सत्यमेव जयते

Government of India

National Knowledge Commission

Recommendations on School Education

Foreword

School Education has been a central theme in the deliberations of the National Knowledge Commission (NKC) since its inception. The urgent need for ensuring universal access of all Indian children to good quality school education hardly needs to be reiterated. In addition to this being a fundamental right of every citizen, it is also increasingly evident that a robust, inclusive and high quality system of school education is essential for social and economic development. It is also essential if India is to transform the current demographic asset of a mostly young population into a dynamic national force for all-round progress. This makes it imperative to increase public resource allocation for education, as the recently approved Eleventh Five Year Plan of the Government of India has recognized. But it also requires related reforms in the systems for school, vocational and higher education, if such education is to have the desired effects in terms of development and the reduction of disparities in the country.

NKC submitted a set of recommendations on School Education to the Prime Minister on 4 February 2008. The recommendations have been drafted after holding wide-ranging consultations across the country with over 250 experts and stakeholders in the field of school education, including representatives of central and state governments, school administrators, teachers, personnel from DIETs and SCERTs, educationists, activists and members of NGOs/civil society organizations and private education providers. The proposals cover diverse concerns in school education, including resource allocation and methods of resource transfer; mechanisms for improving and maintaining quality; pedagogy, curriculum and examinations; organizational and management issues; motivation and training of teachers; and ensuring access for educationally backward categories.

NKC recognizes that our country is too large, too complex and too diverse for 'one size fits all' solutions. Decentralisation, community participation and collaborative models at the local level are crucial for devising effective programmes for implementation. It is also evident from the recommendations that there is need for more convergence and co-ordination, as well as greater flexibility, in primary and secondary school education.

In sharing and disseminating our recommendations on school education through this volume, our purpose is to engage diverse stakeholders at the central, state and local

government levels, as well as all those involved in the process of school education, in order to generate discussion and debate. We hope that this will catalyse the implementation of organizational reforms and other desired changes in the school system.

Since there are strong synergies between these recommendations for school education and other proposals of NKC with respect to libraries, translation, open education resources, language in schools and vocational education, we have included the relevant extracts pertaining to these areas in this volume. These suggestions should therefore be seen as part of a systematic set of knowledge initiatives for the young.

Sam Pitroda
Chairman
National Knowledge Commission

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Letter on School Education

Dear Mr. Prime Minister,

As you have repeatedly emphasized, ensuring quality school education to all is the foundation upon which any further advances towards a knowledge society must be based. Noting the crucial importance of school education, the National Knowledge Commission (NKC) held a series of workshops and consultations around the country involving a very wide range of stakeholders, to discuss issues of quantity, quality and access in school education.

NKC recognizes that the primary responsibility for school education is borne by the state governments, and therefore any policy changes must be with the full participation and involvement of the States. Nevertheless, NKC believes that positive changes in systems of schooling will require the active involvement of the central government as well state governments, not only in the matter of providing resources but also in promoting organizational and other changes.

We have a number of suggestions and recommendations covering the different aspects of school education, but the essential thrust can be summarized in terms of **more resources, more decentralization and more flexibility.** The full set of recommendations, with details, is provided in the accompanying Note. This letter summarizes the most important areas of possible intervention.

1. Central legislation for the Right to Education, backed by financial commitment

NKC endorses the speedy enactment of a central legislation that will ensure the right of all children in the country to good quality school education up to Class VIII, supported with financial commitments of the central and state governments. This obviously requires substantially increased public spending for both elementary and secondary school education, which must be seen as a priority area for spending. Currently school education is highly segmented, even in government-run institutions, as a result of the parallel track of "education centres" in some states. These separate systems must be integrated to give all children access to schools of acceptable quality, which will obviously require additional spending.

2. More flexibility in disbursal of funds

However, there is a strong case for changes in the manner in which such expenditure is incurred. The current norms for central government disbursal to states of funds for , including for Sarva Shiksha

Abhiyan (SSA), the planned SUCCESS program for secondary education and other central schemes, are too rigid and must be made more flexible. NKC strongly recommends a system of funds transfer and accounting that will allow for regional and other differences as well as changing requirements over time, and thereby allow state governments to use the resources in the most effective way. There should also be greater flexibility in disbursing funds down to the school level and a greater degree of autonomy of local level management in the use of funds. The norms and rules should allow schools to adapt to local conditions and meet particular requirements of their students.

3. Decentralization and greater local autonomy

Community participation is an important instrument to ensure accountability and improve the day-to-day functioning of schools. This in turn means that the management of schools, including the use and management of funds, should be decentralized to local authorities as far as possible, whether they be panchayats, Village Education Committees or municipalities, and to School Boards that have representation of all stakeholders including parents.

4. Expansion of functional literacy

NKC would like to stress the continuing importance of a focus on expanding functional literacy among the population. Illiteracy remains a major problem, even among the age-group 15-35 years, and therefore literacy programmes must be expanded rather than reduced, and given a different focus that is directed towards improving life skills and meeting felt needs, especially (but not only) among the youth.

5. Planning for school infrastructure

It is important to remember that land is an essential requirement of schools, and this requirement is likely to increase in the near future given the expansion implied by demographic changes and need to ensure universal schooling. Therefore urban master plans and local development plans must explicitly incorporate the physical requirements for schooling, including provisions for play grounds and other school facilities.

6. Enabling and regulating mechanisms for private schools

Since private schools play an important role in the provision of education, there is need for both enabling and regulating mechanisms to be developed and strengthened for them. There should be transparent, norm-based and straightforward procedures for the recognition of private schools, to reduce harassment and bureaucratic delay. There should also be transparent criteria as for the disbursement of aid from the government to some self-financing schools, especially those which cater to underprivileged children, and clear norms with respect to the ability of school managements to raise resources from other sources. The monitoring of private schools, in terms of

ensuring a transparent admissions process, regulation of fee structures, as well as meeting minimum set standards for quality of teaching and infrastructure, also requires attention. The possibility of greater exchange between schools, including mentoring of one school by another, should be allowed and encouraged.

7. Database on school education

Educational planning and monitoring are made much more difficult because of the lack of comprehensive and accurate data on schools, school-age children and actual attendance of both students and teachers. The collection and speedy dissemination of accurate and current data on schooling must be made a priority. It is necessary to create a complete database on schools and school-age children so as to track the actual coverage and quality of schooling at different levels, and to make it widely available in a timely manner. Such data collection may be made an essential part of the fund allocation for school education, with appropriate institutional mechanisms.

8. More co-ordination between departments

The multiplicity of management structures and government departments that currently governs schooling creates confusion, unnecessary replication and possibly inconsistent strategies across different schools. There must be greater co-ordination between different departments of government on school education policy, even while ensuring more autonomy to the local management of schools.

9. National evaluation body for monitoring quality

Educational administration also needs to be more conscious of actual learning outcomes at different levels, which will determine both policy and functioning. NKC therefore proposes a national evaluation body to monitor the quality of both government and private schools, using a results-based monitoring framework based on a short list of monitorable criteria that include both process and outcome indicators.

10. Revamping school inspection

The system of school inspection needs to be revamped and revitalized, with a greater role for local stake holders and greater transparency in the system. The solution does not lie in simply expanding the system – rather, we need to develop systems to ensure meaningful monitoring, including provision of greater facilities to school inspectors, a separation of inspection of qualitative and administrative aspects, transparency in the criteria of inspection, and greater involvement of local stakeholders.

11. Teachers and teacher training

Teachers are the single most important element of the school system, and the country is already facing a severe shortage of qualified and motivated school teachers at different levels. It is urgent to

restore the dignity of school teaching as a profession and provide more incentives for qualified and committed teachers. Non-teaching official duties such as electoral activities should not be allowed to interfere with the teaching process. Forums that allow and encourage teachers to exchange ideas, information and experiences, including a web-based portal, should be developed.

At the same time, there should be transparent systems for ensuring accountability of school teachers. As far as possible, teachers should be recruited to particular schools.

The training of teachers is a major area of concern at present, since both pre-service and in-service training of school teachers is extremely inadequate and also poorly managed in most states. Pre-service training needs to be improved and differently regulated in both public and private institutions, while systems for in-service training require expansion and major reform that allows for greater flexibility.

12. Reforms in the curriculum and examination system

Curriculum reform remains a critically important issue in almost all schools. School education must be made more relevant to the lives of children. There is need to move away from rote-learning to understanding concepts, developing good comprehension and communication skills and learning how to access knowledge independently. This also requires substantial changes in the examination system, especially at Board level but also earlier.

13. Use of Information and Communication Technology

Wherever feasible, ICT should be made more accessible to teachers, students and administration for learning, training, research, administration, management, monitoring, etc. This requires the provision of more facilities such as computers as well as connectivity and broadband facilities. Computer-aided learning also requires training of teachers and other staff in order to make the best use of the technology.

14. English language teaching

Proficiency in English is widely perceived as an important avenue for employment and upward mobility, which also greatly facilitates the pursuit of higher education. The incorporation of English into the curriculum through the teaching of English as a language in Class I and teaching of one other subject in English medium in later classes requires making pedagogical changes to contextualize language learning, increasing the availability of English language teachers and providing more bilingual and supplementary teaching materials.

At the same time, mutlilinguality must be promoted and language issues must be explicitly taken on board in designing school curricula and methods of pedagogy.

15. Interventions to ensure access of educationally deprived categories

Special interventions are necessary to ensure greater access to education of educationally deprived categories, and some proposals for this are developed in more detail in the accompanying Note. Obviously, specific measures are required to ensure greater enrolment and retention of girl students. Education of SC children must be a priority, which necessitates both flexibility of approach and avoidance of discrimination. The access of children from Scheduled Tribes requires more flexible and sensitive schooling strategies. Language issues must be explicitly taken on board in designing school curricula and methods of pedagogy. Special strategies are required to ensure greater access to schools for children in backward regions, remote locations and difficult terrains. Official strategies for ensuring better access of Muslim children to schooling are excessively focussed on madrassas which cater to only a tiny minority of such children; the emphasis should be on creating enabling conditions for Muslim children in the general school system. Children of seasonal migrants require special conditions and efforts to ensure continuous access to schooling. Similarly, labouring children require incentives and bridge courses. The needs of physically disadvantaged children, as well as teachers, have to be factored in more thoroughly in provisions for school education.

We realise that there is wide diversity across states in terms of progress towards achieving universal elementary education, and also diversity within states with respect to the quality of school education. But we believe that these proposals, which require the active involvement of the central government as well state governments, will go some way in terms of ensuring universal access to elementary education, wider access to secondary education as well as better quality and greater relevance of all schooling. Given the strong synergies between this and other areas such as libraries, translation, knowledge networks, etc., these suggestions should be seen in conjunction with other recommendations that have already been made in these other areas, as part of a systematic set of knowledge initiatives for the young.

We look forward to being engaged in taking these ideas forward.

With warm personal regards,

Sam Pitroda
Chairman,
National Knowledge Commission

Copy to
1.   Sh. Arjun Singh, Minister Human Resources Development, Government of India
2.   Sh. Montek Singh Ahluwalia, Deputy Chairman, Planning Commission, Government of India

Note on School Education

The Prime Minister has repeatedly emphasized that ensuring quality school education to all is one of the most important priorities of the government, and the National Knowledge Commission has also recognized the crucial significance of this as the foundation upon which any further advances must be based. We have held a series of workshops around the country, addressing issues of quantity, quality and access in school education, and tried to involve a very wide range of stakeholders in the consultations.

We recognize that the primary responsibility for school education is borne by the state governments, and therefore any policy changes must be with the full participation and involvement of the states. Also, there is wide diversity across states in terms of progress towards achieving universal elementary education, and also diversity within states with respect to the quality of school education. Nevertheless, we believe that positive changes in systems of schooling that will ensure universal access to elementary education, wider access to secondary education as well as better quality and greater relevance of all schooling, will require the active involvement of the central government as well state governments. Such involvement is necessary not only in the matter of providing resources but also in promoting organizational and other changes. We have a number of suggestions and recommendations covering the different aspects of school education, but the essential thrust can be summarized in terms of **more resources, more decentralization and more flexibility**. In what follows, we discuss what we feel are the most important areas of possible intervention. We are aware that while some proposals are new, other recommendations have found expression in different ways in previous reports and studies. However, we have chosen to reiterate them because they are still crucial and relevant.

We would also like to emphasize that there are very strong synergies between these recommendations for school education and other proposals of NKC with respect to libraries, translation, networks, language in schools and vocational education. These suggestions should therefore be seen in conjunction with the other recommendations that have already been made in these other areas, as part of a systematic set of knowledge initiatives for the young.

1. Quantity and resources

1.1 Substantially increased public spending is required for both elementary and secondary education

As we have already stated in two previous letters, we strongly endorse the speedy enactment of a central legislation that will ensure the right of all children in the country to good quality school education up to Class VIII. We also believe that this should be extended to cover universal schooling

up to Class X as soon as possible. We also believe that a vibrant, good quality and universally accessible government school system is the basic foundation upon which the schooling system in the country must rest.

Therefore this must be supported with a financial commitment of the central government, in such a way as to ensure that the right to quality school education is provided to all children of the country, regardless of which state they are resident in. This necessarily requires a significant expansion of the resources to be provided to elementary school education. While the government has increased allocations for school expenditure, the amounts are still far below what is required to achieve universal school education of reasonable quality for all. This is even more true because of the need to upgrade the "Education Centres" that are operating in many states to proper schools that meet all the norms in terms of trained teachers, minimum facilities, etc. Therefore we strongly recommend a substantial increase in central government allocation.

We have already expressed our concern (in a previous letter to you) on the recent decision of the central government to reduce the central funding for the Sarva Shiksha Abhiyan from 75 per cent to 50 per cent. We fear this may lead to a sharp curtailment of progress towards universal school education, especially in the more backward states where the gap is greater. It is worth noting that state governments are already incurring the bulk of school education expenditure. We strongly feel that, in addition to 50 per cent of SSA funds, the Centre should provide *all* the additional funding required to ensure the Right to Education in those states where the state government is already spending at least 15 per cent of its total budget on school education.

At the same time, the importance of increased spending on secondary education is greater than ever before. There is a huge shortage of middle and secondary schools, which is one of the important reasons for the low rates of retention after Class V. Currently, secondary education is massively under-funded, which in turn creates not only absolute shortages but also problems of inadequate quality in many government secondary and higher secondary schools. The aim should be to reach universal secondary school education within a maximum of ten years. Given the demographics, this implies that expenditure on secondary schooling must be increased by several multiples within the next two years, indeed by at least five times the current level if the CABE estimates are used. Currently, many primary schools are being upgraded to secondary school status, without provision of sufficient teachers, rooms and other pedagogical requirements, which severely comprises on the quality of such secondary education. The norms for secondary schools, which include not only provision for specialized subject teachers but also for science labs, counselling etc., must be strictly adhered to when new schools are created and when primary schools are upgraded.

1.2 Urban planning and local planning must explicitly incorporate the physical requirements for schooling, including provisions for play grounds and other school facilities

It is important to remember that land is an essential requirement of schools, and this requirement is likely to increase in the near future given the expansion required by demographic changes and the need to ensure universal schooling. In the context of rapid urbanization, it has been found that urban conglomerations often come up without adequate provision for ensuring the physical space required for schools in the vicinity. This is particularly a problem in new settlements with quickly increasing density of population, not only in large cities but also in smaller towns and fast growing villages. This makes it difficult to establish schools where required, and to ensure that schools are able to provide all the necessary facilities including sports fields, etc. It is essential that the urban land use policies and regulations in all states and municipalities explicitly factor in the physical requirements of schools in areas of a certain population density.

Similarly in rural areas, there must be adequate provision for land for setting up schools in areas that surpass a certain population density. In rural areas with low population density, difficult terrain or extreme climatic conditions, the government may consider the setting up of residential schools, which could also address the problem of migrant labourers and nomadic populations.

1.3 The norms for central government disbursal to states of Sarva Shiksha Abhiyan (SSA) funds and other central schemes for school education are too rigid and must be made more flexible

The current system of funds transfer and the accounting rules create unnecessary rigidities that often do not allow the state governments to use the money in the most efficient or desirable way, and also lead to less than complete utilization of the budgetary allocation.

Some of these problems include:
- very rigid norms on unit costs and what is allowed in terms of spending, that do not recognize the diverse requirements of different states or particular regions;
- inadequate financial provisions for infrastructure such as buildings etc, especially for some states and cities, which leads to the creation of poor quality infrastructure;
- an inflexible accounting system that does not allow transferring funds across heads to meet particular or changing requirements, and therefore inhibits full utilization and also prevents synergies from developing;
- insufficient allocation for repair and maintenance of infrastructure;
- treating rural and urban schools in the same manner even though the requirements are often very different (for example, urban government schools may require different infrastructure and facilities in order to attract students);

- treating all districts and geographical areas in the same manner regardless of the degree of backwardness, topographical conditions, etc. (This is especially a problem for schools in hilly or heavily forested areas or those with poor physical connectivity, for which per capita allocations are the same as for other more accessible areas);
- problems in the timing of fund transfer, as well as uncertainties in fund provision created by the insistence on matching funds and the fact that plan ceilings keep changing every year.

NKC strongly recommends a less rigid and more flexible system of funds transfer and accounting that will allow for regional and other differences as well as changing requirements over time, and thereby allow state governments to use the resources in the most effective way. This recommendation is both for the SSA and for the planned SUCCESS programme for secondary education, and also for other centrally sponsored schemes relating to school education.

1.4 There should be greater flexibility in disbursing funds down to the school level and a greater degree of autonomy of local level management in the use of funds

Even within the states, the norms for fund disbursal and the requirements are often very time-consuming and breed delays and unnecessary rigidities. There should be recognition of differences in per capita resource requirement according to particular criteria, such as geographical and spatial characteristics, the presence of children with special needs, seasonality and other features.

In addition, there is a strong case for providing greater autonomy to local level management of schools, including locally elected bodies, school boards, Village Education Committees, etc., in the use and management of funds, subject to some overall criteria. Within the stipulated norms for expenditure, there should be scope for greater flexibility in the use of funds in response to local needs and local innovation.

1.5 There should be transparent, norm-based and straightforward procedures for the recognition of private schools, as well as for the disbursement of aid from the government to self financing schools and the ability of school management to raise resources from other sources

Private schools play a significant role in dispensing school education. It is estimated by NUEPA that around 15 per cent of schools in the country are privately owned and managed, while in some urban areas, private schools cater to a very large proportion of school going children. Their role must be recognized, and those providing quality education should be encouraged, especially when they cater to less privileged children.

However, many private schools have identified the time-consuming procedures for renewal of recognition from the government, which have to be undertaken at relatively frequent intervals, as a source of harassment. It is necessary to simplify the rules and reduce the multiplicity of clearances required for private schools, by developing a modality for co-ordinated point of clearance as far as possible. There is also a case for increasing the time period for which recognition is granted to such schools, especially those with a proven track record. Transparency in dealings between the government and private schools will also be aided if the information on rules and criteria for registration and the results of all school applications for granting of recognition are made public in an accessible form, including by making the relevant information available on websites.

Those charitable schools that provide quality education to children from underprivileged and marginalized sections of society deserve encouragement, and may be considered for receipt of government resources, according to transparent and norm-based procedures. However, all mechanisms of government aid disbursement to privately run schools should be transparently conducted and according to defined norms.

There is a widespread perception that government rules currently reduce the ability of school managements to raise resources from other sources for the expansion of infrastructure or to provide other facilities. This varies across states, but in general in most states the current system does allow schools to raise funds from donations, resources extended from the panchayat and other sources. However, it is important to ensure that the available flexibility for school management to raise resources should be widely known and publicized. In addition, innovative methods of raising additional resources could be allowed and encouraged. For example, schools, particularly in urban areas, could use assets such as buildings during non-school hours to generate additional funds to improve the quality of facilities.

1.6 Illiteracy remains a major problem, and therefore literacy programmes cannot be ignored or given less importance. Expenditure on the National Literacy Mission must be expanded rather than reduced, and given a different focus

The shift in policy focus from the National Literacy Mission (NLM) to the Sarva Shiksha Abhiyan has led to a declining emphasis on the need to ensure universal functional literacy. However, according to the 2001 Census, a significant proportion of the population - nearly half of all females and one-quarter of males - remains functionally illiterate. According to the NSSO, a significant proportion of households in 2004-05 (more than a quarter in rural India and nearly ten per cent in urban India) have no literate member. The lack of functional literacy is much more marked among women, those residing in backward areas and those from marginalized social groups. Also, a significant proportion of young people - around 30 per cent of the age-cohort of 15-35 years - is

functionally illiterate, since they were too old to benefit from the SSA and also slipped through the net of the literacy programmes. This is of great concern because such people will continue to be active citizens for the next half century and therefore must not be denied the capacities and opportunities that come from being literate.

We therefore recommend the following measures for literacy:

- Ensure greater funds for the NLM, including provision for more pedagogical resources including not only ICT but also locally generated teaching material as well as local hiring of temporary staff wherever required.
- Encourage the NLM to shift to creating Continuing Education Centres in both rural and urban areas, to impart functional literacy that is of relevance and interest to those who are currently illiterate or recently literate, as well as provide further learning material and other resources and facilities to the newly literate.
- Orient the post-literacy and continuing education programmes to the emotional, physical and psychological needs of adults rather than children, incorporating issues regarding citizens' rights, human rights, sex education, health and livelihood government programmes, etc.
- Use a variety of methods to ensure functional literacy, which combine more centralized schemes based on ICT and other new technology with continuous work at the local level based on a clear institutional structure. While new technologies such as ICT provide important new methods for imparting literacy in a short time, they necessarily have a limited role. They cannot be seen as stand-alone quick-fix solutions, but must be combined with other methods.
- Move to a sustainable system of literacy generation that does not rely on underpaid "volunteer" labour alone, which therefore involves budgetary provision for better remuneration for literacy workers.
- Create synergies between NLM and the proposed Skill Development Mission, while taking local needs and field requirements into account. For example, in some primarily agrarian economies, undue emphasis on industrial skills in ITIs may be incongruous while horticultural and animal husbandry skills may be more relevant.

1.7 Early childhood education is extremely important and must be universalized

There are two aspects to ensuring the universalization of early schooling and pre-school education. The first is the systematic extension of balwadis with trained staff to handle child pedagogy. The second is the provision for one year of pre-schooling in all institutions of elementary education. Both of these have implications for resource allocation and recruitment of the requisite staff.

1.8 The collection and speedy dissemination of accurate and current data on schooling must be made a priority. It is necessary to create a complete database on schools and school-age children so as to track the actual coverage and quality of schooling at different levels, and to make it widely available in a timely manner. Such data collection may be made an essential part of the fund allocation for school education, with appropriate institutional mechanisms

India has an extensive and regular mechanism of data collection for primary education. However, its methodology and use leave much to be desired. For example, at present there is no reliable method for establishing which children are in schools. Data collection is too extensive, time-intensive and done almost entirely by teachers, rather than by independent and specialized personnel. There is minimal cross tabulation, coordination and cross referencing of data. The results are typically revealed to administrators, schools etc. too late to be relevant - often several years after the survey takes place. It is immensely difficult even for stakeholders, as well as other concerned citizens, to access the data lying with official sources, despite repeated requests.

It is necessary to have a system to provide reliable school education statistics which must be transparently formulated and freely available to all. This requires mechanisms that are incorporated into the funding for all school education, at central and state government levels. These would ensure data collection and access, provide up-to-date information as rapidly as possible, make it more relevant for planning and implementation and more accessible for everyone. The following goals are relevant in this context:

- The process of data collection must be streamlined, made less time consuming and more relevant.
- A comprehensive mapping is required of schools and children of school-going age, so as to have accurate information on which children in which localities are enrolled, and attending which schools, as well as those not enrolled. This would also map out localities where there are high rates of dropout and/or non-enrolment.
- A tracking mechanism for all school children should be set up, to track their individual school going status, and progress in school. This tracking should cover both government schools and private schools. This would ensure universal access for children in all locations, as well as for girls and specific categories. A tracking mechanism will also facilitate checking for drop-outs and related problems, and allow for speedy intervention to address such problems. It should be noted that there are already ongoing initiatives in this regard in some states, which can be replicated and scaled up.
- Data collected for the purposes of planning must provide all the relevant information. This is also important with respect to information on infrastructure provision: for example, the number of rooms should also mention whether these are electrified; where availability of toilets is described, there should also be information on the availability of water in the toilets.

- Safeguards must be instituted against "creative readjustment" of data, which is a common problem given the structure of incentives and the fact that the data are most often provided by the teachers or school management. This requires that data should be collected by independent agencies as far as possible, or necessarily subject to frequent and random cross-checks.
- ICT must be integrated for data collation and management, wherever required. A local area network with digital entry provisions could be set up to make it easier for the teachers and others who provide and use the data.
- The data thus collected must be freely available and easily accessible, provided on dedicated websites in addition to the usual means of publication.
- More specialized micro-level surveys and research should be commissioned. There should also be attempts to bring together other relevant research for easy access by practitioners.

2 Quality and management

2.1 Currently school education is highly segmented, even in government-run institutions, as a result of the parallel track of "education centres" in some states. These separate systems must be integrated to give all children access to schools of acceptable quality. This will require additional spending

In a number of states, funds under various schemes (SSA, EGS and AIE) were used to create "Education Centres" (Shiksha Kendras) rather than proper schools. These typically involve "teachers" who are essentially local women who have just passed Class VIII (or even Class V in some cases) and are paid between Rs. 1000 to Rs. 3000 per month in the different states. They typically receive no training or a 2-week training at best, and may have to teach multi-grade classes often in single rooms. The proportion of children in such schools varies very widely, but the all–India average amounts to around 16 per cent of total enrolment in primary education, according to the Planning Commission. All such children are described in the official statistics as enrolled in schools, even though going to an Education Centre cannot be treated as school enrolment on par with the proper schools, and such instructors do not meet the required norms for teachers. Currently state governments allow these parallel (and deeply unequal) systems of schooling to continue to be run by different departments – "proper schools" by the Education department, and education centres under the panchayats and therefore by the Panchayat Department.

The need to integrate these two parallel systems must be explicitly recognized. This requires special budgetary allocations for upgradation and quality improvement of the Education Centres through better infrastructure, as well as intensive training of existing teachers and additional employment of adequate numbers of qualified teachers - all of which will have financial implications.

2.2 At the same time, planning for school education must take into account the ecology of education – the need to adjust school systems to agro-climatic and other local variations

This requires flexibility with respect to school timings, vacations, teacher recruitment – but without sacrificing quality. Norms for schools must recognize the possibility of regional and local differences as well as the particular requirements of certain communities, such as nomadic groups, tribal communities, short-term migrant households, etc.

2.3 School management must be decentralized as far as possible

Decentralization of the management of schools, combined with community participation, is the most effective instrument for ensuring accountability, improving the day-to-day functioning of schools and allowing for flexible responses to local requirements. Therefore, there should be devolution of authority to local levels, whether to panchayats, Village Education Committees or municipalities. School Management Committees that include representatives of all stakeholders, including parents and teachers, should be empowered to make many decisions. Social audits of schools should be supported and encouraged.

2.4 There is a multiplicity of management structures and government departments in the administration of school education. This creates confusion, unnecessary replication and possibly inconsistent strategies across different schools. There must be greater co-ordination between different departments of government on school education policy, even while ensuring more autonomy to the local community in matters of day to day management of schools

Currently schools are run or funded and monitored not only by the central and state governments, but also by different departments within state governments – the Education Department, the Panchayat Department, the Department for Tribal Welfare, the Department for Minority Welfare, etc. This creates overlapping and conflicting structures of authority, an excess of bureaucratic tangles, unnecessary replication of some activities (and even replication of enrolment in some cases!), different guidelines and differential standards for acceptable quality and other sorts of confusion. For example, in the rural areas of several states, the local Panchayati Raj Institution (PRI) run parallel to the SSA-run Village Education Committee (VEC). The exact remit of each is not clear and the policy intentions of both become diluted in the process.

It is necessary to make systematic efforts to integrate or at least co-ordinate the activities of these separate management structures. The precise roles and responsibilities of each local level and state level department should be clearly specified, but even more than that, there should be some sort of pressure for these different bodies to work together as far as possible and provide

a common and equal schooling. Education policy must be part of the integrated framework of decentralized planning.

In the day-to-day management of schools, it is also necessary to work towards segregating teachers from managers in the school administration. At the same time, as noted above in point I.4, the decentralization of authority is critical in improving and maintaining the quality of education. Therefore, the local level management of schools, including locally elected bodies, school boards, Village Education Committees, must be allowed a significant degree of autonomy in handling matters relating to their schools, including not only the exact allocation of funds, but also other matters relating to school functioning and monitoring of teachers, etc.

2.5 There is need for a national body to monitor the quality of both government and private schools, to ensure that minimum standards are met in terms of learning outcomes

Currently there is no systematic and continuous feedback on the actual impact and outcome of various educational schemes and initiatives, or the actual quality of education imparted in schools. There is a strong case for a testing body at the national level for quality assessment of schools. A results-based monitoring framework with due process indicators and outcome indicators needs to be evolved. This should be based on a short list of monitorable criteria. These should include fixed infrastructural requirements, enrolment and attendance, as well as outcome indicators such as learning levels achieved in certain basic areas such as language skills and numeracy, etc. Such a process of assessment needs to be applied to all schools – both public and private. However, the testing of students must not involve topics or questions that provide any incentives for rote-learning. The tracking mechanism should ideally be concerned with the profile of skill attainment of each student.

Since school education is largely a state subject, but it is also important to achieve minimum schooling norms at the national level, the institutional framework for this could be at the national level with state subsidiaries. The role of this testing body will simply be to provide information on the results of its assessments, with the state governments free to act upon this information. The results of such regular tests must be made publicly available in a format accessible to all, including websites.

The monitoring of private schools, in terms of ensuring a transparent admissions process, regulation of fee structures, as well as meeting minimum set standards for quality of teaching and infrastructure, also requires attention. There is currently no exact data on the numbers and enrolment of unrecognized private schools in the country, their fee structure or admissions policy, or their standards of infrastructure and quality. Private schools should become the subject of regulation and inspection within a set framework which is universally applicable.

2.6 The system of school inspection needs to be revamped and revitalized in most states, with a greater role for local stake holders.

The current inspection system is overburdened and inadequate, with a small number of inspectors required to cover a large number of schools, often spread over wide physical areas. The solution does not lie in simply expanding the system – rather, we need to develop systems to ensure meaningful monitoring. We recommend that the strategy for the revitalization of the school inspection system should include the following:

- Local stakeholders should be involved in the monitoring of schools, whether in the form of Village Education Committees, parent associations, or other such bodies.
- The number of inspectors needs to be increased in many states, and they must be provided the facilities to undertake their activities properly, such as transport, communications devices, etc.
- The inspectors themselves must be accountable to the stakeholders of the area, through appropriate checks and balances.
- The criteria for inspection, the dates on which inspection of particular schools has taken place and the results should be made publicly available, including by posting on websites.
- The monitoring and inspection of schools must be separated from school administration, as the two functions require completely different orientations.
- The criteria for inspection should include not only infrastructure, facilities and teacher presence but also minimum standards for quality.

2.7 The dignity of school teaching as a profession must be restored, and at the same time there should be transparent systems for ensuring accountability of school teachers

Teachers constitute the basic foundation of the school education system. However, there is a general decline in morale among school teachers, especially those in primary schools, and consequently it is no longer seen as an attractive profession for qualified young people. Two types of public perceptions, also propagated in the media and among officialdom, contribute to the low morale among school teachers: first, that anyone can teach and no particular pedagogical skills or training are required; second, that in any case most teachers do not work much and are frequently absent from school. While the latter may be the case for a relatively small minority of teachers, most school teachers are committed to their profession even if they have to function under very difficult conditions. However, they are also subject to many other pressures such as political pressure and obligations to perform non-teaching duties, which can prevent them from fulfilling their teaching duties adequately.

It is essential to ensure that qualified teachers are hired and provided with the necessary incentives to enable them to work better. The professional status of teachers should not be diluted, and all drives

at recruiting untrained teachers must be checked, although it is important to allow for flexibility in recruitment of teaches for specific subjects such as art, craft and livelihood skills. The use of para-teachers must be treated as a strictly transitional measure until proper schools are established.

The imposition of a wide range of non-teaching duties, such as that of manning poll booths and collecting data for surveys etc., cuts into the available teaching time and also undermines the professional status of teachers. These activities should be shared out among a wider range of public employees or even those hired specifically for the purpose, and the burden of such work on teachers must be reduced. Specifically, unemployed local youth and recently retired people may be considered for such activities as far as possible.

The recruitment of teachers from the locality has many advantages, as they can become accountable to the community, and have added stakes in improving the quality of education in their schools. In cases where local language or dialect is different from the state language, teachers familiar with the local language are likely to make better teachers.

We propose that teachers should be recruited to particular schools as far as possible. At the very minimum, school teachers should be appointed to a particular location for a minimum fixed term of at least five years, since a major problem cited by many teachers in the government school system is that of frequent transfers. (The specific case of attracting teachers to remote and backward areas is considered below under Access.)

There should be increased attempts to improve public recognition of the contribution of school teachers, through various incentives such as more local, state-level and national awards, etc.

It is necessary to monitor the emoluments and working conditions of teachers in private schools, which vary substantially, and prevent exploitation of teachers by private school employers as far as possible.

However, in addition to improving the working conditions of teachers, it is also necessary to institute measures to provide greater accountability of school teachers not only to their superiors, but to students, parents and the local community. Currently, any mention of increasing teacher accountability is viewed with hostility and suspicion by teachers themselves. Such an outlook needs to be changed. There is clearly need for greater accountability of teachers to the community and the school, and this will be facilitated by greater decentralization of school management to local stakeholders as has been suggested above. This should be accompanied by recognition of the concerns of teachers and allowing them more space to be active in school management and school activities. The actual administrative arrangements whereby this is done should be left to be decided at the state and local level. Systems of self-evaluation and peer evaluation of teachers should be encouraged.

2.8 The training of school teachers is extremely inadequate and also poorly managed. Pre-service training needs to be improved and regulated, while systems for in-service training require expansion and major reform in all states

Both pre-service and in-service teacher training programs face major problems at present, at the national level and in almost all states. With respect to pre-service training, there is a proliferation of private colleges awarding the B.Ed. degree, and these are inadequately monitored or regulated. A significant proportion of those who receive B.Ed. degrees do so through correspondence or distance learning courses, which involve absolutely no practical exposure. In any case, classroom experience is underplayed in standard B.Ed courses. At the same time, the employment of *ad hoc* teachers and those without even high school diplomas as teachers in the parallel stream perpetuates the notion that it is not necessary for school teachers to have systematic and prolonged pre-service training.

In-service training shows problems of inadequate quantity, uneven quality, outdated syllabi, and poor management. A very large proportion of school teachers in the country have received no in-service training at all. In any case, many DIETs are currently understaffed, demoralized, and incapable of giving good quality training to teachers. In part, this is because teacher training positions are often occupied by those who have not themselves been school teachers. In many states the administration of DIETs is left to bureaucrats who view this as a punishment posting and have no pedagogical experience. Further, DIETs typically lack adequate infrastructural facilities. Even when in-service training is regularly held, there is no mechanism which can monitor the impact of in service teacher training courses on the subsequent teaching-learning process in the classroom. Most SCERTs themselves hire contract teachers since there are very few qualified and regular teachers and lecturers. These therefore find it difficult to supervize functions at the block level unless their numbers are greatly increased. Funds are needed from the central government for human resource development at this level.

We therefore suggest the following for teacher training:
- Institutions providing pre-service teacher training and granting B.Ed degrees should be subject to the same regulatory authority, and there should be adequate monitoring of the training provided by private organizations.
- The budgetary allocation for teacher training needs to be enhanced and made explicit, and central government provisions are required for this.
- There has to be greater flexibility in the modalities of teacher training. Diverse strategies such as greater use of ICT, Visiting Trainers and empowering local trainers who would visit schools should be encouraged.
- State-level teacher training needs to be revamped in most states. The system of DIETs needs to be restructured. In some smaller states, there is a strong case for one state-level institution

for teacher training. In other states, the DIETs need to be strengthened and undergo structural changes. The faculty of SCERTs, SIEs and DIETs must be expanded, and include experienced school teachers. The use of contract teachers must be kept to a minimum. In addition, the link between university departments and school teaching needs to be strengthened.

- The administrative hierarchies within DIET and SCERT have to be restructured, so that there is a clear separation of personnel engaged in administrative and academic activities. (This distinction is currently blurred in most states.)

- The teacher training course should not be seen in terms of a finite period of time, but as a process by which the quality of teaching and learning in the classroom can be regularly improved, in a context that fosters an attitude of lifelong learning. Therefore there should be a mechanism for feedback and subsequent interaction between teachers and the training institutes, especially for pedagogical techniques that are new or require more continuous innovation from the teacher.

- Currently in-service training is offered through pre-determined themes which trivialize the role of personal meaning while upholding requirements dictated by educational reform agendas. Greater freedom of choice would help to increase personal initiative and absorption of training inputs. We therefore suggest the provision of short term in-service courses (in both contact and distance mode) that teachers can choose from. These could include courses developed outside the DIET/SCERT structure, subject to a thorough review of quality.

- In addition to being made more flexible, in-service teaching courses need to be incentivized, possibly by making attendance at and completion of such courses pre-requisites to professional advancement.

- There is need for curricular reform in both pre-service and in-service teacher training. The curriculum should be framed in ways that are directly relevant to teachers and the requirements of particular classroom situations, such as multi grade teaching, special needs of first-generation learners, etc. This means that curricula should be framed with greater inputs from teachers themselves, and their practical requirements in the classroom.

- ICT must be incorporated more fully into teacher training programs, which in turn leads to ICT being used more freely in the classroom.

- It is necessary to develop content for and access to open educational resources for teacher training.

2.9 It is important to develop and nurture leadership for managing schools

Even talented individuals who could be suitable for the tasks of school management need to be trained for this purpose. Such capacity building would create a pool of potential principals or heads. There a several ways in which this can be done. State governments could assign such training to existing institutions such as SCERTs or SIEs, leveraging the expertise available in Navodaya Vidyalayas, Kendriya Vidyalayas, other government schools and private schools. Such training programmes, as well as retraining programmes for existing principals, could also seek the expertise

of specialists in management education. Also, individual mentoring programmes for school leaders could be evolved.

2.10 The possibility of greater exchange between schools, including mentoring of one school by another should be allowed and encouraged

The current system creates many distinctions and prevents interaction between schools. There is need to constitute mechanisms of exchange and interaction between students and teachers of different schools. In addition, schools that wish to do so should be allowed to exercise the option of being 'mentored' by another school to improve facilities and teaching methods.

2.11 Curriculum reform remains an important issue in almost all schools. School education must be made more relevant to the lives of children. There is need to move away from rote-learning to understanding concepts, good comprehension and communication skills and learning how to access knowledge independently

Successive Commissions and Committees set up by the government have emphasized the need to make the curriculum more interesting, relevant, creative and useful for students. The National Curriculum Framework 2005 also clearly articulated such an approach. Nevertheless it appears that in a majority of schools across the country, a significant emphasis on rote-learning and memorizing facts remains the norm. Also, there is evidence of children being overburdened with too much detail and an excess of scholastic requirements at the elementary level.

It is important to orient students towards independent and continuous learning. This makes it essential to make greater efforts to change the attitude to learning and knowledge. It has been noted in several states that learning results have improved considerably upon providing inputs for communication and comprehension in language and basic mathematical skills using activity-based and imaginative pedagogical strategies. The focus of primary schooling in particular must be on good language and communication skills, basic foundation maths and inculcation of self-learning and critical examination through innovative teaching methods. For language teaching in particular, there should be much greater emphasis on communication skills at a practical level.

It is also important to ensure that the curriculum contains locally relevant content that children can relate to their own lives. For example, in certain parts of the country (such as, but not only, the Northeast) the curriculum at both primary and secondary levels could also include training in disaster management, especially for floods, while in other parts of the country responses to earthquakes may be more relevant. In rural areas, horticulture and pisciculture techniques should be included in the syllabus. Co-curricular reading material should be propagated, such as children's books with local stories and histories to strengthen the linkages between school and home.

To make secondary school education more relevant, and also address the problem of drop outs, NKC recommends the setting up of Livelihood Centres in secondary schools that would impart practical employable skills and provide career counselling to students. All school children should be encouraged to be involved in some practical activities that require working with the hands. These activities should *not* be treated as catering to a parallel stream, but should be provided to all students and integrated with the overall syllabus. Once again, links with the Skill Development Mission should be developed wherever possible.

2.12 Changes in the examination system are required, especially at Board level but also earlier, to ensure that the pressure for rote-learning is reduced

The current over-emphasis on details, memorizing of facts and similar abilities rather than on understanding and accessing knowledge independently is reflected in the pattern of examinations. Board examinations in which marks are awarded based on the ability to recall lots of details or on rapidity of response or on the ability to do large numbers of sums in a limited period through practice in pattern recognition, are not sufficiently discriminatory and may end up providing misleading results. They also put pressure on schools to ensure that memory and pattern recognition skills are developed at the expense of genuine understanding.

This is also reflected in the pattern of annual examinations which many schools continue to run even at very junior classes such as Class III and Class V. Performance in such examinations then becomes the basis for choosing students who will be eligible for scholarships or gain entrance to Navodaya Vidyalayas and similar schools. Forcing children to undergo a large number of examinations in different subjects, with an emphasis on memory rather than comprehension, must be discouraged at the primary level.

For curriculum reform to be successful, it is necessary to make major changes in the examination system. This applies equally to some of the national school boards (such as CBSE) and the state-level boards. It is also crucial to push for such reform in the annual examinations held by schools, where the testing must be focussed on language and comprehension, numeric and quantitative skills, and ability to use knowledge creatively.

2.13 New technologies, especially but not only ICT, should be used as much as possible to reduce costs, enable more effective use of resources, and provide wider exposure to students and teachers

The use of ICT as a teaching and learning device needs to be more firmly incorporated into the classroom. Both teachers and students need to be far more familiar with ICT, and get practical experience of web based research. Therefore ICT should be made more accessible to teachers, students and administration for learning, training, research, administration, management, monitoring,

etc. This requires the provision of more facilities such as computers as well as connectivity and broadband facilities. Computer-aided learning also requires training of teachers and other staff in order to make the best use of the technology.

2.14 There is need for a web-based portal for teachers to exchange ideas, information and experiences

A forum for teachers needs to be developed where they may interact, share experiences and ideas. This needs to be incorporated into teacher training programmes, and also provided generally for in-service teachers. A web-based teachers' portal can play an important role as such a networking forum.

3. Access

3.1 Special strategies are required to ensure greater access to schools in backward regions, remote locations and difficult terrains

There is a tremendous shortage of teachers and also great difficulty in ensuring minimum schooling infrastructure in some areas that have been historically deprived or have difficult topographical conditions. Distance and difficulty of physical access are important reasons for school dropout, especially in such areas. Sometimes it is also the case that such areas are inhabited by particular communities with their own language or dialect that is different from the state language. In order to ensure access to schools for children in such areas, special measures must be taken.

NKC recommends the following measures for such areas:
- Financial norms for schools in such locations must be different from those in more accessible areas, as they will require additional resource allocation based on particular conditions.
- Special incentives, including a financial incentive (such as a "hardship bonus") need to be provided for teachers to take up jobs in such areas. Two different models may be considered – one based on recruiting local teachers on a permanent basis for a job in a particular school without transfer; and another based on a transfer policy that divides locations into hard/middle/easy categories and allows teachers to rotate among them at specified intervals. Ideally, there should be at least one local teacher and one non-local teacher to ensure some variation, local acceptability and quality.
- Residential arrangements must be made for teachers in such locations, by providing quarters next to or near the school. The cost of building such quarters should be factored into the costs of the school building.
- There are some geographical zones especially in mountainous regions, that are plagued by unique problems due to vast tracts of land, difficult topography, and a sparse and nomadic population. In such areas, well equipped residential schools should be set up instead of insisting

on a school in every habitation. These schools must be equipped to look into the needs of very young children living away from their families.

3.2 Measures are required to ensure greater enrolment and retention of girl students

The high dropout rate of girls especially from Class V onwards is a matter of great concern. One major reason, as noted above, is the sheer lack of secondary schools nearby, as parents are reluctant to send girls to travel long distances to school. However, social conditioning and other constraints also play a role. Some policies to address this include:

- Special incentives for girls in secondary education where these are required (they are not required everywhere), in addition to free textbooks and uniforms, such as bicycles.
- Girls-only schools especially in particular areas.
- An enhanced scholarship scheme especially for girls, with particular emphasis on girls from socially deprived groups.
- The need for separate and functional toilets for girls in all schools, with access to water, is very important, especially but not exclusively in urban areas.

3.3 Language issues must be explicitly taken on board in designing school curricula and methods of pedagogy

Language has been found to be a highly alienating factor in the education of many school children, particularly amongst minorities, tribal communities with languages without a script, as well as linguistic minorities in most states. Many children resent the imposition of the state language as the medium of instruction, or as second language in school.

More teachers for teaching minority languages must be appointed in government schools to increase intake of children from minority language communities. Qualified teachers from the local community and therefore speaking the same language must be recruited on a larger scale, as a means of encouraging retention amongst those who feel marginalized, as well as a means of bringing greater community control in the school. This would also act as a boost to confidence, and provide role models to students from disadvantaged backgrounds.

3.4 The teaching of English should be introduced along with the first language, starting from Class I in school

Proficiency in English is widely perceived as an important avenue for employment and upward mobility, which also greatly facilitates the pursuit of higher education. The incorporation of English into the curriculum, through the introduction of English as a language in Class I and the teaching of one other subject in English medium in later classes, requires pedagogical changes to contextualize

language learning, increasing the availability of English language teachers and those who can teach at least one subject in English, as well as bilingual and supplementary teaching materials.

At the same time, school education must commit to promoting multilinguality, given the multilingual nature of our country.

3.5 There is need to re-orient official strategies for ensuring better access of Muslim children to schooling

Areas with Muslim majority population have tended to be overlooked in the implementation of government educational schemes. In addition, with a few exceptions, there has been less private initiative in this regard. As a consequence, Muslims as a community, fewer government schools, girls schools, and higher educational institutions. It is important to rectify this gap and ensure adequate public expenditure to ensure that the physical and social infrastructure for schooling is made available. This means that the government should have a minority component in all its school development schemes and budget outlays, which should be in proportion to the minority population.

The strategy cannot be based solely on more public resources provided to madrassas for their modernization, as according to the Sachar Committee Report, 96 per cent of Muslim children do not attend madrassas for schooling. Indeed, if the modernization of madrassa education is the only policy for increasing access for Muslim school children for a modernized education, it will only result in their being further isolated.

It is important to ensure that children from all minorities and socially deprived groups are not discriminated against in the process of attending school. This must be an active and concerted campaign, in which syllabi and curriculum are checked to avoid prejudice, teachers are sensitized and instances of discrimination are punished. This also requires grievance redressal mechanisms at the school level and also at higher levels.

3.6 The access of children from Scheduled Tribes requires more flexible and sensitive schooling strategies

Tribal children face problems of inadequate geographical access, discrimination at school and issues of language, which have been discussed earlier but are especially relevant in these cases. Tribal students have to compete with SC students, often at a disadvantage to the former. All of these must be addressed at the local level as well as at the district and state level.

Every state should have an education policy for tribal and minority education, with a long term vision of eventual integration into the mainstream.

Rather than setting up separate schools for those who have dropped out because they felt discriminated against, teachers should be better sensitized to the needs of students from such communities, as well as the particular needs of first generation learners.

The issue of language is particularly important in areas with tribal population, and care must be taken to find and train teachers who can deal with children in their own language, rather than forcing them to adjust to the regional language.

3.7 Education of SC children must be a priority, but with the required flexibility and avoidance of discrimination

The points made earlier with respect to discrimination are especially valid also for SC children, and must be addressed in similar ways.

In addition, scholarships should be increased and provided to much larger numbers of Dalit children, along with other provisions such as free textbooks up to Class X and other incentives.

3.8 Children of seasonal migrants require special conditions and efforts to ensure continuous access to schooling

Seasonal and short-term migration is a major cause for early drop outs and non enrolment. In order to ensure that such children have access to a quality and complete education, their economic insecurity has to be taken into account while formulating educational schemes. Tent schools and mobile schools must be made a part of the urban landscape for migrant children, while rural school also have to be made aware of the need to admit migrant children. This requires a significant change in the way that school admissions and enrolment are carried out, as well as greater sensitivity, flexibility and effort on the part of the school administration, all of which require hard and soft resources. It is necessary to identify good practices in this regard which can serve as a model to be emulated elsewhere.

3.9 Labouring children require incentives and bridge courses

Some sort of monetary stipend may have to be paid to labouring children to bring them into schools. In addition, synergies must be created with NREGA to look into school education concerns of labouring children. Pre-school systems like balwadis and anganwadis must be strengthened, so that a school going habit can be ingrained, as well as providing a space for small children to be cared for, while their elder siblings may go to school. Alternative Centres for Education must be utilized specifically to provide bridge courses aimed at different age groups and classes for drop outs. However, the use of Alternative Centres for Education must be no more than in a transition capacity. AIE should not become the only option for access to poor school children for a school education.

Study Centres must be provided for first generation learners and seasonal migrants as a space which is more conducive to learning than what may be available at home. These may also be used as community centres, libraries, etc.

3.10 The needs of physically disadvantaged children, as well as teachers, have to be factored in more thoroughly in provisions for school education

The goal in all schools should be inclusive education, which means that all systems must be oriented to allow the greatest possible access to children with different needs and abilities. This requires substantial changes in both infrastructure and pedagogical methods. School buildings must have provisions for access and navigation for the visually impaired, the physically handicapped, etc. Teacher must be trained, sensitized and empowered to deal with children with different abilities in the classroom situation.

While this is the ultimate goal, it must also be recognized that current schooling patterns are not always conducive to bringing out the full potential of physically disadvantaged children, and that therefore there is still a case for special schools. There is a perception that government mechanisms may not be best suited to provide sustained and sympathetic support for learners with special needs and severely disabled children (such as the blind). In this context, it may be better to identify appropriate and willing institutions outside the government who may become partners.

NKC Consultations on School Education

National Workshops
National Seminar on School Education at NKC, New Delhi
29th July 2006

1. Prof. R. Govinda
   Head, School and Non-formal
   Education Unit
   National Institute of Educational
   Planning and Administration
   (NIEPA)

2. Dr. Vimla Ramachandran

3. Mr. Vinod Raina
   Hoshangabad Science
   Teaching Program

4. Parth Shah
   Centre for Civil Society

5. Dr. Madan M. Jha
   Secretary, Deptt. of Human Resource
   Development

6. Dr. Vasanthi V. Devi
   Kalvi Alliance for Education, Tamil Nadu

7. Dr. V.P. Niranjanaradhya
   Senior Research Officer, Centre for Child
   and the Law, National Law School of
   India University

8. Ms. Madhu Prasad
   Reader, Deptt. of Philosophy
   Zakir Husain College,
   Delhi University

9. Ambarish Rai
   People's Campaign for
   Common School System

10. Dinesh Abrol
    NISTADS, India

11. Subhash Kuntia
    Joint Secretary, Deptt. of School
    Education and Literacy, MHRD

12. Champak Chaterjee
    JT Secretary, MHRD

13. Manju Bharatram
    Principal, Shri Ram School

14. Anita Rampal
    Department of Education,
    Delhi University

15. Vrinda Swaroop
    Joint secretary, MHRD

National Seminar on School Education at NKC, New Delhi
20th November 2007

1. Ms. Shikha Pal
   Deepalaya Foundation

2. Ms. Monideepa Ray Choudhary
   Deepalaya Foundation

3. Mr. Mani
   Education Officer, CBSE

4. Sh. Sandeep Pandey
   Co-Founder, ASHA for Education

5. Prof. R. Govinda
   NUEPA

6. Ms. Puja Sondhi
   Teach for America

7. Ms. Mamta Saihia
   Bharti Foundation

8. Prof. James Tooley
   President, The Education Fund

9. Smt. Kumud Bansal
   Secretary (retd.),
   Elementary Education and Literacy
   Govt. of India

10. Prof. Shyam Menon
    Delhi University

11. Ms. Annie Koshi
    Principal, St Mary's School

12. Smt. Lata Vaidyanathan
    Principal, Modern School BK

13. Mr. Dhir Jhingran
    Room to Read

14. Prof. Pratap Bhanu Mehta
    Centre for Policy Research

15. Mr. K. B. Kain
    Principal, Delhi Public School Jaipur

16. Dr. Madhav Chavan
    Pratham

17. Prof. Krishna Kumar
    Director, NCERT

Regional Workshops

Southern Region at National Institute of Advances Studies, Bangalore 17th-18th July, 2007

1. Prof. A.R. Vasavi (Nodal Convener)
   National Institute of Advanced Studies
   (NIAS)

2. Sh. D.R. Garg, IAS
   Secretary, Sarva Shiksha Abhiyan
   Andhra Pradesh

3. Mr. Rao
   Rishi Valley Rural Schools

4. Sh. Vijay Bhaskar
   Secretary, Primary and Secondary
   Education, Karnataka

5. Prof. P.R. Panchamukhi
   Founder-Director
   Centre for Multi-Disciplinary
   Development Research
   Dharwad

6. Ms. Benazir Baig
   Raza Education and Social Welfare Society

7. Mr. Samiullah
   Raza Education and Social Welfare Society
   and General Secretary, Federation of
   Karnataka Muslims' Association

8. Father Claude D'Souza
   St. Joseph's College of Arts and Science

9. Dr. Padma Sarangapani
   DQEP, NIAS

10. Dr. Sonali Nag
    The Promise Foundation

11. Ms. Mythili Ramachandra
    Rishi Valley Foundation

12. Kamal Peter
    Oracle Education Initiative

13. Sister Cecilia D' Souza
    Maria Krupa, Provincial Head, Mysore

14. Ms. Mamatha M.R.
    Swami Vivekananda Youth Movement
    (SVYM)

15. Ms. Malathi
    SVYM

16. Mr. M.P. Vijayakumar
    State project Director, Sarva Shiksha
    Abhiyan

17. Ms. Lakshmi
    Principal, Olcott Memorial High School

18. Mr. Muralidharan
    Founder-President, Sevalaya

19. Dr. Aruna Ratnam
    Project Officer, Education, UNICEF

20. Mr. Balaji Sampath
    Tamil Nadu Science Forum

21. Mr. S.M. Arasu
    Prime Educational and Social Trust

22. Mr. Desigan

23. Mr. K.T. Radhakrishna
    Kerala Sahitya Shastra Parishad

24. Dr. Ajit Kumar
    Director, Centre for Socio-Economic and
    Environmental Studies (CSES)

25. Dr. K.M. Unnikrishnan
    Senior Lecturer, DIET Kasaragod

26. Mr. C. Madhusudhanan

27. Ms. K. Latha
    NIAS

Central Region at IIM, Lucknow
3rd-4th August, 2007

1. Dr. M. M. Jha (Nodal Convener)
   Principal Secretary, Department of
   Education, Govt. of Bihar

2. Sh. Raghuvansh Kumar
   Director, Bihar School Education Board

3. Sh. Ajit Kumar,
   Deputy Director, Secondary Education,
   HRD Bihar

4. Dr. P.P. Ghosh
   Director, Asian Development Research
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30. Ms. Mira Kumari
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31. Mr. Smitin Brid
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32. Mr. Amit Bajpai
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37. Smt. Uma Sri
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38. Mr K.L. Shejwar
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39. Mr. Sajaan Singh Shekhawat
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40. Mr. Shutanshu Shukla
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Eastern Region at Indian Council of Social Science Research, Kolkata 25th-26th August 2007

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4. Dr. Rathindranath De.
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    Dr. P.M Institute of Advanced Studies in Education, Sambalpur, Orissa

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55. Dr. Adikanda Mahanta
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57. Dr. Susandhya Mag
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North-East Region at Indian Institute of Technology, Guwahati 10th-11th September 2007

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12. Sr. Elizabeth George
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25. Mr. Lalhmachhunana
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26. Mr. H. Lalsawmliana
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27. Prof. Lianzela
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28. Mr. C. Laremruata
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31. Mr. V. Tonsing
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35. Fr, George A. D'Souza
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Northern Region at India Habitat Centre, Delhi
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2. Prof. Neeraj Sharma
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Western Region, Indian Institute of Education, Pune
23rd November 2007

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Annexure

Highlights of other NKC Recommendations relating to School Education

Right to Education Bill

NKC believes that providing universal access to quality school education is a cornerstone of development and a minimum necessary condition for any progress towards making India a knowledge society.

NKC would like to respond specifically to the recent initiative of the central government of sending a model Right to Education Bill to the Secretaries of State Education Departments, with incentives for the state governments to enact this bill. NKC has perused the bill and consulted with a wide range of experts and educationists. It feels that the model bill is flawed for a number of reasons, and most importantly that such legislation must be enforced by the central government following upon the commitment made in the Constitutional Amendment Article 21A.

NKC recognizes that there may be concerns about federalism, since school education is dominantly the responsibility of the state governments at present. However, it feels that this matter can be resolved through an appropriate central legislation which takes into account the following proposals:

1. Central legislation

Legislation at the national level is required to affirm the Right to Education, which is a fundamental right mandated by Article 21A. Since it cannot be dependent upon which state a citizen lives in, a model bill sent to be enacted individually by State Governments is not adequate to meet the constitutional responsibilities of the Government of India. Therefore, a central legislation should be enacted along the lines of the Panchayati Raj (Amendment) Act, requiring the states to enact Right to Education Bills within a specified time period, and with the primary financial responsibility for this resting with the central government.

2. Financial commitment

The Central Government must provide the bulk of the additional funds required to ensure the Right to Education. Therefore there must be financial provision in the central legislation, requiring the central government to share the revenues of the Prarambhik Shiksha Kosh with state governments and to provide additional resources as required to meet the requirement of ensuring the right to all children. Estimates for the additional resources required to achieve the goal of universal elementary education currently range from 0.8 per cent to 2.5 per cent of GDP, depending on the criteria used. However, the required financial resources are likely to be at the lower end of these estimates, since there is already close to universal provision in several

states and there has been recent progress in providing more access through the Sarva Shiksha Abhiyan in other states.

3. Time frame

The state-level legislation should specify the period within which universal education of reasonable quality is sought to be achieved, preferably within three years. The model bill does not provide any time frame for adoption and implementation of the provisions.

4. Schedule of norms and standards

To ensure a minimum quality of education, it is important to have a schedule of norms for all schools to follow. The model bill does not have such a schedule of norms, and there is no specification of the minimum quality of education that schools should provide. There is only a reference to 'equitable quality' without defining the parameters of quality. While ensuring quality is a complex matter, certain norms regarding infrastructure, number of teachers per school and per student, teaching methods and other facilities, must be adhered to as necessary conditions.

5. Specification for teachers

Since teachers are critical to ensuring the quality of education, it is particularly important to lay down well-defined but flexible norms for the minimum qualifications of teachers. The model bill has no specification of a teacher, or the qualifications and in-service training needed for the position. A teacher is only defined as a person who teaches in the classroom. It is necessary to specify norms for teacher qualification and training.

6. Justiciability

Any right, including the Right to Education, is only meaningful if it is justiciable. However, in the model bill sent to state governments, the onus is placed on parents or guardians of the child. The responsibility of the Government, at different levels, must be recognized and made justiciable. The example of the National Rural Employment Guarantee Act (NREGA) could be used in this context.

7. Redressal mechanism

To ensure justiciability, a redressal mechanism should be outlined and an appropriate procedure must be set in place for students or parents in case the right is not upheld.

8. Universal schooling

School education must be provided to all. This necessarily also requires that children of the disadvantaged, landless and minority communities must also be integrated, along with children

with disabilities or special needs. There should be no distinction made in terms of the type of schooling provided within the government system for children from different social, economic and cultural backgrounds. The model bill has the potential of creating a parallel and discriminatory system of schooling which can result in stratification of the education system for children from disadvantaged communities and backgrounds, because it requires only provision of non-formal education in such cases, rather than mandating the provision of regular schooling.

Obviously, in all cases, the school system should be flexible enough to cater to particular needs of students.

In a subsequent letter to Prime Minister, NKC reiterated that the proposed central legislation on RTE must include a financial commitment on the part of the central government. NKC believes that the potential expenditure on this is probably less than has been estimated earlier. The Kapil Sibal Committee that had prepared the CABE draft had estimated an expenditure of **Rs.2,20,643 crore** for the period 2008-2012. However, this was based on population projections for the future that have since been revised downwards by the Census of India. For example, current population projections suggest that there will be at least 6 million less children in 2011-12 than the earlier projections used by the Sibal Committee had indicated. This in turn means a significant reduction in the estimated costs for universal schooling. Using the same per capita spending with the new population projections gives a total cost for the five year period 2008-2012 of **Rs. 1,51,273 crore,** based on 50:50 division of SSA. This amounts to an average of just above Rs. 30,000 crore per annum, which is much less than 1 per cent of GDP and also less than 8 per cent of total central government spending.[1]

In this connection, NKC would also like to express its concern about the recent decision of the central government to reduce the central funding for the Sarva Shiksha Abhiyan from 75 per cent to 50 per cent. There is a fear that this may lead to a sharp curtailment of progress towards universal school education, especially in the more backward states where the gap is greater. It is worth noting that state governments are already incurring the bulk of school education expenditure.[2] NKC strongly recommends that, in addition to 50 per cent of SSA, the Centre should provide all the necessary funding to ensure the Right to Education in those states where the state government is already spending at least 15 per cent of its total budget on school education.

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[1] If the centre provides 75 per cent of the spending for SSA, the additional cost would be Rs. 37,000 crore over the 11th Plan period, that is around Rs. 7,000 crore per annum.

[2] Currently, the ratio of central government to state government spending for school education, including SSA, is 12:88. If mid-day meals are included, it is 20:80.

English Language Teaching

The National Knowledge Commission has emphasized the importance of an inclusive society as the foundation for a knowledge society. NKC has also recognized the significance of language, not only as a medium of instruction or a means of communication but also as a determinant of access. An understanding of and command over the English language is a most important determinant of access to higher education, employment possibilities and social opportunities. School-leavers who are not adequately trained in English as a language are always at a handicap in the world of higher education. More often than not, teaching is in English. Even if it is not, in most subjects, books and journals are available only in English. And those who do not know English well enough find it exceedingly difficult to compete for a place in our premier educational institutions. This disadvantage is accentuated further in the world of work, not only in professional occupations but also in white-collar occupations overall.

This reality is not lost on our people, who recognize that the English language is a critical determinant of access to, and opportunities for a better life. Available information suggests that middle-income or lower-income households spend a large proportion of their modest income on sending their children to relatively expensive English medium schools. Such educational opportunities for children are a priority that is almost at par with health care for the family. But there are a very large number of people who simply do not have the resources for such investment. The outcome is exclusion. We believe that inclusion is possible through public provision.

There is an irony in the situation. English has been part of our education system for more than a century. Yet English is beyond the reach of most of our young people, which makes for highly unequal access. Indeed, even now, no more than one per cent of our people use it as a second language, let alone a first language.

These realities cannot be changed overnight. But NKC believes that the time has come for us to teach our people, ordinary people, English as a language in schools. Early action in this sphere, would help us build an inclusive society and transform India into a knowledge society. In just 12 years, it would provide the country's school-leavers with far more equal access to higher education and, three to five years thereafter, much more equal access to employment opportunities.

The Commission engaged in informal consultations on this subject with a wide range of people in government, academia, media and industry. It consulted some Chief Ministers in the states. It consulted Members of Parliament. It consulted people in professions such as medicine and law as well as civil society organizations. There was unanimity that this can and should be done.

A Working Group was constituted to work out the modalities in terms of first steps. The report submitted by this group was used as an input in NKC's deliberations.

NKC recommends that the teaching of English as a language should be introduced, along with the first language (either the mother-tongue or the regional language) of the child, starting from Class I in school. This phase of language learning should focus on using both languages to create meaningful learning experiences for the child without disproportionate emphasis on grammar and rules.

NKC recognizes that nine States (of which six are in the north-east) and three Union Territories have already introduced English as a compulsory subject from Class I onwards. In addition, as many as 12 States and three Union Territories have made English a compulsory subject, at different stages in primary school, by Class V at the latest. However, the implementation is slow and the quality of English language teaching is simply not good enough. The support systems, such as the number of teachers or materials for teaching, are neither adequate nor appropriate. NKC is recommending a fundamental change that seeks to introduce, nationwide, the teaching of English as a language from Class I onwards. This is not meant to be a stand-alone, add-on subject, but is meant to be integrated into the school curriculum.

Language learning cannot be separated from, and must be integrated with, content learning. Therefore, English should also be used to teach some non-language, content subjects, starting from Class III in school. The choice of subjects for this purpose can be left to schools depending on the proficiency of teachers and availability of materials. This would, in effect, create multi-medium schools. It would also help reduce the divide between English medium schools and regional language-medium schools.

The pedagogy of language learning as well as teaching should be suitably contextualized, to lend meaning to real situations and daily lives. Moreover, assessment should be based on proficiency rather than specifying achievement targets that reward mastery of single texts acquired through rote learning. To this end, a National Testing Service (NTS) for certification of language competence as well as recruitment of language teachers should be set up.

In order to meet the requirement for a large pool of English language teachers, graduates with high proficiency in English and good communication skills should be inducted without formal teacher-training qualifications. They could be selected through an appropriate procedure developed by the National Testing Service and then given a short–term orientation. The nearly four million school teachers all over the country, regardless of their subject expertise, especially teachers at the primary level, should be trained to improve their proficiency in English through vacation training

programmes or other short-term courses. Most teacher training programmes are not based on a real assessment of needs of teachers. Thus, the entire teacher training system catering to pre-service and in-service training that exists today, including training for language teaching, needs to be thoroughly reviewed, recognizing the centrality of language in the curriculum.

A multiplicity of English textbooks should be made available to address the diversity of English language environments in the country. However, to ensure that certain standards are maintained, benchmarks may be laid down for the content of textbooks at each stage. For this purpose, an expert group should be set up to develop pedagogically sound English textbooks for every level, from Class I to XII. These should be used as models by states and made freely available on the web to allow easy access. While the State Council for Educational Research and Training (SCERT) may continue to be a nodal agency for textbook development for state board schools, the writing of textbooks needs to be further decentralized. To make the exercise more collaborative, civil society organizations with expertise in the domain should be involved in developing textbooks.

Since language learning takes place not only through direct instruction but also through assimilation from the environment, the classroom needs to be equipped with appropriate supplementary audio-visual and print material. Resource libraries could be set up in every classroom, comprising a collection of books, magazines, newspapers, audio-visual material and posters, appropriate to the age of the students, on a variety of subjects. Language learning opportunities should also be created outside the classroom through specific bi-lingual radio and TV channels, which could be introduced for formal and informal teaching and learning of English. Knowledge clubs could be formed to discuss and disseminate knowledge as well as extend the use of English outside the classroom. Given that language learning requires extensive resources, a centrally sponsored scheme of financial assistance for developing English language resources (teachers and materials) should be instituted to address this requirement.

State governments would need to be equal partners in the implementation of this idea. NKC therefore proposes that the Prime Minister discuss this matter with all Chief Ministers at the National Development Council, to formulate a National Plan for the teaching of English as a language, in addition to the regional language, starting in Class I. This would also ensure that at the end of 12 years of schooling, every student is proficient in at least two languages.

Additional Extracts

Vocational Training

- Increase the flexibility of VET within the mainstream education system through the following steps
    i. Aspects of general education (such as numeracy skills) should be retained in VET as far as possible, to enable students to return to mainstream education at a later stage.
    ii. Courses in training institutes and polytechnics should have distinct tracks for students of different educational attainments.
    iii. Entry requirements for certain trades should reflect the requirement of the trade (as appropriate, for instance the entry requirement of Class X could be relaxed to Class VIII in some cases). Students should be permitted multiple entry and exit options in the vocational education stream.
    iv. Links should be established between the vocational education stream and school education as well as higher education.
    v. Courses devoted to certain skills training at the primary and secondary level should be introduced in all schools.
    vi. Vocational training should be made available in various literacy and adult education schemes.
    vii. Schemes for lifelong skill up-gradation, through short training programmes, should be introduced.
    viii. There should be a provision for generating a cadre of multi-skilled persons.
- Quantify and monitor the impact of vocational education
- Increase resource allocation to vocational education
- Expand capacity through innovative delivery models
- Enhance the training options available for the unorganized and informal sector
- Ensure a robust regulatory and accreditation framework
- Ensure proper certification
- Undertake a re-branding exercise

Open Educational Resources

Our success in the knowledge economy hinges to a large extent on upgrading quality and enhancing access to education. One of the cost effective ways of achieving this would be to stimulate the

development and dissemination of quality Open Access (OA) materials and Open Educational Resources (OER) through broadband internet connectivity:

- Support the production of quality content by a select set of institutions by launching a 'National E-Content and Curriculum Initiative'.
- Develop a network enabled infrastructure to facilitate access to online multimedia educational resources through broadband internet connectivity
- Undertake faculty development and teacher training programmes to develop pedagogic skills using new educational technologies

Libraries

- Set up a National Commission on Libraries
- Prepare a National Census of all Libraries
- Revamp Library Information Science (LIS) Education, Training and Research facilities
- Re-assess staffing of libraries
- Set up a Central Library Fund
- Modernize library management, encourage greater community participation in library management
- Promote Information and Communication Technology (ICT) applications in all libraries
- Facilitate donation and maintenance of private collections
- Encourage Public Private Partnerships in LIS development

Translation

- Provide impetus for developing translation as an industry
- Establish a store-house of information on all aspects of translation involving Indian languages
- Promote printed as well as virtual publication of translation studies
- Create and maintain various tools for translation and encourage machine translation
- Provide quality training and education for translators
- Translate pedagogic materials at all levels specifically in the natural and social sciences
- Project Indian languages and literatures through high-quality translation
- Set up a national web portal on translation
- Organize Annual National Conferences on translation
- Promote book launches, festivals, fellowships and prizes for translation.
- Set up a National Mission on Translation for this purpose.

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