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28 June 2019

The Hon'ble Minister
Ministry of Human Resources
Govt. of India.
New Delhi

Sir,

On behalf of the fellowship of three science academies viz., the Indian National Science Academy, the Indian Academy of Sciences and the National Academy of Sciences, India, we enclose herewith our comments and suggestions on the Draft National Education Policy-2019. We hope that these will be examined and appropriately incorporated in the final policy.

The combined fellowship of the academies comprises about 2500 Scientists, Engineers and Medical Scientists of eminence in the country. The enclosed comments are collated inputs.

The Academies will be willing to assist the Ministry of Human Resource Development in this process and, if desired, will depute colleagues to discuss any of the aspects in detail.

We shall appreciate your acknowledgement.

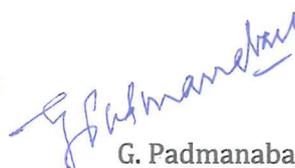
Thanking you and with regards,



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Observations
on the
DRAFT
OF
NATIONAL EDUCATION POLICY – 2019

By

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PREAMBLE*

The Draft National Education Policy-2019 (DNEP) comprehensively deals with education at various levels ranging from pre-school, to higher secondary, college and university, including professional courses. It has also addressed the issues of governance for these institutions and has made several recommendations with the aim of bringing about fundamental changes in the education system, especially with regard to autonomy, governance, and quality of learning experience. Many of the individual suggestions in the DNEP are well-conceived and welcome.

However, the DNEP as a whole also contains many drastic recommendations that likely will damage, rather than improve the entire fabric of education system. In particular, the DNEP does not make a compelling case for why radical alterations to the fundamental structure of the education system are required. An alternative approach could be to add novel elements to strengthen existing diverse academic structures that have evolved organically, in some cases over a century, while adapting to the diversity and region-specific realities of the Indian education eco-system. Moreover, at multiple places, the DNEP contains prescriptions/assertions that need a revisit and re-evaluation.

*The National Science Academies accessed this report from the MHRD Website and decided to participate in the consultative process made available to all. These joint observations on D-NEP-2019 have been prepared with wide consultation with their Fellows. This being the first such opportunity to provide their inputs to DNEP and contribute to a step in Nation building, the academies have strived hard to provide serious inputs keeping in mind the best interest of Education in Future India. The academies offer to provide the services of their Fellowship in revising and/or improving upon various aspects of NEP.

Further, it would have been desirable, if a synthesis of the present system, reasons for partial implementation of past education commissions and the causes for their ineffective delivery were considered along with discussion on how lapses in the past implementation strategies would be addressed to ensure against a repeat failure.

Like health, education is a heavily decentralized domain, and a top-down approach of legislating policies is unlikely to gain traction in India, with its varied eco-systems for education. Moreover, education is on the concurrent list and, as such, prescriptions for over-arching and highly centralized national level regulatory bodies would need due diligence in respect of the involvement of states in the spirit of federalism. Similarly, the availability of the DNEP document in Hindi and English only has already disadvantaged stakeholders in many States.

In its present form, DNEP despite being a policy document, is a strongly prescriptive document sweeping aside many key elements of the education system that have evolved by natural selection over a long period of time. With democratization of knowledge and availability of technology for easy access to information, DNEP should have focussed more on *how to teach* and not only on *what to teach*. In the spirit of any good educational program, the State should only address the issues of maintaining quality and encouraging teachers and students towards achieving academic excellence; thereby helping realize India's demographic dividend. While an adequate exposure of ancient Indian

educational traditions and institutions is desirable, this may be limited to the need to teach students about significant ancient Indian contributions to early developments in sciences, mathematics, medicine, engineering, agriculture and the fine arts. In addition, it would also be advisable to include instructions on geo-heritage, archaeology, palaeontology and biodiversity of India (in both marine and terrestrial realms) to provide a wholesome view of India and its natural heritage.

The landscape of education and technology is rapidly evolving and the focus in the future should be on developing robust systems that keep pace with these developments.

This comment on the DNEP has been prepared by the three National Academies of Sciences and draws from extensive discussions with a wide range of educationists (teachers and researchers), students (school children, undergraduate and post-graduate and Ph.D. students) and other professionals. It focuses on some of the most pressing issues of concern, rather than attempting to be comprehensive and detailed. In the following, specific itemized comments that need careful revisiting have been flagged. It will require substantial deliberation to work out the detailed modalities for implementing some of these, and the three National Science Academies would be willing to assist in that task.

A. SCHOOL EDUCATION:

This phase of learning is the most important in the lives of citizens and thus needs careful planning, and meticulous implementation of the plans and policies. As noted in the DNEP, in order to achieve these ends, *much greater financial outlay is needed so that all schools across the country have the requisite infrastructure and competent teachers who are remunerated appropriately.*

Demographic trends indicate that in the years and decades to come, India will need to deal with much larger numbers of students who will require quality education. Many of these will be first-generation learners and would therefore require competent teaching in order to acquire the skills that would help fast-track their quality of life. Additional measures would be needed to make the teaching profession an attractive career option, to innovate on pedagogy, and to optimally use technologies and laboratory experiments to support the learning process. As parents have an important role to play in a child's education in the formative years, all primary schools dealing with first-generation learners should have active programs that engage parents to make them aware of their roles and train them in activities that enhance learning abilities of their wards.

In the sub-sections below, we flag some issues of concern that need a careful revisit.

A1. Reform of school examinations and grading of students (DNEP- Chapters 2,4 and 8, esp. P4.9):

- An undue premium on examination, arising due to a large and aspirational young population faced with a paucity of institutions of high quality and opportunities, needs to be addressed. At present, the entire education system has become subservient to “success” in “public examinations”, such as the school-leaving examinations, or the entrance tests for seeking admission to institutions of higher or professional education. Consequently, examinations, by and large, are only rewarding short-term memory, and basic learning of concepts per se is compromised. While implementing the various proposals in the DNEP, care needs to be taken that such limitations of the examination system are minimised, and the focus of the examination system should be restricted to testing the conceptual understanding of the subject.
- Some of the major issues holding back school education are: i) outdated syllabi, ii) poor or even non-existent infrastructure, iii) poorly trained teachers with abysmally low pay and very harsh working conditions, and, iv) political interference in syllabus-setting, teacher appointment and administration. *The DNEP needs to adequately address these issues through due consultation with all stake-holders at the Central and State levels.*
- The current ‘No Detention Policy’ till class 8 has been impractical, and has diluted educational standards. While the DNEP does refer to the need to revisit this policy (DNEP- 8.4.2e), it proposes State Census Examinations in classes 3, 5 and 8

(DNEP- P4.9.4). This is likely to go to the other extreme of putting a burden of examinations on students, even at young ages. It would be advisable to have only a system of continuous assessment of aptitude and development of basic abilities during classes 1 to 5, with advice and feedback to parents, avoiding formal examination. Thereafter, examinations focusing on core concepts, skills and higher order capacities (as envisaged in DNEP- 4.3.1) could be introduced in a gradual manner, leading to State Census Examinations (i.e. Board examinations) after classes 10 and 12, respectively.

- The DNEP proposes that State Census Examinations be offered in a range of subjects, with students having the flexibility of choosing their subjects, and the semester when they want to take these board exams (DNEP- pages 105-106 in section 4.9, P4.9.5). Allowing students, a wide flexibility to choose their subjects and the time of examinations is impractical. Flexibility in choosing courses to study, subject to some constraints based on inter-dependencies of various disciplines (see A.8, below), is good, but that flexibility should not be extended to choice of the subjects the student is to be examined in. Moreover, the envisaged computer-based multiple-choice examination system (DNEP- P4.9.3) totally precludes assessment of abilities like power of expression and writing skills, thereby making it difficult to properly assess the understanding of core concepts by students.

- The DNEP document stresses the need for formative assessment and has coupled this with a National Tutors Programme (NTP) (DNEP- P2.5, P2.7, P2.8) and Remedial Instructional Aides Programme (RIAP) (DNEP- P2.6, P2.7, P2.8) to help students who fall behind. However, for NTP and RIAP to succeed, a broader social movement is also required. This calls for action outside the field of education as well. The suggestion in this regard made in DNEP- 2.17, while attractive in principle, raises concerns about the *lateral entry' into the educational system of people chosen for reasons other than their academic qualifications*. Indeed, this suggestion goes against the spirit of the recommendation that the practice of para-teachers be stopped (DNEP- P5.1.8). Moreover, if despite attempted remedial action a student still lags behind, will he/she be detained and asked to repeat the course? *Thus the vexed question of 'no detention' as a policy remains largely unaddressed.*
- In attempting to ensure uniformity in the board examinations (classes 10 and 12), the respective boards provide standard answer-templates to examiners. This has resulted in severe straitjacketing of both thought and language, and has encouraged rote learning. Such practices need to be effectively regulated and modified. *The DNEP, while it recognizes this problem and mentions possible solutions (DNEP P4.7.1, P4.9 pages 104-105, P4.9.1, P4.9.2, P8.2.1b), does not actually provide any detailed mechanism for its resolution.*

A2. Diversity and advisability of a national curriculum (DNEP-P2.11, P 4.1.1):

While the DNEP does state the need for a diverse education across all levels in seeking an all-embracing policy, its operational details do stand the risk of excessive straitjacketing. For example, DNEP fails to fully recognize that our enormous diversity in terms of education, culture and historiographic components demands fairly local prescriptions/ examples.

- *In view of the above, a nationally-mandated detailed curriculum, at the school or HEI level is not desirable. At the school level, the common programme should only pertain to mathematics, science, aspects of language(s), the shared history and social science constructs etc. In addition, each state and region should be encouraged to further inculcate knowledge of local history and culture, with the use of local examples in teaching modules, as far as possible, as also stressed in the DNEP- Chapters 4 and 6. Due and formal emphasis on extra- curricular activities including NCC/scouting /girls guide training and sports should be given at all levels of school education, as envisaged in DNEP 4.6.4.1.*

A3. Merging of secondary and higher secondary education (DNEP- page 28, P 4.1.1d):

This suggestion, supposedly aimed at improving matters, would actually cause further deterioration of the school system for the following reasons. An established goal of the 10+2 system is that every child should get generally similar education for the first 10 years, and specialize thereafter. Merging classes 9 and 10 with the +2 levels as a single component would reduce the common component and at the same time, would not let many to diversify into more vocational fields after the 10th standard. Further, the proposed clubbing of classes 9, 10, 11 and 12 together into a single unit, may force many students to discontinue their schooling at class 8, instead of after class 10, as at present. This is not in consonance with the goal of enhancing the reach of foundational education (DNEP- Vision Statement and Chapter 6).

- *The 10+2 system itself is working fine, and should continue along with other desired changes as discussed later.*

A4. Starting school at 3 years (DNEP- P 1.1b; 4.1.1a):

- The idea of creating a framework for learning through play, discovery and activity based approach at foundational stage is welcome. However, there appears to be a mismatch between the statements in Chapters 1 and 4, in this regard. Therefore, care must be taken to avoid any kind of formalism up to age 6, especially given the prevalent tendencies to do so in schools. For

this reason, it may not be a good idea to attach the play schools/*anganwadis* with formal schools.

- A large number of crèches/*anganwadis* and playschools, will be needed. These should be opened in both urban/rural areas at locations close to the children's homes. There must be a strong regulatory body for such institutions to prevent abuse, especially of the children of poor parents.
- Segregating the care and education components of ECCE (Early Child Care and Education) between two ministries of MWCD and MHRD (DNEP- P1.3) goes against the integrative logic of the ECCE concept, and is likely to result in difficulties of coordination.
- Regular schooling should begin only from 6 years onwards, rather than at 3 years as envisaged in DNEP- P. 4.1.1a. Text books as a medium of learning should only be introduced from class 1 (at the age of 6 years) onwards in a gradual manner. Children should learn more from social interactions and their natural surroundings during their first 6 years.
- Attaching playschools to regular schools (DNEP- P1.2 a,b,c) is not desirable because the needs of the two differ regardless of their being in rural or urban environments.
- The rationale of creating *school complexes* (DNEP- Chapter 7) needs further thinking and clarification in terms of concept and practicability. While sharing of resources is desirable, the exact

linkages between the institutions constituting the complex require elucidation.

- Also the modalities and the factors determining the admissions of a student to one of the schools in a school complex need to be enunciated clearly.

A5. Education in the local language/mother tongue; multilingualism and the power of language (DNEP- P4.5):

Three Language formula is in general welcome. But implementing a three language formula including local/state language and mother-tongue from pre-school onwards (DNEP- P4.5.3) is not desirable because of the following:

- For a young child, especially from rural areas, or a first-generation learner, “three or more languages (including writing)” (DNEP- P4.5.3) would be an extreme burden. The rural child, in particular, would hardly have an occasion to practice his/her knowledge or appreciate the necessity/advantage of additional language(s).
- Multiple mother-tongues are often represented within a single small classroom and, as such, it is impractical to try and cater to mother-tongue (DNEP- P4.5.1, P4.5.2) beyond the extent, when coincides with the state language in relatively linguistically homogeneous locations.

- There is, and will likely remain, a serious shortage of infrastructure for teaching the third language (often, even the second language!). Therefore, learning of three languages from age 3 onward (DNEP- P4.5.5; P4.5.6) is not practicable.
- Care should be taken to see that the children in classes 1-3 are not overburdened in terms of curriculum, as envisaged in DNEP- pages 47-48 of Chapter 1, and P4.3.
- *Therefore, early classes should include only two languages – the State language and English / Hindi. From class six onwards, learning of and exposure to English will be necessary in all cases. Further, in keeping with the idea of course flexibility (DNEP- P4.4), another third Indian language could be made optional from class 6 till class 10. The medium of instruction – whether State language, English or Hindi - should be left to the discretion of individual schools. However, it is desirable that till class 5 the medium of instruction is the State language as the learning process for children is better.*
- It is important to devote sufficient resources and efforts to developing good textbooks across all disciplines in various state languages, as noted in DNEP- P4.8. *There is no need to translate technical terms in English to State languages: these terms should be used as such.*
- *Access to a good grounding in English, as the most commonly used international language of communication and science, must be*

ensured for students from all backgrounds (contra pages 81, 82 of Chapter 4; but see also page 83).

A6. Semester system in classes 8–12 (DNEP- P4.1):

This is not at all desirable, for the following reasons:

- For many subjects, a single semester offers too little a time for meaningful learning of many aspects. Essentially, a semester consists of a maximum of 14 weeks, or even less, of actual teaching. The Semester system needs additional sets of examinations, and thereby reduces time available for instruction. A semester system also creates undue pressures on teachers, as their work on evaluation gets doubled.
- A young student needs to internalize certain concepts and knowledge that she/he is expected to carry through life. Some of this is best done only by repeated application of such concepts/knowledge in diverse contexts, and this is difficult to achieve in a semester system. Moreover, semesters tend to fragment the learning curves, especially in the case of school students.

A7. Vocational education in school and beyond (DNEP- P4.4.1, P4.4.4 and 4.6.6):

This is a welcome step. We do need more emphasis on vocational training. The following two approaches are possible:

- **Compulsory vocational training for all:** Vocational training should be made compulsory for all streams of education from class 6 till class 10. However, this would require a large outlay and careful planning so that the training is effective and purposeful.
- **Separation into academic and vocational streams in classes 11 and 12:** A transparent and objective mechanism for this segregation needs to be evolved and practised. Separation into academic and vocational streams after class 10 would require an appropriate system of counselling the child and parents to advise about the child's potential, aptitude and future prospects in a given stream.
- Skill development courses should, in general, be designed based on regional strengths and contexts for gainful employment.
- Stand-alone vocational courses of good quality should also be provided: *the existing ITIs should not be disbanded but must be substantially strengthened* so that those with interest and capabilities in specific vocational fields can get relevant good-quality training, enabling them to succeed in their chosen profession.
- In addition to the usual vocational training in common professions, vocational courses for school-leaving students need

to be developed for (a) nurses and paramedics (both genders), (b) modern agriculture and agricultural technologies, (c) water resource management, (d) pollution monitoring and other such need-based disciplines that are likely to enhance future employability.

A8. Curriculum and flexibility of choosing subjects

The idea of promoting flexibility while choosing courses at the school level (DNEP-Chapter 4) is laudable and should promote inter-disciplinarity. However, this will also require the establishment of systems of coordination between subject faculties to *create appropriate baskets of course combinations*. This is due to the fact that many courses have prerequisite knowledge requirements, and not all combinations of courses may be academically relevant or desirable.

- Special emphasis ought to be placed on Mathematics due to its wide applicability in diverse subjects, even in areas outside STEM.
- Courses in applied and specialized disciplines, such as Biotechnology, Nanotechnology etc., should *definitely not* be offered at the school level. Such courses compromise the purpose of school education in providing foundational conceptual understanding of different disciplines, and training in analytical thinking. an run counter to this basic tenet.

A9. Regulation and accreditation of school education (DNEP-Chapter 8):

- The DNEP refers to the need for a “revolution in our approach to governance and regulation” (page 178, beginning of Chapter 8). Revolutionary changes, especially in large and diverse educational systems such as ours, however, may cause more damage than improvement. This therefore, requires strong and persuasive justification buttressed by effective planning. The DNEP does not, however, make a compelling case for the need of revolutionary large-scale structural changes proposed in the mechanism of how school education would be delivered and monitored.
- There is a proposal for States to make “clear separate systems for policymaking, regulation, operations and academic matters” (DNEP- P8.1, paragraph 1), suggesting separate bodies for each of these responsibilities which, under the present system, are all under one Department of School Education (DSE) of the States. The proposal in DNEP (pages 178-179) suggests that these responsibilities be split between a new *Rajya Shiksha Ayog* (for overall monitoring and policymaking), a DSE with redefined responsibility (for educational operations and service provision for the educational system of the entire State), a new State School Regulatory Authority (SSRA: for accreditation and audit

purposes, covering infrastructure, security, academics, probity and governance of schools), a reinvigorated SCERT (for academic matters like “standards setting and curricula”), and Boards of Certification/ Examination in each State that will “assess core capacities in each subject, but will have no role in mandating curricula (including syllabi or textbooks)”. The DNEP states that the purpose of this plan is the “separation of functions to eliminate conflicts of interest” (DNEP- Chapter 8: page 179 paragraph 1, and highlighted on page 180). Nowhere is any clear statement made in Chapter 8 as to what these “conflicts of interest” might be, or why such a drastic restructuring of the States’ educational apparatus is needed. *In our opinion, drastically restructuring the States’ school education regulatory systems, and having separate bodies in charge of policymaking, regulation, operations and academic matters, is not necessary and, would actually be counter-productive.* In particular, it is not a good idea for the body that oversees the school education policymaking to be different from the body that implements the policy on the ground. Similarly, why should the bodies handling policymaking, examinations or policy implementation be different from the regulatory body or the body responsible for curricula? All these aspects of school education are inter-related, and it makes sense for one apex body (the State DSE), with appropriate departments, to deal with these aspects in a holistic manner. We believe what is required is a streamlining and

strengthening of the existing system. This will achieve the same objectives without the need of creating multiple disjointed new bodies.

- *We strongly suggest that the proposals in DNEP- P8.1 not be implemented. Most of the important reforms envisaged in DNEP- P8.2, P8.5 and P8.6 can be implemented within the existing system by strengthening it. We also do not think that self-accreditation by schools (DNEP- P8.2.3) is a good idea, as it relies unduly, and somewhat naively, on the honesty and idealism of school level management. With regard to regulation and oversight of private schools (DNEP- P8.3), we endorse the basic notion that private schools should not be “commercial enterprises” and that schools and education are not ‘marketable goods’ (DNEP- P8.3 paragraphs 1 and 2).*
- *We welcome the proposals under DNEP- P8.3.1, P8.3.2, P8.3.4, P8.3.5, P8.3.8 and P8.3.9 Regarding the starting up of new private schools, we suggest that DNEP- P8.3.3 may consider DSE rather than SSRA as the evaluating agency (see our comments above on the undesirability of multiplying regulatory bodies). There appears to be some disconnect between the goals of DNEP- P8.3.6 and P8.3.7. The proposal that private schools need to function as not-for-profit organizations (DNEP- P8.3.7) is welcome, but is inconsistent with the notion that private schools should be “free to set their fees” (DNEP- P8.3.6) needs reconsideration. While it is*

envisaged that the percentage fee increase will be regulated by an appropriate body of the State (DNEP- P8.3.6), there needs to be regulation even on the initial fee structure proposed by any new private school.

- *Regarding the implications of DNEP on the RTE Act 2009 (DNEP- P8.4), we endorse the proposals under DNEP- P8.4.1, 8.4.2b,d,e and f. Regarding revisiting Clause 12(I)(c) of the RTE Act, we believe that only the implementation of this clause, and not its rationale, need to be rectified. Our specific suggestion is to directly implement the proposals under (i), (ii) and (iii) of DNEP- P8.4.2c, rather than worrying about “autonomy of institutions “in this particular context, because revisiting the very premises of this clause would go against the notion of social justice that is otherwise so strongly enunciated in the DNEP. Similarly, we do not believe that it is a good idea to downplay the role of inputs, as envisaged in DNEP- P8.4.2a.*

A10. Other issues

- **Teacher to Student Ratio** for all classes should indeed be 1:30 or less, as envisaged in DNEP- P2.14 and P6.1.3c. *Moreover, in classes 1-5, and in pre-school, it is desirable to aim for a Teacher to Student Ratio of no more than 1:20.*
- **Expansion of the mid-day meal scheme** to include breakfast is a welcome proposal. *However, teachers must not be given the responsibility for cooking meals and/or procuring foodstuffs or the*

census etc., as also stressed in DNEP- P5.2.3. Such distractions compromise their self-esteem, their commitment to- and competence for- teaching.

- **Hands-on experience in laboratory and field work** has progressively declined in recent years. This must be reversed through *appropriate support for development and provision of infrastructure and opportunities for meaningful laboratory experimentation and field work.*
- **The designing of practical exercises, whether in the laboratory or the field, also needs to be revisited.** A certain proportion of practicals, especially in the first couple of years of exposure to such work, serve to introduce basic experimental techniques and practices. Such practical exercises are, by their very nature, largely consistent across institutions/regions and based on experimental protocols whose outcome is well known, even to the students. *By class 10 onwards, at least fifty percent of practicals should be 'open-ended', research-style exercises, where the emphasis is on teaching students as to how a study (laboratory or field) is set up, and executed, and how data are analysed in an unbiased spirit and rational inquiry.* In these exercises, the 'results' should not be of the 'textbook' kind that are known in advance to the students. Subsequent exercise(s) can be built up on what the results of the previous ones were, to exemplify the 'scientific method' in action.

- **Three-year tenure track system for appointment of school teachers (DNEP- P5.4.1):** This is not desirable, given the ground realities and the sheer scale of the task of adequate teacher recruitment. Moreover, given the proposals in the DNEP for making the process of teacher recruitment more rigorous (DNEP- P5.1.1 and P5.1.2), and the provisions for greatly strengthening professional development programmes for school teachers (DNEP- P5.3, P5.4.2-6), *there is no pressing need for a three-year tenure track system which will only make school teaching unattractive due to the delay in the attainment of job security. This goes counter to the very ideas laid out in the DNEP- pages 113-116 of Chapter 5. At the same time, the proposed assessment mechanism (DNEP- P5.4.5) should identify teachers who have failed in their job (not taking classes, mistreating students, incompetent teaching and the like), and a mechanism should be put in place to remove such teachers after due warning.*
- **Equitable and inclusive education (DNEP- Chapter 6):** Overall, we endorse the laudable goals pertaining to equitable and inclusive education, set out in Chapter 6, though it may be expected that human and infrastructural resources and finance may become limiting factors for their attainment. *One point that needs to be further stressed under DNEP- 6.8 is that facilities for focussed learning of mainstream science by visually-impaired and all other differently abled children should also be developed by NIOS.*

Regular Upgradation of skills of the teachers: There is also a need for developing systems that enable continuing education to teachers for their skill enhancement. This would require enabling teachers an access to recent literature on new pedagogic techniques and avenues for experimentation. This important element of teaching needs care and augmentation of resources to enable teachers to upgrade their skills. As a linked policy, a system to evaluate the teaching-quality of teachers is required.

B. Higher Education

The DNEP devotes ten chapters (DNEP- Chapters 9-18) to the issue of higher education (HE) in India, and correctly summarizes some of the key shortcomings in the present system of HE, such as fragmentation, specialization, relative lack of access, autonomy, research and availability of required numbers of quality teachers, as well as problems of governance and administration (DNEP- pages 203-206 in Chapter 9). Outlines of suggested measures to address these shortcomings are presented in Chapter 9 (DNEP- P9.1 to P9.8), and elaborated at length in the following nine chapters. There are many appreciable and innovative ideas put forward in this large section of the DNEP, with which we generally concur. We appreciate the thought and effort that has gone into trying to provide a comprehensive road-map for how to improve the HE system in India.

However, there are many specific suggestions about which we have serious misgivings. The HE system in India, with its often worrisome diversity, has evolved organically over a long period of time since the first colleges and universities were set up more than 150 years ago. *In our opinion, this diversity needs to be respected and maintained as it serves the important purpose of offering students a variety of higher education institution (HEI) experiences, ranging from the relatively multidisciplinary to the narrowly specialized. The DNEP appears to push a viewpoint in which HEIs must necessarily be multidisciplinary and large, which is unnecessarily restrictive in its vision.*

In the sub-sections below, we highlight some issues of grave concern which should be completely rethought lest these end up inflicting severe damage to the HE system.

B1. Three categories of only one kind of Higher Education Institutions (HEI) (large and multidisciplinary), including professional and vocational institutions (DNEP- P9.1, Chapter 10, pages 211-215 esp. P10.1, 10.3, Chapter 11, 16):

In a fairly radical move, the DNEP envisages a massive restructuring of the types of HEIs in the country. In this policy, all HEIs, including those focussing on professional or vocational education, are mandated to become large (> 5000 students) multidisciplinary (> two programmes or majors in the arts and humanities, and in science and mathematics, and at least one in the social sciences) by the year 2030 (DNEP- P10.3),

or face closure (DNEP- P10.14). While we agree that the option of a multidisciplinary, liberal arts education should be encouraged and be made available, it is also important to cater to students who may wish for a more narrowly specialized HE. In the spirit of flexibility in choosing courses (DNEP- Chapter 11), we believe it is best to also have a diversity of HEIs, ranging from the broad/large to the specialized/small, that students can choose from. Consequently, we urge that this proposal of only one kind of HEI (with 3 Types) be dropped entirely from the DNEP, for the following reasons.

- The proposed distinction between Research Universities, Teaching Universities and Teaching Colleges (DNEP- P10.3) is arbitrary and confusing. Labelling them as Type 1, 2 and 3 (DNEP- P10.3) further suggests a hierarchy of quality and, thus, will perpetuate the damaging distinction like the one we already have between the research institutes and universities.
- The DNEP prescriptions in this regard also appear to be contradictory: on the one hand we have the designation of Research versus Teaching Universities and Colleges and, on the other hand, the document states that “the categorisation of HEIs into these three ‘Types’ is not in any natural way a sharp, exclusionary categorisation, but is along a continuum” (DNEP- P10.3). Since faculty in the ‘Teaching’ Universities are also expected to engage in research, and vice versa, the categorization of ‘Teaching University’ and ‘Research University’

is uncalled for. This distinction runs counter to the basic concept of a University.

- A stand-alone college with only under-graduate teaching, and no research, also serves no purpose beyond what is already a current practice.
- The DNEP is not clear about fates of existing universities narrowly focussed on languages, sports, energy etc. DNEP itself recommends a National Institute *for Pali, Persian and Prakrit*, and states that only such “institutes supporting language programmes will be affiliated with and preferably located in universities” (DNEP- P22.4). Whether all such institutes with a narrow focus will be ‘stand-alone’ or be made parts of other full-fledged universities is not clear.
- Similar confusion also remains as to the future of research institutions, mostly funded by the Central Government (e.g. CSIR labs, IISc., TIFR, JNCASR, RRI, IIAS, IISTEP, NIAS, HBNI, PRL, CCMB, BSIP, WIHG, AcCSIR etc.). The DNEP (P.10.7) envisages all these institutions becoming Type 1 HEIs, which is clearly impossible for most, if not all, of them. In the next paragraph of the same section, it is recognized that research institutions may not be able to become Type 1 HEIs, and it is suggested that such institutes “may choose not to grow into Type 1 institutions, and should instead closely align and work with proximate Type 1 or 2 institutions for engaging their own faculty in adequate teaching and mentoring opportunities”, (DNEP- P.10.7). It is also

not clear what HEI status these research institutions would then have. Moreover, while the goal of utilizing faculty at such research institutes in teaching/mentoring at nearby universities is laudable, and should be encouraged, it should not be mandated.

- A similar problem will be presented by numerous small, often discipline-specific colleges affiliated to some of the better universities in the country. Many of these colleges provide excellent education, while not fulfilling the definitions of “large” and “multidisciplinary” as laid down in the DNEP (P10.3). It is imperative that such institutions be allowed to retain their character.
- While we welcome the principle of integrating vocational education at all levels from school to HE (DNEP- Chapter 20, esp. P20.1, P.20.3 and P20.4), the proposed phasing out of all single-stream HEIs, including those offering professional/vocational courses (DNEP- P9.1, P10.1d, P10.3), is undesirable and can lead to serious disruption of existing professional education, especially in agriculture, medicine and engineering streams, and only slightly less in the case of law and management. As in the case of research institutions, it is hard to envisage AIIMS, IARI, Law School Universities, IITs or IIMs (let alone smaller professional institutions), becoming multidisciplinary HEIs (as envisaged in DNEP P16.1.1), raising serious questions as to their fate under the DNEP’s proposals. The suggestion that

professional councils (e.g. NCTE, AICTE, MCI, BCI etc.) be kept out of policymaking for professional education (DNEP- pages 293-296, Chapter 16, P18.3.1) is also not well conceived and will prove detrimental. Professional education, unlike a general liberal arts or scholarly education, is specifically oriented towards serving the specialized needs of important sectors like agriculture, medicine, engineering, law and management. *As such, it is crucial that professional bodies have a large stake and say in policy making for academic training in these sectors. To transfer this responsibility solely to HEIs would be counter-productive.*

- The prescriptions of the DNEP about professional education are also in parts contradictory and confusing. On the one hand, it suggests that professional education be completely incorporated into the envisaged large multidisciplinary HEIs (DNEP- P11.3.1), but on the other, it mentions “tight collaboration between HEIs and different professional institutions” (DNEP- P16.3.1), and also talks about setting up new agricultural universities (DNEP- P16.6.2).

Our suggestions in this specific context of the proposal to have three types of HEIs are:

- *There should be three categories of HEIs, namely, Colleges, Autonomous Colleges and Universities.* Colleges will primarily be teaching institutions (UG/PG) affiliated to a given university.

Autonomous colleges will be independent in their faculty appointments, curriculum design, examination and the award of degrees. Universities can be public, private, or private-aided categories. *Conversion of existing colleges to autonomous college must be selective on basis of their infrastructure, quality of faculty, academic strengths and competence.* If such colleges are to provide their own degrees, other laws that provide for only a duly 'recognized' university to be eligible for issuing a degree, would need appropriate statutory changes.

- *Those colleges which are found to be below the threshold may be initially affiliated with neighbouring universities with a possibility of becoming autonomous when they cross the threshold.*
- *The practice of affiliating non-autonomous colleges to universities should be allowed to continue (contra DNEP- P10.14a).* Affiliation offers a degree of control over academic standards. All affiliated colleges may not be able to transform themselves into Type 2 or 3 HEIs, as envisaged in DNEP. This should not be a reason to do away with them. What is needed is a strengthening of the affiliation system, especially in State universities, by ensuring that (i) Universities should not in general have more than 100-200 affiliated colleges; (ii) based on their quality and disciplinary diversity, large colleges should be encouraged to become autonomous; and (iii) appropriate statutory changes in the governance of the university may be made so that the governance of the university and its departments are not overly

influenced by affiliated colleges and the appointments in these are based purely on academic merit.

- *Research should not be made mandatory in colleges, but should be encouraged, especially if the college also offers postgraduate courses.*
- *Research institutes and professional institutions should be permitted to remain at their chosen size and level of specialization.* Those among such institutions that wish to enlarge themselves to multidisciplinary HEIs may be encouraged to do so, but this should not be made mandatory, Similarly, involvement of faculty from such institutions in teaching/mentoring at nearby universities can be encouraged, recognized and rewarded appropriately, but should also not be made mandatory. Research institutes that are Deemed-to-Be-Universities should be permitted to continue issuing their degrees.
- *Both teaching and research are important for universities. However, emphasis on each activity may vary between Universities.* Therefore, appointments and promotions should be judiciously based on assessing a combination of research, pedagogy and mentoring, as also stressed in DNEP- P9.5.
- We welcome the idea of Missions *Nalanda* and *Takshshila*. We suggest that the mission *Nalanda* be given relative priority without making any distinction whatsoever between institutions (e.g. HEI type 1, 2 as in DNEP).

B2. The freedom sought to be given to private HEIs offering professional courses to set their own fee structure (DNEP-P16.5.1) is unjustified. Moreover, the condition that private HEIs must offer scholarships to half their student population should not result in the fees for the other half being sharply increased: this aspect needs to be adequately regulated. A serious auditing of their fee-structure, salaries paid to teachers and other staff, and the learning outcome should be mandatory for private HEIs. *Indeed, as suggested for private schools (DNEP- P.8.3.6 and P.8.3.7), private HEIs – professional or otherwise – may also be required to function as not-for-profit organizations, with oversight of fee structures by an appropriate body of the State or Central government.*

B3. Mentoring of faculty by active but superannuated scholars (DNEP- P13.1.9 and P 14.3.1): can be useful, but this would require extreme care to ensure that the *scholar so chosen had enough experience, and proven teaching abilities, during a scholar’s regular career to undertake such a role. Expertise available with the National Academies could be harnessed for mentoring and monitoring of institutional-quality roles.*

B4. Legal education and curricula should adhere to law as enshrined in the Indian Constitution and legal statutes, and *not be*

directed towards the “culture and traditions of people”, as suggested in the DNEP (P.16.7). An appeal to “traditions” and “mythology” has no place in the legal education policy of a democratic nation.

It is a concern that although the DNEP mentions the Constitution multiple times in different chapters, and also lists constitutional values (e.g. P11.1.2, ‘secularism’ is not mentioned as a constitutional value despite being in the very definition of our Republic!

B5. Redefining B.Ed. courses for training of school teachers (DNEP- Chapter 15): A large fraction of the specialised B.Ed. colleges are indeed of dubious quality and need to be restructured or shut down, if they cannot improve in a reasonable time-frame (DNEP- P15.1.1). The proposed rigorous monitoring of teacher education (DNEP- P15.1.2) is also welcome, as is the “creation of substantial new teacher preparation capacity” (DNEP- P15.2.3).

There are, however, some drawbacks to the proposal for the 4-year B. Ed. integrated programme to become the minimal degree qualification for school teachers (DNEP- P5.5.1, P15.2.1). This 4-year B. Ed. is proposed to be offered only in multidisciplinary HEIs as a dual-major liberal Bachelor’s degree, in education as well as another academic subject (DNEP- P15.2.1). In addition, a post-B. Sc. 2-year B. Ed. (DNEP- P5.5.2) and special and more individualised B.Ed. programmes for “unusually highly qualified individuals, with demonstrated experience and disposition towards teaching” have been suggested. (DNEP-

P15.2.1). We have several concerns, as noted below, with these proposals.

- As these programs are of different durations, their relative importance for teaching and hiring needs to be defined. Further, the relationship of these programs in terms of different levels of school education needs to be clarified.
- A graduate of a 4-year B. Ed. programme with a major in say History or Mathematics would have learnt too little a component of the major to be competitively eligible for a Master's degree in that subject. Thus, anybody pursuing such a 4-year integrated B. Ed. programme would be severely restricted in choice of future profession, and, indeed future studies. *Should we ask an 18-year youth to commit to a teaching career?* It should be realised that for a variety of social and economic reasons, a school-teaching job is rarely the first-choice as a profession in India. Unless this aspect is adequately addressed to and improved upon, the 4-year B. Ed. may not attract the best of students and this would further reduce the quality of those qualified to teach.
- *Therefore, introduction of 4 year B.Ed. program, is not desirable.*
- *Our suggestion is that a two- or one-year B. Ed. Program should be available for those who have completed a 3-year or 4-year Bachelor's program, respectively, instead of a four-year integrated B. Ed. programme. Moreover, it may not be practical for all teacher training institutions to become multidisciplinary HEIs (DNEP-*

P15.2.4), even though they may be of high quality and, therefore, they do not warrant their shutting down. There should be an option for high quality teacher training institutions to continue and offer the post-B. Sc. options in B. Ed. courses, alongside such courses offered by multidisciplinary HEIs.

- *The proposal to provide a large number of merit-based scholarships for those opting for B. Ed. Programmes (DNEP-P5.5.1) is welcome. However, these should primarily be based on merit, rather than rural or urban background and should eventually lead to respectable jobs with commensurate remunerations.*

B6. Availability of manpower

- The proportion of vacant positions in various HEIs in the country is indeed alarming (DNEP- Chapter 15, page 256). The proposed massive increase in numbers of HEIs in coming years would aggravate this shortage unless adequate steps are taken to identify and appoint competent faculty at various levels. *The current practice of postponing faculty selections and making bulk appointments at one time, based on cursory interviews, is counter-productive. NEP must ensure continuous faculty renewal following the best practices that are adopted at some of the better institutions in the country. The current practice of seeking re-*

approval to fill a sanctioned post that has remained unfilled must be discarded. A sanctioned post must remain available for ever.

- *Appointment of contractual/ad-hoc faculty compromises competence and efficiency and this practice should be phased out at the earliest.*
- *Salary of faculty and their working conditions/environment must attract the best talent in the country to teaching and research in universities and colleges rather than making them look for 'greener pastures' elsewhere. The infrastructure at colleges and universities should be conducive for their academic growth. Minimum salaries at all institutions - private or public, research institute or university - should be at par.*
- *A five-year tenure track system for faculty recruitment in HEIs (P13.1.6) is not a good option in the Indian context. Unlike in the USA, in India, it is difficult for faculty not making tenure at one institution after 5 years to get a job elsewhere due to age-limits and perceived stigma. The stress and burnout of this system in India falls disproportionately on young women faculty who are often starting their families at that time. The existing one-year (extendable to 18 months) faculty probation system is most suited to the Indian scenario and should be continued, with due attention given at the initial hiring stage to ensure that good candidates are being chosen, free of extraneous considerations. A five-year tenure*

track system can be permitted as an option for some institutions, upon strong justification, but it should not be made the norm.

- *A system of periodic assessment for faculty's academic performance (mentoring, teaching, outreach, and research) should be developed to identify non-performers. A transparent mechanism should be put in place to remove such individuals.*
- *One of the hurdles that make the universities and colleges less attractive for competent faculty is the generally poor capabilities of the non-teaching and supporting staff. The non-teaching staffs also need careful selection, and they should have avenues for good and continuous training to improve their work-culture and efficiency.*
- *The DNEP document is not clear about fate of the large number of existing institutions with poor infrastructure and teachers who are not adequately trained or motivated. Will such existing institutions be upgraded and will the teachers be retrained? Appropriate mechanisms need to be evolved to improve or to close such institutions and terminate the services of less competent faculty, keeping the interests of students in mind. Careful and transparent systems to achieve this will be needed.*
- *Towards this projection of national requirements of manpower and teachers on a short and medium term basis is needed.*
- *The large increase in student intake mandated periodically by governments, without taking into account the lack of*

infrastructure and teaching manpower, has contributed substantially to the deteriorating standards of students who are declared 'qualified'. Any further such 'growth', without first creating the required infrastructure and teacher strength would only result in 'producing' more poorly -trained and unemployable individuals.

- Ad hoc announcements for new courses and institutions for non-academic expediencies should be replaced with a proper structured analysis by a set of experts, who will examine all aspects of the viability of new courses/institutions in both public and private domains. The National Science Academies will be willing to provide relevant services from experts.

B7. Continuous professional development of teachers through refresher-type courses etc. (DNEP- Chapter 5, pages 116 and 119, P5.3.1, P5.3.2, P15.3- paragraph2, page 288, P15.3.1)

- *All faculty members need opportunities to continuously enhance their knowledge base and pedagogical skills.* The idea of universities running refresher-type courses for teachers is a forward-looking step. However, the current scheme of Refresher Courses at some Universities, through initiated with good intentions, has deteriorated considerably due to lack of proper monitoring and auditing. Such Refresher Courses need to be re-

energized and enhanced, and be subjected to proper monitoring and auditing.

- *The National Science Academies have been conducting high-quality refresher courses for university and college science teachers for many years. The Universities and other Academies could draw from this experience, and these can be strengthened further with enhanced resource allocations to the Academies.*

B8. Research component in all universities and colleges (DNEP-P11.4 and Chapter 14): Given the large number of students in a typical Bachelor's or Master's class, it is impractical to demand that all or even a large fraction of them actually engage in research.

- *Such a move has resulted in rampant plagiarism, without generating the expected 'curiosity' in young minds. This will also put an end to the undesirable practice of sending students en masse to other academic institutions to complete curriculum-mandated research paper at UG/PG level. Opportunities for working on a research project at UG/PG level should be provided only to those who are genuinely interested and competent and in institutions, where appropriate facilities exist.*
- *In order to generate and strengthen analytical ability, the pedagogical methods need to be changed so that students do not receive only 'knowledge' in class room but also learn and develop good concepts. The summer training/visitor-ship programs for*

college students and teachers run by the academies and some institutions could be strengthened and used. In exceptional cases, the flexibility of working towards the research project at reputed research institutes may be retained.

- *While research by faculty and students alike needs to be encouraged, research should not be trivialized.* Given the size of its university populace, India is not behind in the quantity of research, but in terms of quality, it lags far behind. *It is not necessary to consider China as a model but there is for certain, a room to learn from others.*
- *Government should not mandate the topics of research to be carried out by individuals at HEIs (as envisaged in DNEP-P11.4.2d).* Government may suggest thrust areas of societal importance when working on funded national mission-mode projects. *However, it should not attempt to mandate areas for basic research which is key to future development.* The usefulness of basic knowledge in the long term should in no way be underestimated.

B9. Curricula at HEIs (DNEP- Chapters 11 and 12): The proposed 4-year Bachelor's programme is in tune with an earlier proposal of the Science Academies. In light of the earlier proposal, instead of having separate 3 and 4-year Bachelor's programs (DNEP- Chapter 11 page 227), *we suggest a Bachelor's program of 4-years duration, with the*

possibility of exit after 3 years with a general Bachelor's degree, while those who continue and successfully complete the 4th year, receive a Bachelor's degree with Honours/Major. Generally, only a small proportion of those pursuing Bachelor's courses are really competent or interested to take up higher studies for academic careers. The proposed Honours and General degrees at Bachelor's level would help students in choosing the next level of their career and would also help in reducing the burden of uninterested students at higher levels.

- We endorse the suggestions of the DNEP (P11.5.1) regarding multiple options for Master's programs, and phasing out of the M. Phil. degree. *A two-year Master's program should be available for those who complete the 3-year Bachelor program but later wish to continue for a Master's degree. Those completing the 4-year Bachelor programme may directly join a PhD program, if they so desire. They may also have the possibility of exit after one year of course work with a Master's degree.*
- Teaching and learning at all levels should be geared to helping students in developing self-learning abilities, find innovative and sustainable solutions to local problems (local, societal, professional) using globally accepted/validated knowledge, as envisaged in the DNEP (P11.1.1, P11.1.2, P12.1.4 and P12.1.5). *It should also be ensured that curricula include training on how to distinguish between reliable and dubious information from the*

internet. This will require changes in curriculum, examination system and pedagogy.

- *A one-size-fits-all approach for defining curricula must be avoided.* While broad definitions about the learning outcome should be defined by the regulatory bodies like UGC etc., details must be left to individuals HEIs for defining curricula keeping in view the local requirements, faculty strengths and competence, as also indicated in the DNEP (P12.1.1).
- Emphasis on marks or grades at MCQ based entrance being the sole criteria to enter the HEIs (including medical and engineering institutions) has been a disincentive for students to learn anything outside his/her main interest, and encourages proliferation of coaching and tutorial classes. *Entrance to HEIs should be based on a more holistic assessment that also includes critical thinking and writing abilities etc.*
- A key issue for the nation is and will be the employability of students and redeploy ability through training of people in view of increasing pace of change in technologies. *The education system should provide for such training, as also suggested in the DNEP (P19.7.3).*
- **Massive Online Open Courses (MOOC):** The DNEP (P12.3) sets great store on O.D.L. and MOOC. However, these categories of learning systems cannot completely replace in-class teaching since teacher-student contact is an indispensable part of

education. It would be a rare MOOC that may replace a good teacher, or even a good set of textbooks. Moreover, the standard of a very large fraction of the currently available MOOC is not up to the mark. Therefore, the DNEP (P12.3.12) correctly emphasizes the need for a substantial review and improvement in quality of these e-learning materials. *In general, however, MOOC and e-Pathshala courses should at best be used as supplements to in-class teaching.*

- *The National Knowledge Network, which is surprisingly not mentioned in the DNEP, has provided a significant number of tools to teachers and students. These activities must be further strengthened.*

B10. Transforming the regulatory system (DNEP- Chapter 18): The DNEP suggests creation of several new regulatory bodies, either as a replacement of existing ones or to be set up de novo. Justifications for these suggestions, and the utility of the proposed new bodies are not clear (DNEP- P18.4). It needs to be emphasized that mere creation of a new body does not solve the issues arising from the suboptimal functioning of the existing one. We note our serious concerns about this in the following:

- The advantage of replacing UGC with NHERA (DNEP- P18.1.2 and P18.1.4) is not clear. The DNEP also does not make it clear if the proposed HEGC would function independent of NHERA. A

proliferation of separate bodies in charge of different aspects of HE governance and funding will likely be disruptive to their efficient functioning.

- *The UGC system must be revamped to get rid of its inefficiencies, and modify its extremely bureaucratic setup.*
- Academic matters are best handled by academicians with proven track records and there is a need to revisit and implement several of the recommendations of Kothari Commission.
- We believe that the various existing bodies (UGC, AICTE etc.) should continue with establishment of an inter-council/ commission coordination body. *The proposed General Education Council (GEC) comprising active academicians, can function as the coordination and advisory body for the various councils rather than becoming a 'super-manager'. The science academies can assist with this process.*
- As was stated by the National Science Academies in reference to the earlier proposal to replace UGC with HECI, *we reiterate that the existing UGC system be strengthened by ensuring that the UGC Act and the academic autonomy of higher education institutions are implemented in letter and spirit.* Functional autonomy buttressed with generous and optimal funding, and the timely release of funds, will facilitate administrative and regulatory procedures and help ensure excellence in HE.

B11. National Research Foundation and financial outlay

- The proposed significant increase in research funding is a welcome idea since Indian researchers have been lacking this level of investment so far. However, the advantages of creating a new funding body, the NRF, are not clear since the scope and charter of NRF is somewhat similar to what was envisaged when SERB was created. Unfortunately, the SERB has got significantly diluted from its original vision. *Therefore, instead of creating one more agency, it would be better to expand and strengthen SERB, as also the other existing agencies.*
- *The budget statement a few days ago, does not resonate with the statement on NRF. The NRF in the budget and that in the DNEP do not look the same. Therefore, a clarity on the reason, the role, the scope, the areas of activities and the funding of NRF is needed. Further its relationship with other sources funding would need clear elucidation.*
- Bringing all funding streams under a single monolithic umbrella is fraught with problems. For example, normally no funding agency supports more than one project to any individual researcher. Most of the active experimentalists, therefore, approach and get supported by different funding agencies to work on multiple questions at any given time. *A single funding agency will severely restrict such options, assuming that this funding agency will not fund more than one project at any point of*

time. Multiple funding opportunities need to be provided to good researchers in the country, who are likely to generate testable hypotheses during the conduct of a project and must be financially supported to carry out work to test these hypotheses.

- *We suggest that, while increasing the funding allocation to SERB and other agencies should be strengthened. Specifically, separate agencies should be created and /or the existing ones strengthened for funding major projects in humanities and social sciences. The STRIDE scheme recently launched by UGC can also be provided with enhanced financial outlay so that inter-disciplinary research involving social sciences etc. gets adequately supported.*
- *There is a dire need to enhance support to faculty members for participation in conferences (in India and abroad) and for unhindered and timely access to literature.*
- *A robust and a functional system for open access to literature to all is direly needed for teachers to update themselves on a regular basic.*
- *DNEP proposes recognition of truly outstanding research through a system of awards. This is a welcome step to encourage teachers. It may however be mentioned that already a plethora of awards for excellence exist in the country and it will be desirable that a system is created that multiple recognition of same individuals is avoided. We also suggest that these awards should be tailored towards providing substantial research/*

teaching funding to the awardees, should be available at all age levels, more at younger ages, and be sufficient in number so that no competent teacher/ researcher is left out.

- The DNEP proposes that it would secure funds for its corpus also through donations from industry. *We suggest that such private funding should also be available directly to the faculty/institutions on a competitive basis. A certain fraction of the CSR from industry be ear marked for such a corpus fund on a non-lapsable manner.*

B12. Evaluating institutions: accreditation (DNEP- P18.2): The DNEP proposes a binary i.e. *Yes/No* grading by NAAC after the year 2030, with all HEIs not getting accreditation being required to “cease operations” (DNEP- P18.2.1). This may not serve the basic purpose of NAAC grading which, besides providing accreditation, also helps funders and students to assess the overall academic ranking and strengths/weaknesses of an HEI. *Evaluation by NAAC is designed to help HEIs identify shortcomings and rectify them, rather than to simply be a binary judgement about whether the HEI should continue functioning as is or be shut down. The role of NAAC as a mentor should also be developed.*

A more nuanced evaluation by NAAC will be:

A - meaning ‘Good’, to be encouraged with more freedom, funds, etc,

B - meaning ‘Satisfactory’, to be encouraged with more funds, etc.

C - meaning 'Unsatisfactory', to be given a fixed time to improve or else risk being shut down following re-evaluation.

D- meaning 'Poor', to be shut down as soon as possible.

As of now, the NAAC criteria and methodology for grading are extremely rigid and of a one-size-fits-all type. For example, The Tata Institute of Fundamental Research was penalized for not having an anti-ragging committee! Obviously the criteria and methodology for assessing the varied kinds of HEI need to have a reasonable degree of context-dependent flexibility.

B13. Common Exit Examination for MBBS (DNEP- P16.8.3): The proposed mandatory common exit examination for MBBS, and other disciplines is highly undesirable because, (i) large numbers make it impractical to undertake holistic testing, which is likely to restrict the exam to MCQs as in the current national entrance tests at different levels, a practice already recognized to have led to dilution of academic quality; (ii) each medical institution must retain its local flavour in terms of expertise, regional needs etc, which cannot be examined in a 'homogenized' examination system; (iii) such a practice would further promote the proliferation of 'coaching shops', a very undesirable outcome.

Each medical college (public or private) needs to have a requisite infrastructure for teaching, learning and hospital facilities to ensure good learning and conduct its own examination.

We also recommend that MD-Ph.D. programmes should be encouraged and formalized so that bio-medical and clinical research develops in the country.

B14. Evaluating faculty & emoluments (DNEP- Chapter 13):

Inclusion of more levels in a faculty cadre (DNEP- P13.1 page 258) may appear useful in terms of faster promotion; however, it runs a greater risk of promoting more corruption, sycophancy and politics in the life of a faculty member. As stated elsewhere in the same chapter of the DNEP (P13.1.10), *there should be three levels in the teaching cadre, viz., Assistant Professor, Associate Professor and Professor, with the fourth level of HAG Professor, as applicable. After a certain number of years (optimally 5), a faculty member in one level may be assessed for promotion to a higher level. Some upgradation within a level may be automatic after a prescribed number of years of service in that level, unless there are complaints or evidence based issues against the faculty member concerned.*

- Currently, the salary of an Assistant Professor at Universities and UG colleges is lower than that of a counterpart at research institutions/IITs/IISERs etc. Only at Associate Professor (after 12 years of service) level do they become comparable in terms of salary. *Such discrepancies have led to a “class system”, with attendant resentment, within the HE system, and need to be corrected.*

- *Endowed Chairs may be created for distinguished Professors.* The few endowed Chairs, to be created everywhere, should come with a grant for research, secretarial help etc. The occupancy of such a chair could be either until superannuation or for a fixed term. Private donors should be encouraged to endow such Chairs across the country as a part of their CSR.

C. Other Issues

C1. Technology in education (DNEP- Chapter 19):

There is no doubt that technology should be leveraged for both academic and governance aspects of education. This proposition has long been well accepted in the academic community. Generally, the role of technology should be more as a supplement to sound pedagogic practices, rather than replacement. Where technology does largely help is in extending the reach of education to the differently abled, or to those living in remote locations, or those outside the formal system. Large parts of this chapter's contents pertain to broad policy regarding the future of some technologies in education governance, with only a few policies pertaining to role of technology in education per se.

- The purpose of the proposed NETF, partly to be funded by NASSCOM (DNEP- P19.1), to create an industry-linked, overarching and centralized body, remains unclear in respect of its relevance to education. It will also have access to a lot of data of students, teachers and institutions at all education levels

nationwide, which raises serious concerns about privacy that are not adequately dealt with in the DNEP (Chapter 19, page 342, last paragraph). The proposal for a body with such a broad mandate as the proposed NETF needs to be strongly justified before its creation can be supported. Presently no clear justification is provided. We feel that inputs from the IT-sector for guidance/suggestions on education technology research and deployment, especially in areas like automation, can directly be provided to the apex bodies managing education in each state through existing mechanisms. Further, AI and cloud technologies, their role in pedagogy and in the improvement of the quality of students in a country with a vast canvass of varied cultural and educational levels and systems may need to be discussed extensively before their inclusion in the education policy.

- The proposed NRED (DNEP- P19.5.5 and P19.6.1), will collect very detailed data and academic records on all students/ teachers/ institutions from school to HEIs. However, the purpose of such detailed collection of personal data has not been clarified. Unless the purpose is made clear, we cannot support such collection of deep personal data. Collection of such concentration of data, especially given its potential linkage to *Aadhar No.* (DNEP- P19.6.1b), its integration with data on “educational information management systems for community

monitoring” (DNEP- P19.6.2), and the statement that “Data is a key fuel for artificial intelligence based technologies”), cannot be supported, especially because there are many examples of misuse of personal data. Explanation of mechanisms to protect privacy must be explicitly stated. (DNEP- P19.7.4). *This aspect also needs careful legal scrutiny in view of recent observations of the Supreme Court of India in respect of issues of privacy of individuals.*

- This proposal is therefore not desirable in its present form. If there is to be a database set up for governance and planning purposes, it should be restricted to institution-level information about enrolment, teacher strength, number of courses etc., and should not include data at the individual-level.
- Some of the recommendations about technology in education (DNEP- P19.2.1, P19.2.2, P19.2.3, P19.3.1, P19.3.3, P19.4.1c, P19.4.2, P19.4.3, P19.4.4, P19.4.6a, P19.5.2 and P19.5.3) may be moved to other appropriate sections of the DNEP document.
- In sum, the proposals made in Chapter 19 need much greater elaboration and justification to show their relevance to education policy. Until these are provided, we recommend that these proposals not be immediately implemented as a part of the NEP.

C2. Annual outlay by the government on education (DNEP- A1.4):

The DNEP gives an estimate of the annual expenditure under different heads as a % of the annual expenditure of the Government. In addition, however, *a realistic assessment/planning can only be done if some actual estimates of year-wise expenditure under different heads are also made available and mechanism and accountability be brought in to ensure there are no delays at the disbursal level.*

C3. School education is the foundation for a satisfactorily

productive career of an individual: *Therefore, the public schools, which cater to a major proportion of the country's rapidly growing population, need much greater attention in terms of financial outlay and adequate administrative support and incentivization of teachers. A basic minimum wage for teachers at all levels must exist and be linked to inflation, such that there is automatic revision.*

C4. Fees in Governmental HEIs:

Fee structures in all central/state universities and institutions need a rational review so that not only the availability of resources and infrastructure can be improved, but only those seriously interested would come for higher education.

C5. Current emphasis on development of buildings and physical infrastructure be shifted to favour improved facilities for research

and teaching. For example, if the institutions work in two to three shifts, the effective size of infrastructure at each institution is automatically doubled/trebled.

C6. Governance of all institutions of learning (school to HEI) must be free of all non-academic influence and interference, and relatively autonomous, as stressed in DNEP- Chapter 17. In particular, appointments of Vice-Chancellors/Directors for HEIs must be based only on considerations of academic excellence and proven administrative capability, as stressed in DNEP- Chapter 17, page 310 last paragraph. Such leaders should be selected by a national board that comprises only academicians. Implementation of the recommendations of the Kothari Commission about who should be a Vice Chancellor is strongly urged.

Repeated references to the role of persons of high “eminence” in the leadership of HEIs (DNEP- P17.1 page 311 paragraph 1, P17.1.1 and P17.1.3) should clarify that these need to be only the people eminent in the field of education/academics. Otherwise, this may become a means for non-academic-academicians to occupy high positions in the governance of HEIs, which is not at all desirable. Similarly, emphasis on “leadership and management capacities” (DNEP- P17.1.10 paragraph 4) should not become a means to introducing non-academicians into leadership roles in HEIs.

C7. New research institutes should be planned and initiated with close academic linkages to existing universities, such that the existing disparity between universities and research institutes can be gradually minimized.

C8. The semester system should be re-visited to identify problems in its delivery and implementation. The current model of semester education is often inadequate, especially due to the severe shortage of teachers and teaching assistants required for effective transmission of knowledge and skills in such a model of HE. There is a need to rethink patterns of evaluation, with emphasis on testing concepts, analytical ability and power of expression rather than short-term memory. It is necessary to have an in-depth discussion to consider better ways of implementing the semester system.

C9. Establishment of an apex body like the proposed *Rashtriya Siksha Aayog* (National Education Commission), with the Prime Minister as its Chairman and four Ministers and senior bureaucrats constituting 50% of its members (DNEP- Chapter 23), is undesirable. This would bring education under heavily centralized political control. While it is desirable to have a body coordinating the activities of existing bodies pertinent to education at various levels, it must be recognized that school education, higher education and professional education are very different and specific domains. As such,

relevant existing bodies in each of these domains need to be strengthened and governed largely by domain experts, rather than bureaucrats. *Any Aayog/Committee created for coordination among bodies looking after diverse aspects of education must be an autonomous public body, independent of the government, and primarily comprising of educationists and academicians of proven academic record and probity. The CABE under the MHRD could be considered for such a role, but it would need to be headed by academicians of high repute.*

C10. Given the severe challenge posed to national well-being by unrestrained population growth, it is desirable to leverage education at all levels from school to HE to facilitate reduction in population growth rates, as has already happened in some of the States with relatively high literacy. Similarly, even to achieve the desired level of quality in learning experience, the growing population needs to be controlled for the proposed changes in the education system to be truly and widely effective.

Finally, the DNEP may also provide clear road map and definitive time lines for implementation, as in the end, howsoever noble the intentions may be, the success of any such effort is determined only by the competency of its implementation.