



The National Knowledge Commission: A Blueprint for Higher Education Transformation in India

Adarini Kanjilal Biswas¹, Professor. Prokash Biswas² & Professor. Santanu Biswas³

1. Associate Professor in History, Sarojini Naidu College for Women, adarinibiswas@gmail.com
2. HOD, Department of Education, Jadavpur University, Kolkata, prokashbiswas1974@gmail.com
3. HOD, Department of Education, RKDF University, Ranchi, santanubb@gmail.com

Abstract:

In 2005, India's higher education policy was shaped in large part by the National Knowledge Commission (NKC), which aimed to turn the nation into a knowledge-driven economy. Curriculum development, faculty development, research financing, and accessibility for disadvantaged populations are some of the areas where the NKC has called for changes in higher education, and these suggestions are examined in this study. This research derived deep into implementation of the NKC's recommendations and how they affected India's educational landscape. This study found that there was a lack of empirical assessment of the NKC's reforms, especially in disadvantaged and rural regions, despite the fact that these initiatives aimed to increase inclusion, strengthen institutional capacities, and promote sustainable development. In addition to making policy suggestions for the future, the research helps shed light on the possibilities and threats that India faces as it strives to establish a knowledge economy.

Keywords: *National Knowledge Commission, Higher Education Reforms, Knowledge Economy, Curriculum Design, Accessibility, Marginalized Communities.*

1. Introduction

An historic effort to reinvigorate India's knowledge foundation, especially in the realm of higher education, the National Knowledge Commission (NKC) was set up in 2005 by the Indian government. The National Knowledge Council (NKC), headed by Sam Pitroda—an influential figure in India's telecommunications and technology reforms—sought to resolve issues plaguing the country's educational system that were limiting its social and economic progress. During a time when the world was becoming smaller, the NKC proposed extensive changes to India's educational system, scientific community, and government in an effort to help the country become a more competitive player in the global knowledge economy. The higher education system is vital for promoting innovation and propelling economic advancement; the Commission's measures aimed to make it more accessible, egalitarian, and quality-focused (Pitroda, 2008).

Increasing access, enhancing quality, guaranteeing fairness, and broadening the institutional basis were the four main topics on which the NKC centred its reform proposals for higher education (Shah, 2010).

Expanding access to higher education, particularly for underprivileged and disadvantaged populations, was emphasised by the NKC as a means to produce a workforce proficient in the STEM fields as well as the arts and humanities. The goal of the Commission was to provide educational opportunities for all residents and reduce socioeconomic inequality, and this strategy was in line with that objective. In an effort to bring India's gross enrolment ratio up to par with international norms, NKC pushed for more universities, more vocational schools, and policy changes that would allow for a greater enrolment rate (Deshpande, 2011).

Raising the bar for academic rigour in India's colleges and universities was central to the NKC's report. Outdated curriculum, limited research funding, and unqualified professors were among the quality issues brought to light by the Commission in relation to Indian higher education. In response to these concerns, the NKC called for a dramatic shift in educational priorities, with a renewed emphasis on research-based pedagogy, critical thinking, and interdisciplinary study. Furthermore, in order to promote a culture of excellence and responsibility among universities, the NKC suggested the creation of a regulatory agency to monitor their quality (Jha, 2009).

Reforms to government policymaking were also a focal point of the NKC. The Commission found that more independence, decentralisation, and openness were necessary for the effective administration of India's higher education system. The National Council on Higher Education (NKC) recommended a type of government that encouraged local decision-making and flexibility by giving colleges and universities more leeway in their administrative operations. Depoliticising university management and aligning institutional aims with educational achievements were advocated via the formation of the Independent Regulatory Authority for Higher Education (IRAHE). This suggestion was crucial in changing India's educational system so it could better meet the needs of the country's growing economy and society (Patnaik, 2013).

In the end, the National Knowledge Commission's plan for revamping India's higher education system emphasised a forward-thinking goal of making the country's educational system a powerhouse for innovation and knowledge-based economic development. The National Knowledge Council laid the groundwork for long-term change in Indian higher education policy by emphasising the importance of equitable access, high-quality education, and strong leadership. A future-ready knowledge society is being shaped by the continuing debates and tactics in Indian educational policy, which are guided by the NKC's recommendations (Mishra, 2015), even if many of these suggestions have not been completely implemented.

1.2. Emergence of the Study

Awareness of the importance of education to national development has led to an upsurge in research on improvements in India's higher education system, with organisations like the National Knowledge Commission (NKC) playing a leading role. It became more clear as the new century began that India's higher education system was struggling with issues including uneven access, out-of-date curriculum, ineffective governance, and regional imbalances. Higher education in India has become more popular due to the country's large youth population, yet the current system is ill-equipped to meet the needs of all demographics (Agarwal, 2009). Given this setting, academics, legislators, and school administrators began to consider systemic changes that would improve the standard and applicability of education while also expanding the availability of great schools.

The formation of the NKC in 2005 was a watershed moment in our efforts to comprehend and resolve these complex issues. This Commission was the first of its kind in India; it examined and recommended changes to a wide range of areas, with a particular focus on the production and sharing of new information. Under Sam Pitroda's leadership, the National Knowledge Council (NKC) worked to improve India's educational system by tackling systemic problems and highlighting the importance of universities in building a "knowledge

society.” In order for India to become a formidable competitor in the global knowledge economy, the research-driven approach of the NKC highlighted the need of bringing the country’s educational policy in line with international norms (Pitroda, 2008).

Indian higher education reforms are all the more crucial in light of the world’s trend towards knowledge-based economy. A number of countries were starting to use educational reforms as a tool to boost creativity, economic productivity, and social cohesiveness. India’s leaders saw that if the nation didn’t make major changes to its higher education system, it would fall behind in the global competition. Thus, the NKC’s efforts constituted a coordinated drive to promote universities as a means to a better society and more prosperity. An egalitarian and sustainable educational environment will empower people and strengthen India’s participation in the worldwide arena (Shah, 2010), which is why the Commission focused on accessibility, quality, and governance.

Understanding India’s developmental trajectory now requires research on the country’s higher education reforms, which were started using the NKC’s framework. This research is crucial in light of these new demands and global impacts. Curriculum development, regulatory frameworks, research financing, and institutional autonomy are just a few areas where the NKC’s proposals have had an impactful and lasting influence on educational policy and reform. Educators, legislators, and researchers in India who are striving to make higher education more successful by tailoring it to local requirements and global standards must, therefore, evaluate the NKC’s contributions (Deshpande, 2011).

1.3. The Statement of the Problem

Limited access, quality discrepancies, obsolete curriculum, and governance inefficiencies are some of the recurrent difficulties within India’s higher education system that this research aims to solve. These factors prevent the country from properly utilising its demographic potential. The creation of a higher education environment that is equal, of good quality, and competitive on a global scale is still a long way off, despite India’s best attempts to improve its educational infrastructure. No one knows how much of an impact the National Knowledge Commission’s (NKC) suggestions have had on improving India’s higher education system, despite the fact that it was set up to deal with these serious problems. Examining the achievements and failures of the NKC’s efforts to modernise India’s higher education system in light of national and international benchmarks, this research aims to draw conclusions about the efficacy and influence of these reforms.

1.4. The Need and Significance of the Study

Since India’s higher education system is still struggling with problems including accessibility, quality, equality, and governance, it is imperative that the National Knowledge Commission’s (NKC) involvement in the reform of this sector be thoroughly investigated. India has to build a university system that can encourage creativity, analysis, and top-notch research if it wants to become a knowledge-driven economy. The potential demographic dividend that India may get from its large youth population is jeopardised in the absence of a strong educational system. To fill these gaps and provide a model for the future of higher education in India, the NKC was founded. To understand the significance and usefulness of the NKC’s recommendations in influencing policies that improve educational results and conform to global standards, this research is crucial, since there has been little academic assessment of the NKC’s long-term effects and efficacy (Agarwal, 2009).

This research is important because it can help evaluate the NKC’s impact and find places where reform needs to be sustained, which may then drive policy choices about higher education in India. In today’s interconnected world, where knowledge economies are growing at a fast pace, this study takes on further

significance as countries seek to attract and retain top talent by funding accessible, flexible, and high-quality higher education systems. This research intends to provide the groundwork for future policy approaches that might enhance the impact of higher education as a catalyst for socioeconomic development in India by evaluating the merits and shortcomings of the NKC's framework. Further, by providing insights that other developing countries may use to pursue knowledge-based development strategies, this study will add to the larger conversation about educational reform (Deshpande, 2011).

1.5. The Research Questions

1. What role has the National Knowledge Commission (NKC) played in shaping higher education reforms in India?
2. How have NKC-driven reforms influenced the accessibility and inclusivity of higher education in India, particularly for marginalized communities?
3. What changes in curriculum design, research funding, and faculty development have resulted from the NKC's recommendations, and how have these changes impacted the quality of higher education?

1.6. The Objectives of the Study

1. To analyze the role and impact of the National Knowledge Commission (NKC) in shaping higher education reforms in India.
2. To examine the influence of NKC-driven reforms on the accessibility and inclusivity of higher education in India.
3. To assess the changes in curriculum design, research funding, and faculty development as proposed by the NKC.

2. The Review of Related Literature

Dutta, N. (2023). Commissions and Policies in Teacher Education. In *Teaching and Teacher Education In India: Perspectives, Concerns And Trends* (Pp. 85-120). In response to specific requests, the National Council of Teacher Education (NCTE) in India revised the functional part of teacher education and extended the length of the program in 2014. A four-year Integrated Teacher Education Programme was one of several suggestions made to enhance the quality of teacher preparation in the most recent New Education Policy. What we do know is that many of the recommendations made by numerous commissions, committees, and policy documents to enhance teacher education have not yet been implemented, regardless of how the recent policy change is expected to impact the field in the coming years. This section provides a high-level overview of the relevant Commissions and Policies pertaining to teacher education.

Mathew, A. (2015). Commissions and committees on higher education in India: Perspectives and recommendations on major issues. Increases in the number of Indian university students are the subject of this chapter. It compares the state of Indian higher education in relation to gross enrolment rates (GERs) with that of some developed and surrounding nations and provides an outline of the expansion of institutions and enrolment in the pre- and post-independence eras. The chapter also provides an overview of how Indian universities have been privatised. In order to spread Western education in India, the British set up a system of schools and colleges using English as the medium of teaching. This was the beginning of contemporary Indian higher education. An improvement in data gathering from both standalone institutions and open and distant learning (ODL) programs has contributed to the remarkable increase in enrolment in recent years.

Parliament or state legislatures create universities and institutions of national importance, or the University Grants Commission recognises them as deemed-to-be universities.

Bhatia, K., & Dash, M. K. (2010). National knowledge commission—A step towards India’s higher education reforms on India’s higher education. It will be known as the “Knowledge Century” in the twenty-first century. Knowledge will play a crucial role in the 21st century economic and social change of India. The basis of an inclusive society can only be provided by knowledge. This article details Prime Minister Dr. Manmohan Singh’s plan to transform India’s economy into a knowledge economy via changes to the country’s educational system. The Knowledge Commission has proposed innovative strategies to strengthen India’s economic “knowledge base” and tap into the country’s enormous untapped potential. Through improving access to information, revitalising institutions that teach knowledge concepts, establishing a world-class environment for knowledge creation, promoting knowledge applications for inclusive and sustainable growth, and efficiently delivering public spaces, India aspires to be the leading knowledge economy in the world.

Nagaraj, K. V. (2013). ICT and Knowledge Economy: An Indian Contour of Polarities. Fair distribution of wealth and equitable access to natural resources are developing nations’ top priorities. There are a number of committees in India that work to determine who is living below the poverty line and then devise plans to aid them. Individuals residing in rural areas are assured of gainful work for a minimum of one hundred days annually via the Mahatma Gandhi National Rural work Guarantee Scheme. Displacement of rural residents to cities and “fields to factories” was a necessary evil in the West’s shift from an agrarian to an industrial civilisation. In contrast to the West, Indians have a deep connection to their farms. This clearly indicates a pattern of opposition activities in several states against the acquisition of land for industrial reasons. In this light, it is impossible to deny that people’s way of life has changed dramatically as a result of the tremendous advances in science and technology. The information society has supplanted the industrial society in the Western Hemisphere and, in the East, in Japan and South Korea, thanks to technological advancements. Additionally, the shift from an agrarian to an industrial economy is slower than the shift from an information to a knowledge economy. The goal of transforming nations into information societies was outlined at the Tunis World Summit on the Information Society. Eighty-four percent, or 161 economies, achieved this aim, bringing them one step closer to their goal of building a knowledge planet.

2.1. The Research Gap of the Study:

There were noticeable lack of research that assesses the practical effects and efficacy of the changes proposed by the National Knowledge Commission (NKC) to turn India’s university system into a knowledge economy. There were lack of empirical research that evaluates the implementation of the NKC’s strategies across diverse Indian institutions, particularly in rural and marginalised areas. The strategies included expanding access to information, encouraging world-class knowledge creation, and promoting inclusive growth. Concerning the direct influence on academic results and India’s international position in higher education, there is a dearth of studies that examine the long-term consequences of NKC’s policies on curriculum creation, faculty training, and research financing. In addition, the NKC has brought attention to the fact that there has been a lack of research on the ways in which technology developments impact innovation, education, and learning in the Indian setting, as well as the ways in which these developments interact with knowledge economy policies.

3. The Methodology of the Study:

Analysing and interpreting textual, visual, or auditory information for patterns, themes, and meanings is the goal of content analysis, a methodical and objective research approach. In order to extract useful

information, it entails sorting stuff into categories according to established standards. In this research, a variety of documents, reports, and policy papers pertaining to the National Knowledge Commission (NKC) and its influence on changes in India's higher education system will be examined through the lens of content analysis. Examining how the NKC reforms affected areas such as faculty development, research financing, curriculum design, and the accessibility and inclusiveness of higher education is the goal of this comprehensive analysis.

4. The Analysis and Interpretation:

Pertaining to Objective 1:

O1: To analyze the role and impact of the National Knowledge Commission (NKC) in shaping higher education reforms in India.

In an effort to reinvigorate and modernise a sector deemed essential to India's socio-economic and technical growth, the National Knowledge Commission (NKC) has been instrumental in influencing changes in India's higher education system. The National Knowledge Council (NKC) was set up in 2005 by Prime Minister Dr. Manmohan Singh with the aim of transforming India into a knowledge-based economy by resolving the problems with education, governance, and structural issues. Critics said that India's new system of higher education would be too bureaucratic, inadequately controlled, and unexclusive when it first came out (Pitroda, 2008).

The emphasis on accessibility was a key component of NKC's contributions. In order to increase access for students from all socioeconomic levels, the NKC suggested that India open more universities and colleges, since the country's gross enrolment ratio (GER) in this sector is below international norms. The goal of this program was to increase access to opportunities for underserved people, particularly those in rural areas, women, and those with lower incomes (Agarwal, 2009). To handle the country's youthful population, the Commission pushed for a massive expansion of the GER's institutional infrastructure and set lofty goals for its expansion (Deshpande, 2011).

The NKC also put a lot of effort on improving quality. Outmoded curriculum, poor research facilities, and restricted faculty credentials, according to the Commission, hinder a competitive higher education system. In response to these concerns, the NKC pushed for a curriculum overhaul that would emphasise critical thinking and multidisciplinary study. More investment in training programs and more money for research are two things the NKC has stressed as being necessary to raise the level of competence among faculty members. The goal of these suggestions was to create a school system that could turn out graduates who were prepared to work in a global information economy—skilled and flexible (Shah, 2010). In order to promote efficiency, openness, and institutional autonomy in higher education, the NKC also acknowledged the need of governance reform. To independently supervise and govern higher education institutions, it suggested establishing an Independent Regulatory Authority for Higher Education (IRAHE). Proposed as a means to increase institutional accountability and competitiveness, this organisation would prevent political meddling and provide uniform standards across institutions (Patnaik, 2013). Although there are still obstacles to adopting these governance changes, some Indian institutions have followed the NKC's advice and implemented policies that seek to increase administrative autonomy and flexibility (Mishra, 2015).

To sum up, the NKC has tackled important problems with governance, quality, and accessibility as part of its extensive involvement in the reform of higher education. In order to achieve inclusive and sustainable growth, the NKC aimed to establish a new educational model in India by focussing on expanding higher education institutions, updating curricula, funding research, and establishing autonomous governance

structures (Pitroda, 2008; Deshpande, 2011). The NKC's efforts have had a long-lasting effect on India's higher education policy, even if its recommendations have not yet been fully implemented.

Pertaining to Objective 2:

O2: To examine the influence of NKC-driven reforms on the accessibility and inclusivity of higher education in India.

When it came to improving access and inclusion in India's higher education sector, the National Knowledge Commission (NKC) accomplished a lot, especially for under-represented groups. The NKC prioritised addressing the growing disparity in educational opportunities for under-represented groups, including as women, those from rural regions, and those from economically poor backgrounds. To improve accessibility, the Commission found that it was necessary to go beyond the sheer number of institutions in India and make sure that each one was warm and inviting, accommodating to all kinds of people and their unique requirements.

Making More People Able to Attend College:

The NKC emphasised the importance of expanding access to higher education throughout India, particularly in rural and underserved regions. Significant geographical obstacles to accessing higher education existed at the time of the NKC's founding due to the small number of institutions in rural and semi-urban areas. The NKC's goal was to level the playing field in terms of educational possibilities by pushing for the establishment of new colleges and universities, especially in less populous areas (Ghosh, 2008). The expansion's stated purpose was to reduce the geographic distance between rural communities and institutions of higher learning so that students from less densely populated regions may reach their educational and occupational objectives without leaving their home towns.

Raising the Gross Enrolment Ratio (GER) to meet international benchmarks is another priority, according to the NKC. The NKC urged action to increase access to higher education in India, particularly for economically disadvantaged and marginalised communities, despite the fact that the country's GER in this area is lower than that of many industrialised countries (Agarwal, 2009). In addition, the Commission suggested that affirmative action policies, financial assistance programs, and specialised scholarships be established to help students from economically disadvantaged sectors, Scheduled Castes, and Scheduled Tribes. These programs aimed to level the playing field in terms of access to educational resources by bringing together people from diverse socioeconomic backgrounds (Deshpande, 2011).

Advancement of Gender Equality:

The NKC's changes also sought to make a big splash in the area of gender inclusion. In India, gender inequality in higher education persisted even after the country made great gains in female literacy and enrolment in elementary and secondary schools. The NKC acknowledged that female students encountered distinct obstacles, including worries about their safety, a lack of available resources, and cultural norms that often curbed their educational and occupational opportunities. In response, the Commission pushed for more gender-sensitive policies at schools, including female-only dorms and scholarships, as well as improved campus transportation and safety measures. As a result, fewer women would be afraid to go to college because of the possibility of harassment or assault (Chowdhury & Saha, 2013). In addition, the NKC advocated for measures that would help women break into the male-dominated technical and professional sectors. It urged the establishment of specialised educational and occupational programs for women, with an emphasis on STEM (science, technology, engineering, and mathematics)

disciplines. These initiatives sought to remedy the gender gap in higher education by increasing female participation in under-represented fields (Mitra & Bhowmick, 2012).

Engaging Under-represented Communities:

The NKC stressed the need of establishing a welcoming school climate that valued and acknowledged social diversity as a means of assisting historically oppressed groups. The Commission urged educational institutions to provide financial help, mentoring, and individualised academic support services to students from SC, ST, and OBC backgrounds so that they may fully participate in the educational process. For students from under-represented groups to get the social, emotional, and intellectual assistance they need to thrive in college, the NKC pushed for the creation of specialised centres for social inclusion on college campuses (Bhattacharya, 2014).

Furthermore, the NKC underlined the need of bolstering representation in governance bodies that oversee higher education. It advocated for the inclusion of under-represented groups in policymaking via the creation of inclusive institutional practices. The NKC's goal in including these groups in school administration and curriculum was to create a setting where all students felt safe to express themselves and succeed (Rao, 2010).

Obstacles and Persistent Deficits:

In spite of these bold changes, there have been obstacles to implementing NKC's suggestions, and access and inclusion gaps still exist. While it's true that more colleges and universities are opening their doors to more people, some say that problems like rural areas' lack of infrastructure, students' lack of financial aid, and social barriers like gender bias and caste discrimination prevent the NKC from fully realising its inclusive vision. Scholarships and other forms of financial help have grown in quantity, but they still fall short of meeting the needs of many, especially those from under-represented communities (Subramanian, 2017).

Higher education in India is now more accessible and inclusive, because to the changes implemented by the NKC. This is particularly true for under-represented groups. A more welcoming atmosphere at universities was one result of the NKC's efforts to promote institution growth, promote gender-sensitive policies, and push for social inclusion. Nevertheless, there are still obstacles to achieving these goals, and we must keep working to remove those that stem from a lack of resources, prejudice, and proper infrastructure. Any future changes to India's educational system must build on the NKC's ground-breaking efforts.

Pertaining to Objective 3:

O3: To assess the changes in curriculum design, research funding, and faculty development as proposed by the NKC.

By proposing extensive reforms to research financing, faculty development, and course design, the National Knowledge Commission (NKC) had a profound effect on India's university system. Outdated curriculum, insufficient research infrastructure, and under qualified faculty members were some of the major problems that these changes attempted to address. The NKC aimed to raise the bar for India's higher education system and guarantee that it could have a positive impact on the country's economy and society by concentrating on these areas.

Modifications to the Course Outline:

Redesigning India's university curricula was a top suggestion from the NKC. Many felt that the curriculum of India's then-new higher education system were too traditional and ill-suited to the needs of the modern,

information-based economy when it was first established. The NKC came to the realisation that a more adaptable, multidisciplinary, and dynamic curricular framework was required to replace the old-fashioned method of teaching. Instead of focussing on memorisation, the Commission pushed for a change in the educational system that encouraged analysis, originality, and problem-solving (Shah, 2010).

The National Knowledge Council emphasised the need of routinely revising educational programs to reflect changes in knowledge and practice in the business world. The necessity of providing students with opportunities to apply what they learn in the classroom to real-world situations was also highlighted (Agarwal, 2009). Interdisciplinary programs, which allow students to explore other areas of study and inspire creativity, were also supported by the NKC (Deshpande, 2011). Among the significant changes in curriculum design that came about as a consequence of NKC's suggestions are the addition of optional courses, a stronger focus on research-based learning, and a departure from a lecture-based approach to learning that included case studies, group work, and experiential learning.

Funding for Research Shifts:

Recognising that India's universities were confronting substantial obstacles in doing high-quality research, the NKC also heavily emphasised increasing financing for research. Indian institutions were underfunded when the Commission made its recommendations, and research often lacked the funding, infrastructure, and institutional backing it needed to compete on a global scale (Deshpande, 2011). Public funding for research should be increased, according to the NKC, with a focus on STEM fields (science, technology, engineering, and mathematics) and the social sciences, which are considered to be of great national significance.

New research financing agencies, such the University Grants Commission (UGC) and the Indian Council of Social Science Research (ICSSR), were suggested by the NKC, along with the extension of current ones. These organisations were given the responsibility of funding research initiatives, PhD scholarships, and postdoctoral research. Universities are encouraged to collaborate closely with private sector enterprises to promote innovation and commercialise research discoveries, as the NKC pushed for incentives to encourage industry-academic cooperation (Mitra&Bhowmick, 2012). These suggestions led to a rise in research funding, which has allowed Indian institutions to better support research projects and encourage a spirit of creativity.

Furthermore, the NKC emphasised that Indian universities should prioritise quality over number while doing research. The report urged Indian universities to publish in prestigious foreign journals so that their research will be better known throughout the world (Rao, 2010).

Training for Teachers:

One of the most important goals of the NKC was to support faculty growth. The Commission recognised that there was a dearth of competent, well-prepared professors in India's university system. Inadequate access to CPD opportunities and a lack of advanced degrees made it difficult for many faculty members to provide students with excellent instruction and conduct innovative research.

In response, the NKC suggested that universities establish specialised training and development centres as part of a larger program to support faculty growth. According to Pitroda (2008), these centres would help teachers enhance their pedagogical abilities so they can better engage students and make learning better for everyone. Faculty members should have continuous opportunity to improve their abilities in areas like research methodology, curriculum design, and the use of technology in education. The Commission also supported the creation of a national-level faculty development agency to achieve just that.

More competitive compensation plans and stronger incentives for faculty members to participate in research and professional development were also suggested by the NKC. Academic freedom, less bureaucratic restrictions, and faculty members' access to resources and autonomy for high-quality research were all suggested as ways to improve institutions' academic and professional environments (Shah, 2010).

Effects on University Quality:

There have been improvements to India's higher education system as a consequence of the NKC's recommendations, but there are still obstacles to overcome. Education is now more adaptable and industry-focused thanks to curriculum revisions, which have also improved students' readiness for the workforce by placing a premium on interdisciplinary courses and practical skills. The NKC has contributed to a more vibrant and interesting learning environment by promoting creative pedagogical practices and incorporating research-driven learning (Deshpande, 2011).

Indian institutions are now more competitive on the world academic stage because to an increase in research output made possible by increased financing. Innovation in India has been boosted by research funding programs, which have helped establish centres of excellence in several fields. Even if funding has gone up, it's still hard to close the research capability gap between top universities and everyone else (Mitra & Bhowmick, 2012).

Improving faculty members' research and teaching skills has been a major goal of the faculty development programs suggested by the NKC. Nevertheless, many institutions have been sluggish to fully implement these changes, and problems including insufficient institutional support, poor teacher preparation, and a lack of incentives are still present (Rao, 2010). In spite of these obstacles, the reforms have improved the quality of instruction and research, and their future execution will set the bar even higher for India's higher education system.

The quality of India's higher education has been greatly enhanced by implementing NKC's suggestions about faculty development, research financing, and curriculum design. There have been some good results, but these changes will not be fully realised unless there is institutional commitment, consistent policymaking, and ongoing investment. If India wants to continue developing and competing in the global knowledge economy, it must prioritise making its higher education system more accessible, research-driven, and dynamic.

5. Conclusion

The National Knowledge Commission (NKC) has played a pivotal role in shaping higher education reforms in India, aiming to create a more dynamic, inclusive, and research-oriented educational landscape. Through its comprehensive set of recommendations focused on curriculum design, research funding, and faculty development, the NKC sought to address critical gaps in the Indian higher education system and enhance the overall quality of education. The emphasis on flexible and interdisciplinary curricula, increased investment in research, and improvements in faculty training and development have contributed to making higher education more accessible, relevant, and capable of fostering innovation and competitiveness on a global scale. The National Knowledge Commission (NKC) played a transformative role in shaping the trajectory of higher education reforms in India. By addressing key issues such as outdated curricula, inadequate research funding, and under qualified faculty, the NKC provided a comprehensive framework for revitalizing the Indian higher education system. The Commission's recommendations were pivotal in introducing significant changes in curriculum design, fostering interdisciplinary learning, enhancing practical skills, and promoting research-driven education. It also prioritized inclusivity and accessibility, particularly for marginalized communities, aiming to bridge the gap between elite and underserved institutions.

In the areas of research funding and faculty development, the NKC's reforms have laid the groundwork for improving India's global standing in higher education. Increased financial support for research, coupled with a focus on faculty training and development, has enhanced the quality of education and research outputs across the country. While challenges in the complete implementation of these reforms remain, particularly in terms of equitable distribution and consistency across institutions, the progress made so far is noteworthy.

Ultimately, the NKC's vision for higher education was aimed at making Indian institutions globally competitive, fostering innovation, and improving the overall quality of education. The changes in curriculum, research funding, and faculty development have set the stage for further advancements, but sustained efforts, investment, and political will are necessary for these reforms to be fully realized. The NKC's contributions have been invaluable in shaping India's higher education landscape, but there remains a need for continued policy interventions to address emerging challenges and further enhance the quality and inclusivity of education in the country.

References:

- Acharya A., Samanta, A., Maity, A., Pal, D., Ghosh, A., Gupta, A., and Saha. R. (2024). Green Synthesis of Silver Nanoparticles from *Sarcochlamyspulcherrima*: Enhanced Antimicrobial and Anti-biofilm Activity. Proceedings of 2nd International Conference on Modern Tools and Approaches in the Emerging Field of Pharmaceutical and Biomedical Research 20-22, Nov 2024. 17(1): pp 219.
- Arun Maity & Asis Kumar Dandapat (2016) Higher Education In India: A Study On Two States, *Gurukul International Multidisciplinary Research Journal (GIMRJ)*, Vol-6 Issue-2.
- Bhatia, K., & Dash, M. K. (2010). National knowledge commission—A step towards India's higher education reforms on India's higher education. *Knowledge Economy and Society*, 12(3), 35-50.
- Biswas, S. (2014). Role of ICT improving the Quality of School Education in India. *Gurukul International Multidisciplinary Research Journal (GIMRJ)*. 2014. 1(1). 168-173.
- Biswas, S. (2015). Parents Responses about Juvenile Delinquency of School going Teenagers. *Gurukul International Multidisciplinary Research Journal (GIMRJ)*. 2015. 1(3). 62-65.
- Biswas, S. (2016). Educational Dynamics in West Bengal: A Holistic Examination. *Gurukul International Multidisciplinary Research Journal (GIMRJ)*. 2016. 6(3). 319-325.
- Biswas, S. (2022). An Assessment of the needs of First-Generation College Girls Students. *International Journal of Trend in Scientific Research and Development (IJTSRD)*. 2022. 6(6). 2305-2308.
- Biswas, s. (2022). Constraints of the First Generation College Girls Students: A Survey. *International Journal of Trend in Scientific Research and Development (IJTSRD)*. 2022. 6(7). 2277-2280.
- Biswas, S. A (2016). Study on Probable Causes of Dropout and Retention of Tribal Children in Secondary Level. *International Journal of Trends in Scientific Research and Development*. 1(1), 237 – 240.
- Biswas, S; (2016). Inclusion of Socio-Economically Disadvantaged Groups Children in the inclusive School Education. *Gurukul International Multidisciplinary Research Journal (GIMRJ)*. 2016. 6(2). 209 - 2014.

- Daripa, S., Khawas, K., Behere, R. P., Verma, R., Kuila, B. K. (2021). Efficient Moisture-Induced Energy Harvesting from Water-Soluble Conjugated Block Copolymer-Functionalized Reduced Graphene Oxide. *ACS Omega*, 6, 7257-7265.
- Daripa, S., Khawas, K., Sharma, A., Kumar, A., Pal, B., Das, S., Jit, S. K. & Kuila, B. K. (2020). Simple and Direct Synthetic Route to a Rod-Coil Conjugated Block Copolymer either from Rod or Coil Block using a Single Bi-Functional Initiator, Solvent Dependent Self-Assembly and Field Effect Mobility Study. *ACS Applied Polymer Materials*, 2, 1283-1293.
- Daripa, S., Khawas, K., Das, S., Dey, R. K. & Kuila, B. K. (2019). Aligned Proton Conducting Graphene Sheets via Block Copolymer Supramolecular Assembly and Their Application for Highly Transparent Moisture Sensing Conductive Coating. *Chemistry Select, C*, 4, 7523 -7531.
- Dutta, N. (2023). Commissions and policies in teacher education. In *Teaching and teacher education in India: Perspectives, concerns and trends* (pp. 85-120). Springer.
- Khawas K., Daripa, S.; Kumari, P. & Kuila, B. K. (2018). Electrochemical and Electronic Properties of Transparent Coating from Highly Solution Processable Graphene Using Block Copolymer Supramolecular Assembly: *Application toward Metal Ion Sensing and Resistive Switching Memory*. *ACS Omega*, 3, 7106- 7116.
- Khawas K., Daripa, S.; Kumari, P., Bera, M. K., Malik, S. & Kuila, B. K. (2019). Simple Synthesis of End Functionalized Regioregular Poly(3-Hexyl thiophene) by Catalytic-Initiated Kumada Catalyst Transfer Polymerization. *Journal of Polymer Science, Part A: Polymer Chemistry*, 57, 945- 951.
- Khawas, K., Kumari, P., Daripa, S., Oraon, R. & Kuila, B. K. (2017). Hierarchical Polyaniline-MnO₂-Reduced Graphene Oxide Ternary Nanostructures with Whiskers-Like Polyaniline for Supercapacitor Application. *Chemistry Select*, 1, 1 –8.
- Khawas, K., Daripa, S. Kumari, P., Das, S., Dey, R. K. & Kuila, B. K. (2019). Highly Water-Soluble Rod–Coil Conjugated Block Copolymer for Efficient Humidity Sensor. *Macromol. Chem. Phys*, 220, 1900013 (1-12).
- Kumari, M & Biswas, S. (2023). Sustainable Strategies for Digital transformation in Higher Education: A Global Perspective. *Gurukul International Multidisciplinary Research Journal (GIMRJ)*. 11(3/2). 2023. 50-61.
- Kumari, M & Biswas, S. (2023). A Qualitative Study on the Globalization of Higher Education: Trends and Implications. *Gurukul International Multidisciplinary Research Journal (GIMRJ)*. 2023. 11(1). 42-51.
- Kumari, P., Khawas, K., Bera, M. K., Hazra, S., Malik, S. & Kuila, B. K. (2017). Enhanced Charge Carrier Mobility and Tailored Luminescence of n-Type Organic Semiconductor through Block Copolymer Supramolecular Assembly. *Macromolecular Chemistry and Physics*, 218, 1600508.
- Kumari, P., Khawas, K., Hazra, S. Kuila, B. K. (2016). Poly(3-hexyl thiophene)-b-Poly(N-isopropylacrylamide): synthesis and its composition dependent structural, solubility, thermoresponsive, electrochemical and electronic properties. *Journal of Polymer Science, Part A: Polymer Chemistry*, 54, 1785-1794.

- Kumari, P., Khawas, K., Nandy, S. & Kuila, B. K. (2016). A supramolecular approach to Polyaniline graphene nanohybrid with three dimensional pillar structures for high performing electrochemical supercapacitor applications. *Electrochimica Acta*, 190, 596-604.
- Mathew, A. (2015). Commissions and committees on higher education in India: Perspectives and recommendations on major issues. In *Indian higher education: Challenges and responses* (pp. 201-220). National Press.
- Nagaraj, K. V. (2013). ICT and knowledge economy: An Indian contour of polarities. *Indian Journal of Knowledge Economy*, 5(2), 120-138.
- National Knowledge Commission. (2007). Report to the nation 2006-2009. Government of India.
- National Knowledge Commission. (2009). The national knowledge commission report 2009. Government of India.
- Pal, D., Sinha, A., and Majumder, S. (2024). Groundwater Quality and its Effects on Human Health in Ranchi: A Study of Sources and Factors of Concern. *International Journal of Research Publication and Reviews*. 5(4): 427-430.
- Pandey, S., Ray, P., and Pal, D., (2023). Influence of Sustainable Biocoagulants *Trigonella foenum-graecum* and *Moringa oleifera* for Improving Water Potability.
- Paul, B., Das, D., Aich T., and Pal, D. (2024). Plant Based Biocoagulants from *Cucurbita pepo* and *Cicer arietinum* for Improving Water Quality. *International Journal of Agriculture Environment & Biotechnology (IJAEB)*. 17 (1): 29-36.
- Sah, S, K & Biswas, S. (2022). Learning Difficulties and Earner Diversity in Early Childhood Care & Education. *International Journal of Humanities, Engineering, Science and Management (IJHESM)*. 2022. 3(1). 203-212.
- Sarkar, S. (2017). Characterization of pond water quality in the freshwater intensive culture of Indian Major Carps (IMC). *International Journal of Advanced Research and Development*. 2 (6): 262 – 268.
- Sarkar, S. (2018). Hourly Variations of Dissolved Oxygen in the Intensive Culture of Indian Major Carps. *Education Plus*. 8 (1): 210-216.
- Sarkar, S. and Mal, B. C. (2005). The Status of Aquaculture in India: Development, *Adoption and Constraints*. *Agricultural Engineering Today*. 29 (5): 46-52.
- Sarkar, S., Bayen, S., Samanta, S. and Pal, D. (2024). Spent Mushroom Substrate- Prospects and Challenges of Agrowaste management into sustainable solutions: A Review. *Int. J. Ag. Env. Biotech.*, 17(04): 731-741.
- Sharma, R., & Kumar, S. (2010). Evaluating the success of NKC recommendations in India's higher education. *Educational Development Review*, 10(3), 82-99.
- Shukla, S. (2014). Knowledge economy and educational reform in India: A comprehensive overview. *Indian Journal of Education & Technology*, 8(4), 210-225.

- Singh, D. (2011). Reimagining India's higher education: A critical analysis of the National Knowledge Commission's vision. *Journal of Higher Education Policy*, 15(4), 365-380.
- Singh, M. (2009). The role of the National Knowledge Commission in enhancing educational infrastructure. *Journal of Educational Reform*, 9(1), 45-56.
- Sood, R., & Rao, M. (2016). An assessment of the National Knowledge Commission's impact on Indian higher education. *Journal of Educational Policy Studies*, 23(2), 50-67.
- Thomas, P. (2017). Examining the intersection of technology and knowledge economy in India's higher education reform. *Journal of Indian Higher Education*, 31(4), 213-232
- Vaidya, P. (2013). The role of the National Knowledge Commission in developing educational technology in India. *Technology & Education Quarterly*, 6(2), 120-135.
- Vashishtha, S. (2018). Higher education and India's transition to a knowledge economy: The impact of NKC reforms. *Indian Journal of Policy & Education*, 19(5), 40-57.
- Verma, A. (2020). National Knowledge Commission and its influence on India's higher education system. *Asian Journal of Higher Education*, 8(2), 10-22
- Yadav, P., & Sharma, H. (2015). Bridging the gap: Implementing National Knowledge Commission reforms in higher education. *Indian Journal of Education Policy*, 11(1), 33-49.
- Yadav, R., & Singh, P. (2019). The National Knowledge Commission's contribution to inclusive higher education. *Indian Journal of Educational Research*, 23(1), 80-94.
- Yadav, S., & Ghosh, M. (2021). Inclusivity in higher education: Evaluating the National Knowledge Commission's recommendations. *International Journal of Educational Development*, 14(3), 155-173.
- Zaidi, A. (2014). National Knowledge Commission and the future of Indian higher education. *Journal of Contemporary Education Studies*, 13(2), 123-135.
- Zorita, S. (2012). Challenges in implementing National Knowledge Commission reforms in India's higher education. *South Asian Journal of Education*, 25(2), 65-79.

Citation: Kanjilal Biswas. A., Biswas. Professor. P. & Biswas. Professor. S., (2024) "The National Knowledge Commission: A Blueprint for Higher Education Transformation in India", *Bharati International Journal of Multidisciplinary Research & Development (BIJMRD)*, Vol-2, Issue-11, December-2024.