



# **AKHIL BHARTIYA SHIKSHA SAMAGAM OUTCOME DOCUMENT**

**JULY 2024**  
**GOVERNMENT OF INDIA**

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## Introduction

On the occasion of 4<sup>th</sup> Anniversary of announcement of NEP, 2020, Akhil Bhartiya Shiksha Samagam 2024 on 29.07.2024 was held covering various aspects of education.

The objective was to brainstorm and identify various approaches and methodologies to implement NEP, 2020; effectively articulate the roadmap and implementation strategies, fostering knowledge exchange, discuss challenges; provide a common platform for all stakeholders to come together and network for effective, smooth, and timely implementation of the NEP 2020; and to deliberate, and share best practices for the implementation of NEP, 2020.

In furtherance of the above objective, after the inaugural session on 29.07.2024, six thematic sessions on various themes including three of higher education were held led by eminent and distinguished panelists from amongst the academicians, researchers, policy makers, regulators, industry experts / representatives, Officers of GoI / State & UT Governments etc.

## Sessions Outcome

### Thematic Session: 1

#### Importance of Sustainability in Education Curriculum, Job Prospects, Industry-Academia Collaboration

**Time:** 11.00 AM – 12.30 PM

**Venue:** Exhibition Hall (Upper), Manekshaw Centre, New Delhi

The session on “*Importance of Sustainability into Educational Curriculum, Job Prospects, Industry-Academia Collaboration*” delved into the implications of sustainability education on job prospects and the crucial role of industry-academia collaboration in fostering a sustainable future.

### Name of the panelists

- (i) Prof. M. Jagadesh Kumar, Chairman, University Grants Commission (Moderator)
- (ii) Prof Rangan Banerjee, Director, Indian Institute of Technology Delhi (Panellist & Keynote Speaker)
- (iii) Shri Vikas Rastogi, Pr. Secretary, Higher Education, Maharashtra (Panellist)
- (iv) Prof. T. G. Sitharam, Chairman, All India Council for Technical Education (Panellist)
- (v) Shri P. M. Prasad, CMD, Coal India Limited (Panellist)
- (vi) Prof. Neelima Gupta, Vice Chancellor, Dr. Harisingh Gaur Vishwavidyalaya, Sagar (Panellist)

Key discussion points and actionable recommendations for the way forward are presented below in detail.

### a) Key discussion points

The eminent speakers highlighted several key concerns, which included:

- (i) The prevailing isolation of academia from industry and broader societal concerns has resulted in educational programs frequently needing more relevance to real-world needs and demands. This non-alignment stems from the limited interaction and collaboration

between these key stakeholders, hindering curricula development that effectively addresses society and industry's complex challenges.

- (ii) The National Education Policy 2020 (NEP 2020) promote closer collaboration between academia and industry, empowering students with practical skills applicable to real-world industrial challenges. Through increased interaction with industry professionals, students are better prepared to make informed decisions regarding goods and services, effectively addressing operational complexities. This integration of academic and industrial insights cultivates a workforce capable of tackling diverse challenges in a dynamic global landscape.
- (iii) Alongside fostering industry-academia collaboration, there's a growing need to emphasise innovation, start-ups, and new business models in education, which can be achieved by incorporating entrepreneurial concepts into curricula and encouraging creative problem-solving among students.
- (iv) A deeper collaboration between industry and academia at all levels of Higher Education Institutions is vital. By jointly addressing industry-specific challenges, targeted training programs can be developed to equip students with skills directly applicable to real-world scenarios.
- (v) India's rapidly growing working-age population requires a coordinated effort to ensure meaningful employment opportunities. Policymakers, educators, and industry leaders must collaborate to bridge the gap between the supply of skilled individuals and the demand for their expertise. It involves creating job-friendly policies, tailoring education to industry needs, and actively engaging in skill development initiatives. Only through this united approach can India fully capitalise on its demographic dividend.
- (vi) Successful collaboration between academia and industry can manifest in various ways, from industry-led initiatives to joint value creation. However, only some approaches guarantee success. A comprehensive strategy integrating multiple models is essential to achieve optimal outcomes. Partial or fragmented efforts may need to fully address the complex challenges and opportunities at the intersection of education and industry.
- (vii) We have built a future we want where everyone is happy and healthy and contributes to society's development. As the world population grows, individuals will like to access clean and cheap energy in the food and water sectors, access to good education, etc. Human activities have constantly exploited nature to achieve economic goals, which has caused severe environmental degradation and damage to biodiversity.
- (viii) Major concerns today, such as climate change and greenhouse gases, significantly impact human lives. The stable temperatures experienced in the Holocene have now changed into the situation of the Anthropocene due to changes caused by human acts.
- (ix) The use of coal and other non-renewable means of energy, along with different gases, is leading to changes in climate, and rising temperatures are a classic case of the tragedy of joint impact felt on the globe.
- (x) The future of jobs lies in the sustainability sphere, as per a recent report of the World Economic Forum.
- (xi) Smaller countries have been able to keep their rivers clean, but India still needs to implement critical acts such as the Forests Rights Act and Environment Act. Thus, the effect of such policies will take time to be fully implemented as consciousness grows eventually.
- (xii) Business responsibility for sustainable practices is slowly becoming an essential aspect of the business world, but it is becoming a critical element in all business discourses.

- (xiii) Over the years, deforestation has occurred due to individual and commercial factors. Policies that target sustainability in businesses and education will eventually address the concern of sustainability.
- (xiv) A critical concern in an increasingly unsustainable world is the potential for an academic-industry linkage that incorporates engagement with communities to address their immediate needs.
- (xv) The rising concern centres around the necessity for increased student job opportunities, attributed to their insufficient preparedness for the professional world. To tackle this issue, fostering more collaboration with the industry is imperative to jointly develop programs that improve students' employability and support sustainability efforts.
- (xvi) Indian scriptures mention living in harmony with nature as an integral part of living. Government of India, being a party to the Paris Convention, has been working very actively towards the promises of the Paris Convention, such as creating carbon sinks, changing energy sources to cleaner options, and others. There has been an active focus on using cleaner energy in the electricity sector, transportation sector, building green infrastructure, etc.

#### **b) Suggested Way forward**

The following way forward was discussed during the session:

- (i) Build a balance between the desire to grow the economy and society and live in harmony with nature. Sustainability in living every day should become central to life.
- (ii) The introduction of sustainability concepts should be inculcated from childhood through the school curriculum and higher education institutions so that the ideas are ingrained in life and reflected in everyday life activities.
- (iii) There is need to access job opportunities for curricular changes, introduce new specialised courses on sustainability, minor courses on subjects such as energy, climate change, and water sustainability needs to be introduced, and competitions like hackathons and student challenges need to be organised on campus, initiatives for green campuses, innovative campaigns, as well as competitions like Solar Decathlon India, a student competition for net-zero buildings, ideas for life etc, need to be promoted in campuses.
- (iv) The research environment for innovations and incubations of start-ups focussing on innovative sustainable enterprises need to be promoted, which can also act as incubation centres for sustainability products. An initiative should be to re-train the workforce to use innovative, sustainable materials. For example, IIT Delhi's use of limestone clay as cement is an innovation that could be implemented in the cement industry.
- (v) Incorporation of Artificial Intelligence (AI) for better forecasting, demand response & management, optimal operating strategies & control, optimal scheduling of renewable storage, designer materials and eco-designs are skill sets required for a sustainable future. Redesign the products for energy efficiency, climate adaptation and resilience, and modify behaviour patterns such as promoting work from home, restricting travel, etc.
- (vi) Look into partnerships between academia and industry to collaboratively work to make the industry more sustainable, flexible curriculum and use youth-led stewardship to drive and own programs that bring about sustainable development.

- (vii) There is an urgent need for a symbiotic relationship between academia and industry; Institutes like AICTE and NCTE have introduced courses on the skilled workforce in clean, green and sustainable energy domains. AICTE is creating and promoting net-zero campuses. So far, there are 75 such campuses.
- (viii) Data analysis reveals that the top twenty jobs in the market today are related to sustainability, such as sustainability analysts and managers. Hence, sustainability should not be taught in silos but rather it should be effectuated in every subject/ discipline. Thus, the one-way approach of the education system towards sustainability will need to change.
- (ix) Responsible businesses need to be promoted, such as transporting coal using conveyor belts, not trucks, which are known to cut down emissions. Plantation in previously mined areas should be part of the practice of business responsibility.
- (x) Sustainability has been part of India's ancient knowledge system. This idea needs to be reinforced in education from early childhood. We must be fully aware of what is happening to remain sustainable.
- (xi) Right from school, the idea of sustainability should be introduced. Social sciences should be introduced in science domains for better-educated community building.
- (xii) Community programmes should train our students to become community-friendly individuals. Bhartiya Gyan as part of core courses. Unnat Bharat Abhiyan is being undertaken in all institutions where valuable reports and projects giving suggestions on the role of higher education in community outreach are being emphasised.

## **Thematic Session – 2**

### **Role of HEIs in Promoting STEM & Enhancing GER through Vidyashakti**

**Time:** 01.30 PM – 03.00 PM

**Venue:** Exhibition Hall (Upper), Manekshaw Centre, New Delhi

Department of Higher Education aims to increase STEM enrolment to meet the demands of technologically driven fields by implementing Vidyashakti Scheme. This initiative aims establishing 10,000 Rural Interaction Centres (RICs) over two years, targeting 5,00,000 students from 8th to 12th grade, with special emphasis on participation of female students. The curriculum, developed by IIT Madras, includes practical exercises and simulation software. Higher Education Institutes (HEIs) will act as hubs, with students serving as mentors known as "Shiksha Saarthi." The scheme will use Common Services Centers (CSCs) leveraging their successful educational outreach. IIT Madras will provide ongoing training and support to mentors.

#### **Name of the panelists**

- (i) Prof. V. Kamakoti, Director, IIT Madras (Moderator)
- (ii) Shri P. Nagarajan, Managing Trustee, Open Mentor Trust (Panellist and Keynote Speaker)
- (iii) Shri Himanshu Nagpal, Chief Development Officer, Varanasi (Panellist)
- (iv) Shri Rajender Aekka, South India Secretary, EKAL Gramothan Foundation (Panellist)
- (v) Mrs. R Aruna, Lecturer, SIEMAT AP Samagra Shiksha (Panellist)

Key discussion points and actionable recommendations for the way forward are presented below in detail.

**a) Key discussion points**

- (i) NEP 2020 must address the needs of grassroots communities. While COVID-19 was a brief disruptor, it also paved the way for digital education. Vidyashakti scheme emerged as a product of these disruptions. Under NEP 2020, the goal is to achieve a Gross Enrolment Ratio (GER) in higher education to 50% by 2030.
- (ii) Vidyashakti scheme, implemented by IIT Madras, was started with 5 villages in Tamil Nadu and has now expanded to 504 RICs across India and Sri Lanka.
- (iii) The concerns related to the necessity of addressing the unavailability of consistent and best teachers in villages, weak fundamentals in languages, maths, and science among grades 5-12, and mass migration of teachers leading to zero access to tuition for rural kids were mentioned.
- (iv) The '*Digital Didi*' program has been a successful initiative in empowering rural women and creating jobs by training 3,300 teachers in science and math simulations in Varanasi and Andhra Pradesh and significant improvements have been noted in students' attention spans, retention capacity, and performance in weekly micro assessments.
- (v) Action plan of centralized live online teaching for grades 5-12 in students' mother tongue by using simulation software to demonstrate experiments and virtual labs, in order to enhance students' learning from weekly assessments and track student progress.
- (vi) There lies immense potential in Virtual Reality (VR) sessions and STEM kits to engage students through practice mode.
- (vii) To address educational gaps at Vidyashakti, it is crucial to assess the extent of these gaps comprehensively. The process of evaluation of prevailing scenario involves understanding both students' academic performance in light of their socio-economic backgrounds. Additionally, shifting parental perceptions through awareness and engagement can help break the cycle of poverty by improving educational outcomes.
- (viii) Vidyashakti's Faculty Development Program (FDP) for State HEIs' faculty in the STEM is a significant initiative to enhance the skills and knowledge of educators, which in turn increases students' confidence in HEIs available in their surroundings.
- (ix) The EKAL School initiatives were also discussed, focusing the single-teacher institutions in rural and tribal areas and the EKAL's on Wheel program, which converts buses into mobile computer labs to ensure rural students, including the drop-out children, receive computer literacy.
- (x) EKAL Scheme for Virtual Education and Employment Skills emphasize on the provision of generic maths and science teaching through virtual mode, manual software training for homemaker women, and promotion of employment skills to enable women to work online from their homes.
- (xi) Technology integration, experiential learning, flexibility in curricula, continuous development of teachers and industry collaboration will be key in integration of STEM education adopting a holistic approach.

**b) Suggested way Forward**

- (i) Need for grassroot level engagement through interaction with parents highlighting their role in increasing Gross Enrolment Ratio (GER) in Higher Education.



- (ii) Collaborate with HEIs to significantly boost the GER and foster research and innovation across all HEIs.
- (iii) Utilize initiatives like Vidyashakti to enhance GER by expansion of the number of RICs to cover more villages and ensure every rural child has access to quality education.
- (iv) Showcase, support and scale the 'Digital Didi' program to empower more women and create additional employment opportunities in turn reducing the gender gap.
- (v) Integrating technology in education includes utilizing existing school and village infrastructure to effectively introduce and scale technology interventions. This involves collaborating with Common Services Centres (CSCs) and Village Level Entrepreneur (VLEs) to ensure successful implementation. Additionally, distributing STEM kits and conducting Virtual Reality (VR) sessions will make learning more interactive and engaging for students, enhancing their educational experience.
- (vi) Use technology and AI to collect data and create a database to take informed decisions regarding improvement in GER through the Vidyashakti scheme.
- (vii) Vidyashakti scale-up model aims to expand to 10,000 villages, aspiring for Bharat to become a "Vishwa Guru" (world leader) in education.
- (viii) Integrating STEM education with core disciplinary competencies, fostering innovation skills, and promoting teamwork can collectively enhance overall educational outcomes and significantly contribute to increasing Gross Enrolment Ratio (GER).
- (ix) To attract students, focus should be on joyful learning through bridge courses, making subject-specific repositories available, and integration of Arts and Sports. Establish STEM labs and distribute Do-It-Yourself kits, and connect curriculum to real-world issues. Build confidence with Teaching-Learning Material (TLM) resources, foster societal connections, and provide career guidance and entrepreneurship opportunities.
- (x) Encourage government to launch mission-mode schemes like Vidyashakti to boost GER.

### **Thematic Session: 3**

#### **Role of Ranking and Accreditation in Enhancing Quality**

**Time:** 03.15 PM to 04.45 PM

**Venue:** Exhibition Hall (Upper), Manekshaw Centre, New Delhi

#### **Name of the panelists**

- (i) Prof. Anil Sahasrabuddhe, Chairman, National Educational Technology Forum (Moderator)
- (ii) Prof. Rajnish Kumar, IIT Madras (Panellist & Key Note Speaker)
- (iii) Dr. S. Vaidhyasubramaniam, Vice-Chancellor, SASTRA University, Thanjavur (Panellist)
- (iv) Prof. Ujwala Chakradeo, Vice Chancellor, SNDT Women's University, Mumbai (Panellist)
- (v) Prof. Manoj Kumari Tiwari, Director, IIM Mumbai (Panellist)

Key discussion points and actionable recommendations for the way forward are presented below in detail.

#### **(a) Key discussion points**

- (i) NEP 2020 is bringing transformative reforms in the education sector which is rooted in Indian values, promises benefits for the larger society and humanity.



- (ii) National Assessment and Accreditation Council (NAAC), National Board of Accreditation (NBA) & National Institutional Ranking Framework (NIRF) have significantly contributed in the course of bringing reforms in Higher Education Institutions (HEIs).
- (iii) In 2014, India became a signatory to the Washington Accord, thereby ensuring that Indian degrees within the scope of the Accord are recognized as equivalent globally.
- (iv) NAAC embodies the process of Documentation, Verification and Validation (DVV) by a third party in its accreditation system, including a vast scheme of quantitative parameters and peer visits. NAAC provides accreditation to Universities & HEIs, NBA accredits academic programmes.
- (v) Educational institutions have not yet come forward in large numbers to get accredited, majorly due to fear of receiving lower grades. Among universities, only about 400 out of 1200 have undergone the accreditation process. There are about 50,000 colleges, out of which only 10% have accredited themselves.
- (vi) Accreditation system has undergone an evolutionary process and now after the Radhakrishnan Committee recommendations, the system of Binary Accreditation & Maturity Based Graded Levels is a welcomed reform which will address one of the major reasons for withdrawing from accreditation by allaying educational institutions' fear of poor grades.
- (vii) Dr. Radhakrishnan committee established in January 2016 has been a major milestone in the journey to improve quality of Higher Education in the country. In contrast to the linear progress of grades, the Committee recommended the system of binary accreditation with 11 attributes including parameters such as sustainability, sensitivity towards society, ethics and values, international laws, graduate attributes and professional competencies 4.0.
- (viii) National Institutional Ranking Framework (NIRF) has evolved 13 categories and has now expanded to include open universities, State Universities and Skill Universities.
- (ix) Rank of the educational institutions does not construe power or privileges rather a responsibility to ensure delivering quality education as per exacting standards. NIRF ranks institutions on 5 different parameters including Teaching Learning and Resources (30% weightage), Research and Professional Practice (30% weightage), Graduate Outcomes (20% weightage), Outreach and Inclusivity (10% weightage) and Perception (10% weightage).
- (x) NIRF ranking are useful for educational institutions in assessing and identifying areas of improvement in order to enhance performance; help students to choose institutions that are aligned to their career aspirations having high academic value.
- (xi) Ranking is useful for government and regulatory bodies to formulate policies and allocate resources effectively; high NIRF rankings enhance global reputation of Indian institutions, attract international students, and facilitate international collaborations.
- (xii) NIRF is a comprehensive system, in its contrast, QS scores primarily focus on publications. One of the parameters of QS World University Ranking (WUR) i.e., 'Employer Reputation' largely rely on recall value of the educational institution; to have a high score on this, it requires long-term reputation. Similarly, 'Employment Outcome' parameter is based on alumni impact index adjusted.
- (xiii) Indian universities can also improve their score in ranking through publications, sustainability measures, Faculty Student Ratio etc. Publications in QS WUR are counted for up to 6 years back and their citations in the same time period.
- (xiv) The QS rankings call for "collaborative work with a consistent research collaborator" calculated by the International Research Network (IRN) Index.

- (xv) Dimensions to catalyse process of accreditation involves sensitization through UGC, AICTE, NCTE, Bar Councils etc., enhancing participation, transition from traditional accreditation mechanism to new Binary Accreditation and Maturity Based Graded Levels, conforming with highest global standards, healthy competition between institutions etc.
- (xvi) Focussed initiatives are imperative to address challenges associated with women's participation in education which involves fostering leadership qualities, enhancing decision-making capacities, providing safe learning environment, specialized professional programmes, multidisciplinary education etc. for women's holistic development. At times, challenges pertaining to female enrolment emanate from absence of women-exclusive educational institutions.
- (xvii) Educational institutions in remote locations of the country face many challenges regarding recruiting qualified staff. Generation of funds is also one of the prominent concerns of such educational institutions. Hence, participation of such institutions in ranking and accreditation process becomes restricted.

#### **(b) Suggested way Forward**

- (i) To keep progressing in line with recommendations of NEP 2020, there is need to continually monitor the progress with regard to reforms in higher education, make relevant modifications to attain the benchmarks of quality in education.
- (ii) Non-participation in accreditation process is concerning issue, as eventually, unaccredited educational institutions will lose credibility and have an adverse impact on their goodwill.
- (iii) Already accredited educational institutions can go for Maturity Based Graded Levels; on the contrary, Binary Accreditation is good for educational institutions that have never been accredited. It will facilitate developing institutional plan that will help them analyse where their institution currently stands and where they need to be in next five years.
- (iv) For educational institutions to improve their rankings, they must work towards improving on different parameters of ranking and their sub-parameters during the entire academic year than turn to these in last moment.
- (v) Employer reputation and employment outcome also depends on a university's overall high rank. To score on 'Employer Reputation' and 'Employment Outcome' parameter of QS WUR, it requires a university to consistently have high rank over a period of time.
- (vi) For QS ranking, educational institutions must focus on high quality publications and citations of research papers for the time period of 5-6 years preceding the Ranking period.
- (vii) Educational institutions must engage consistently with the same collaborator and publish papers with them in the period of last three years preceding the Ranking period to strengthen its standing on International Research Network (IRN) Index.
- (viii) Through rigorous faculty training involving national level organizations, instituting incentives for research, consultancy & paper publication, promoting research in regional languages, linking institutions with industries, adequate financial support, waiving off or subsidizing accreditation fees etc., enabling conditions can be created for greater participation of women in education sector, especially in educational institutions located in rural regions.

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