

National Higher Education Resource Center (NHERC)

TATA INSTITUTE OF SOCIAL SCIENCES

Website: http://nherc.tiss.edu

Background/Introduction

Four years have elapsed since Rashtriya Uchchatar Shiksha Abhiyan (RUSA) was flagged off by the Ministry of Human Resource Development, Government of India in 2014 with a vision to transform the state higher education institutions in India into repositories of excellence. Since its inception, RUSA has been committed to building the capacities of the state higher education systems and nurturing the institutions to ensure equity, access and quality in higher education. It is time that the impact created by RUSA is assessed to celebrate its achievements and act as guided by the learnings to keep hitting greater milestones in the years to come.

The National Higher Education Resource Centre (NHERC) is leading this shared endeavour of the stakeholders of India's higher education sector by translating it into systematic evidence-based research studies to engender knowledge and policy perspectives that cross traditional boundaries of research. This would equip key leaders of the higher education sector with practical insights and tools to steer policy praxis in the sector to the end of achieving excellence.

Vision

To strengthen Higher Education Policy and Implementation in India through research, for better attainment of the goals of access, equity and excellence.

Mission

- a) To carry out policy-relevant research in the field of Higher Education in India, specifically with respect to the evaluation of the implementation of RUSA.
- b) To strengthen research and data for bolstering evidence based decision making and policy in the field of higher education (HE) in India, especially with respect to RUSA.
- c) To carry out research-based policy advocacy for strengthening the policy design and implementation of HE policy in India, with special reference to RUSA.

STRATEGIC ACTION PLAN FOR NATIONAL HIGHER EDUCATION RESOURCE CENTER **Deliverables** Remarks S.No. Quarter Status 1. 1st Quarter: 1.a. Policy Retreat and Completed. Higher April - May -Development of Strategic **Education Policy Retreat** June Framework for MHRD conducted on 30th May -1st June, 2018 at LBSNAA Mussoorie. Final Draft of Strategic Framework for MHRD completed. 1.b. Focus Group Ongoing Activity for State Level Consultations 1st, 2nd, 3rd and 4th held in Jammu and Discussions with Quarter stakeholders, Capacity Kashmir, Nagaland and **Building Training Programs**, Assam. Workshops and Conferences RUSA workshops held on 25th May, 9th and 10th July, 30th July, 17th September, 3rd October, 4th October, 1st and 5th Novmber, 17th November, 10th December 1.c. Development of Online 1. MIS established. M&E Framework 2. MIS administered. 3. Data Collected 4. Data Analysed 5. Data to be uploaded on NHERC website 1.d. Development of Ongoing Activity for Completed 1st, 2nd, 3rd and 4th Strategic Framework and Action Plan for Higher Quarter **Education for MHRD** 1.e. Provide expertise to the Ongoing Activity for Development of Draft 1st, 2nd, 3rd and 4th Ministry and State Higher HECI Bill, inputs and Quarter execution of IMPRESS Education System in policy inputs, advocacy and scheme of ICSSR, critical implementation strategies policy inputs for policy and regulatory reforms

2 January 2019

1.f. Monitoring Action Plan

for 1st Quarter

Supported states in development of strategic framework documents -- J&K and Maharashtra

Completed

Progress Report: National Higher Education Resource Center (NHERC)

| S.No. | Quarter | Deliverables | Remarks | Status |
|-------|---|--|--|--|
| 2. | 2 nd Quarter : July - August - September | 2.a. Analytic Reports from Data Generated by Online M&E Framework | Ongoing Activity for 2 nd , 3 rd and 4 th Quarter | Analytics algorithm developed and data collected, data sorting and data reliability has been tested. Working on data analytics to reflect performance of the scheme in bringing development. |
| | | 2.b. Collation of RUSA best practices, international best practices and learnings applicable for India | Ongoing Activity for 2 nd , 3 rd and 4 th Quarter | Ongoing |
| | | 2.c. Monitoring Action Plan for 2 nd Quarter | | Completed |
| 3. | 3 rd Quarter : October- November - December | 3.a. Qualitative and quantitative pilot studies on performance of RUSA institutions | Ongoing Activity for 3 rd and 4 th Quarter | Ongoing |
| | | 3.b. Research reports assessing core state level institutional structures under RUSA | Ongoing Activity for 3 rd and 4 th Quarter | Ongoing |
| | | 3.c. Monitoring Action Plan for 3 rd Quarter | | Completed |
| 4. | 4 th Quarter : January – February - March | 4.a. State Assessment and Evaluation Framework document | | Not applicable currently |
| | | 4.b. Creation of a uniform, reporting template for states and institutions covered under RUSA | | Not applicable currently |
| | | 4.c. Monitoring Action Plan for 4 th Quarter | | Not applicable currently |

<u> 1st Quarter: April - May – June 2018</u>

1.a. Policy Retreat and Development of Strategic Framework for MHRD ---- Completed

The Higher Education Policy Retreat 2018 was conducted at the Lal Bahadur Shastri National Academy of Administration in Mussoorie, over three days, from 30th May, 2018 to 1st June, 2018. Keynote Address for the event was given by Shri Prakash Javadekar, Hon'ble Union Minister of Human Resource Development. The forum included senior policy leaders from the Department of Higher Education's Ministry of Human Resources Development, Prime Minister's Office, State Governments (on a regional basis), and leadership from regulatory agencies.

The main goal of the Policy Forum was to sensitise and orient senior policy leaders to understand the critical challenges facing the higher education sector and to engage them in dialogue on how to competently and efficiently handle the challenges facing higher education institutions across the nation.

This action plan envisions an Indian higher education system characterized by inclusive, accessible, and quality education which contributes towards economic growth and nation building.

The specific objectives of the policy forum was to:

- 1. Provide a forum for critical and reflective thinking
- 2. Develop an action plan on improving quality reforms in Higher Education
- 3. Reflect on the existing regulatory architecture, and to suggest and formulate an action plan for regulatory reforms including a potential institutional architecture for such regulatory bodies.
- 4. Critical review of issues around Faculty Motivation and develop an action plan for Faculty Capacity building
- 5. Reflect on student employability and to formulate strategies to develop students' core competencies for skill enhancement
- 6. Develop models of institutional and sectoral governance
- 7. Promote team work and cultivate positive working relationships among diverse institutional leaders
- 8. Improve work processes to enhance organizational efficiency and improve performance of personnel.
- 9. This action plan envisions an Indian higher education system characterized by inclusive, accessible, and quality education which contributes towards economic growth and nation building.

Images from Higher Education Policy Retreat 2018





Progress Report: National Higher Education Resource Center (NHERC)





1.b. Focus Group Discussions with stakeholders, Capacity Building Training Programs, Workshops and Conferences: Ongoing Activity for 1st, 2nd, 3rd and 4th Quarter

NHERC conducted State Level Consultations in Jammu and Kashmir, Nagaland and Assam with higher education officials and other representatives. Workshops were also held under the Rashtriya Uchchatar Shiksha Abhiyan (RUSA) in Delhi for capacity building of states on 25th May, 9th and 10th July, 30th July, 17th September, 3rd October, 4th October, 1st and 5th November, 17th November, 10th December 2018.

For more images, please visit NHERC Website at http://nherc.tiss.edu/nherc-gallery/

For detailed minutes of the meeting, please visit RUSA Website at http://rusa.nic.in/

State Level Consultation in Nagaland, 27th September 2018





State Level Consultation in Jammu and Kashmir on 3rd August 2018

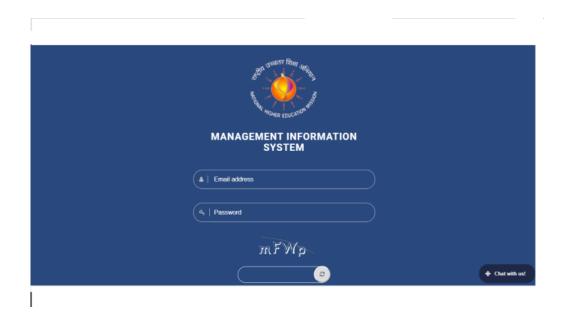


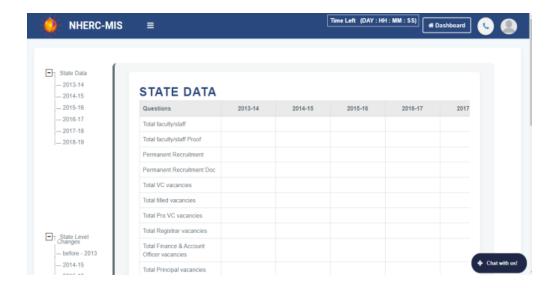


1.c. Development of Online M&E Framework -- Completed

Creation of reliable and robust database pertaining to a range of performance and contextual indicators for state public universities and also state and national higher education systems is a key focus area for NHERC. In this regard, an online database/MIS on the contextual and performance indicators of State Public Universities and State HE systems has been developed in order to support greater evidence-based decision making among national, state and institution level actors covered under RUSA.

Please visit the following link to access NHERC MIS Database for RUSA: https://nhercmis.tiss.edu/#/login

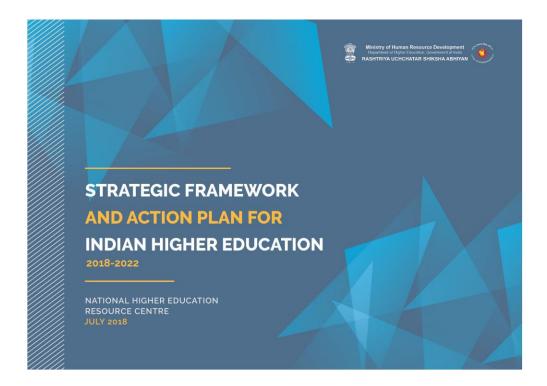




1.d. Development of Strategic Framework and Action Plan for Higher Education for MHRD -- Completed

Based on the inputs received during the Higher Education Policy Retreat 2018, the Strategic Framework and Action Plan was developed. The framework is the result of a collaborative and strategic process that occurred during the policy retreat with senior higher education leadership, focusing on India's Higher Education system. The Action Plan presents key goals and strategies to serve as guidelines for the planning and implementation of higher education programs in India.

The action plan envisions an Indian higher education system characterized by inclusive, accessible, and quality education which contributes towards economic growth and nation building.



<u>Please refer to the attached PDF of 'Strategic Framework and Action Plan for Indian Higher Education'</u> for more details.

1.e. Provide expertise to the Ministry and State Higher Education System in policy inputs, advocacy and implementation strategies--Ongoing Activity for 1st, 2nd, 3rd and 4th Quarter

NHERC empowers decision makers in state higher education systems to devise effective, inclusive and sustainable policies by putting forward our expertise. Following are some of the key components in which NHERC provided its expertise in 2018:

Development of Draft HECI Bill, collation and analysis of public feedback for HECI Bill

Progress Report: National Higher Education Resource Center (NHERC)

- Inputs and execution of IMPRESS scheme of ICSSR and MHRD
- Critical policy inputs for policy and regulatory reforms
- Supported states in development of Higher Education Strategic Framework Documents -- J&K and Maharashtra



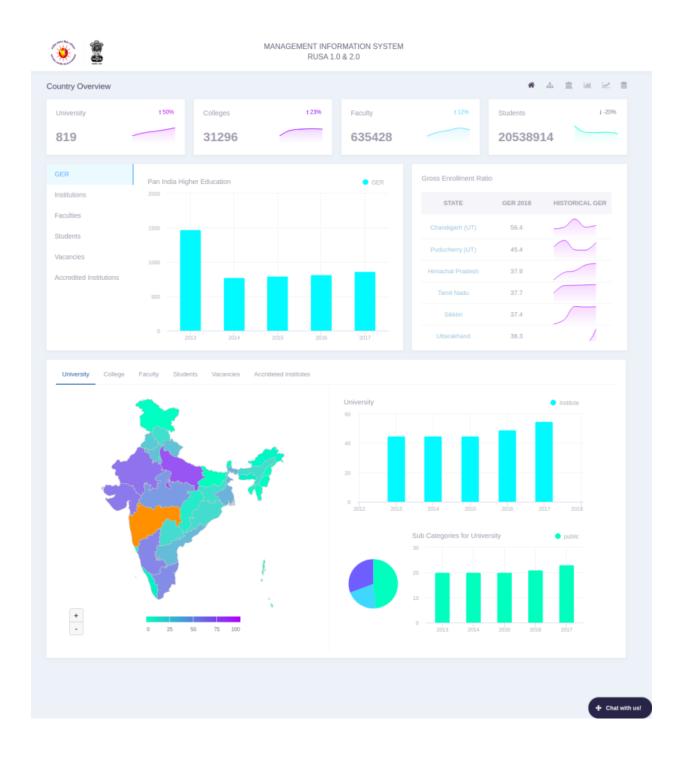
For more details, please visit the IMPRESS scheme website developed by NHERC: http://impress-icssr.res.in/

2nd Quarter: July - August - September 2018

2.a. Analytic Reports from Data Generated by Online M&E Framework: Ongoing Activity for 2nd, 3rd and 4th Quarter

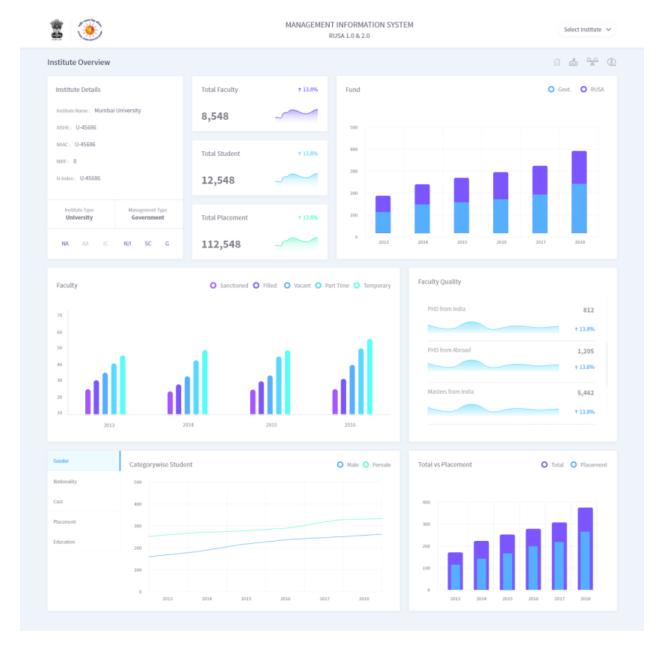
On the basis of data captured by NHERC MIS, Analytic Reports can be created to monitor the performance of higher education systems and institutions across the country and states. This will pave the way for evidence-based policy refinement of higher education policy in India, and especially RUSA, in the years to come. The MIS and analytics have been developed, NHERC will soon release analytic reports on the basis of data generated from across India.

Country-level data screen: https://nhercmis.tiss.edu/#/Analytics/Country



State-level data screen: https://nhercmis.tiss.edu/#/Analytics/State





Institute-level data screen: https://nhercmis.tiss.edu/#/Analytics/Institute

2.b. Collation of RUSA best practices, international best practices and learnings applicable for India: Ongoing Activity for 2nd, 3rd and 4th Quarter

The selection of best practices on implementation of RUSA is being done on the basis of parameters defined by eminent national and international experts on Higher Education. Some best practices have already begun to be documented, and work is in progress currently to capture more evidence on these best practices (including audio-visual documentation). NHERC has been working with University of

Progress Report: National Higher Education Resource Center (NHERC)

Pennsylvania and Stanford University in order for these best practices to be analyzed and categorized systematically.

3rd Quarter: October- November - December 2018 -- Ongoing Activity for 3rd and 4th Quarter

3.a. Qualitative and quantitative pilot studies on performance of RUSA institutions

Given the fact that higher education plays a central role in the construction of knowledge societies, it is important to focus on fundamental issues concerning quality teaching, learning, research and related activities. NHERC has drawn on data available through RUSA's M&E systems and also collected primary data through specialized MIS that are serving as the basis for rigorous analysis on HE policy and its implementation. These reports will comprise of evidence backed policy recommendations and will be disseminated and shared with policy and decision makers.

3.b. Research reports assessing core state level institutional structures under RUSA

Data has already been collected from all the states and UTs covered by RUSA assessing core state level institutional structures under RUSA such as SHECs, TSGs and SPDs. Research reports will now be prepared presenting qualitative review of the actual functioning of the decision making and implementation structures and processes under RUSA at the State and institutional levels (such as SHECs, SPDs, TSGs, SLQACs and RUSA coordinators/ structures at institutional level).









STRATEGIC FRAMEWORK AND ACTION PLAN FOR INDIAN HIGHER EDUCATION @75

2019-2022

NATIONAL HIGHER EDUCATION RESOURCE CENTRE FEB 2019



TABLE OF CONTENTS

| 01 | Abbreviations | 3 | 5 | GOAL 4 - Promote Research Excellence |
|----|--|---|-----|--|
| 03 | Introduction | 4 | 7 | GOAL 5 – Reform Regulation in Higher Education |
| | miloduction | - | • / | |
| 09 | GOAL 1 – Assure Quality Education in All Higher Education Institutions (HEI) | 5 | 57 | Conclusion |
| | | _ | | |
| 17 | GOAL 2 – Train, Equip, and Motivate Faculty | 5 | 9 | Annexure I |
| | | | | |
| 23 | GOAL 3 – Create Employable Youth from HEIs | | | |

ABBREVIATIONS

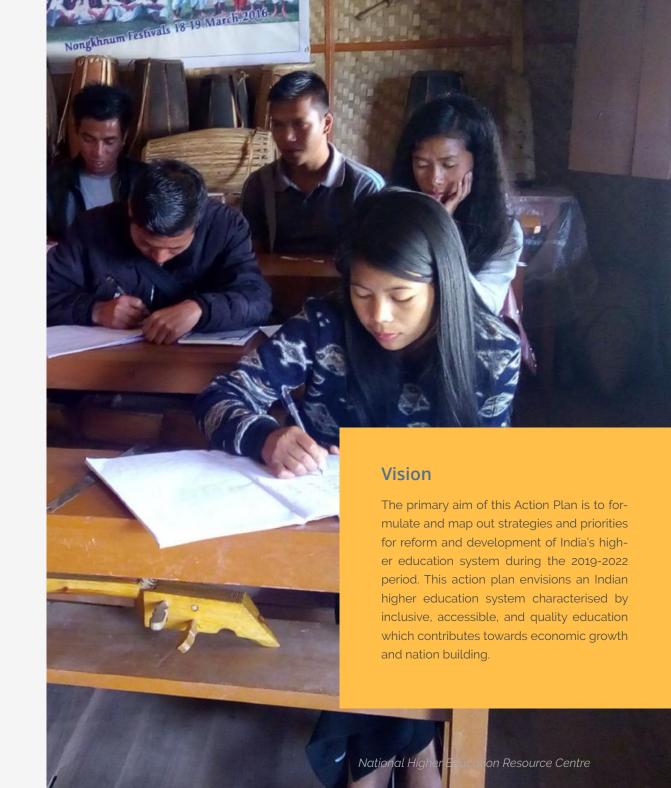
| B.A. | Bachelor of Arts | NCVET | National Council of Vocational and Employment Training |
|--------|--|--------|---|
| B.Voc. | Bachelor of Vocation | NIRF | National Institutional Ranking Framework |
| CSR | Corporate Social Responsibility | NRF | National Research Foundation |
| GIAN | Global Initiative of Academic Networks | РМО | Prime Minister's Office |
| HE | Higher Education | PPP | Public Private Partnership |
| HEI | Higher Education Institute | R&D | Research and Development |
| HEPC | Higher Education Promotion Commission | RUSA | Rashtriya Uchchatar Shiksha Abhiyan |
| HRDC | Human Resource Development Centre | SCVT | State Council of Vocational Training |
| ITI | Industrial Training Institutes | SPAARC | Scheme for Promotion of Academic and Research Collaboration |
| IUCAA | Inter-University Centre for Astronomy and Astrophysics | SSC | Sector Skills Council |
| LMA | Labour Market Accounts | TP | Training Providers |
| M.B.A | Master of Business Administration | UGC | University Grants Commission |
| MoU | Memoranda of Understanding | VET | Vocational Education and Training |

INTRODUCTION

This Strategic Framework and Action Plan is a follow-up to the Higher Education Policy Retreat 2018, conducted at the Lal Bahadur Shastri National Academy of Administration in Mussoorie. This Action Plan is the outgrowth of a collaborative and strategic process that occurred during a policy retreat with senior higher education leadership focussed on India's Higher Education system. The Action Plan presents key goals and strategies to serve as guidelines for the planning and implementation of higher education programmes in India.

In a globally competitive era, Indian higher education institutions currently face enormous and rapidly mounting challenges. While higher education institutions are typically complex enterprises, they are especially complex in India, given the scale, size, and nature of the higher education ecosystem. The management of these higher education institutions requires deep and active understanding, knowledge, skills, experience, and strategic planning.

Higher education in India has undergone significant changes and rapid expansion over the last six decades. This sector has seen the rise of a diverse set of institutions both in the public and the private space. While expansion is welcome in the sense of increased access and equity, quality and excellence must now occupy the central attention of policy planners. Also, given the fact that higher education plays a central role in the construction of knowledge societies, it is important to focus on fundamental issues concerning quality teaching, learning, curriculum, research and related activities.



Guiding Principles

The following broad principles guide the Strategic Framework and Action Plan:



Provide quality higher education for all Indians



Develop a professional and skilled labour force with 21st Century competencies



Promote active collaboration between government, higher education institutions, training institutes and Industry



Improve the quality and reach of teacher education, teacher training, and educational leadership



Attract the most highly qualified and motivated people into the education field



Promote a sustainable research culture in universities to drive innovation



Reform India's Higher Education Regulatory System

INDIA @ 75

Broad Strategies

a) Critically evaluate existing regulatory architectures and explore alternative pathways for regulatory reforms

In recent years, there has been growing discourse on the need to reform existing regulatory structures. Our higher education regulatory framework was designed to deal with a number of institutions that comprised only a small fraction of what exists today. While India's higher education landscape and national and global scenarios have transformed over the decades, the Regulatory Framework has not seen any substantive amendments or reforms. Outdated regulatory provisions have hindered progress and quality of higher education in India. Despite having the world's largest higher education system in terms of number of institutions, India does not have a single institution in the top 100 world university rankings. There is an urgent need to reform the existing higher education regulatory framework to propel the system towards higher standards of quality.

The following are the four key issues elaborated upon in the strategy document:

Convergence of multiple entities and Regulatory Governance

Regulatory Governance and Governments: Nature of relationship and extent of control Regulatory Governance and Funding Council: Issues around transparency and fairness

Relationship between accreditation bodies and regulatory entities

b) Enhance Skills and Employability

It is well known that most of India's educated students who graduate from colleges and universities are unable to get jobs after pursuing studies. On one hand, the demographic dividend has led to improvement in transition rates (moving from higher secondary to higher education) and on the other hand, there is a looming danger of the 'demographic dividend' turning to an epidemic of under-employment given the inability of Indian higher education institutions to provide students with the kinds of education that enable them to develop appropriate skills to be 'job ready'. In the past, this concern has led to the launching of multiple initiatives with a goal of urgently tackling the issue as a crisis. The impact of these programmes on raising the employability and skill levels of youth in India are in progress.

The following are the four key issues elaborated upon in the Strategy Document:

Identification of key strategies and processes to improve student employability.

Identification of policy changes required in the higher education system that will facilitate and support the integration of skills training into higher education institutes in order to enable market interface that can meet industry requirements.

Skills-based courses and programmes and how regulatory bodies can play a proactive role.

Policy changes that enable a comprehensive skills-education focus and its integration into India's education system.

c) Analyse factors that affect quality in higher education and explore ways to attract, nurture, and retain talent

Improving quality of our Higher Education (HE) systems primarily depends upon governance structure (leadership) and adequate funding of institutions. Over the last few years, a number of key policy interventions have led to some critical reform initiatives. Over time, the sustainability of these reform measures, with effective implementation, will bring about quality improvements in our HE institutions. One of the key pillars of this quality dimension is the ability of institutions to attract (and then retain) top talent. All top-performing institutions are undoubtedly known for the quality of their faculty and their ability to attract high-quality students. Institutional leadership must necessarily have a plan to recruit the best talent, and such critical decisions are invariably faculty driven. However, in doing so, institutional leaders are often faced with challenges and constraints from the external environment, that is, the State and the system. This section focusses on the criticality of attracting best talent (faculty, students, support staff, and most importantly, top leadership) to enable institutions to leapfrog in their efforts towards excellence.

The following are the three key issues elaborated upon in the Strategy Document:

What are the key elements of top talent recruitment?

What barriers deter the current system from attracting and recruiting top talent?

What aspects of faculty compensation and support conditions will increase performance, commitment, and retention?

d) Promote excellence in research and improve global ranking

One of the most critical elements that defines a top-quality academic institution is its emphasis on high-quality, cutting-edge research, both theoretical and applied. These universities, which make it to the top ranks of various university ranking frameworks, are often referred to as "Research Universities". Over the last decade or so, India has recognised this and in recent years, policy makers and implementers have been working to ensure that Government support to research is a priority. However, much of this depends on the complex issues within a university, that is,

- 1) The critical mass of talent required to undertake path-breaking research, and
- 2) If there is an ecosystem within the university to promote excellence in teaching and research.

The following are the four key issues elaborated upon in the Strategy Document:

Identification of the ideal institutional conditions that encourage a culture of excellence. Development of strategies to promote and support research including how policy-makers and leaders can enable quality research.

Cultivating institutional arrangements for a more comprehensive and integrated approach to promoting research.

Issues in ranking including the current framework and suggested improvements.



ASSURE QUALITY EDUCATION IN ALL HEIS

- Quality Achievement, Improvement through Stakeholders
- Functioning of National Research Foundation
- Quality in On-Technical Education
- Building a Research Culture



TRAIN, EQUIP, AND MOTIVATE TEACHERS

- Training Systems for Teaching
- Faculty Motivation
- Optimising Performance Management

Goal 03





- Develop 21st Century Competencies
- Promotion of Collaboration between Government, Higher Education Institutions, Training Institutes, and Industry
- Emphasis on Apprenticeship Programmes
- Regulatory Mechanism for Skill Development (NCVET)

PROMOTE RESEARCH CULTURE

Goal 04

Goal 05 Promotion of Research in Collaboration with International Universities
Improving India's Global Ranking in Higher Education
Ideal Conditions Required in HEI to Create Culture of Excellence
Promote and Support Research

- Institutional Arrangements to Promote Comprehensive, Integrated Approach to Research
- Improvements in HEI Rankings
- Encourage Industry Talent to Engage in Research

REFORM REGULATION

- Single Regulator for Education Attainment Norms
- Robust Grievance Redressal Mechanism
- New Institutional Architecture
- Clear Distinction in Role of Accreditation Bodies and Regulatory Entities
- Authority of the Regulator to Fund Research





STRATEGIES²



STRATEGY 1

Quality Achievement, Improvement through Stakeholders



STRATEGY 2

Functioning of National Research Foundation



STRATEGY 3

Quality in On-Technical Education



STRATEGY 4

Building a Research Culture

¹ Excerpted from presentation by Dr. Manjul Bhargava, Professor, Princeton University, at the 2018 Higher Education Policy Retreat held in Mussoorie

² Excerpted from group discussions with participants at the 2018 Higher Education Policy Retreat held in Mussoorie

Encourage Faculty Research

Institute a National Research Foundation to engender a research culture within the higher education system. India requires a central, transparent research foundation to promote national-scale, interdisciplinary research in science and the humanities.

Ownership of Institution

It is essential to inculcate a sense of ownership and agency among faculty and staff. Job uncertainty stifles creativity and inhibits solid teaching and research. This requires professionalising the work of academics and creating a more distributed leadership model within divisions and departments.

Limit Faculty-Student Ratio in HEIs

Due to high faculty-student ratio, teachers are unable to focus on their research activities. The faculty-student ratio should ideally be 1:20, and should not go beyond 1:30. This will enable teachers to innovate and improve on their pedagogy.



Infrastructure Facilities

Provide basic facilities including clean drinking water, operational toilets (especially for women); adequate and functional chairs and desks, lab equipment etc.

Performance Management

Faculty should be recognised and promoted based on academic merit, productivity, and leadership—not solely on seniority. Each college should be its own unit for performance management with clear performance criteria and an equitable and transparent review system.

Affiliation System

The affiliation system has led to numerous colleges being affiliated to one master university. This system places excessive emphasis on exam performance and inhibits quality pedagogy. We need to work towards reducing the affiliation system as it leads to a lack of motivation on the part of faculty. A robust higher education system requires large-multi disciplinary programmes and a vibrant student community. To achieve this, colleges should be combined into one large multi-disciplinary university.

Strategy 01: Quality Achievement, Improvement through Stakeholders

- Due to a focus on degree attainment, the quality of education provided by institutions has been neglected.
- Two aspects of student outcomes knowledge and employability are severely under-recognised.

- There is great need for non-monetary incentives for faculty to participate in India-based and international seminars and conferences.

 This will encourage faculty to write and co-author academic papers.
- Teaching is not rewarded in promotions, although the majority of faculty time is spent on teaching. Due to the heavy weightage given to publications in the promotion of faculty, there is a dichotomy between expectations, the work assigned to them, and how they are evaluated.

- It is essential to hire highly motivated and academically skilled faculty in higher education institutions.
- Student feedback in higher education institutions should be essential and actively engaged as a part of faculty performance appraisals in order to promote high-quality teaching.



Strategy 02: Functioning of National Research Foundation (NRF)

Departments/institutions are inward looking and operate in silos. This must change so that a research culture is fostered and can thrive in Indian universities.

02

The NRF should be an umbrella organisation under the PMO/Cabinet Secretariat as a Statutory Body.

Departments should be asked to identify national problems/research themes with a short- and long-term focus area after due consultations.

04

Funds can be pooled from Government departments and CSR to support NRF.

05

Projects selected must be conducted through the support of research fellows.

Strategy 03: Quality in On-Technical Education

- Create a triad of institutions, research labs, and industry partners for collaborative work. This will enable students to understand the new developments in their respective fields.
- Academic standards should be set by higher education institutions.

 The role of regulatory councils should be confined to setting standards for practice of the profession.

Teachers and students need to be made aware of learning outcomes, competencies, and ways to convert/translate their work/research for implementation by industry partners.

Identify best students and incentivise them to pursue academia by enrolling in Ph.D. programmes. Involve them in pedagogy and through apprenticeship, train students to become members of the higher education teaching profession.





Strategy 04: Building a Research Culture

- In order to overcome challenges of control and the workload of faculty, policy documents should embed the empowerment of faculty, the creation of a favourable ecosystem to build faculty agency, and the incentivisation of research and publication.
- O2 Create a research and inquiry mindset in universities through mentorship, particularly in remote/smaller institutions with limited exposure to quality research.
- Development and implementation of a performance matrix to accommodate different professional categories, that is, researchers, teachers, mentors, administrators etc. with different performance parameters.
- Develop digital platforms for access and resource sharing such as digital libraries, labs, and other facilities.
- Shift university leadership mindset from controlling and administering to promoting and enabling academics to develop a sense of agency and distributed leadership around research, publication, as well as knowledge production and knowledge sharing.





STRATEGIES⁴



STRATEGY 1

Training Systems for Teaching



STRATEGY 2

Faculty Motivation



STRATEGY 3

Optimising Performance Management

³ Excerpted from presentation by Dr. Manjul Bhargava, Professor, Princeton University, at the 2018 Higher Education Policy Retreat held in Mussoorie

⁴ Excerpted from group discussions with participants at the 2018 Higher Education Policy Retreat held in Mussoorie



Strategy 01: Training Systems for Teaching

Induction training for newly appointed faculty for one month focussed on innovative teaching techniques, professional ethics, gender and caste sensitization, through HRDC.

01

In-service training should be mandatory for all faculty and staff in higher education. This will be online and subject specific, conducted through the National Resource Centre to upgrade faculty's classroom teaching skills.

02

Orientation programmes for teachers and refresher programmes need to continue in HRDCs.

03

Strategy 02: Faculty Motivation

Provide monetary incentives for research such as grants and consultancy projects to encourage ongoing research.

01

Institutional leadership must actively support faculty in research activities and create ongoing opportunities through different initiatives.

02

Implement a minimum salary structure in private and contractual jobs. There must be a basic salary structure for the private sector so that people are motivated to take up research activities.

03

Graded autonomy needs to be provided to faculty for empowerment and motivation.

04

Deputation: There needs to be coordination between academia, industry, and government to encourage cross-pollination of ideas and to motivate cross-sector work (e.g., government-sector employees work in private sector, and vice versa). This will expose academics to innovative ideas, practices, and processes.

05

Flexible/Choice-based training is needed. Most training programmes are currently fixed in terms of topic and modality. Faculty should be able to select from a diverse range of programmes that support the design of their own learning pathways.

Strategy 03: Optimising Performance Management

Incentivise faculty so that they are motivated to teach well.

01

Teaching and research faculty to be evaluated on specific goals designed for either pedagogy or research.

02

World-class higher education institutions need to create a culture and ethos of learning and knowledge exchange through improved infrastructure that can elevate the professionalisation of faculty and the learning enterprise of higher education.

03

There is no formal system of excellence and performance appraisal currently other than parameters for progress/promotion criteria. Institutions need rigorous appraisal systems (e.g., 360 and 180 degree feedback loops) in order for progress to be decided based on performance rather than simply seniority.

)4

Accountability Structure

Memoranda of Understanding (MoUs) should be based on Key Result Areas and these should be different for research faculty and teaching faculty. Universities need a governance structure that focusses on and highlights quality. Funding and recognition should be linked to this new accountability structure.

05

Incentivise teaching through monetary and non-monetary inputs:

Monetary incentives can be salaries, bonuses, research funding, grants, etc. Non-Monetary incentives can include international exposure through conferences, seminars, and knowledge exchanges. There is a dire need to incentivise faculty and students so that they choose to teach and study with rigour and a high level of engagement.





STRATEGIES⁶



STRATEGY 1

Development of 21st Century Professional Competencies



STRATEGY 2

Promote Collaboration between Government, Higher Education Institutions, Training Institutes, and Industry



STRATEGY 3

Emphasis on Apprenticeship Programmes



STRATEGY 4

Regulatory Mechanism for Skills Development (NCVET)

⁵ Excerpted from presentation by Dr. K.P. Krishnan, Secretary, Ministry of Skill Development and Entrepreneurship at the Higher Education Policy Retreat 2018 held in Mussoorie

⁶ Excerpted from group discussions with participants at the 2018 Higher Education Policy Retreat held in Mussoorie

Supply Side

Large youth population but limited training capacity



Youth enter the 15+ age group every year



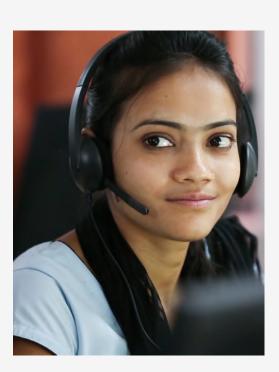
Youth drop out at secondary high school level



Annual VET training capacity



Youth enter the workforce every year





Demand side

Significant demand for skilled workers in India and globally

India

Estimated incremental skilled workforce requirement in 24 high-growth sectors through 2022: 103 million

Globally

Net workforce shortfall is 32-39 million by 2020 (due to low birth rate and ageing population)



There is a large supply of unskilled youth in India. Both anecdotally and through evidence we can gather that there is a huge demand for skilled workers and yet no pipeline or mechanism to fill these spots. Employers require candidates with basic literacy, numeracy, so-called soft skills (e.g., social skills, communication, and problem-solving skills) and prefer to train employees on specific skills upon joining the organisation. However, current skilling programmes focus on specific skills modules such as hospitality, wellness, or beautician training but have a low emphasis on soft skills. This is an issue of match that must be remedied at the system level.



Evolution of Skill Infrastructure in India

Long-Term Training (ITIs; 1950s):

Features of this included:







14,000 +

1-2 Years

NCVT/SCVT

Institutions Course duration

Certification

Challenges:

- Poor quality labs; equipment
- Poor regulatory oversight
- 50%+ teacher vacancies





Short-Term Training (2007):

Features of this included:

- Focus on PPPs
- 13,000+ accredited Training Providers
- 1 crore youth trained; certified by SSCs

Challenges

- Assessments not standardised
- Poor regulatory oversight
- Low placement outcomes

What explains these outcomes?

Public funding for skilling programmes in an economy where industry is the primary recruiter of skilled individuals calls for different role of the "State". Usually government skilling systems are driven by supply, rather than regard for skills that are in demand. As a result, there is a dichotomy as government-driven skilling programmes are financed by the state, instead of primary recruiters and beneficiaries – industry and trainees. If skilling systems become employer driven, they will respond to needs of the market. However, the Government's role in skilling needs to be extensive for unorganised sector and those who are marginalised. In a scenario such as this, the role of state has to evolve into ensuring value for public expenditure. Two additional factors of Indian skill development include:

Target populations are likely to be marginalised and vulnerable

Potential for collusive behaviour leading to corruption

Role of Ministry of Skill Development and Entrepreneurship: Catalyse Shift from Informal to Formal Sector

Build a national system for mentorship to facilitate transition from informal to formal sectors Evolve design, process, systems, and policies that facilitate effective mentorship for aspiring entrepreneurs

What is being done?

Advocacy and Outreach (e.g., Kaushal Melas/exhibitions/ graduation ceremonies/skills competitions)

Progression Pathways

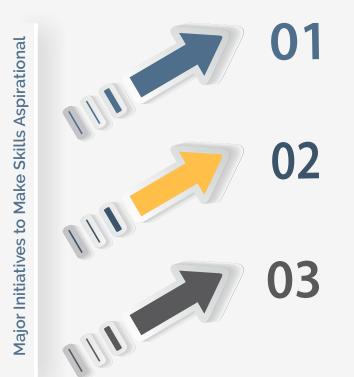
Improving international mobility and overseas employment opportunities

Why is Skills Training not an Aspirational Choice?

Low skills premium persists in India

The market for skilled workers is similar to Akerlof's "market for lemons" (i.e., the quality of goods traded in a market degrade if there is information asymmetry between buyers and sellers, leaving only "lemons" behind)

Low "signalling value" of skills training, leads to low-skill wage premium



Skill Universities

- 7 Skills Universities have been instituted.
- Guidelines are being firmed up for implementation of minimum standards and uniformity in basic structure.

B. Voc. Programme that links education with skills training

- Admission process favours students from general education.
- · Need to make it more accessible to vocational-stream students.

Apprenticeship Programmes

- · Linking apprenticeship to short-term programmes.
- Top-up apprenticeship and embedded apprenticeship at undergraduate level.
- NCVET as regulator to lay down minimum standards for enhancing quality of training programmes.





Strategy 03: Emphasis on Apprenticeship Programmes

O1 Countries like Australia, Germany, U.K., and France have leveraged apprenticeship training to supplement their workforces.

National Policy of Skill Development and Entrepreneurship 2015 focusses on apprenticeship as one of the key programmatic levers for creating a skilled workforce in India. This policy aims to facilitate a ten-fold increase in apprenticeship opportunities.

- Global trends have changed to employable and job-defining skills even in the case of higher education graduates.
- Apprenticeship in higher education requires strategies to scale apprenticeship programmes by embedding them in higher education institutes.

- O5 It is necessary for India to adopt an experiential apprenticeship programme. However, due to government regulations it is not easy to get employers and people working together as part of an experiential apprenticeship programme. The Government is currently creating opportunities towards embedded apprenticeship within higher education.
- Historically, apprenticeship in India was confined to ITI graduates and the Manufacturing sector. Changes have now been made to make it more extensive with the inclusion of the services sector, retail and shops, etc.

Approaches to apprenticeship include:

Embedded Components:

Apprenticeship/on-thejob training with employer should be made compulsory as part of the course curriculum. Basic training and on-thejob training can happen either simultaneously or one after the other. In accordance with the arrangement between employer and SSC/training partner.

Additional Components:

Apprenticeship (on-thejob training) will be offered through various courses.

Candidates can opt for the apprenticeship training while pursuing their degree.



Strategy 04: Regulatory Mechanism for Skills Development (NCVET)

Establish an independent regulatory body to govern the entire skills ecosystem.

O2 Functions:

Regulate both long- and short-term vocational training.

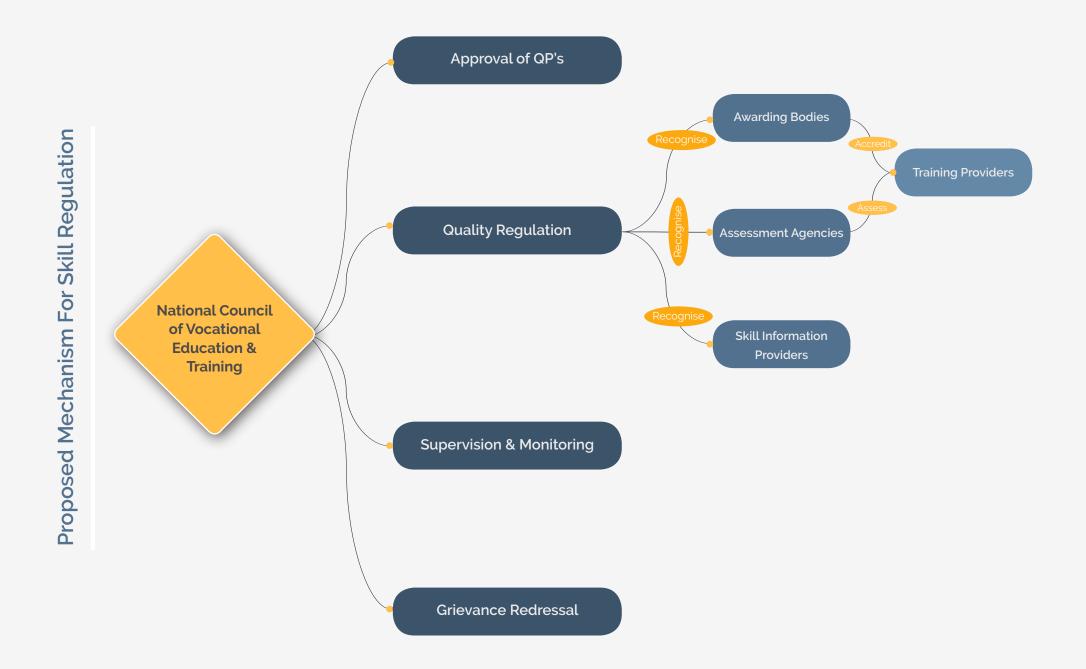
Recognise and regulate awarding and assessment bodies as well as skill information providers. Impose penalties for non-compliance.

O3 Approach:

Identify market failures but be mindful of state limitations.

Focus on information asymmetries.

Design and composition of regulatory agency for skills development.











STRATEGIES



STRATEGY 1

Promotion of Research in Collaboration with International Universities



STRATEGY 2

Improving India's Global Ranking in Higher Education



STRATEGY 3

Ideal Conditions Required in HEI to Create Culture of Excellence



STRATEGY 4

Promote and Support Research



STRATEGY 5

Institutional Arrangements to Promote Comprehensive and Integrated Approach to Research



STRATEGY 6

Improvements in HEI Rankings



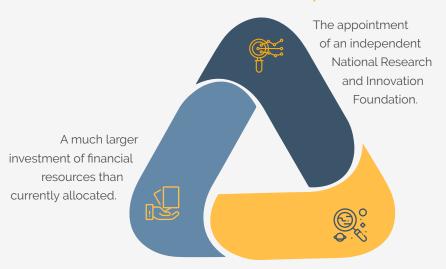
STRATEGY 7

Encourage Industry Talent to Engage in Research

⁷ Excerpted from presentation by Dr. Partha Pratim Chakrabarti, Professor and Director, IIT Kharagpur at Higher Education Policy Retreat held in Mussoorie

⁸ Excerpted from group discussions with participants at Higher Education Policy Retreat 2018 held in Mussoorie

1. Achieving excellence in higher education requires a quantum leap in research and innovation. The promotion of research and inovation requires:



Moving research out of the Councils and into the universities. Doctoral-level education cannot happen without serious research faculty at leading universities. Incentives that bring closer collaboration between industry and academia.

2. Building social convergence platforms

to help solve social problems.

3. Emerging Learning Platforms

Build convergence platforms by harnessing technology such as Internet of Things, Blockchain, etc.



4. Expenditure Patterns

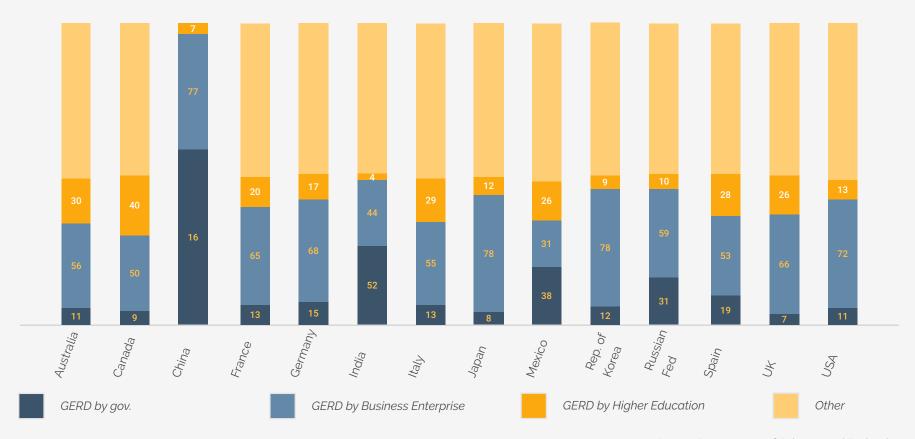
According to figures on Gross Expenditures on R&D (GERD), India fares poorly compared to countries such as Russia, South Korea, China, U.K., and U.S.A. India currently ranks 60th out of 127 on the Global Innovation Index (GII) 2017, though this ranking has improved from 66th rank in 2016.

| Theme 3: Regulatory Reforms | | novation x 2017 | | apital and earch | | & develop- :(R&D) | Rese | archer | | enditure on GERD) |
|--------------------------------|--------|--------------------|--------|---------------------|--------|----------------------|--------|---------|--------|----------------------|
| | (Rank) | (Score) | (Rank) | (Score) | (Rank) | (Score) | (Rank) | (Score) | (Rank) | (Score) |
| Brazil | 69 | 33.1 | 50 | 35.9 | 29 | 37.2 | 55 | 8.3 | 32 | 26.9 |
| China | 22 | 52.5 | 25 | 49.2 | 17 | 58.5 | 45 | 14.1 | 17 | 48.5 |
| India | 60 | 35.5 | 64 | 32.3 | 32 | 35.9 | 81 | 1.8 | 43 | 19.1 |
| South Korea | 11 | 57.7 | 2 | 66.2 | 1 | 88.2 | 3 | 85.8 | 2 | 98.4 |
| Russia | 45 | 38.8 | 23 | 50 | 25 | 41.5 | 29 | 37.8 | 34 | 26.1 |
| South Africa | 57 | 35.8 | 60 | 32.8 | 39 | 27.1 | 65 | 5.2 | 48 | 16.6 |
| UK | 5 | 60.9 | 6 | 63.3 | 10 | 69.5 | 18 | 54.1 | 21 | 39.5 |
| USA | 4 | 61.4 | 13 | 57.2 | 4 | 78.8 | 20 | 51.2 | 10 | 65 |

Source: Global Innovation Index 2017

In India government is the primary source of funding, as opposed to private sector in most parts of the world. For future development of R&D eco-system in India, we must balance equity and excellence with public-private expenditure on research.

Participation of Gov. and Business Enterprise Sector By Country, 2015



Source: Department of Science and Technology, India

5. Set new trends in technology development

India needs to find its own path in the emerging scenario of digital takeover. We need to formulate a national benchmarked strategy which requires re-visiting science and technology research.

6. STRATEGY: Re-Engineering Higher Education

Improving the Research and Innovation Infrastructure

Nation-wide platforms for 'dry' and 'wet' innovation laboratories.

Knowledge Network to connect students to share, learn, and create knowledge.

Develop Nodal Research Hubs.

· Grow and spread through Affirmative Action.

The 'Mission India-International' Initiative

- Instruments for funding collaborative research with Government and Industry.
- New Ed-Tech platforms for India that have a global presence.
- Collaborations with international institutions to address pressing social challenges.

Retrofitting the Regenerative Cycle

- Develop faculty through faculty development cum research.
- Create a feedback system for continuous programme evaluation.

Laying New Foundations

- Four pillars: Innovation, Research, Employment, and Entrepreneurship.
- Outcome-based learning: Creation of usable skills and knowledge while learning.
- Focus on fundamentals and experiential learning.
- Convergence through trans- and inter-disciplinary programmes.

Strategy 01: Promotion of Research in Collaboration with Foreign Universities

Global Initiative of Academic Networks (GIAN) initiative must be strengthened.

01

Inter-Governmental enabling framework should be created to promote collaborative and impactful research globally.

02

Tier 1 graded autonomy institutions should be supported for collaborative research.

03

Incentives for universities engaged in quality research collaborations.

04

Scheme for Promotion of Academic and Research Collaboration (SPAARC) should be launched with adequate funding provisions. Under this, Indian public and private universities should select partners from top 500 world-ranking institutes. Proposals for research in collaboration with respective international universities can be submitted, with selection happening on competitive basis.

05

Public R&D funding to be enhanced to 1% of GDP by 2020, from present figures of 0.6%-0.7%.



Strategy 02: Improving India's Global Ranking in Higher Education

Attract selective international students to India to help raise global rankings.

01

Infrastructure support to universities.

02

Need to promote education tourism in India through introduction of attractive courses which have a global appeal such as International B.A. or MBA.

03

India should have regional rankings for developing countries. Institutions should start engaging the global-ranking agencies to understand ranking methodology. This should be done in a unified way for quality control.

04

India recently signed an MoU on academic qualifications with the Government of France to support student mobility. Similar initiatives need to be undertaken with other countries as this will promote students from other countries to study in India.

Strategy 03: Ideal Conditions Required in HEI to Create Culture of Excellence

- The drivers

- a. Freedom of choice for both students and faculty.
- b. Recognition of excellence as a parameter in place of seniority.
- c. Promote culture of excellence to drive decisions.

01

The components of excellence

- a. Research excellence to enable this:
- i) Decrease teaching load
- ii) Support research through collaboration and the intersection of ideas and providing access to facilities in all government bodies.
- b. Pedagogy excellence:

Train teachers in pedagogy and soft skills.

- c. Outcome excellence:
- i) Outcomes should lead to prioritising solutions to problems being found in India,
- ii) Outcomes should be such that they increase employability in India.





Strategy 04: Promote and Support Research

Conventional research is not prioritised in our universities. India has been producing many Ph.D.'s but the quality has been a concern.

)|

There is a disconnect between research undertaken in universities and the needs of industries.

02

Establish a National Research Foundation for long-term planning of future needs and allocate resources accordingly.

03

Appropriate funding is required for research infrastructure.

04

There is a need for inter-university centres for research in specialised areas, such as Inter-University Centre for Astronomy and Astrophysics (IUCAA) in Pune.

05

Research outcomes should be prioritised and linked to applicability in development and the social sphere.

Strategy 05: Institutional Arrangements for Promoting Comprehensive and Integrated Approach to Research

| Assure funding to faculty and scholars at the time of joining an institution. | | Faculty deputation to industry for six months to a year and vice-versa. | |
|--|--------------------|--|----|
| | 01 | | 02 |
| Adequate financial support for research fellows. | | Universities should also be ranked based on their research capabilities. | |
| | 03 | | 04 |
| The ecosystem must have a conducive environment with respect to: a) Selection of faculty. | | Monetary and non-monetary benefits to researchers: a) Monetary for good publications. | |
| b) Approach adopted for selecting research/themes areas. | 05 | b) Non-monetary including awards, felicitation, etc. | 06 |
| Decide upon research prio | rities at the univ | versity level: | |

a) Thrust Areas.

b) Recognition of guides/labs.

Strategy 06: Improvements in HEI Rankings

Strategy 07: Encourage Industry Talent to Engage in Research

Institutions are daunted by ranking parameters which in turn prevents them from participating in rankings.

01

Create a new framework to give flexibility to industry personnel to pursue research.

01

Enable mechanisms for visibility of more institutions in rankings.

02

Work done by people in industry can be eligible for award of degrees upon assessment by a panel of experts. This can lead to joint degrees between universities and industry.

02

Link funding and recognition to improvements in rankings.

03

04

Industry personnel to engage in applied, socially relevant research leading to new discoveries.

J3

States to rank HEIs in their states. Data collected by NIRF can also be utilised for this ranking system.

Conduct mentorship workshops to mentor a large number of institu-

05

Post-doctoral degrees to be conferred (currently not given in India).

04

tions that are not performing well.





STRATEGIES



STRATEGY 1

Single Regulator for Education Attainment Norms



STRATEGY 2

Robust Grievance Redressal Mechanism



STRATEGY 3

New Institutional Architecture



STRATEGY 4

Clear Distinction in Role of Accreditation Bodies and Regulatory Entities

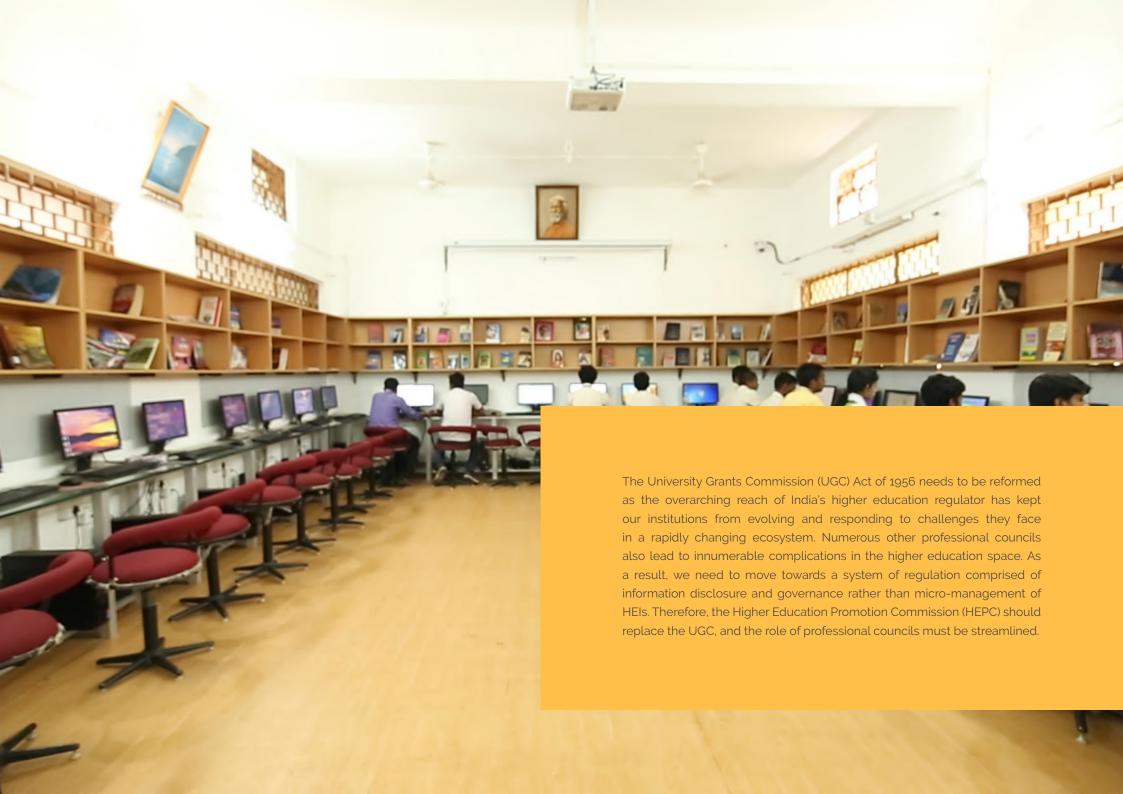


STRATEGY 5

Authority of the Regulator to Fund Research

⁹ Excerpted from presentation by Prof. Arvind Panagariya, Professor, Columbia University and former Vice-Chairman NITI Aayog and Prof. B. Venkatesh Kumar, Professor, TISS and Visiting Professor, University of Pennsylvania at Higher Education Policy Retreat 2018 held in Mussoorie

Excerpted from group discussions with participants at Higher Education Policy Retreat 2018 held in Mussoorie



1. HEPC should be designed such that it is not able to resurrect the "Inspector Raj" that has characterised the UGC system:

There should be nine members in the Commission, all eminent persons of unimpeachable integrity with passion to promote excellence in higher education.

Every two years, three members may be replaced by new ones with the existing members choosing the successors. The term of each member will be six years.

Fee fixation and financial allocations including grants should be kept out of the purview of the HEPC. This will minimise the scope for the Inspector Raj and corruption to resurrect itself at HEPC.

2. The HEPC will be assisted in its work by three bodies:

An Advisory Council consisting of representatives of states and leading educators from different fields (the role of this Council will be advisory).

Office of Registration of Higher Education Institutions (HEI).

A Committee for Quality Assessment.

- 3. India's higher education system needs to move towards providing the fullest autonomy possible to institutions. Established colleges need to be granted autonomy in order to have greater academic freedom and flexibility.
- 4. The main instrument of enforcing the standards should be quality assessment and ratings/rankings.
- 5. Central government financial contribution to central and state institutions should reward quality (as RUSA currently does). Institutions that keep performing poorly should not receive assistance indefinitely.

Functions of the Office of Registration of HEIs

1. All powers to create new HEI would reside in the HEPC with no role for central or state legislation. The office of Registration of HEIs would help HEPC as follows:

Identify different categories of HEIs to be included in the Register

Formulate transparent criteria for entry of an entity (including foreign entities) into the Register as an HEI under one or more categories

Formulate transparent criteria for existing HEIs to maintain entry in the Register

Specify transparent criteria under which an institution is empowered to grant degrees

Specify transparent criteria under which an institution (whether public or private) may be empowered to authorise another institution to grant a degree in its name

Specify transparent criteria under which a registered institution may use "university" in its title Once an institution is entered as an HEI in the Register, all enforcement should be through a transparent statement by it on its website that it complies with all HEPC regulations.

Any false claims in turn should attract severe penalties

2. Implications of Suggested Functions of the Office of Registration of HEIs:

Give entry to foreign institutions as long as they satisfy the criteria stipulated by the HEPC for the category of listing they seek Allow colleges to be empowered as degree-granting institutions as long as they satisfy the stipulated criteria Impart the power to affiliate colleges based on specified criteria instead of public versus private status of the university

Allow different categories of HEIs (i.e., fully autonomous, partially autonomous, degree-granting, diploma granting, universities, colleges, private, public, and others)



3. Functions of the Committee on Quality Assessment:

The Committee on Quality Assessment will:

Assist the Commission to determine whether an applicant for registration satisfies the quality standards

Help the Commission to determine if the existing institutions meet quality standards

Help the Commission to develop criteria for rating different categories of HEIs Produce research and academic papers on best practices in higher education

Help the Commission identify bodies that may be designated to rate the HEIs in different categories using criteria identified by the Commission

| Strategy | Single Regulator for Education |
|----------|--------------------------------|
| 01 | Attainment Norms |

Strategy Robust Grievance Redressal Mechanism

- There should only be one regulator to define educational norms and standards.
- First stage of grievance redressal should be within institutions themselves.

- Regulatory authority should define norms and standards, ensure implementation, approvals, and outcome attainment. The role of Professional Councils should be to provide feedback to the Regulatory Authority based on attainment of student learning outcome data.
- 7 This can also be displayed online through the website or MIS.

Funding responsibility should be part of the regulatory structure to make universities comply.

O3 Grievance redressal should be made simple and time-bound.

The above mentioned suggestions should be followed for all disciplines.

Appeals related to filed complaints will be in the purview of the Court.

Grievance redressal mechanism should be applicable to all stakeholders such as faculty, students, community, staff, etc.



Strategy New Institutional Architecture 03

Formation of regional bodies with statutory powers, comprising of representation from state governments.

While Central Commission can prescribe standards within a range, regulation and funding bodies should be formed as separate regional bodies. They should have authority to modify the standards prescribed by the Central Commission.

For funding, the RUSA model should be applicable.

The accreditation cycle should be reduced to three years if any HEI cannot conform to a particular standard in two cycles it should be closed down. Full disclosure should be mandatory.

Strategy Clear Distinction in Role of Accreditation Bodies and Regulatory Entities

- The objective of both regulators and accrediting agencies is the promotion and maintenance of academic standards.
- Accrediting agencies should be independent from the regulatory authority and function an autonomous organisation. There can be representation from regulatory authorities on various bodies of accrediting agencies.
- The role of regulatory authority should be the promotion of academic standards whereas accrediting agencies should have the role of assessment and quality assurance.
- Examine the possibility of promoting discipline-specific multiple accrediting agencies.
- Accreditation strategies of the proposed discipline-specific agency should be in line with international standards.



Strategy 05 Authority of the Regulator to Fund Research

- Large, focussed funding can be done through NRF. They will have the role of providing and monitoring funding.
- Embedded research can be funded by multiple organisations.

- A regulatory body must be allowed to fund research for impact analysis.
- Regulatory bodies should have the power to recommend funding but not in a way that is binding.

Development of National Education and Research Information Platform is crucial for enhancing accountability in the higher education sector. Integrated monitoring platform will provide inputs to various regulatory and monitoring agencies for analysis and transparency.

INDIA @ 75
MISSION 2022

CONCLUSION

The Strategic Framework and Action Plan envisages a Higher Education system that emphasises upon human capital development of India's future generations so that they are capable of competing at a global level. There is a need to examine incentives, legislation, policies, and regulatory frameworks required to create an ecosystem that offers opportunities for advancement through inclusive and quality higher education.

This document serves as a reference guide, complete with action points for planning and implementation of Higher Education reforms in India. The Action Plan also addresses goals and strategies needed for important structural changes within the higher education system. This will equip learners with skills and knowledge needed to fully participate in the economy and society.



ANNEXURE I

Theme 1: Quality Improvement in Non-technical Higher Education. Mandate of UGC: Improve the graduate outcomes for the students – 50% secure access to employment/self-employment or engage themselves in pursuit of higher education.

| Action No. | | Action/Sub-Action | Lead | Timeline |
|---------------|-----------|---|--|----------------------|
| 1 | Generic c | outcomes and programme- specific outcomes | Identification by UGC with help of subject experts/eminent persons | October 2019 |
| 2 | Understa | nd requirements of the Industry | | |
| | 2.a. | Industry Interaction Forum at UGC/AICTE in different regions | | July 2019 |
| | 2.b. | Faculty exchange with Industry. 2 years: Regulation to be brought out | | August 2019 |
| | 2.c. | Developing electives as needed by Industry | UGC/AICTE | listing by July 2019 |

| Action No. | | Action/Sub-Action | Lead | Timeline |
|---------------|------------|--|--------------------------------|-------------------------|
| 3 | Internship | should be made comprehensive/compulsory | | October - December 2019 |
| | 3.a. | Special unit in each college for interacting with local industry and seek internship opportunities | State governments to take lead | July 2019 |
| | 3.b. | Student projects by PSUs/companies | (Sr. EA with Dept. of PE) | |
| | 3.c. | Field studies of various programmes | | |
| 4 | | al/Career Counselling centres/placement cells in all the institutions (1% of budget to be spent on this) | | |
| | 4.a. | Industry takes in as many universities/colleges as possible | | |
| | 4.b. | Self-employment opportunities | | |
| | 4.c. | IT platform for the students to post their CVs and connect to Industry | IIT Kharagpur | July 2019 |
| | 4.d. | Expand the 'digitally for engineers' forum to non-technical courses | | |
| | 4.e. | Aptitude test for all students | eDCIL | July 2019 |
| 5 | | the spirit of innovation, entrepreneurship, and critical thinking among stu- d promote avenues for public display of these skills | | |

National Higher Education Resource Centre

| Action No. | Action/Sub-Action | Lead | Timeline |
|---------------|--|---|------------------|
| 6 | Innovation clubs in all institutions | | |
| | 6.a. Hub & Spoke model for helping all other institutions | MHRD Innovation Cell to be ready by June-August 2019 | June-August 2019 |
| 7 | Start-up cell in all institutions | | |
| | 7.a. Have a promotion programme for institutions | | |
| 8 | Promote critical thinking | | |
| | 8.a. Summer camps | IISER Pune | |
| 9 | Promote link between students and society/industry. 2/3rd of the students engage in socially productive activities during their period of study in higher educational institutions | | |
| | 9.a. Curriculum improvements | | |
| | 9.b. UBA Participation to be broad-based | | |
| 10 | Train at least 75% of the students in essential professional skills such as team work, communication skills, leadership skills, time-management skills, human values, and professional ethics etc. | | |
| | 10.a. TEQIP modules to be shared with all institutions | | |

| Action No. | Action/Sub-Action | Lead | Timeline |
|---------------|--|----------------------------|--------------|
| | 10.b. Funding options to be explored | | |
| 11 | Ensure that unfilled teacher vacancies at any point of time do not exceed 10% of the total sanctioned faculty strength in the institute | | |
| | 11.a. Regulation to be implemented after discussion with State Governments | | |
| | 11.b. Revise the Teacher-Student ratio (1:20) | | |
| | 11.c. Use the adjunct faculty role for Industry experts teaching on sabbatical | | |
| | 11.d. Use SWAYAM where there are vacancies that cannot be filled | | |
| 12 | Ensure 100% of faculty are oriented about emerging trends in their respective domains of knowledge and the kinds of pedagogies that best translate their knowledge to the students | | |
| | 12.a. Role of NRC: SWAYAM courses for 75 subjects | | |
| 13 | Every institution will receive NAAC accreditation with a minimum score of 2.5 by 2022 | UGC to prepare a blueprint | July 2019 |
| 14 | Induction programme for students | UGC to prepare a blueprint | July 2019 |
| 15 | Learning outcome-based curriculum framework; revision of curriculum in regular intervals | Already constituted | October 2019 |
| 16 | Use ICT-based learning tools for effective teaching and learning process | | |

| Action No. | Action/Sub-Action | Lead | Timeline |
|---------------|---|--|-----------|
| 17 | Soft skills for students | | |
| 18 | Social Industry-connect for every institution | | |
| 19 | Examination reforms: Test the concept, and application; exit examinations | UGC Expert Committee | July 2019 |
| 20 | Tracking of student progress after completion of course | | |
| | 20.a. Alumni centres – IT-based solutions | RUSA to develop solution | July 2019 |
| 21 | Induction training for all new teachers, and annual refresher training for all teachers: Role of the NRCs; and mandatory leadership/management training for all educational administrators. | Modalities to be worked out for scale-up by PMMMTT | |
| 22 | Promote quality research by faculty and the creation of new knowledge. | | |
| | 22.a IMPRINT and such programmes to be extended to all HEIs | | |
| | 22.b. Social science research | | |
| | 22.c. Expansion of GIAN to all HEIs | | |

Theme 2: Quality Improvement in Technical Institutions: Mandate of AICTE

| Action No. | Action/Sub-Action | Lead | Timeline |
|---------------|--|------|----------|
| 1 | Preparation of perspective plan for future for technical education | | |
| 2 | Research and innovation cells in every institute | | |
| 3 | Examination reforms based on outcome- based assessment | | |
| 4 | Revision of curriculum once in every three years | | |
| 5 | Mandatory internship for six months for every graduate | | |
| 6 | Mandatory 3-week induction program for newly admitted students | | |
| 7 | Mandatory teacher training for newly recruited teachers through SWAYAM | | |
| 8 | Start-up and innovation cells in every institute | | |
| 9 | Mandatory industry institute cells for enhancing employability | | |

National Higher Education Resource Centre 64

Theme 3: Regulatory Reforms

| Action No. | Action/Sub-Action | Lead | Timeline |
|---------------|---|-----------------------------------|-------------------------|
| 1 | Allow for only quality higher education institutions to be established in the country | | October - December 2019 |
| 2 | Promote quality and maintain standards of HEIs | | |
| 3 | Facilitate excellence and scholarship in teaching, research, and innovation | | |
| 4 | Protect the interests of students both in terms of academic and career progression | | |
| 5 | Mentor institutions to improve quality standards | | |
| 6 | Graded penalty for non-conformity | | |
| 7 | Institutional architecture: From Control to Enabler and Facilitator | | |
| 8 | Revision of UGC ACT | Joint Secretary, Higher Education | July 2019 |

