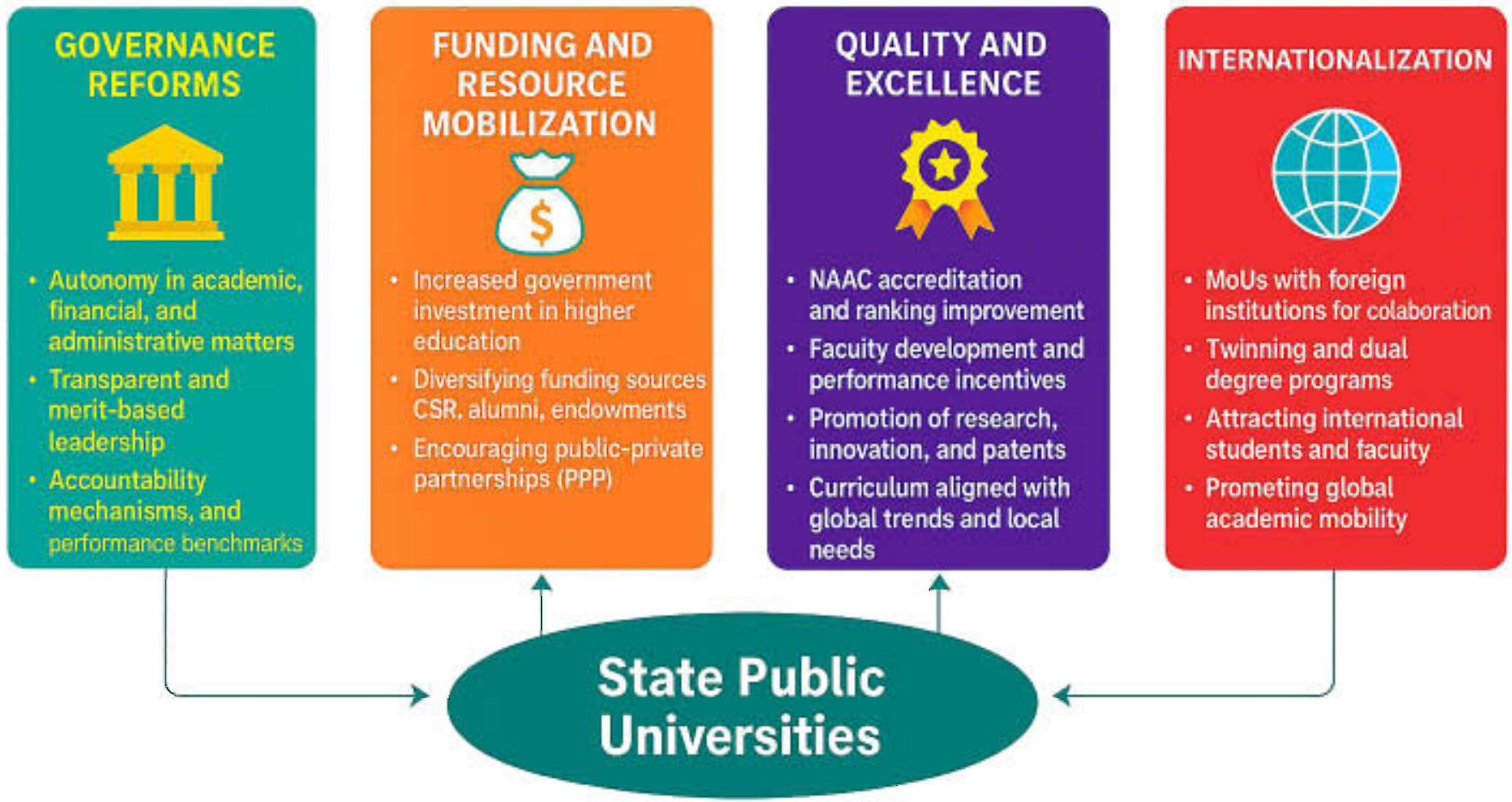
- India Rank 3rd in "Number of publication", but on "Citations" rank 135th (Scimago Journal & Country Rank-2024).
- Low patent conversion.
- R&D spending is 0.7% of GDP; global average ~2.5%.
- Dearth of good quality Infrastructure
- Shortage of Faculty and Staff & also Lack of Faculty Expertise
- Absence of Provisions for Recurring Grants
- Limited Collaboration & Scarcity of Incentives
- Long-term, stable funding for research

Opportunities to Attract & Develop World-Class Talent

- Recruit top faculty and researchers, including global talent.
- Offer competitive salaries, research grants, and growth opportunities.
- Strengthen PhD and post-doctoral programs.
- Promote faculty and student exchange with leading global universities.
- Learning from Asia: Singapore and China attract talent via incentives and stability

Issues for Deliberation

RAISING STATE PUBLIC UNIVERSITIES TO GLOBAL STANDARDS



Issue for deliberation

Develop CoEs and Research Innovation Parks with SPUs clusters to lead Global Research Collaborations and publication.
Building dedicated AI skill centers
Introduce targeted research fellowship and research grants for students to pursue multidisciplinary research.
Launching global talent return programmes to attract Indian researchers and academicians form abroad.
Faculty-student global mobility and exchange programs with financial support of Govt.
Digital dashboards and full-scale ERP integration and Expand SAMARTH, DigiLocker, and Virtual Labs nationally.
Increase Research and development % in GDP
Research & Global Collaboration- **Global Higher Education Corridors (GHEC)**
Establish International Offices in all SPUs and **Enhancing Global Branding of Indian Education**
Governance Overhaul-**Build World-Class Governance and Leadership in SPUs**
Promote twinning, dual degree programs.
Industry Integration

Issue for deliberation

Customizing Admission Processes for international students
Mandatory DOI for publications, dissertation, Project and Thesis to increase citation.
Promote IKS Chairs internationally.
Reform assessments through CIE and project-based learning.
Align credits with global norms.
Mandatory ranking and accreditation.
Establishment of Incubator hubs in SPUs
Sustainable Financing for SPUs

Conclusion

- SPUs as institutions of learning, not only provide education to crores of students but are also strategically positioned to nurture the next generation of professionals, researchers, innovators and entrepreneurs who will drive India's growth story.
- Raising state universities to global standards requires a comprehensive strategy that integrates research excellence, innovative teaching, robust quality assurance, equitable access, and strong industry ties.
- With a clear focus on top quality pedagogy, research & innovation, SPUs have the potential to become engines of regional and national development.

Contributing to the transformation of **India**

into a Superpower

Thank You

Higher Education Department, Uttar Pradesh

Recent Progress in UP

Implementation of NEP-2020 elements like CIE, Skill, IKS, CBCS, flexibly and multidisciplinary education.
Higher Education Incentive (HEI) Policy to establish university in U.P by private and international
Adaptation of SWAYAM, SAMARTH, IIC, vLAb, ABC.
Distribution of Tablets/Mobile to all students to handle digital divide.
8 SPUs awarded NAAC A++ grade. 2 in NIRF
67 international MoUs signed with 24 countries.
PM USHA Grants for SPUs.
Establishment of SLQAC to monitor and assure educational quality standards.

शिक्षा मंत्रालय
MINISTRY OF
EDUCATION
सत्यमेव जयते

5th National Conference of Chief Secretaries on
"Human Capital for Viksit Bharat"

Concept Note for Sub-Theme 4
Higher Education: Knowledge Economy

Nodal Ministry/Department: Department for Higher Education, Government of India in collaboration with the Department of Agricultural Research and Education.

1. Introduction

The **5th National Conference of Chief Secretaries**, proposed for November 2025, is being convened at a pivotal moment in India's development journey. With the overarching theme, *"Human Capital for Viksit Bharat",* the Conference seeks **to strengthen Centre-State collaboration by identifying best practices and strategies for inclusive, sustainable development across regions**. One of its five pillars, "Higher Education: Knowledge Economy", is being led by the Department of Higher Education, Ministry of Education and the Department of Agricultural Research and Education.

Knowledge economy is not a new concept for India as it has always been the land of knowledge seekers and creators. From Aryabhata's mathematical innovations to Surya Siddhanta's astronomy and to the interdisciplinary learning embedded in Vedic traditions, education in India has historically integrated ethics, inquiry, and real-world application. Drawing from this legacy, the Government of India has continued to prioritize knowledge as a catalyst for national development through education reforms, research investments, and skill-building initiatives.

The National Education Policy (NEP) 2020 marks a major milestone in this journey, with its focus on flexible curricula, interdisciplinary learning, and integrated academic and skilling pathways. The theme of *"Higher Education: Knowledge Economy"* reflects this vision of building an innovation-led, future-ready economy by transforming India's higher education ecosystem. A knowledge economy thrives on research and innovation and skilled human capital, both of which are core attributes of higher education.

By aligning education, research, and industry requirements, India can unlock innovation, build future-ready skills, and accelerate inclusive, sustainable growth, paving the way for Viksit Bharat 2047.

The overarching aim of the *Higher Education: Knowledge Economy* pillar aims to transform India's higher education system as a key driver of national progress and global relevance. This includes: (1) Raising per capita income by leveraging research, innovation, and skilling, particularly in employment-intensive sectors like agriculture, (2) Preparing institutions and learners to thrive in a tech-driven, interconnected world and (3) Solving critical challenges through research-led innovation in areas such as climate change, health, agriculture and digital transformation.

These goals can be achieved by focusing on inter-linked strategic priorities such as preparing tech-ready human capital, promoting interdisciplinary learning, elevating State Public Universities (SPUs) to global standards, strengthening industry-academia collaboration, and the internationalization of education. Advancing these priorities will require robust and sustainable financing across the higher education landscape.

2. Current Situation

India is uniquely placed to become a global knowledge leader, **with over 65% of its population under the age of thirty-five** and a rapidly expanding higher education ecosystem. With more than **58,000 Higher Education Institutions (HEIs) catering to over 4.3 crore students**, these institutions are at the forefront for skilling the nation's youth. HEIs are not only shaping the workforce but are also driving innovation. Their role as both talent incubators and knowledge creators makes them central to India's knowledge economy.

To further catalyze this momentum, the Government of India has **established nine Research Parks**[i] at premier institutions and is **in process of setting up another thirteen**. To democratize research opportunities, the University Grants Commission (UGC) has issued guidelines on setting

up R&D cells in every HEI, with around **6,000 R&D Cells already been established**. Additionally, to foster a culture of research and innovation in the country, aligned with the Lab to Market philosophy, initiatives like the Anusandhan National Research Foundation (ANRF)[ii] and the Prime Minister's Research Fellowship (PMRF)[iii] reflect India's growing commitment to strengthening its research ecosystem. ANRF aims to fund high-quality, interdisciplinary research across institutions and foster a culture of discovery and innovation. The PMRF will award over 10,000 fellowships over the next five years to nurture India's brightest research talent and future thought leaders. Together, these efforts are building a strong foundation for a vibrant, future-ready knowledge economy.

Additionally, the **establishment of over 15,000 innovation councils**[iv] across HEIs is fostering a culture of entrepreneurship, applied research, and hands-on skill development, equipping students to solve real-world challenges. The flagship One Nation, One Subscription (ONOS)[v] scheme is democratizing access to global academic resources. With a continued focus on Research and Development, HEIs are steadily emerging as the backbone of India's research and innovation-led growth.

Complementing the growth in higher education, India has also focused on nurturing innovation from the foundational level. Over **10,000 Atal Tinkering Labs have been established** across 722 districts in the country, fostering a spirit of curiosity and creativity among school students. This dual emphasis on strengthening both school-level innovation ecosystems and higher education institutions lays the foundation for India becoming a knowledge economy.

In parallel, India is deepening its global academic footprint. Internationalization efforts such as the Study in India programme[vi], joint and dual degree offerings, and the entry of top global universities like Deakin University in GIFT City, Gujarat are positioning India as a preferred destination for learners and collaborators worldwide. Outbound engagement is also growing through international campuses of Indian institutions (e.g., IIT Madras in Zanzibar) and cross-border research partnerships. These developments are enhancing quality, promoting two-way mobility, and reinforcing India's ambition to become a global knowledge hub.

As the economy changes, higher education needs to align more closely with the skills needed in the workforce. Currently, 53% of graduates are employed in roles that do not adequately match their skill levels (Economic Survey 2024-25)[vii], pointing to a significant opportunity for better alignment between academic pathways and evolving industry needs. Sectors such as Electric Vehicle (EV), digital commerce, green energy, and advanced manufacturing are expanding rapidly, and institutions are actively embedding industry exposure into academic frameworks to match this growth.

The National Education Policy (NEP) 2020 has also set the tone for stronger industry-academia collaboration. To this effect, the UGC guidelines on Sustainable and Vibrant University-Industry Linkage System[*viii*] encourage HEIs to establish long-term partnerships with industry for collaborative research, internships, curriculum co-design, and placements. The All India Council for Technical Education (AICTE)'s Internship Policy[*ix*] has made internships mandatory for all technical education students, enabling industry exposure for them. Moreover, the guidelines on Apprenticeship Embedded Degree Programme[*x*] promote the integration of certified apprenticeships within degree programmes, ensuring learners gain industry-recognized practical experience alongside academic learning. These developments are further supported by a growing shift toward interdisciplinary learning, which encourages students to engage with emerging domains through a blend of technical, ethical, and contextual lenses, key for industries operating at the intersection of technology and society.

In the agriculture sector, the National Agricultural Higher Education Project (NAHEP), initiated by the Indian Council of Agricultural Research (ICAR) in 2019, has created a scalable model for

structured engagement in agricultural universities. These efforts are fostering internships, joint research, and innovation closely aligned with national priorities-making both HEIs and industry critical partners in India's socio-economic transformation. While greater public-private collaboration is still needed to match global R&D leaders, India's cost-effective innovation model holds strong promise, reflected in its 3rd rank globally in science and engineering publications[xi], 6th in patent applications[xii], and 39th position on the 2024 Global Innovation Index[xiii].

To unlock this potential and sustain innovation-led growth, India is actively preparing its human resources to thrive in a rapidly evolving, technology-driven world. National missions such as Skill India, IndiaAI, the National Quantum Mission, and sector-specific programmes like Semicon India and the BioTech and Deep Health Missions are equipping students with cutting-edge competencies. Agricultural HEIs are evolving in parallel, with ICAR and Centre for Advanced Agricultural Science and Technology (CAAST) integrating AI, robotics, and precision farming across 16 universities, embedding innovation directly into rural and food systems.

As this transformation accelerates, it is crucial to ensure that all HEIs across the country are equally developed and contribute optimally to nation building. This vision requires focused efforts that percolate to institutions at every level. SPUs, which serve over 80% of students in the higher education system, play a pivotal role in this process. While many SPUs have made measurable progress in access and research visibility, there is a need to strengthen these institutions through sustainable financing models and long-term institutional support. Agricultural SPUs are also uniquely positioned to contribute to food security, climate resilience, and rural innovation. With sustained investments in quality, governance, and global engagement, SPUs can emerge as inclusive engines of growth and vital pillars of India's knowledge-driven future.

3. Challenges and Issues to be resolved

While India's higher education system has made remarkable progress in expanding access, fostering innovation, and deepening global engagement, there are areas requiring to be further strengthened. Bridging systemic gaps across institutions, curricula, industry linkages, and governance will be essential to unlock the higher education ecosystem's full potential of fuelling a knowledge economy.

A. Preparing a Tech-Ready Human Resource

As India positions itself as a global technology and innovation hub, its higher education system must rapidly adapt to evolving skill demands, emerging technologies, and workforce expectations. Addressing the following challenges is essential to building a tech-ready, future-proof talent pipeline:

i. **Meeting the Rising Demand for Skilled AI Professionals:** AI and tech roles are outpacing training systems. As per the World Economic Forum's Future of Jobs Report 2025, 39% of key job-market skills are expected to change by 2030, with technological skills (AI, big data, cybersecurity) growing fastest highlighting that AI proficiency makes individuals more adaptable.[xiv]
ii. **Advancing Faculty Capacity in Frontier Technologies:** Faculty upskilling in frontier technologies, like AI, robotics, and quantum tech is essential. Upgrading labs and digital infrastructure will boost research and global skill readiness.
iii. **Adapting to Rapidly Changing Skill Requirements:** Sectors like EVs and carbon markets require interdisciplinary skills. Curricula need to evolve continuously to keep pace with technological shifts.
iv. **Enabling Lifelong Learning and Skills Recognition:** Lifelong learning needs formal pathways and skill-based recognition. Linking job growth to skill proficiency, not just tenure, will foster a future-ready workforce.

v. **Bridging the Gender Gap in Tech and Science Technology Engineering and Mathematics (STEM) Fields:** Despite growing opportunities, women remain underrepresented in emerging tech domains such as AI, robotics, and engineering. Enhancing participation will require targeted efforts in mentorship, scholarships, and workplace inclusion.

As technical specialization deepens, the interface between academia and industry is essential.

B. Strengthening Industry-Academy Collaboration

To better integrate academic output and industry needs, India's higher education system must strengthen its engagement mechanisms, align research with application, and build the institutional capacity required for sustained, outcome-oriented collaboration:

i. **Standard Engagement Templates:** Industry-academia collaboration requires to be promoted at every level in HEIs. A standard template will facilitate the institutions that are lagging in this endeavour.
ii. **Faculty Capacity and Curriculum Delivery:** After the introduction of new curricula and interdisciplinary learning, there is a need for capacity building to improve pedagogy, enhance practical tools, and create awareness about new knowledge sets for both new and existing faculty members.
iii. **Funding and Financial Architecture:** A sustainable financial model is key to ensure that core activities such as updating curriculum, training faculty, necessary infrastructure and engagement with industry partners happen consistently.
iv. **Technology Readiness Level (TRL):** Academia often focuses on early-stage research (up to TRL 4), while industry seeks near-ready solutions (TRL 8 and above). This TRL gap, which is discovery vs. application, hinders collaboration, with many Indian academic projects ending at the proof-of-concept stage, falling short of industry needs for tested, market-ready innovations.
v. **Commercialization of Research Initiatives:** Despite increasing research output, many academic innovations fall short of becoming viable market solutions. Key gaps include the lack of structured mentorship to help researchers refine ideas, understand user needs, and build practical solutions. There is also limited exposure to concepts like scalable models of prototypes/innovations, market size, and fundraising strategies. Further, many HEIs lack the networks or support systems needed to connect innovation with societal or industry needs.

Fostering interdisciplinary thinking and practice can help bridge the lab-to-market gap more effectively.

C. Promoting Interdisciplinary Learning

Enabling interdisciplinary learning requires a systemic shift in how institutions design curricula, assess outcomes, and structure internal collaboration. Moving beyond traditional silos will depend on building flexible ecosystems, empowered faculty, and forward-looking academic governance:

i. **Curriculum Design for Integrated Learning Pathways:** Traditional curriculum structures, though rigorous, often follow rigid disciplinary silos that limit holistic exploration. Introducing modular, theme-based, and project-oriented curricula can empower students to traverse domains and address real-world challenges.
ii. **Need to build enabling infrastructure for Interdisciplinary Ecosystems:** Delivering quality interdisciplinary education requires more than curriculum reform, it needs flexible learning spaces like labs, studios, research infrastructure, and digital platforms.

iii. **Need to modernize Assessment to Reflect 21st-Century Learning Outcomes:** Assessment mechanisms should evolve alongside pedagogy. Current models do not fully capture interdisciplinary learning outcomes.

iv. **Overcoming Departmental Silos to Enable Intra-Institutional Collaboration:** A major barrier to effective interdisciplinary education is the compartmentalization of academic departments within institutions. Most departments/faculties of HEIs continue to operate in isolation that restrict the optimal use of resources for fostering collaboration and integrating cross-disciplinary learning and research.

v. **Empowering Faculty and Institutions for Systemic Transformation:** Faculty and institutional leadership are central to the success of interdisciplinary education. However, many lack structured opportunities to build capacity in cross-disciplinary pedagogy and collaborative teaching.

Internationalization efforts can reinforce these reforms by embedding global perspectives into teaching and learning.

D. Advancing the Internationalization of Education

India's ambition to become a global education hub is gaining momentum, but realising this vision requires addressing persistent barriers related to perception, policy execution, infrastructure, and student experience-both within institutions and across systems:

i. **Branding and Perception:** India has transformed its higher education infrastructure drastically in the last decade. However, there needs to be greater focus on enhancing branding and outreach. Despite its rich academic heritage and diverse culture, perceptions about limited infrastructure and quality concerns persist among potential students and parents abroad. Improving this brand will not only enhance global visibility but also contribute to better performance in international rankings.

ii. **Cultural Adaptation and Support Infrastructure:** International students and faculty sometimes encounter challenges in adjusting to cultural norms, language differences, and administrative processes that differ from their home countries.

iii. **Internationalization of Indian Knowledge Systems (IKS):** India has a special opportunity to share its rich and ancient knowledge, from areas like philosophy, maths, medicine, yoga, and the environment, with the world. By integrating IKS in regular courses and research in a way that connects with today's global context, India can offer something unique to international students and HEIs. This can help promote cultural exchange, build stronger academic ties, and increase India's soft power around the world.

iv. **Financial Considerations and Access:** Internationalization requires adequate financial resources to support infrastructure, faculty development, scholarships, and international collaborations.

v. **Admission Processes:** International students often face challenges navigating India's admission system, especially regarding competitive exams, as they are primarily designed for Indian education system, reflecting curricula and standards that differ from the learning outcome of foreign applicants.

vi. **Global Research Presence:** There is a need to invest in robust research infrastructure, support faculty exchange, and take part in more international collaborations. This will help raise India's visibility in global research and deepen its role in solving shared challenges.

vii. **Regulatory Coordination and Implementation:** India has implemented policies to promote internationalization, including opening of foreign university campuses, joint degree programs, twinning etc. To further streamline procedural challenges, tailored regulations and active state government involvement in logistics, transport, and administration are essential for seamless academic mobility and collaboration.

While the above challenges focus on global visibility and collaboration, the imperative to elevate quality and relevance is even more urgent in State Public Universities, which educate over 80% of India's higher education students. Ensuring that learners in these 500+ institutions receive globally benchmarked education is key to achieving nationwide impact and inclusive growth.

E. Elevating State Public Universities (SPUs) to global standards

As the backbone of India's public higher education system, SPUs need to overcome deep-rooted structural and capacity constraints. Unlocking their potential requires coordinated efforts in faculty recruitment, infrastructure modernization, governance reform, and stronger links with industry and global partners:

i. **Faculty Recruitment and Development:** There exists a tremendous opportunity to strengthen faculty capacity through timely recruitment and talent development initiatives.
ii. **Infrastructure Improvement:** There is scope for modernizing infrastructure and enhancing research facilities, through upgradation of classrooms, laboratories, and digital tools.
iii. **Research and Global Collaboration:** There is a felt need to upgrade institutional frameworks to support cross-disciplinary collaboration and global engagement. Strengthening research facilities and fostering national and international partnerships through joint programmes, exchanges, and academic networks can enhance innovation, visibility, and relevance in a global context.
iv. **Sustainable Funding and Financing Models:** Over 85% of SPU budgets are directed towards salaries and pension, limiting innovation and infrastructure growth. Diversifying revenue beyond government grants and streamlining research funding access can enhance financial resilience.
v. **Strengthening Institutional Leadership and Governance:** Strong and responsive leadership is key to unlocking the full potential of HEIs. Clearer governance structures, streamlined decision-making, and robust internal quality systems can make academic processes more efficient and outcome-focused. Providing greater autonomy and fostering integrated leadership, especially in specialised institutions like agricultural universities, can support long-term planning, innovation, and academic excellence.
vi. **Employability with Industry Collaboration:** With less than 25% of SPUs having active industry ties, expanding partnerships can enhance curriculum relevance through co-design, internships, and faculty exchanges.

While India's higher education system holds immense promise, unlocking its full potential has scope of improvement in capacity and execution. From preparing a tech-ready workforce to elevating SPUs, the challenges span curriculum reform, faculty development, industry collaboration, global integration, and institutional governance. These are not isolated issues, but interconnected levers essential to transforming higher education into a true engine of innovation, inclusion, and global relevance.

As we move forward, addressing these systemic challenges through targeted, state-led interventions and collaborative frameworks will be vital. The following section outlines key areas of deliberation and possible pathways to unlock the full potential of higher education in driving India's knowledge economy.

4. Possible Solutions/Key Issues for Deliberation

The stakeholder consultations may deliberate on the following points to find solutions for the above-mentioned challenges:

i. Development of a Template/Framework for Industry-Academia Partnerships

a. Formulating a national/state-level template to guide partnerships between industry and academia, involving governance models, accountability, and performance indicators.
b. Ensuring adaptability to local industrial ecosystems and technological trends.
c. Conducting a thorough pre-assessment, clear projections, and a well-defined timeline with expected outcomes.
d. Opening of industry-led centres or departments within HEIs, where collaboration with industries can facilitate development and delivery of market relevant courses.

ii. Driving Research Excellence and Academic Innovation

a. Developing Centres of Excellence (CoEs) and Research and Innovation parks within SPU clusters to lead global research collaborations and publication in top-tier journals.
b. Building dedicated tech and AI Skill centres focused on AI, ML, data science, and other frontier technologies.
c. Introducing targeted fellowships and research grants for students to pursue multidisciplinary research aimed at solving complex, real-world problems.
d. Launching global talent return programmes to attract Indian researchers and academicians from abroad through fellowships and visiting appointments.

iii. Creating Translational Research Zones (TRZs) and State Innovation Anchors

a. Bridging the Technology Readiness Level (TRL) gap by enabling SPUs to collaborate with industry and state innovation councils in developing shared Technology Readiness Zones (TRZs).
b. Establishing spaces for testing, validating, and piloting innovations beyond proof-of-concept (TRL 5-7), while de-risking technologies, attracting co-investment, and enabling joint IP ownership for scalable commercialization.

iv. Formulating a Strategic Roadmap for Interdisciplinary Education at every level

a. Deliberating on the development of a comprehensive roadmap to institutionalize interdisciplinary education across HEIs, in alignment with the NEP 2020.
b. Establishing interdisciplinary "Innovation Sandboxes" within universities to solve real-world challenges.
c. Catalyzing Interdisciplinary Tech-Innovation Ecosystems in State Universities.
d. Initiating structured consultations with universities, faculty bodies, industry experts, and regulatory authorities to co-create interdisciplinary programme frameworks tailored to national priorities and regional requirements.

v. Agri-Tech Skilling and Reforming Agricultural Universities in States

a. Enabling Agricultural Universities (AUs) to take the lead in new areas like climate-smart farming, and precision agriculture.
b. AUs can partner with industries to develop training models that are rooted in local needs.

vi. **Creating Systems to Track Emerging Job Trends and Offering Reskilling and Upskilling Programs for Working Professionals**

a. Enabling HEIs to act as 'skill observatories', collecting data on changing job trends and helping governments and industries adjust training programs accordingly.

vii. **Developing a Single Window Database for Agriculture-Industry Linkages**

a. Creating a centralised database to better connect industries and MSMEs in the agricultural and allied sectors.
b. Integrating information on skill needs and qualification packs for job roles to facilitate scalable academia-industry collaboration, and leveraging this platform to streamline communication, and match talent demand with supply.

viii. **Building World-Class Governance and Leadership in SPUs**

a. Formulating and adopting State-specific Higher Education Vision @2047 that aligns with national education policies and schemes in ways that match contextual priorities on the ground.

ix. **Sustainable financial models for SPUs**

a. Establishing State Higher Education Finance Agencies (State HEFAs) to provide competitive financing for world-class infrastructure and labs in SPUs.
b. Institutionalizing revenue diversification through industry-relevant self-financed programmes, strategic alumni contributions, etc.
c. Creating policy enablers to attract CSR funding and exempt SPU research activities from commercial taxation and utility tariffs.
d. Monitoring outcome metrics such as number of interdisciplinary degrees launched, percentage increase in SPU research citations, number of joint patents filed, international student enrolment etc.

x. **Customizing Admission Processes for international students**

a. Developing alternative admission pathways for international students, such as tailored entrance criteria or bridging programmes.
b. Strengthening institutional support through Offices for International Affairs at every HEI to provide pre-arrival guidance, onboarding, and ongoing assistance.

xi. **Enhancing Global Branding of Indian Education**

a. Promoting India as a preferred study destination through coordinated branding efforts, alumni networks, and showcasing the diversity and affordability of academic offerings.
b. Deliberating on building a unified Study in India brand with digital platforms, country-specific outreach strategies, and collaboration with embassies.

xii. **Promoting Global Higher Education Corridors (GHEC)**

a. Exploring the development of integrated education zones where industry bodies, research parks, and campuses of foreign HEIs can co-exist and collaborate.
b. Deliberating on mechanisms for land allocation, shared governance models, and incentives for participation.
c. Discussing lab-to-market pathways, incubation infrastructure, and replicable pilot models at state or regional levels.

It is important to mention that to address the challenges of the education ecosystem, several initiatives have been undertaken by the Government of India. These include NEP 2020, NCrF, regulatory provisions issued by UGC and AICTE, schemes like SWAYAM, SWAYAM+, KAPILA, NATS, ONOS, PMRF, SPARC, GIAN etc., and establishing institutional support like

AI Centres of Excellence (CoE), Anusandhan National Research Foundation (ANRF), Research and Innovation Parks, etc. Further, the State Governments have also taken many initiatives in this direction, including those aimed at creating a technology-ready workforce and fostering stronger Industry-Academia linkages. Accordingly, the deliberations and suggestions should factor in the existing policies and interventions while also identifying new interventions that may be undertaken in alignment with the existing national policies and state-level initiatives. Establishing State Implementation Task Forces can further play a key role to ensure coordinated execution, effective monitoring, and alignment of emerging interventions with both national and state-level education priorities. The same maybe explored during deliberations.

5. Way Forward

To strengthen India's knowledge economy, a synergic effort is required with centre and states coming together to build a future-ready higher education ecosystem. This includes establishing AI Skill Centres, Centres of Excellence, and deep-tech hubs, while scaling faculty development and reskilling programmes through robust industry-academia partnerships. Strengthening SPUs as regional innovation anchors through interdisciplinary curriculum, skilling integration, and translational research zones, could align learning with real-world challenges and emerging job trends.

Institutional capacity needs to be enhanced through sustainable financing models and standardized collaboration frameworks. Agricultural universities need to be modernized and aligned with global benchmarks to lead in agri-tech and food security. Further, streamlining admissions for international students, and strengthening India's global education brand could boost international collaboration and mobility.

These efforts will position states to drive world-ready talent, research excellence and innovation-led growth through higher education-advancing the vision of Human Capital for Viksit Bharat.

***

Endnotes

[i] Dedicated facilities set up at leading institutions like IITs and IISc to promote R&D, industry collaboration, and startup incubation through shared infrastructure and co-location with corporate partners.
[ii] An apex research body operating under the Department of Science and Technology (DST), Government of India, to provide high-level strategic direction for research, innovation, and entrepreneurship across natural sciences, engineering, environmental science, health, agriculture, and social sciences, in line with NEP 2020.
[iii] Supports exceptional PhD scholars in science and engineering with fellowships and research grants to drive cutting-edge innovation.
[iv] A unit in higher education institutions that promotes innovation and entrepreneurship through support and collaboration.
[v] Provides nationwide access to high-impact international research journals and articles, empowering students, faculty, and researchers across publicly funded institutions to advance knowledge, innovation, and self-reliance
[vi] A Government of India initiative that aims to attract international students by showcasing India's academic strengths, cultural diversity, and affordable, high-quality education.
[vii] https://www.indiabudget.gov.in/economicsurvey/doc/echapter.pdf
[viii] https://www.ugc.gov.in/pdfnews/4915310_Sustainable-and-Vibrant-University-Industry-Linkage-System.pdf
[ix] https://aicte-india.org/sites/default/files/AICTE%20Internship%20Policy.pdf
[x] https://www.aicte-india.org/sites/default/files/Final%20Draft%20guidelines%20TE-AEDP.pdf
[xi] https://ncses.nsf.gov/pubs/nsb20221
[xii] https://www.wipo.int/edocs/pubdocs/en/wipo-pub-941-2024-en-world-intellectual-property-indicators-2024.pdf
[xiii] https://www.wipo.int/web-publications/global-innovation-index-2024/assets/67729/2000%20Global%20Innovation%20Index%202024_WEB3lite.pdf
[xiv] https://reports.weforum.org/docs/WEF_Future_of_Jobs_Report_2025.pdf

Fifth National Conference of Chief Secretaries
Feedback Note

Instructions for filing feedback note:

1. References :
    - In-text citing as well as the listing of all the references used for compiling the data and information.
    - Hyperlinks can be added in the document
2. Documentation style:
    - Microsoft Word - Paper Size A4 with one inch margin from all four sides
    - Font: Times New Roman
    - Font Size: Title 14 pt; Section Heading - 12 pt; Body Text 11 Pt ;
    - Line Spacing : 1.25
    - Use additional spacing for section heading with spacing (After) - 6 pt

Feedback Note

Section 1: Officer Name and Details:

- Name :
- Designation :
- Current Posting :

Section 2: Feedback for Fifth National Conference of Chief Secretaries

1. Name of the topic *(Choose from the topics of the conference)*
Knowledge Economy: Human Capital
2. Policy Gaps and Challenges *(Current policy challenges, administrative and implementing challenges with respect to the topic selected)*
3. Potential Solutions *(Can potentially highlight new technology solutions, scope for convergence with other schemes/ programmes, etc.)*
4. Best Practices *(Highlights the practices, which are sustainable, replicable, scalable, monitorable, etc. Can also highlights the block/district/ State level practices)*

FifthNational Conference of Chief Secretaries
Template: State Specific Note

Instructions for writing the State Specific note:

1. References :
    - In-text citing as well as the listing of all the references used for compiling the data and information.
    - Hyperlinks can be added in the document
2. Documentation style:
    - Microsoft Word - Paper Size A4 with one inch margin from all four sides
    - Font: Times New Roman
    - Font Size: Title 14 pt; Section Heading - 12 pt; Body Text 11 Pt ;
    - Line Spacing : 1.25
    - Use additional spacing for section heading with spacing (After) - 6 pt
3. Any case study on the impact of the initiatives (District/State level) undertaken may be shared (along with high resolution photographs). Alternatively, short films on the initiatives may be shared.
4. Photographs and snapshots/Screenshots of the Virtual Conferences along with broad participant list may be shared.
5. If the HEI has worked out any long term vision for the next 25 years, details of the same along with Implementation strategy may be shared.

State Specific Note

I. Introduction

(Why is this topic important for the HEIs Highlight the data evidence to support the same)

II. Current Situation

(Current policy landscape, programmes, schemes and their progress)

III. Challenges

(Major policy, programmatic and capacity building gaps affecting the working of the States/ UTs Administration)

FifthNational Conference of Chief Secretaries
Template: State Specific Note

IV. Possible Solutions

(Proposed ideas, actions that can be undertaken by different stakeholders. Scope for convergence with other schemes/ programmes)

V. Best Practices

(International (if any), Major Initiatives undertaken by HEIs. May also include initiatives for training and capacity-building that have been taken for effective implementation; Strategic communication campaigns undertaken to disseminate the programme; convergence; new technologies used for effective implementation)

VI. Priority Areas

(Selected for implementation by the HEIs in the next 5 years)

VII. Way Forward – Strategy for Implementation

(Modality for implementation – Legal, Administrative, Technological, Budgetary reforms required for implementation)
