

National Knowledge Commission



towards a knowledge society

Three Years of the National Knowledge Commission

1. VISION

The National Knowledge Commission was constituted in June 2005 by the Prime Minister Dr. Manmohan Singh to prepare a blueprint for reform of our knowledge related institutions and infrastructure.

The Commission focused on five key areas:

- Enhancing access to knowledge
- Reinvigorating institutions where knowledge concepts are imparted
- Creating a world class environment for creation of knowledge
- Promoting applications of knowledge for sustained and inclusive growth
- Using knowledge applications in efficient delivery of public places

To address these core areas of the knowledge paradigm, the Commission has submitted over 200 recommendations to the Government on 24 focus areas till 2008. This document gives an overview of NKC's recommendations on education.

2. BASELINE 2005

2.1 School Education

- Of the 200 million children in the 6-14 age group 30 million remain un-enrolled
- 85 million drop-out at various stages of schooling
- Teacher student ratio is 1:46 in primary schools; 1:35 in upper primary schools and 1:33 in Secondary and Senior Secondary Schools
- Migration of urban poor from public to private schools due to problems of quality and lack of accountability in the former

2.2 Vocational Skills

NSS data (61st round) 2004-05 indicates that of the individuals in the labour force aged 15-29:

- Only 2 per cent have received formal vocational training
- Another 8 per cent have received non-formal vocational training
- This figure is far higher in developed countries 96 per cent in South Korea, 80 per cent in Japan, 75 per cent in Germany, 68 per cent in UK and even developing countries 28 per cent in Mexico, 22 per cent in Botswana
- Of those trained, a high percentage are unemployable due to a disconnect between the training provided and the market requirements

2.3 Higher and Professional Education

- The Gross Enrolment Ratio for higher education (percentage of the 18-24 age group enrolled in a higher education institution) is around 8 to 10 per cent whereas it is 25 per cent for many other developing countries.
- The quality is uneven with large segments, both in the government-financed and private unaided sector, showing very poor standards. In the public-funded sector, these problems are largely related to the number and quality of teachers and lack of infrastructure.
- Further, the higher education system is ill equipped to face the challenge of inclusion. There are large disparities in enrolment rates across states, urban and rural areas, sex, caste and poor-non-poor.
- The growth of professional education, largely in the private sector, has been uneven both in geographical spread and in quality. A major overhaul is needed to ensure that it meets the needs of a growing economy in a globalized world.

3. NKC RECOMMENDATIONS

The following key recommendations of NKC address these issues:

3.1 Right to Education

- There is a need for a central legislation affirming the Right to Education.
- This must entail a financial provision requiring the central government to provide the bulk of the additional funds needed for realizing the Right to Education.
- The legislation should also lay down minimum standards of quality in school education and for it to be effective, the responsibility of the Government, at different levels, must be recognized and made justiciable.

3.2 School Education

- NKC has proposed generational changes in the school system which would encourage local autonomy in management of schools, decentralization and flexibility in disbursement of funds.
- To improve quality and generate accountability, NKC has also recommended improving school infrastructure and revamping school inspection with a greater role for local stakeholders and greater transparency in the system.
- Further, wherever feasible, Information and Communication Technology should be made more accessible to teachers, students and the administration.
- NKC has also emphasized the need for reforms in the curriculum and examination systems by moving away from rote learning to a critical understanding of concepts and faculty improvement by providing incentives for qualified and committed teachers.
- NKC has also recommended revamping teacher training by improving both the pre-service and in-service training of school teachers including both expansion and greater flexibility.

3.3 Language

- In the current scenario, an understanding and command over the English language has emerged as an important determinant of access to education, employment possibilities and social opportunities.
- NKC recommends that the teaching of English as a language should be introduced, along with the first language (either mother tongue or the regional language) of the child, starting from Class I.
- NKC has also focused on the need to reform the pedagogy of English language teaching and learning, to reduce the disproportionate emphasis on grammar and focus on creating meaningful learning experiences for the child.
- Given that language learning is contingent on the environment, all available media including audio visual and print should be used to supplement traditional teaching methods.

3.4 Vocational Education and Training (VET)

- NKC's recommendations focus on increasing the flexibility of VET within the mainstream education system.
- NKC has also emphasized the need to expand capacity through innovative delivery models, including robust public private partnerships.
- Given that only 7 per cent of the country's labour force is in the organized sector, enhancing training options available for the unorganized and informal sector will be critical for

enhancing the productivity of the bulk of our working population.

- NKC has recommended the need for a robust regulatory and accreditation framework, along with proper certification of vocational education and training.

3.5 Higher Education

- NKC has recommended increasing GER in higher education to 15 and above by 2015.
- In addition to increased public spending, this would involve diversifying the sources of financing to encourage private participation, philanthropic contributions and industry linkages.
- To bring about this expansion, NKC has suggested the creation of 1500 universities by 2015, partly by restructuring the existing ones.
- Of these, 50 new national universities may be established to provide education of the highest standard. As exemplars for the rest of the nation, these would train students in a variety of disciplines. These institutions would have provisions for frequent curricula revision, an appropriate system of appointments and incentives to maximize productivity of faculty, a great deal of autonomy in management coupled with accountability, a policy of needs-blind admission, and freedom to set student fee levels as well as to tap other sources of generating funds.
- In order to reduce the current barriers to entry, NKC has recommended setting up an Independent Regulatory Authority for Higher Education (IRAHE) which would be at an arm's length from all stakeholders and would accord degree granting power to universities.
- To ensure quality, NKC has called for reform of existing universities to include frequent curricula revisions, introduction of course credit system, enhancing reliance on internal assessment, encouraging research, and reforming governance of institutions.
- NKC has recommended restructuring the system of affiliated undergraduate colleges which no longer provides a viable model for quality higher education.
- NKC has also suggested creating models for community colleges that provide credit and non credit courses leading to two year associate degrees. These would include general education programmes as well as employment oriented programmes, creating the flexibility for students to pursue higher education later in life.

- NKC believes that all deserving students should have access to higher education, irrespective of their socio-economic background. While the government heavily subsidizes university education by keeping fees low, there is better value created for this subsidization by ensuring well funded scholarships and affirmative action that takes into account the multi dimensionality of deprivation.
- To rejuvenate science education and research in the country NKC considers it crucial to attract more students in science and maths. To encourage this, NKC has recommended launching a massive science outreach programme, upgrading available infrastructure, revitalizing the teaching profession and revamping teacher training at all levels.
- To invigorate research and development in the country NKC has recommended steps to improve the quality of Ph.Ds. It has suggested massive investment in education and research at all levels, together with a renovation and reform of the university system, and the fostering of a global outlook in research. Further, steps have to be taken to rejuvenate the doctoral programme across disciplines and develop vigorous industry-academia interaction.

3.6 Professional Education

- The professional education streams are plagued by the problems similar to the higher education system.
- NKC has recommended that the present regime of regulation in all professional education streams including medical, legal, management and engineering education, be replaced by subgroups on different streams under the proposed independent regulator.
- This would have to be accompanied by independent multiple accreditation agencies that provide reliable ratings.
- Other measures for improving professional education include allowing greater autonomy to institutions, reforming the current examination system, developing contemporary curricula and encouraging research.

3.7 Open and Distance Education and Open Educational Resources

- Development of open and distance education and open educational resources is imperative to achieve the objectives of expansion, excellence and inclusion in higher education.
- More than one-fifth of the students enrolled in higher education are in the ODE stream.
- NKC recommendations on distance education focus on creating a national ICT infrastructure, improving

regulatory structures, developing web based common open resources, establishing a credit bank and providing a national testing service.

- To supplement this, NKC also recommends that the production of quality content & leveraging global open educational resources needs to be focused on in a comprehensive manner. Also open access for all material-research papers, books, and periodicals needs to be encouraged.

3.8 National Knowledge Network

- The key to successful research today demands live consultations, data sharing and resource sharing. Towards this end, NKC has recommended the establishment of a high-end national knowledge network connecting all our knowledge institutions in various fields and at various locations throughout the country, through an electronic digital broadband network with gigabit capacity.

4. ELEVENTH FIVE YEAR PLAN

Government's commitment to take this agenda forward is reflected in the Eleventh Five Year Plan (2007-2012) which places high priority on education as a central instrument for achieving rapid and inclusive growth with specific emphasis on expansion, excellence and equity.

- This is evident from the proposed allocation of Rs. 3 trillion, a five fold increase over the Xth Plan. The share of education in the total plan will accordingly increase, from 7.7 per cent to 20 per cent.
- Initiatives to improve school education in the Plan include reorienting Sarva Shiksha Abhiyan with a strong rights focus to make Right to Education a reality.
- Under the Scheme for Universal Access and Quality at the Secondary Stage, 6000 new high quality model schools are to be set up, with at least one school in each block. The first stream will consist of 3500 public funded schools (3000 in KVs and 500 in NVs template) to be launched in the Educationally Backward Blocks which have a significant SC, ST, OBC and Minority population. The second stream of about 2500 schools would be set up through Public Private Partnership in other Blocks with emphasis on geographical, demographic, gender and social equity.
- To strengthen vocational education a new Skill Development Mission under the supervision of the Prime Minister with an

outlay of Rs. 31,200 crores will aim at opening 1600 new industrial training institutes (ITIs) and polytechnics, 10,000 new vocational schools and 50,000 new Skill Development Centres. A Skill Development Corporation will also be created by the Government with the active participation of the private sector to give special training to young men and women, workers and technicians.

- In Higher and Technical Education the Eleventh Plan aims at expansion with the establishment of 30 new universities. Out of these 14 would be world class universities. Further, 8 new IITs, 7 new IIMs, 20 new IIITs, 5 new Indian Institutes of Science, 2 Schools of Planning and Architecture, 10 NITs, 373 new degree colleges and 1000 new polytechnics will also be set up. The Plan also recognizes the need for the review of regulatory institutions such as the UGC, AICTE, MCI and BCI. A provision of Rs. 5,000 crore has been made in the Eleventh Plan for an 'Education Mission through ICT' which would include operationalizing the first phase of the National Knowledge Network where 1000 institutions would be linked up.

5. IMPACT OF NKC RECOMMENDATIONS

If these initiatives are successfully implemented, the country will be able to harness the advantage of its demographic dividend and the youth will be able to realize their full potential in the global economy. Further, the massive expansion of educational opportunities will translate into tremendous opportunities for all sections of society including women, children, rural communities, urban slums, tribal groups and other economically and socially disadvantaged communities and help us move towards a more equitable society. Finally, an environment of sustainable growth in the country will be created by key steps such as developing a resource of skilled manpower, a favourable eco-system for entrepreneurship and innovation, R&D, and an efficient system of delivery of public services.

The emerging knowledge society and associated opportunities present a set of new imperatives and new challenges for our economy, polity and society. If we fail to capitalize on the opportunities now, our demographic dividend could well become a liability. The widening disparities in our country will translate into social unrest, if urgent steps are not taken to build an inclusive society. And our growth rate, which is faltering now, will stagnate soon, if a sustainable development paradigm is not created.