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ABSTRCT

Systematic education policy is essential for offering school and college education in a country due to the reason that education leads to progress in society. Different countries use different education systems with different stages during its life cycle of school and College education levels. Recently, the Government of India received a draft Education policy suggested by an expert committee headed by Dr. K. Kasturirangan, former chairman of Indian Space Research Organization (ISRO). The committee suggested both incremental and drastically changes in existing Indian education policy and give guidelines to effective implementation in the country by 2030. This is also in line with the Objectives of fourth Sustainable Development Goals to provide quality education for all citizens through fourth Educational Industry Revolution (EIR 4.0) in the country. This paper reviews the related literature during last few years on Indian Higher Education Policies and their consequences, Salient features and their focuses on the present draft of National Education policy 2019 through content analysis. The paper highlights on various policies proposed in the draft with the special emphasis on higher education section and compare them with the previous policies. The analysis also compares the possible effects of NEP 2019 proposal on private and public HEIs in terms of facilities & restrictions. The strength and weakness of the new policy are identified with respect to various stakeholders and listed. Appropriate suggestions are made to realize the policy and make it defect free and effective from a public point of reference and for the prosperity of the country.

Keywords : Higher education, National education policy, ABCD analysis, Predicted implications.

1. INTRODUCTION :

People can live on the mother earth peacefully until a favourable environment for sustainable life continues on the surface of the earth. Continuous environmental degradation activities on the surface of the earth due to uncontrolled industrial activities using non-renewable energy, and poor quality of life due to poverty led hungry, and thirsty, poor health services made the life miserable on this earth for many people. United Nations, being an intergovernmental organization in the world, is working to realize its mission of maintaining international peace, security, and cooperation along with sustainable development of member countries.

1.1 Sustainable Development Goals :
In September 2015, the General Assembly of the United Nations adopted the 2030 Agenda for Sustainable Development that includes 17 Sustainable Development Goals (SDGs). Building on the principle of "leaving no one behind", the new Agenda emphasizes a holistic approach for achieving sustainable development for all [1]. Table 1 lists the objectives of all 17 SDGs.

Table 1 : Objectives of SDGs

S. No.	Sustainable Development Goals	Objectives
1	Goal 1: No poverty	End poverty in all its forms everywhere.
2	Goal 2: Zero hunger	End hunger and malnutrition by achieving food security and improved nutrition and promote sustainable agriculture
3	Goal 3: Good health and well-being	Ensure healthy lives and promote well-being for all. (Affordable health services to everyone)
4	Goal 4: Quality education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5	Goal 5: Gender Equality	Achieve gender equality and empower all women and girls
6	Goal 6: Clean water and sanitation	Ensure access to water and sanitation for all
7	Goal 7: Affordable and clean energy	Ensure access to affordable, reliable, sustainable and modern energy for all
8	Goal 8: Decent work and economic growth	Promote inclusive and sustainable economic growth, employment and decent work for all
9	Goal 9: Industry, innovation, infrastructure	Build resilient infrastructure, promote sustainable industrialization and foster innovation
10	Goal 10: Reduced inequalities	Reduce economic & resource inequality within and among countries
11	Goal 11: Sustainable cities and communities	Make cities inclusive, safe, resilient and sustainable
12	Goal 12: Responsible consumption, production	Ensure sustainable consumption and production patterns
13	Goal 13: Climate action	Take urgent action to combat climate change and its impacts
14	Goal 14: Life below water	Conserve and sustainably use the oceans, seas and marine resources
15	Goal 15: Life on land	Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss
16	Goal 16: Peace, justice and strong institutions	Promote just, peaceful and inclusive societies (Peace, stability, human rights and effective governance based on the rule of law are important conduits for sustainable development.)
17	Goal 17: Partnerships for the goals	Revitalize the global partnership for sustainable development (The Sustainable Development Goals (SDGs) can only be realized with a strong commitment to global partnership and cooperation.)

1.2 Quality education for everyone as Sustainable Development Goal :

Quality education for everyone being the fourth goal is the basis for all other goals. It is well known that quality education converts people into human beings with responsibility for sustainable development of the society. Quality education being 4th Sustainable Development Goal of UN has 10 targets encompassing many different aspects of education (Table 2). Out of them, seven targets are expected outcomes and three targets are the means of achieving these targets [2-3].

Table 2 : Targets and objectives of SDGs in Education (4th Goal) [2]

S. No.	Sustainable Education Targets	Objectives
1	Universal primary and secondary education	Ensure that by 2030, all girls and boys of every country have access to complete free, equitable, and primary and

		secondary education with acceptable quality leading to relevant, desired, and effective learning outcomes.
2	Early childhood development and universal pre-primary education	Ensure that by 2030, all girls and boys of every country have access to quality based early childhood development, suitable pre-primary education and primary education.
3	Equal access to technical/vocational and higher education	By 2030, ensure that all men and women of all countries have equal access for quality and affordable university education including technical, vocational, and tertiary education.
4	Relevant skills for decent work	By 2030, increase substantially the number of youths and adults having employability skills, including technical skills and vocational skills, for available jobs and entrepreneurship.
5	Gender equality and inclusion	Eliminate gender disparities in education by ensuring equal access by 2030 to all types of education and vocational training for all underprivileged people and children in vulnerable situations.
6	Universal youth literacy	By 2030, ensure that all youth and a substantial proportion of adults of all genders, achieve literacy and numeracy.
7	Education for sustainable development and global citizenship	By 2030, it is essential that everybody through education should acquire the knowledge and skills needed to promote sustainable development including sustainable lifestyles, global citizenship, gender equality, human rights, promotion of a culture of peace and non-violence, and appreciation of cultural diversity and of culture's contribution to sustainable development.
8	Effective learning environments	To build and upgrade education facilities which are child, disability and gender sensitive and non-violent, provide safe, inclusive and effective learning environments for all.
9	Scholarships	By 2020, substantially expand globally the number of scholarships available to developing countries, in particular, least developed countries, for enrolment in higher education, including vocational training. They should have access to technical, information and communications technology, engineering and scientific programs in developed and other developing countries.
10	Teachers and educators	By 2030, there should be a substantial increase in the availability of qualified teachers all among the world, through international cooperation among the countries for teacher training in developing and underdeveloped countries.

Fourth Industrial Revolution (IR 4.0) helps for a radical change in the life of human beings and their development using emerging technologies and completely redefines the industries using such extraordinary technological advances. Two emerging universal technologies (Information Communication & Computation Technology (ICCT) and Nanotechnology (NT)) and their underlying technologies are predicted as the main contributors to the fourth industrial revolution. These technologies are the part of the education industry both for study and research and hence for finding new solutions of industrial and social challenges. The technologies leading the fourth industrial revolution are going to redefine our lives in terms of providing basic needs, advanced wants, and

dreamy desires including ageless immortality through the technological singularity and hence how they make job obsolescence consequently.

1.3 Indian Scenario of Higher Education Industry :

India has over 890 universities and approximately 40,000 colleges, reflecting the overall severe fragmentation and small size of HEIs currently in the country.

Remarkably, over 40% of all colleges in the country run only a single programme, far from the multidisciplinary style of higher education that will be required in the 21st century.

In fact, over 20% of colleges have enrolment below 100, while only 4% of colleges have enrolment over 3000. Some of the reasons for fragmentation of the higher education system in India are:

- Early streaming of students into different disciplines.
- Lack of access, especially in socio-economically disadvantaged areas - present GER 25% only.
- Lack of teacher and institutional autonomy.
- Inadequate mechanisms for career management and progression of faculty and institutional leaders.
- The lack of research at most universities and colleges.
- Suboptimal governance and leadership of higher education institutions.
- A corrupted regulatory system allowing fake colleges to thrive while constraining excellent, innovative institutions.

By 2030-2032, India is expected to be the third largest economy at over ten trillion. Our ten trillion economy will not be driven by natural resources, but by knowledge resources. In this context, the Prime Minister's recent call on leveraging the Fourth Industrial Revolution to take India to new heights. The proposed National Education Policy 2019 envisions an India centred education system that contributes directly to transforming our nation sustainably into an equitable and vibrant knowledge society, by providing high quality education to all.

2. RELATED WORKS :

In India, the first national education policy was promulgated in the year 1968 and the second improved version in the year 1986. The 1968 national education policy (NEP –I) had called for a National School System, which meant that all students, irrespective of caste, creed, and sex would have access to education. NEP-I was not very successful due to the reason that (i) proper programme of action was not brought out, (ii) there was a shortage of funds due to poor economy, (iii) Education implementation was State affair and Central government had a little role on implementation [4, 5]. Table 3 contains the review of published scholarly literature during the last few years of Indian Higher Education Policy along with the area of education, the focus of the publication and the corresponding paper for reference.

Table 3 : Review of literature during last few years of Indian Higher Education Policy

S. No.	Area	Focus	Reference
1	School Education Level	The progress of school education in India	Kingdon, G. G. (2007). [6]
2	School Education Level	Schools, teachers, and education outcomes in developing countries	Glewwe, P. (2006). [7]
3	School Education Level	Achieving universal elementary education in India: Future strategies for ensuring access, quality and finance	Banerji, R. (2008). [8]
4	School Education Level	Reforming elementary education in India: A menu of options	Mehrotra, S. (2006). [9]
5	School Education Level	Implementation of Right to Education in India: Issues and Concerns	Kaushal, M. (2012). [10]
6	School Education Level	Teacher absence in India: A snapshot	Kremer, M. (2005). [11]
7	School Education Level	The English-only myth: Multilingual education in India. *Language Problems and Language Planning*	Rao, A. G. (2013). [12]
8	Higher Education	Higher education in India: Growth, concerns	Agarwal, P.

		and change agenda	(2007). [13]
9	Higher Education	Highlight the challenges and to point out the opportunities in higher education system in India	Sheikh, Y. A. (2017). [14]
10	Higher Education	Goals and governance of higher education in India	Carnoy, M., (2013). [15]
11	Higher Education	A demand of value based higher education system in India: A comparative study	Bhatia, K., (2011). [16]
12	Higher Education	Higher education in India: A socio-historical journey from ancient Period to 2006-07	Kaushal, M. (2012). [17]
13	Higher Education	One-third of the globe: The future of higher education in China and India	Altbach, P. G. (2009). [18]
14	Higher Education	Employment, employability and higher education in India: The missing links	Khare, M. (2014). [19]
15	Higher Education	A critical appraisal of higher education and economic development in India	Sethi, S. (2012). [20]
16	Higher Education	Quality of Education at the Beginning of the 21st Century: Lessons from India	Kumar, K. (2005). [21]
17	Higher Education	Does affirmative action work? Caste, gender, college quality, and academic success in India	Bagde, S. (2016). [22]
18	Higher Education	Accreditation in India: path of achieving educational excellence	Sinha, V., et al. (2013). [23]
19	Higher Education	Teacher performance pay: Experimental evidence from India	Muralidharan, K. et. al. (2011). [24]
20	Technical Education	Quality problems of engineering education programmes in India	Viswanadhan, K. G. (2009). [25]
21	Technical Education	Engineering education in India–the role of ICT	Bhattacharya, B. (2008). [26]
22	Technical Education	Innovation in B.Tech. Curriculum as B.Tech. (Hons) by integrating STEAM, ESEP & IPR features	Aithal, P. S. et al. (2019). [27]
23	Technology in Education	Technology-enhanced learning in developing nations: A review	Gulati, S. (2008). [28]
24	Technology in Education	Information and communication technology in higher education in India: Challenges and opportunities	Pegu, U. K. (2014). [29]
25	Technology in Education	ICT for Quality of Education in India.	Devi, S. et al. (2012). [30]
26	Teacher Education	Teacher labour force and teacher education in India: An analysis of a recent policy change and its potential implications	Chudgar, A. (2013). [31]
27	Teacher Education	Envisioning a world-class university system for India	Ramaprasad, A. (2011). [32]
28	Teacher Education	Reform of teacher education in India	Walia, K. (2004). [33]
29	Teacher Education	Teacher education scenario in India: Current problems & concerns	Goel, D. R., et al. (2016). [34]
30	Distance Education	Best practices in open and distance learning systems in India: An assessment	Ansari, M. M. (2002). [35]
31	Distance Education	Distance education and the role of IT in India	Subba Rao, S. (2006). [36]
32	Distance Education	Quality assurance in open and distance	Gandhe, S. K.

		learning in India	(2010). [37]
33	Research in Higher Education	The research university in transition: The emerging global model	Mohrman, K., et al (2008). [38]
34	Research in Higher Education	The performance of research-intensive higher educational institutions in India	Prathap, G. (2014). [39]
35	Research in Higher Education	Innovations and curriculum development for engineering education and research in India	Parashar, A. K., et al. (2012). [40]
36	Research in Higher Education	Research performance of central universities in India	Marisha, B. S. et al. (2017). [41]
37	Research in Higher Education	Mapping engineering research in India	Raghavan, K. S., et al (2015). [42]
38	Research in Higher Education	Innovation in India: A review of past research and future directions	Nair, A. et al (2015). [43]
39	Research in Higher Education	State of the art in research on higher education for sustainable development	Barth, M. et al. (2016). [44]
40	Research in Higher Education	Assessment revisited: a review of research in Assessment and Evaluation in Higher Education	Pereira, D. et al. (2016). [45]
41	Vocational Education	Vocational education and training in India: challenges, status and labour market outcomes	Agrawal, T. (2012). [46]
42	Vocational Education	Vocational education and training programs (VET): An Asian perspective	Agrawal, T. (2013). [47]
43	Vocational Education	MoVE: Mobile vocational education for rural India	Akshay, N., (2012). [48]
44	Vocational Education	Vocational education in India	Kaushik, K. (2014). [49]
45	Vocational Education	Vocational higher secondary education graduates in the state of Gujarat	Whiteside, T. et al (2000). [50]
46	Adult Education	Returns to education: New evidence for India	Vasudeva Dutta, P. (2006). [51]
47	Adult Education	How inclusive is higher education in India?	Tilak, J. B. (2015). [52]
48	Adult Education	Inequality in Educational Opportunity in India: Evidence and Consequence of Social Exclusion	Das, S. (2016). [53]

The 1986 National Education policy focussed on modernization and the role of IT in education. More attention was paid on restructuring the teacher education, early childhood care women's empowerment and adult literacy. It also accepted the autonomy of universities and colleges, something which was resisted in the past. The salient features of national policy on education planned and implemented 1986 are: (1) The Essence and Role of Education, (2) National System of Education, (3) Education for Equality, (4) Re-organisation of Education of Different Stages, (5) Technical and Management Education, (6) Making the System Work, (7) Reorienting the Content and Process of Education, (8) The Teacher and Teacher Education, (9) The Management of Education, (10) Resources and Review, and (11) The Future of Education. The focuses on various aspects under these eleven features are listed in Table 4.

During 1992, an improvement called Programme of Action (PoA) of National education policy 1986 is proposed and accepted by the government and is emphasized that education must play a role of correcting the social and regional imbalance, empowering women, and in securing a rightful place for the disadvantaged and the minorities. Government should give priority for free and compulsory education for needy people, covering children with special needs, eradication of illiteracy, education for women's equality and a special focus on the education of Scheduled caste and Scheduled tribes,

and Minorities. This policy had called for a National School System, which meant that all students, irrespective of caste, creed and sex would have access to education [5].

Table 4 : Salient features and their focuses of National Education policy 1986 [54]

S. No.	Salient features	Focus
1	The Essence and Role of Education	(1) All-round Development of students (2) Acculturating Role for national cohesion (3) Man-power Development for national self-reliance (4) Education is a unique investment for all-round development of nation
2	National System of Education	(1) Common educational structure i.e. 10 (5 + 3 + 2) + 2 + 3 which was recommended by Kothari Commission (1964-66). (2) National Curricular Framework with a Common Core subjects along with other components that are flexible (3) Equal opportunity for education to all (4) National Minimum Levels of Standard of Learning (5) Understanding of Cultural and Social Systems of the people living in different parts of the country (6) International understanding through co-operation and peaceful co-existence (7) Inter-regional mobility by providing equal access to every Indian of requisite merit regardless of his origins. (8) Pooling of Resources for nation building (9) Priorities of Educational Reforms for equating it to global level (10) Life-long education & learning (11) Strengthening of National Institutions to promote research and post graduation.
3	Education for Equality	(1) Education for women's equality (2) Education of Scheduled Castes (3) Education of Scheduled Tribes (4) Providing education of Backward Sections and Areas (5) Education for minorities (6) Education for physically and mentally handicapped with the general community (7) Focus on Adult and Continuing Education
4	Re-organisation of Education of Different Stages	(1) Early Childhood Care and Education (2) Focus on quality of Secondary Education (3) Focus on quality of Higher Education with both campus based and distance education
5	Technical and Management Education	(1) Enhancing technical skills (2) Training on management strategies
6	Making the System Work	(1) Teachers with responsibility and accountability (2) Institutions with better infrastructure and improved accreditation status
7	Reorienting the Content and Process of Education	(1) Enriched education by cultural content (2) Value education based on our heritage, national goals and universal (3) Development of Languages with regional focus (4) Availability of Qualitative Books and Increase of Reading Habits (5) Improvement of Libraries in higher education institutions (6) Use of Educational technology in teaching – learning

		process
		(7) Environmental education in curriculum
		(8) Focus on Science, Mathematics, Sports and Physical education
		(9) Reforms in examination and evaluation process
8	The Teacher and Teacher Education	Focus on developing creative teachers
9	The Management of Education	Planning and management perspective of education and its integration with the country's development and manpower needs
10	Resources and Review	Resource mobilization through donations, community involvement, and fees
Education Policy must be reviewed every five years
11	The Future of Education	Achieving intellectual and spiritual attainment through education

3. OBJECTIVES OF THE STUDY :

The draft of National Education policy has many innovative suggestions to improve quality and the broadness of education system in India. The aspirations and the challenges of implementation of such proposal is a research agenda. The objective of the study is to :

(1) To know the necessity of new National Education policy in the country by knowing the failure of previous National Education Policy.

(2) To know the major proposals and the framework of newly proposed National Educational Policy.

(3) To study the essence of the educational life cycle of student from Foundation to Post-graduation stages.

(4) To highlights on various policies proposed in the higher education system and compares them with the existing system using content analysis.

(5) To identify and analyse the strengths and weaknesses of the new policies on various stakeholders.

(6) To compare National Education Policy Proposal 2019 with its previous policies of India.

(7) To compare private and public HEIs in terms of facilities & restrictions proposed.

(8) Comments and suggestions for improvements required further to make it more effective.

4. METHODOLOGY :

The methodology consists of extraction of summary of national educational policy proposal, studying the importance of proposal with historic background, analysis of the various sections of the draft, and listing strengths and weaknesses of the proposal using focus group discussion method [55-57].

5. HIGHLIGHTS OF PROPOSED INDIAN NATIONAL EDUCATION POLICY 2019 :

5.1 Over all Summary :

The National Education Policy 2019 envisions an India centred education system that contributes directly to transforming our nation sustainably into an equitable and vibrant knowledge society, by providing high quality education to all. It draws inputs and disciplines from vast amount of India's heritage. The countries education system contributed many scholars including Charaka and Susruta, Aryabhata, Bhaskaracharya, Chanakya, Patanjali, and Panini, and many others. Through such eminent people, the country made seminal contributions to world knowledge in varied fields such as mathematics, astronomy, metallurgy, civil engineering and architecture, shipbuilding and navigation, medical science and surgery, yoga, fine arts, chess, etc. The entire Indian education system is founded and built with such background, support, and inspiration. As per the draft, the Goal of Indian Higher Education is to develop good, well-rounded and creative individuals, with intellectual curiosity, spirit of service and a strong ethical compass [58]. The objective of the draft proposal is to provide multidisciplinary and interdisciplinary liberal education to everybody based on a proposed system. The proposed education system model has integrated yet flexible approach with life cycle stages depicted in table 5.

Table 5 : Integrated yet flexible approach to education Model life cycle Stages :

S. No.	Life cycle Stage	Corresponding Education Level	School/College Grade	Duration (years)
1	**Pre-primary school level**	Foundational education stage	KG (3 years), Grade 1 & 2	5 years
2	**Primary school level**	Preparatory education stage	Grade 3, 4, & 5	3 years
3	**High school level**	Middle school education stage	Grade 6, 7, & 8	3 years
4	**Pre-university level**	Secondary education stage (adolescents)	Grade 9, 10, 11, 12	4 years
5	**College level**	Under-graduation Education stage	Grade 13, 14, 15, & 16	4 years
6	**University level**	Post-graduation Education stage	Grade 17, 18	1 to 3 years
7	**Doctoral level**	Research leading to Ph.D. stage	Grade 19-22	3 to 4 years
8	**Post Doctoral level**	Independent research stage	Grade 22-25	2 to 3 years
9	**Life-long learning**	Updating the knowledge & skills lifelong.	-	Lifelong

(1) Foundation Stage :
The Foundational Stage will comprise five years of flexible, multilevel, play-based, activity-based, and discovery-based learning, continuously improved based on research and incorporating various time-tested Indian traditions and cultures for cognitive and emotional stimulation of children.

(2) Preparatory Stage :
Three years of education after the foundation stage is considered as the Preparatory Stage. This will comprise, building on the play-, discovery-, and activity-based pedagogical and curricular style of the Foundational Stage. In addition to it, this stage gradually introduces textbooks for more formal classroom learning. Students are also exposed to different subjects and prepare them to delve deeper insight specialised subjects in future stages.

(3) Middle school education Stage :
The Middle school education which will comprise three years of education aims to build a more formal pedagogical and curricular style of the preparatory stage, focus on more abstract concepts in each subject that students will be ready across subjects like sciences, mathematics, arts, social sciences, and humanities. This stage encourages experiential learning within each subject, and explorations of relations among different subjects, and emphasised to introduce more specialised subjects and subject teachers.

(4) Secondary education Stage :
Secondary school education comprising of four years duration and will facilitate multidisciplinary studies with appropriate exit options besides preparing for the next phase of undergraduate programme of study, including an early introduction to Liberal Arts education. This stage will be built on the subject-oriented pedagogical and curricular style of the Middle stage, but with greater depth, greater critical thinking, greater attention to life aspirations, and greater flexibility and student choice. Students are exposed to the semester system and during these 8 semesters, they will study 5 to 6 subjects in each semester. They will study both common subjects for all and flexible elective courses from liberal arts subjects. The board examinations will be restructured to test principles, concepts, critical thinking, and higher skills in each subject. Eleventh and twelfth grades will be considered an integral part of secondary school education stage and there will not be a category such as higher secondary or junior college.

(5) Under-graduation Education Stage :
Liberal education based undergraduate degrees regardless of the subject will be of either three- or four-year duration. Three years of undergraduate degree programmes without research components

and four years of undergraduate degree programmes with research projects may be offered in liberal education. Bachelor of Liberal Arts (BLA) or Bachelor of Liberal Education (BLE) degree (or BLA / BLE with Research) will be offered by those institutions which are ready to run such programmes consisting of a broad-based liberal education together with rigorous specialization in a field or fields. The three-year traditional B.A., B.Sc., as well as B.Voc. degrees will continue as well for those institutions that wish to continue such programmes, but all Bachelor's degrees will move towards taking a more comprehensive liberal education approach.

(6) Post-graduation Education Stage :
Focus on high quality research. The Masters and Doctoral levels are being strengthened with the provision of at least three routes into the Masters' degree – a one-year degree, a two-year degree, and the integrated five-year degree. The Masters' degree will also have a strong research component to strengthen the appropriate professional competence in the domain area and to prepare students for a research degree.

(7) Research Stage :
Even though research is an integral part of final year undergraduate and postgraduate stages, graduates can pursue high quality research leading to Ph.D. in any core, multidisciplinary, or interdisciplinary areas for a minimum period of 3 and 4 years for full-time and part-time respectively. During Ph.D. they should undergo 8-credit coursework in teaching/ education/ pedagogy related to their chosen Ph.D. subject. The MPhil programme will lose its importance and shall be discontinued.

(8) Lifelong Learning :
The draft of NEP 2019 proposes lifelong learning to avoid human beings becoming obsolete in society in terms of knowledge, skills, and experience to lead a comfortable life. Further education at any stage of life will give further maturity for a happy life.

5.2 Salient features and their focuses of National Education policy 2019 :
The draft National Education policy 2019 consists of 23 chapters with first eight chapters pertaining to school education, next ten chapters pertaining to higher education including under-graduation, post-graduation, research, teacher education, and professional education. This also includes the process of empowerment of governance, and effective leadership in HEIs. The next four chapters pertaining to additional key focus areas which include Technology education, vocational education, adult education, and promotion of Indian languages. Finally, the last chapter is related to how to transforming education by implementing the proposal through a central governing body called Rashtriya Shiksha Ayog (National Education Commission). To understand the proposed policy, in a nutshell, it is customary to identify the salient features and their detailed focus on fulfilling the proposal. Table 6 contains the salient features of the proposal including school education, Higher education, Additional Key Focus Areas, and Transforming Education. The salient features and their focuses of various sections of the proposal give an idea on the entire system and to analyse it systematically [58].

Table 6 : Salient features and their focuses of National Education policy 2019

S. No.	Salient features	Focus
Part I - School Education		
1	**Early Childhood Care and Education: The Foundation of Learning**	Action should be taken for ensuring every child in the age range of 3-6 years has access to free, safe, high quality, developmentally appropriate care and education by 2025. Providing free and compulsory quality pre-primary education for all 3-6 year children through RTE Act.
2	**Foundational Literacy and Numeracy**	Students, along with their schools, teachers, parents, and communities, must be urgently supported and encouraged in every way possible to help carry out this all-important target and mission to ensure that Every student in Grade 5 and beyond has achieved foundational literacy and numeracy by year 2025. Developing workbooks, Training Teachers through National Tutor Programme, Maintaining Student-teacher ratio

		as 30:1, Computer-based adaptive assessment, and use of the services of local community and of volunteers, the System should provide quality foundational literacy and numeracy.
3	**Reintegrating Dropouts and Ensuring Universal Access to Education**	Minimize dropouts by means of free and compulsory quality school education for all children in the age group of 3-18 years by 2030 through intensified Sarva Shiksha Abhiyan and the RTE Act. Bringing the dropouts back into the school and preventing the habit of dropout is top priority to achieve 100 % GER. This can be achieved by providing good school infrastructure, efficient teachers, transportation facility, hostel facilities, health & food facilities, and ensuring security.
4	**Curriculum and Pedagogy in Schools**	Curriculum for holistic development and 21st century skills like critical thinking, creativity, scientific temper, communication, collaboration, multilingualism, problem solving, ethics, social responsibility, and digital literacy. (1) Proposal of developing a new curricular and pedagogical structure for school education in the form 5 + 3 + 3 + 4 design. This include : 5 years of the **Foundational** Stage: 3 years of pre-primary school and Grades 1, 2. • 3 years of the **Preparatory** Stage: Grades 3, 4, 5. • 3 years of the **Middle** Stage: Grades 6, 7, 8. • 4 years of the **Secondary** Stage: Grades 9, 10, 11, 12. (2) Holistic development of learners by reforming curriculum and pedagogy across all stages (3) Reduce curriculum content to enhance essential learning and critical thinking including more holistic, experiential, discussion-based, and analysis-based learning. Further increased flexibility and choice of subjects to study across the arts, humanities, sciences, sports, and vocational subjects. (4) Empower students through flexibility in course choices, and no hard separation between 'arts' and 'science' streams, or between 'academic' and 'vocational' streams. (5) Providing education in the local language/mother tongue; multilingualism and the power of language. Implementation of the three-language formula, Providing language teachers, offering Sanskrit and a foreign language as optional etc. (6) Curricular integration of essential subjects and skills including scientific temper; sense of aesthetics and art; languages; communication; ethical reasoning; digital literacy; knowledge of India; and knowledge of critical issues facing local communities, States, the country, and the world. (7) National Curriculum Framework will be revisited and updated by the end of 2020, taking into account the changing context of education and will be made available in all regional languages. (8) National textbooks with local content and flavour by Revision of NCERT textbooks, additional subject books at state level, and good translations. (9) Transforming assessment for student development by redesigning Board Examinations in college level to avoid coaching culture. Formative assessment and adoption of computerising testing to continually improve teaching-learning processes. Conducting college and university entrance examinations through National Testing Agency

		(NTA).
		(10) Support of students with singular interests and talents through Science Circles, Music Performance Circles, Chess Circles, Poetry Circles, Language Circles, Debate Circles, and so on. Supporting by establishing a system of centrally funded topic-based residential summer programmes, Olympiads and competitions, Internet-based apps, assessments, and online communities for such students.
5	**Teachers in School Education**	(1) Effective teacher recruitment and deployment by attracting talents for teaching profession through merit-based scholarships, transparent recruitment process, additional incentives in rural areas, updating teachers through planned training, avoiding unnecessary transfers etc.
		(2) School environment and culture that is conducive to quality education along with adequate physical infrastructure, facilities, learning resources, and freedom to teachers to teach with full dedication.
		(3) Continuous professional development of teachers using Online resources and Recognising outstanding teachers.
		(4) Career management by providing parity in service conditions for teachers across all stages of school education through performance appraisals and by means of salary increases, promotions, and other recognitions.
		(5) New approach to teacher education by means of 4-year integrated Bachelor of Education (B.Ed.) programme that combines high-quality content, pedagogy, and practical training and developing Specialist teachers.
6	**Equitable and Inclusive Education**	(1) Upliftment of underrepresented groups in education by identifying such place as special education zone where Pupil-Teacher Ratio has to be 25:1, scholarships, breakfast in addition to midday meals to the students of SEZ.
		(2) Education of girls as a cross-cutting theme through Gender-Inclusion Fund.
		(3) Education of children belonging to Scheduled Caste Communities and Other Backward Classes. This also include recruitment of teachers from SC and OBC communities.
		(4) Education of children from tribal communities through community coordinators.
		(5) Education of children from educationally underrepresented groups within minority communities by providing scholarships, modernising their religious education centres.
		(6) Education of children from urban poor families by taking the help of social workers and counsellors if required.
		(7) Education of transgender children.
		(8) Education of children with special needs through prioritising barrier-free structures, ramps, handrails, disabled-friendly toilets, and suitable transportation.
7	**Efficient Resourcing and Effective Governance through School Complexes**	(1) Ending the isolation of small schools through school complexes giving education from Foundational stage to Secondary stage.
		(2) Better resourcing of schools through school complexes including teachers, laboratories, libraries, improved resourcing of ICT equipment, musical instruments, sports equipment, sports fields etc. and optimum utilization of

		available resources.
		(3) Fostering integrated education through school complexes like vocational and adult education, children with special needs, etc.
		(4) Improved support to teachers through school complexes by allowing interaction among various levels.
		(5) Administration and management of school complexes through enabling peer interaction and support, and creating a single point of contact with government.
		(6) Effective governance through school complexes by a government committee.
		(7) Effective governance and management of individual schools within school complexes, performance management of teachers through School Management Committees (SMC).
8	**Regulation and Accreditation of School Education**	(1) System architecture and roles in school education system.
		(2) Accreditation for autonomy with accountability by means of an independent State School Regulatory Authority. A separate board of Assessment will reform and improve the examination system.
		(3) Regulation, accreditation, and oversight of private schools and Public availability of information relating to accreditation and its audit. Reasonable increase in fee is allowed for private schools.
		(4) Implications for the RTE Act effectively.
		(5) Assessment of functioning of the school education system by identifying students with learning difficulties, developmental challenges, and other kinds of support needs should be carried out within schools and must involve teachers and parents, and must be done sensitively.
		(6) Protection of rights of the child and adolescent education which includes prevention of corporal punishment, absence of emotional and physical harassment or abuse, precautions against injury during school activities, safe infrastructure, use of child friendly language and actions, non-discrimination; etc.
Part II - Higher Education		
9	**Quality Universities and Colleges: A New and Forward Looking Vision for India's Higher Education System**	Revamp the higher education system, create world class multidisciplinary higher education institutions across the country - increase GER from present 25% to at least 50% by 2035.
		A regulatory system is ineffective and allowing fake colleges to thrive while constraining excellent, innovative institutions. NEP supports faculty and institutional autonomy with light but tight regulations.
10	**Institutional Restructuring and Consolidation**	Vibrant multidisciplinary institutions of high quality that increase capacity of higher education in India and ensure equitable access. The overall higher education sector will be integrated into one higher education system - including professional and vocational education. Focus on starting both public and private institutions, with strong emphasis on developing a large number of outstanding public institutions of Types 1, 2 and 3 of multidisciplinary model.
		These three kinds of institution will differ in their focus of goals and work, but will have equal commitment to ensuring

		high quality. All HEIs, by 2030, will develop into one of three types of institutions.
		Type 1 : 150-300 Research universities with 5,000 to 25,000 students with mainly Central funds.
		Type 2: 1000 to 2000 Teaching universities with 5,000 to 25,000 students with mainly State funds.
		Type 3: 5,000–10,000 Autonomous Colleges 2,000–5,000 students with mainly State funds and have degree granting power.
		By 2032, all HE qualifications (all degrees and diplomas) shall be granted only by accredited Type 1, 2, or 3 institutions. Universities will not have affiliated colleges.
		All (currently) affiliated colleges must develop into autonomous degree granting colleges (Type 3) or merge completely with the affiliated university. Mission Nalanda (MN) and Mission Takshashila (MT) will be launched and monitor such transition.
		All the institutions will get support from National Research Foundation for innovative research projects.
		Private HEIs will be encouraged to develop into Type 1 and 2 institutions, and must develop to become Type 3 institutions. They will be treated equally with public HEIs for research funding.
		All types of institutions may run Open Distance Learning (ODL) programmes of high quality to support life-long learning.
		There should be at least one Type 1 - 3 institution for every district within 5 years.
11	**Towards a More Liberal Education**	(1) Liberal education to energise undergraduate programmes to develop both creative side and analytical side of the brain. This includes STEAM model approach and establishment and strengthening of departments needed for multidisciplinarity and cross-disciplinarity.
		(2) Liberal education approach to energise graduate programmes by providing rigorous specialisation in chosen disciplines or fields in order to develop deeper expertise in one or more subjects. Masters and Doctoral programmes will be called 'graduate' programmes and aim to involve in teaching undergraduates through the liberal education approach, involved with internships in industry, involved with service in the community, and involved in collaboration with research faculty, in order to foster the highest possible quality education and research in graduate programmes.
		(3) Enhancing professional education through a liberal education approach. Starting four years arts & design focussed BLA or BLE or even four years research focussed BLA or BLE degree courses.
		(4) Liberal education and research to foster and bolster each other by encouraging and strengthening high quality, and locally and societal relevant research by faculty and by graduate students, including on interdisciplinary subjects of high importance to society such as clean water, energy, environmental sustainability, gender equality, preservation of endangered languages, preservation of local arts, etc. Further, access to high quality multidisciplinary libraries and online

		journals supports high quality research.
		(5) Programmes, degrees, and other certifications in higher education should be planned in such a way that the undergraduate degree will move towards a strong liberal education approach, regardless of subject, and be of either three- or four-year duration. Three years undergraduate degree programmes without research components and four years undergraduate degree programmes with research projects may be offered in liberal education.
		Certain professional streams (e.g. teacher education, engineering, medicine, law) may only have programmes of four-year duration (or more) for the undergraduate degree.
		HEIs may also offer multiple exit options within this period, with appropriate certification, e.g. an advanced diploma in a discipline or field (including vocational and professional areas) after completing two years of study or a diploma after completing one year. There shall be two years Masters programme, five years integrated Masters degree programme, and one year Masters programme for four years undergraduates with strong research focus at final year. Undertaking a Ph.D. shall require either a Master's degree or a four-year Bachelor's degree with Research. The M.Phil. programme shall be discontinued. All admissions to undergraduate programmes in public universities through NTA.
12	**Optimal Learning Environments and Support for Students**	(1) Innovative and responsive curriculum and pedagogy through complete autonomy on curricular, pedagogical, and assessment- and resource-related (including qualification of faculty) matters. A compulsory social engagement for each student equal to at least a full one semester course, across the duration of the programme.
		HEI has full autonomy in student's assessment. The Choice Based Credit System (CBCS) is revised as Competency Based Education System (CBES) by giving focus to continuous evaluation. A range of tools and processes should be used for the assessment like peer and self-assessment, portfolios, assignments, projects, presentations, and dissertations. The criteria and rubrics for assessment must be determined in a collaborative manner by the faculty and shared with students. Assessment is also suggested for HEI, its programmes and curriculum, its faculty members through self assessment, student evaluations, peer reviews, and other relevant mechanisms. This is also a part of Accreditation process.
		(2) Student support for learning and development by Career support through placement/ counselling assistance to help employment, physical health and emotional wellness programs, financial support by means of scholarships and educational loans, facilities for sports, visual and performing art, involving students in institutional processes, supporting students clubs and activities, and student grievance redressal services. Private HEIs are required to offer 100% scholarships for 20% students and 50% scholarships for 30% students.
		(3) Open and distance learning: Curriculum and pedagogy for enhancing access and opportunities for life-long learning. ODL focus on (i) enhance access to higher education,

including professional and vocational education; (ii) promote life-long learning and certification through reaching out to people engaged in various livelihoods as well as those who wish to re-enter the formal education system; and (iii) support the continuous professional development of teachers in school and higher education. Only HEIs accredited to offer ODL will be allowed to offer ODL programmes. ODL offering institutions provide services like learning materials, help desk services, tutoring and counselling, online classes (through webinars, discussion forums, webcasting), library facilities, virtual labs, e-learning modules, timely feedback on performance, online examinations, declaration of results, granting of certifications, redressal of grievances, etc. The quality of MOOC offered by HEIs should be maintained and a policy for credit recognition and accumulation should be decided it individual HEIs level.

(4) Internationalisation of higher education is expected by creating a nationally and internationally competitive education. The curriculum, its delivery, assessment processes, and the entire educational experience of students must equip them with the knowledge, skills, and competencies they need to become global citizens. Collaboration between foreign and Indian institutions should be facilitated for twinning programmes, dual degree programmes, Facilitating entry of international students and researchers to India by simplifying Visa procedure, short term employment after degree, Indian students exchange, faculty exchange, hosting visiting scholars under the Global Initiative of Academic Networks (GIAN) scheme, encouraging international research collaborations, starting off-shore campuses by universities, inviting foreign universities to India, and setting an interuniversity centre for international education by building international brand.

13	**Energised, Engaged and Capable Faculty**	Faculty motivation through providing good infrastructure, service conditions, optimum teaching loads, responsibility and accountability, optimum student-teacher ratios etc.

(1) Putting faculty back into the heart of higher education institutions by motivating and energising them to achieve high quality teaching & research in higher education. This can be achieved by improving service conditions, work environment, faculty empowerment, performance management or career progression, and institutional leadership in HEIs.

(2) Institutional decisions regarding faculty recruitment, retention, salary increases, promotions, recognition, and vertical mobility into institutional leadership must all be based entirely on merit and performance with respect to the quality of teaching, research, and service. Meanwhile, faculty who do not deliver on basic norms must be held to account.

(3) Outstanding and enthusiastic institutional leadership that cultivates excellence and innovation through creating a merit and performance-based culture is essential and can be realizable through appointing Role model – all round leadership.

(4) Various outstanding faculty with high academic and service credentials as well-demonstrated leadership and management skills should be identified early, and trained

		through a ladder of leadership positions.
		(5) Culture of empowering academic freedom for the faculty, including the freedom to pursue their research, write, and adopt innovative pedagogical and curricular practices is essential and is responsibility of leaders.
		(6) Ensuring adequate physical infrastructure & facilities, permanent faculty members (30:1),
		(7) Faculty members should act as teachers, mentors, and guides. Faculty team should contain mix of academicians and field practitioners.
		(8) Orientation programs for new faculty, Faculty development programs, Faculty mentoring by seniors,
		(9) Faculty evaluation could include 360 degree feedback (supervisor, peer and student review) on assessment of contribution to teaching, research, practice (e.g. engagement with practising professionals, adult education, community service, field intervention projects), institutional development (e.g. serving on academic/administrative committees, student support) and other dimensions. Annual Performance Indicator Scores can be used for faculty performance & ranking.
		(10) All matters pertaining to faculty, from number of faculty to be recruited to recruitment criteria and processes, to career progression, and compensation determination will be part of the Institutional Development Plan (IDP).
14	**National Research Foundation**	(1) Establishing a new National Research Foundation with the goal to enable a culture of research to permeate through our universities with an annual total funding of Rs. 20,000 crores (0.1% of GDP). NRF will have many Boards & Councils, subject committees, and Chairpersons to supervise the activities. Researchers from both public and private research institutions will be eligible to compete for NRF funding. Other funding agencies will continue to independently fund research according to their priorities and needs.
		(2) Funding research proposals through rigorous peer review process based on its importance. NRF will call Research proposals for funding under various schemes. NRF will evaluate the research performance and impose accountability of used funds and refunding decisions. NRF also ensures that IPR of research outcome belongs to researchers.
		(3) Building research capacity at all universities and colleges through funding long term mega projects, international collaborations, mentoring for grant applications & outcomes etc.
		(4) Creating beneficial linkages among government, industry, and researchers by identifying research requirements of various stakeholders including government and industry of the country. NRF will also gets additional funds through industry donations from CSR funds with income tax exemption offers from government.
		(5) NRF recognises outstanding research funded by it through awards and by organizing national seminars on such research in order to promote such inventions.
15	**Teacher Education**	(1) Restoring integrity to teacher education is important due to the fact that they shape the next generation by maintaining only standard institutions and closing all substandard

		institutions pertaining to teachers education.
		(2) Moving teacher education into multidisciplinary colleges and universities and offering integrated four years programmes and rigorous improvements in Curriculum and pedagogy. Four-year integrated B.Ed. will become the minimal degree qualification for all school teachers by 2030. All admissions to teachers education programme (integrated B.Ed.) will be carried out by the National Testing Agency. Individual one programme teachers education institutions will be merged with either autonomous multidisciplinary colleges or Universities
		(3) Departments of Education in universities will be strengthened and developed as spaces for research and innovation in education. Departments of Education must include diverse faculty who represent the range of expertise required for teacher preparation: knowledge of and experience of teaching, multidisciplinary perspectives on society, aims of education, nature of knowledge and inclusion, and knowledge of pedagogy, curriculum, and evaluation. In addition, facilities like online education for working teachers for their masters degree, inter departmental collaborations, further opportunities like M.A. in Education (Research) in varied list of subjects, Ph.D. programmes should be offered as full time/part time.
		(4) Faculty for teacher education with specialisation in areas of curriculum and pedagogy, foundational areas of education technology, and research in teacher education will be required as core educators. They must be supplemented by faculty with Master's and Ph.D. degrees in various related disciplines such as science education, psychology, cognitive studies, human development, linguistics and many other disciplines along with teaching experience, research experience, and scholarly publications.
		(5) Faculty in higher education should have Ph.D. During Ph.D. they should undergo 8-credit coursework in teaching/ education/ pedagogy related to their chosen PhD subject. Exposure to pedagogic practices, designing curriculum, credible evaluation systems and so on, is desirable.
16	**Professional Education**	Professional education will be an integral part of the overall higher education system.
		(1) All higher educational institutions including those offering professional education will be empowered to widen the scope of their course offerings so that each of them becomes a large multidisciplinary institution offering a wide selection of courses. Providing vocational education at all institutions offering senior secondary level, liberal undergraduate and in all professional educations is also a major target. Time and age limits for entering and completing programmes will be relaxed to allow learners to take breaks in between their studies, and a system for transferring credits between institutions will be developed.
		(2) Capacity planning for professionals is required to address over-capacity of some professions such as engineering graduates and dentists, and severe under-capacity in many other professions such as doctors, nurses, radiologists and

agriculture graduates.

(3) The curriculum of Postgraduate education and research must be revamped to ensure that post-graduates acquire knowledge, skills, self-confidence and entrepreneurship training, to enable them to contribute to social and national productivity.

(4) Apart from regular faculty, people with industry/ business/ hospital experience must be invited to come back and teach with appropriate preparation. It must be ensured that new faculty receive induction training and continuous in-service professional development. To strengthen professional education, department of education in each University may start teacher training programmes in every professional field.

(5) Governance, Regulation and Accreditation are important. All institutions offering professional education will also be mandatorily accredited once for every 5 years, by accreditation agencies empanelled by National Assessment and Accreditation Council (NAAC) in consultation with the professional councils. Independent accreditation agencies with the necessary mandate to accredit all professional streams of education will be empanelled. In both public and private institutions the decision of charging fees for professional education courses will be left to them with obligation of providing free education for 20% students admitted to every programme and 50% scholarship 30% students admitted to every programme.

(6) To cope up the huge demand of graduates in Agriculture and allied disciplines, HEIs should plan to provide integrated undergraduate education, in all the related disciplines of agriculture and veterinary sciences. Integrating agricultural education of different universities and focussing on agricultural research is essential by attracting public grants.

(7) To make Indian Legal Education globally competitive, adopting best practices and embracing new technologies are essential for wider access to justice and timely delivery of justice. This should be achieved by improved Curriculum, and Multilingual education.

(8) In healthcare education, the first year or two of the MBBS course will be designed as a common period for all science graduates after which they can take up MBBS, BDS, Nursing or other specialisations. Graduates from other medical disciplines such as nursing, dental etc., will also be allowed lateral entry into the MBBS course.

Like common entrance examination for the MBBS admission (NEET), a common exit examination for the MBBS will be introduced that will play a dual role as also the entrance examination for admission into postgraduate programmes.

(9) Technical Education includes degree and diploma programmes in engineering, technology, management, architecture, town planning, pharmacy, hotel management and catering technology. These programmes will be revised to prepare professionals who are well prepared for both current and future practices, and are able to exploit emerging science and technology while being responsive to changing socio-economic and environmental contexts. Strategic thrust will be

		on new and emerging disciplines including cutting-edge areas such as artificial intelligence, 3-D machining, big data analysis and machine learning among others in technical education, genomic studies, bio-technology, nanotechnology, neuroscience and so on in the sciences.
17	**Empowered Governance and Effective Leadership for Higher Education Institutions**	Leadership and governance deeply influence all aspects of institutions. All other efforts can be brought together for developing good institutions by strong governance and effective leadership. (1) Each higher education institution will be governed by an Independent Board - this will ensure a clear chain of responsibility and accountability within. The Vice-chancellor or Chief Executive must be a person of high competence, integrity and public spirit and appointed by the BoG. Sensibilities and capacities for leadership and management will be the criterion for choosing and appointing institutional leaders. Institutions should identify people with leadership potential early in their careers and put them through capability building experiences (e.g. additional responsibilities, roles that require handling varieties of people, courses on leadership and on legal/financial issues in higher education) that would ensure their readiness at the right time. This should include succession planning for all leadership roles, including for that of the CE. Forums for Vice Chancellors/Directors to share their experiences and learn from each other will be encouraged and developed. Govt. must ensure all short term and long term funds for administration of public universities and it should not impinge the academic and administrative autonomy of HIEs. Finally, HIEs should have financial autonomy and accountability.
18	**Transforming the Regulatory System**	The functions of standard setting, funding, accreditation, and regulation are conducted by independent bodies, eliminating concentration of power and conflicts of interest. (1) The National Higher Education Regulatory Authority will be the only regulator for all higher education including professional education. NHERA shall develop a detailed plan for the implementation of the new regulatory regime, in collaboration with NAAC and other relevant bodies. This plan should include the details of the roles of all bodies (NHERA, NAAC, PSSBs, GEC, HEGC, AIs, HEIs, etc.), mechanisms and processes of functioning, authorities and responsibilities, and accountability mechanisms. The RSA will review this plan and approve it before it can be implemented. (2) Accreditation is the basis for regulation and NAAC shall be reinvented and separated from the UGC into a completely independent, autonomous body and be given the responsibility of overseeing accreditation of all institutions of higher education, across all disciplines and field. For the next 10 years, the graded accreditation (GA) of HEIs with concomitant graded autonomy, as per the system already in place, will continue. This will be reviewed for improvement by 2020. After 10 years (by 2030) there shall only be a "Yes or No" accreditation - Binary Accreditation (BA). The BA system should be introduced at the earliest, certainly by 2022.

Till 2030, HEIs would be free to choose between the GA or BA regime. Accreditation is for institutional and no programme accreditation is needed. Based on assessment of the capacity of the HEI to offer high quality ODL, may lead to accreditation with or without ODL.

Licenses to function as an AI, called "meta-accreditation", shall be awarded to an appropriate number of public as well as private not-for-profit institutions by NAAC. HEIs and other not for profit bodies can also choose to set up accreditation agencies/ cells, and they can charge for their services to recover cost. The entire accreditation process is transparent and available to public online.

(3) Standard setting bodies

All the other current regulatory authorities such as NCTE, AICTE, MCI, BCI, etc. shall transfer their regulatory function to NHERA which shall become the sole regulator for higher education. These other regulatory authorities transform into Professional Standard Setting Bodies. General Education Council (GEC) will be constituted which is an academic leadership institution, to define attributes and learning expected from students who graduate from the higher education system.

(4) Role of other bodies : The UGC and AICTE shall transition into HEGC (Higher Education Grant Council) shall focus its energy on scholarships and on developmental funds to start new focus areas in HEIs across fields and disciplines.

(5) Establishing new higher education institutions shall be only by the Parliament or a State Legislature or with an 'HEI Charter' from NHERA. Setting up new HEIs will be made easier, while ensuring with great effectiveness that these are set up with the spirit of public service and with due financial backing for long term stability. Constituent colleges, off-campuses and multiple campuses may be freely started by (existing or new) HEIs across the country - these shall not require any regulatory approval. Constituent colleges will be integrally a part of the University that starts and runs them. All newly-constituted HEIs must receive accreditation as mandated by NHERA within 5 years of being established and again for next 5 years.

(6) Common regulatory regime : All HEIs - public and private - shall be treated on par within this regulatory regime. The audited financial statement of all private HEIs must be made public after due endorsement by the Board to eliminate commercialisation of education. Private HEIs shall not be mandated to adhere to reservation guidelines and except their formative Acts with respect to local State students. Private HEIs shall run all programmes, such that they meet the fee waiver obligations in full, on the average over a rolling four year period. If they do not meet this obligation, they shall have to discontinue the programme. Admissions will be done on a 'need blind' basis, and the HEI will make best efforts to arrange funding for all those offered admission, and in need of financial support. The fees set by private HEIs for all their programmes, must be transparently and fully disclosed, with no increase during the tenure of the student cohort of that

programme.

Part III - Additional Key Focus Areas		
19	**Technology in Education**	Use of Information Communication and Computation Technology (ICCT) in various processes of teaching-learning of Education. Promotion of use of Free and Open Source Software for Educational Experience (FOSSEE) and any challenges in this regard must be addressed. Use of SWAYAM must be promoted for both students and faculty. (1) Setting up of a new National Educational Technology Forum which will be a platform for the free exchange of ideas on the use of technology to improve learning, assessment, planning, and administration. NETF will be to facilitate decision making on the induction, deployment, and use of technology, by providing to the leadership of educational institutions, State and Central governments and other stakeholders the latest knowledge and research as well as the opportunity to consult and share best practices with each other. (2) Approach to the induction of technology Centres of Excellence in Educational Technology: Centres of Excellence in Educational Technology will be established at prominent Universities and other institutions to perform research as well as support functions for the uptake of appropriate technology solutions. It will provide directions to use hardware, software and data for technology based interventions to support translation of content into multiple languages; assist differently-abled learners; improve the quality of pedagogy and learning processes through the use of intelligent tutoring systems and adaptive assessment systems; create new types of interactive and immersive content (e.g. using augmented and virtual reality); strengthen educational planning and management and bring greater transparency and efficiency to the examination system as well as to administrative and governance processes; assist in the management of education such as supporting teacher development programmes; and scale up the ODL system so that it can respond to the growing demand for education from all age groups, across school education, higher education, professional and vocational education, adult education, and lifelong learning. (3) Teacher preparation and continuous professional development will include special training for usage of technology in teaching-learning, and evaluation processes. Videos in the open educational repository will be used for teacher training discussions in every subject to improve the teaching competencies. An online training platform - linked to appropriate mechanisms to certify trainees in specific areas - will be developed to empower in-service teachers at all levels of education to stay at the cutting edge of pedagogical techniques. (4) Improving teaching, learning and evaluation processes by integrating educational technology and computational thinking into school curriculum, by developing educational software for students and teachers of all levels. These software will help teachers create adaptive assessments,

		formative as well as summative, evaluate the assessments, and provide appropriate feedback to learners. (5) Enhancing educational access both in schools and HIEs by providing low cost, high quality video viewing equipment to watch advanced online courses as well as for publishing course materials using multiple sources and to process online assessments. Accessing technology in remote areas, availability of high quality contents in open educational repositories, automated language translation, and technology usage policies are important issues. (6) Streamlining educational planning and management includes Educational information storage in the form of repositories using ICT, through National Repository of Educational Data will maintain all records related to institutions, teachers and students in digital form. Technology is also used for surveillance data and improving governance and administration. (7) Disruptive technologies like ICCT and its underlying technologies like AI, Blockchain, Virtual reality etc., Nanotechnology and its underlying technologies, and other emerging technologies are going impact and change education industry. Monitoring, usage, and harnessing advantages such technologies at appropriate time like any other industry is the responsibility of RSA. Supporting research & development in disruptive technologies by means creating opportunities and funding through NRF is another strategy. Skilling and re-skilling in disruptive technologies by starting Masters and Ph.D. programmes in these core and multi-disciplinary areas in Universities will be encouraged. Such courses will be developed and disseminated through SWAYAM platform. The awareness on disruptive technologies should be created in curriculum at secondary school level.
20	**Vocational Education**	(1) Integrating vocational education into all schools, colleges and universities and Providing access to vocational education to at least 50% of all learners by 2025. It aims for students to acquire a defined set of practical competences in specific areas of work in the economy that requires knowledge, skills and attitudes relating to that field of work. Vocational education is different from skilling in such that it integrates not just the hands-on skilling component but also the theoretical knowledge, attitudes and mindsets, and soft skills that are required for particular occupations, through a broad-based education that is necessary for students to be able to take on a fast-changing world of work. All educational institutions - schools, colleges and universities - must integrate vocational education programmes in a phased manner. (2) Frameworks and standards : Aligning Indian occupational standards with International occupational standards that is maintained by the International Labour Organiastion (ILO). (3) Vocational education in secondary school : All school students must receive vocational education in at least one vocation during Grades 9-12.

		(4) Vocational education as an integral part of higher education. HIEs will collaborate with ITIs, polytechnics, local businesses and industries, hospitals, farms, and NGOs. Each educational institution will make a careful choice of a few areas that they would like to offer, based on an analysis of the jobs available in their regions. The focus will be the development of practical skills as well as the associated theoretical knowledge along with a broad-based education. Funding support for integrating Vocational education with main education through MHRD and MSDE will be encouraged. Certificate courses also planned in HEIs for vocational courses in addition to main courses. (5) Vocational education for adults and youth include Assessment and Recognition of Prior Learning, Upskilling and reskilling requirements, campus based and online certificate courses for organized and unorganized sectors etc. (6) Areas of special focus including traditional and cultural skills, Crafts and artisans called Lok Vidya - knowledge developed in India - will be an integral part of vocational education programmes with special focus on rural and tribal areas.
21	**Adult Education**	(1) Developing a curriculum framework for adult education which should be flexible enough to adjust to local needs, and include foundational literacy and numeracy, critical life skills, vocational skills development, basic education equivalent to middle, and secondary school stage, and continuing education in interested areas. (2) Ensuring infrastructure and universal access by identifying trainers/ volunteers and ICT enabled medium. Starting Adult Education Centres (AEC) in the premises of each school complexes and providing those required resources and support. AECs will be co-located with schools, public libraries, or vocational training centres whenever possible to enable the desired synergy and resource sharing. Adult education model will be redesigned for enabling and strengthening various pathways to learning involving formal and non-formal education modes - including one-on-one tutoring, ODLs, and smartphone apps - with a view to enabling all young people and adults to be literate and to acquire knowledge needed to respond to the fast transforming economy and skills requirements of the nation. (3) Training a cadre of adult education volunteers through Creating a large team of one-on-one tutors through a newly-established National Adult Tutors Programme (NATP). (4) Ensuring widespread participation in adult education by revival and rejuvenation of support and resource institutions for adult education to achieve 100% literacy by 2030.
22	**Promotion of Indian Languages**	Steps to support classical Indian language and literature programmes across higher education institutions, Setting up a National Institute for Pali, Persian and Prakrit, Recruitment of teachers and faculty for language programmes, promoting research on Indian languages, literature, language education, and related cultural areas will be supported by the NRF with adequate funds.

Part IV - Transforming Education		
23	**Rashtriya Shiksha Aayog**	Creation of a National Education Commission (NEC)/RSA as an apex body for Indian education under the chairmanship of Prime minister of India. In order to bring the focus back on education and learning, the MHRD will be re-designated as the Ministry of Education (MoE). The Union Minister for Education (UME) will be the Vice Chairperson of the RSA and there will be 20-30 members. At least 50% of the members along with Executive Director (ED) will be eminent educationists, researchers and leading professionals from various fields such as arts, business, health, agriculture and social work. All these members will be people of high expertise, unimpeachable integrity and independence.
		The RSA will appoint the chairpersons, chief executives (CE), and members of the Board of all the bodies that report to it:
		(1) National Higher Education Regulatory Authority (Proposed),
		(2) National Accreditation and Assessment Council,
		(3) General Education Council (Proposed),
		(4) Higher Education Grants Council (Proposed),
		(5) National Council of Educational Research and Training,
		(6) National Institute of Educational Planning and Administration,
		(7) National Research Foundation (Proposed).

5.3 Implementation & Monitoring :

The planned transformations in higher education and research is implemented and monitored through three major institutions named Mission Nalanda, Mission Takshashila, and National Research Foundation will oversee and manage the development and research funding of the new institutional architecture with a clearly articulated plan, milestones, and commitments towards funding from both the Central and State governments. The missions will also enable and support private HEIs aspiring to develop into Type 1 or 2 HEIs.

(1) **Mission Nalanda** will ensure that there are at least 100 Type 1 and 500 Type 2 HEIs functioning vibrantly by 2030, with the equitable regional distribution.

(2) **Mission Takshashila** will strive to establish at least one high quality HEI in or close to every district of India, with 2 or 3 such HEIs in districts with larger populations, each with residential facilities for students.

(3) **National Research Foundation** will fund innovative research projects of all types of institutions of both public and private sector.

5.4 Techniques for liberalizing Undergraduate Education :

NEP has suggested many techniques to be implemented to realize liberal education like STEAM (Science, Technology, Education, Arts & Design, Mathematics), multi-disciplinary, and cross-disciplinary education. A liberal arts education enables students to develop both sides of the brain – both the creative/artistic side and the analytic side. Aesthetic, social, and moral capabilities can greatly enhance one's scientific capabilities, and vice versa; and education across all such fields can improve the capacity and desire for creativity and innovation, and enhance the students skills in communication, ethics, service, critical thinking, cooperation, and collaboration. Similarly, research on STEAM model is consistently showed positive learning outcomes, including increased creativity and innovation, critical thinking and higher order thinking capacities, problem solving abilities, teamwork, communication skills, deeper learning and mastery of curricula across fields, an increase in social and moral awareness, besides general engagement and enjoyment of learning. Table 7 summarizes some of the steps suggested in NEP for liberalization of undergraduate education.

Table 7 : Steps suggested in NEP for liberalization of undergraduate education

S. No.	Techniques/Steps	Details
1	Multidisciplinary environments and institutions	Student choice and competency based STEAM model of multidisciplinary subjects across the different disciplines offered in multidisciplinary HEIs. All universities and autonomous colleges must aim to become composite multidisciplinary HEIs.
2	Breaking silos within universities	In the present system, students are streamed into narrow areas such as science, or engineering, or art, or professional or vocational subjects, and allowed to study within their stream. This is a harmful practice and if allowed flexible to develop cross-disciplinary capabilities they will develop both the creative and analytic sides of their brains. This also supports cross-disciplinary collaborative study and research among faculties.
3	Imaginative curriculum and pedagogy	Offering flexibility in curriculum, and choice based course options to students in STEAM subjects is possible by increasing faculty and institutional autonomy in setting curricula. Accordingly, pedagogy will emphasize on communication, discussion, and opportunities for cross-disciplinary and interdisciplinary thinking.
4	Establishment and strengthening of departments needed for multidisciplinary and cross-disciplinary	Departments related to all areas of society are truly needed for a multidisciplinary and stimulating Indian education and environment will be established and strengthened at HEIs across the country.
5	Liberal education to be accompanied by rigorous specialisation	Liberal education will consist of great flexibility in choosing courses to satisfy core subject distribution requirements, together with a selection of courses to establish expertise in a chosen field or fields (called majors, dual majors, or minors). This will ensure well-rounded individuals to become experts in given disciplines or fields.
6	Inclusion of lessons in *seva / service* as part of liberal education	Where ever possible, courses will include relevant and educational local community services as part of their curricula to help develop socially conscious individuals, and to help connect the subjects that students study to life.
7	Internships and research opportunities	In liberal education, students will be provided with opportunities for internships with local industry as well as research internships with faculty and researchers at their own or other HEIs or research institutions. This component earns fixed credits and is considered as the part of the liberal arts degrees.
8	Flexible Bachelor's degree options	Liberal education based undergraduate degrees regardless of the subject will be of either three- or four-year duration. Three years of undergraduate degree programmes without research components and four years undergraduate degree programmes with research projects may be offered in liberal education. Bachelor of Liberal Arts (BLA) or Bachelor of Liberal Education (BLE) degree (or BLA / BLE with Research) will be offered by those institutions which are ready to run such programmes consisting of a broad-based liberal education together with rigorous specialisation in a field or fields. The three-year traditional B.A., B.Sc., as well as B.Voc.

		degrees will continue as well for those institutions that wish to continue such programmes, but all Bachelor's degrees will move towards taking a more comprehensive liberal education approach.
9	Implementing STEAM model [27]	Implementing STEAM (Science, Technology, Education, Arts & Design, Mathematics), multi-disciplinary, and cross-disciplinary education in all universities and autonomous Colleges to make true liberal education.
10	Focus on language, literature, arts, sports, and music	All undergraduate programmes shall emphasise on Indian and foreign language, music, visual arts, performing arts, yoga, and sports. This shall include India's deep traditions in the arts, music, yoga, and sports, including the numerous remarkable local regional traditions. Institutions will be encouraged and funded to offer full-fledged programmes and courses in these areas. Every student in under graduation should able to present a project in Indian language other than English.

A four-year duration programme will offer the full possibilities for such a transformed liberal undergraduate education programme, and shall be called a Liberal Arts programme, resulting in a BLA or BLE degree. The BLA or BLE will also offer students the possibility of in-depth research in their final year, resulting in a BLA or BLE with Research. In our previous studies we have discussed and suggested many innovations in higher education to liberalize the subjects, curriculum, and pedagogy for student centric learning and employability skill generation [59-61].

5.5 Comparison of Private and Public HEIs based on NEP proposal 2019 :
Private universities and private colleges are contributing the education system of the country since many years. Such HEIs contributing to the quality education and research comparatively better than public funded HEIs without any financial support due to the fact that they have better autonomy in making quick decisions to provide quality and contemporary education. In the last few years, private HEIs in India are playing important role in the process of providing quality education both in school education sector and college education sector. Presently there are 500 private universities (both State private universities and deemed universities) functioning in India out of total 892 universities. Private universities are also facing many challenges in the process of offering quality education and contributing to the new knowledge through research [62-64]. Table 9 depicts some of the supports and regulations suggested to private HEIs as compared to public HEIs.

Table 9 : Comparison of public and private HEIs as proposed in NEP 2019

S. No.	Public HEIs	Private HEIs
1	All three types of HEIs in Public sector are allowed	All three types HEIs in Private sector are allowed
2	Both Central and State governments will invest to create campus infrastructure and maintenance.	No funding from Central and State governments.
3	Restriction on expansion due to financial constraints	No restriction on expansion from government side
4	Less autonomy due to various hidden restrictions	More autonomy for starting innovative, industry oriented programmes
5	All undergraduate and post graduate admissions are based on NTA scores	All undergraduate and post graduate admissions are direct and need blind basis.
6	Regulated fee for students as per funding Government decision	No fee restriction. However, the fees set by private HEIs for all programmes must be transparent and fully disclosed.
7	Mandated to adhere reservation policy in both student admission and faculty	Not Mandated to adhere reservation policy in both student admission and faculty appointment

	appointment to give social justice.	so that preference will be given to academic performance only.
8	Can start any courses after getting permission from government.	Can start all programmes such that they meet the fee waiver obligations in full on the average over a rolling four years period. If they do not meet this obligation, they have to discontinue the programme.
9	Common regulatory regime for both public and private HEIs.	Common regulatory regime for both public and private HEIs.
10	National research foundation allocates research funds for projects	National research foundation allocates research funds for projects with equal consideration
11	No proposal of free education to the students. The fee structure is subsidized from government and is very low	20% students who have high academic and research calibre will get free education and 30% students in each course will get 50% discount in the fee during entire duration of the programme.
12	Single department colleges will be expanded as multi-department college through government support	Single department colleges will be closed down if they fail to expand as multi department college due to infrastructural constraints.

6. STRENGTH & WEAKNESS ANALYSIS OF THE NEP PROPOSAL 2019 :

The strength and weakness of the proposal are identified from its structure and implementation point of views [65] and are listed below :

6.1 Strengths of the Proposal :

(1) The draft is prepared by a team of highly educated & vastly experienced authorities in varied fields.

(2) The draft contains a comprehensive proposal on all aspects of education for all levels of the people.

(3) Systematic education for children is proposed from the 3rd year of their age.

(4) Emphasis is on manpower development and employability.

(5) The entire proposal is based on the concept of education for equality.

(6) Private HEIs will prosper due to full autonomy for admission, choosing the curriculum, freedom in teacher's appointment without following reservation policy, research funds support, and ability to retain only performers through accountability models.

(7) Private HIEs will get the freedom of admission whereas Public HEIs admit students through NEA ranking & counselling.

(8) All types of HEIs will be multidisciplinary, accredited, and autonomous degree granting institutions at undergraduate and postgraduate levels.

(9) Marks scored by each student in each subject is based on the continuous evaluation by the concerned faculty members of the department so that the performance grade of the student will be based on true academic scores not based on his/her fate or luck.

(10) Well written by considering all aspects of education and all levels of people in society

(11) The experience and thoughts of many experts are embedded in the Proposal.

(12) Supports to fulfil the United Nations Sustainable development goals by 2030.

(13) Addressed the systematic education requirement for the citizen for lifelong learning.

(14) Free education with the liberal concept along with breakfast and lunch makes education as means not punishment in the initial stage of the lifecycle.

(15) Liberalization in choosing the subjects in school and college education allows to all-round development with innovating abilities and critical & design thinking.

(16) The policy of 20% free education and 30% subsidized education in private HEIs will give opportunities for availing free education lifelong for brilliant students.

(17) Autonomy is given to Type 3 HEIs to decide their curriculum may lead to contemporary education as per industry requirement.

(18) The proposal is innovative and supportive to break the silos of the existing system.

(19) Multiple entries and multiple exits in the under-graduate system allow students to redefine their career path based on interest and external opportunities.

(20) Quality of B.Ed. will improve due to the fact that only type 1, and type 2 HEIs are able to offer teacher education and is the basic qualification required to all levels of school education.

(21) Digitization of the libraries leads to online information on any subjects for students and faculty in support of the liberal education model.

(22) Intensive research in every subject is supported at undergraduate, post-graduate, and research level through extensive funding support to all HEIs by National Research Foundation.

(23) Teachers are made as to the centre of the system and the measures are proposed for continuous improvement of both quality and performance of the teachers.

(24) Autonomy is given to teachers both for innovations in curriculum and innovations in evaluation methods.

(25) Students have the liberty to choose subjects both from specialization areas and across many multi-disciplinary subject areas.

(26) Priority is given to research based customized education at all levels by involving both students and faculties.

(27) A compulsory social engagement for each student equal to at least a full one semester course across the duration of an undergraduate programme so that every student is exposed to the problems of underprivileged and learns a sort of social responsibility in their life.

(28) Drastic improvement in the quality & exposure of school teachers by making four years integrated B.Ed. as a minimum qualification for them.

(29) Opportunities to provide ODL mode of offering degree programmes for all accredited HEIs.

(30) The objective of providing education to all and higher education GER to at least 50% from the current 25% by 2030.

(31) The proposed student faculty ratio in the schools and colleges is increased from 20:1 to 30:1 and this liberalization allows HEIs to use more industry experts (field practitioners) for part time experience sharing.

(32) Encouragement for HEIs to involve in foreign university collaboration for twining programmes, dual degree programmes, student exchange programmes, faculty exchange programmes, international research collaborations, starting off-shore campuses by Indian universities, etc.

(33) Liberal education based on STEAM (Science, Technology, Engineering, Arts & design, and Mathematics) model is proposed from the school education to the college education system.

(34) 360 degree feedback based faculty evaluation is given importance to assess the contribution to teaching, research, and practice.

(35) Further encouragement for research is provided by proposing a policy for National research foundation to retain IPR with the researchers.

(36) At school education level, providing free and compulsory quality pre-primary education, primary education, and secondary education for all 3-18 years children through RTE Act.

(37) Multiple regulatory bodies are merged into a single regulatory body to remove the corruption by agencies and lobbying by HEIs. Light but tight regulations are suggested.

(38) The research fund proposed for NRF (Rs. 20,000 crores) is substantially impressive and may contribute enhanced research output in all important areas of human development.

(39) Secondary stage of school education comprises of four years with eight semesters so that repeated board exams at the state level are eliminated.

(40) All private HEIs will be treated equally with public institutions for research funding so that researchers will get equal importance and encouragement for their research contributions irrespective of the type of the institution they work.

6.2 Weakness of the Proposal :

(1) The subject identification and specialization into science, commerce, arts in order to choose the type of professional education are not clear.

(2) Implementation details at school levels and college levels are also not clear.

(3) The three years exit with a degree and four years exit with a research project based degree is also confusing to get a government job under a similar degree qualification.

(4) One year and two years Masters degree programmes are also suggested and it is not clear that under what circumstances these different duration Master degree programmes have to be offered.

(5) Online Distance Learning (ODL) permission should be restricted to only universities instead of autonomous colleges too.

(6) Less importance and information is given for diploma programmes under higher education.

(7) No substantial support to improve the quality for contributing global ranking.

(8) Accumulating required land and infrastructure for affiliated colleges to be transformed into multi-disciplinary autonomous colleges is a major constraint.

(9) If all types of HEIs start offering ODL programmes the system will become worse due to unhealthy competitions.

(10) Since top class foreign universities are allowed to enter and offer educational services in India with huge investments, sustainability for Indian organizations becomes a challenge.

(11) Encouragement & motivation for lifelong research by suggesting Post doctoral degrees is not visible.

(12) No strong & effective suggestion on faculty performance measurement is included for determining accountability.

(13) Promotion of open system leads ignoring of proprietary software and proprietary knowledge.

(14) Regulatory policies support lobbying & corruption.

(15) The vision statement is India centric and not reflecting global relevance.

(16) The transition from the current system to the proposed future system is not progressive but disruptive.

(17) Autonomy should be earned by the HEIs based on their quality and not to be given forcefully by the government.

(18) Removing affiliated colleges leads to chaos and confusion.

(19) The proposed binary accreditation system leads no incentives to achievers.

(20) Proposed compulsory one semester equivalent social engagement in the form of the internship is difficult for certain professional programmes.

(21) Specific procedures to increase patent filing and scholarly publications in the country is not suggested apart from encouragement for research based on enhanced funding.

7. SUGGESTIONS :

The following suggestions may be appropriate to realize the policy and make it effective and defect free from a public point of reference :

(1) Only Type 1 & Type 2 HEIs should be allowed to offer B.Ed. programme to improve the quality of teachers in School education.

(2) Technology should be used extensively in the student evaluation process.

(3) Annual accountability should be set to the faculty members and based on faculty Annual Performance Indicator scores, annual increments should be decided and for every four years, faculty continuation/termination should be decided.

(4) The individual colleges and single departmental colleges which fails to acquire autonomy based on attaining accreditation can merge with any other HEIs instead of only merging with affiliating universities.

(5) National Research Foundation while funding for research, certain minimum funds should be given to all types of HEIs irrespective of public and private organizations to provide minimum research facilities as a central facility.

(6) National Research Foundation should fund for developing Common Central facilities in each State to help researchers and to avoid repetition and underutilization of repeated facilities in every HEIs.

(7) In five years integrated degree programmes, multiple exits after 3rd and 4th years should be possible.

(8) At least one year Masters degree should be compulsory as a minimum educational qualification to join Ph.D. research degree to maintain uniformity. But the present proposal allows students who completed four years under-graduation with substantial research components are eligible to join Ph.D. programme. Also one year Masters Degree in the subject and one year Masters Degree in Teaching (M.Ed.) should be compulsory for Lecturer/Assistant professor for teaching under-graduation degree programmes.

(9) The NEP 2019 consequently eliminates the examination and evaluation section of the universities due to the incorporation of continuous evaluation system at departmental level itself.

(10) Students should compulsorily register and complete at least one online course from SWAYAM or NPTEL per year as a part of their grading system. Every faculty member irrespective of their seniority also takes at least two online FDP to update them to become eligible for annual increments.

8. CONCLUSION :

A periodic improvement in the education system is essential for human development and sustainable progress in society. Reforms in the education system by considering various success models in developed countries and customizing such things with local needs is the present requirement for a country to prosper. India, being a fast developing country with 130 crores human capital can prosper and overtake other developing countries by planning and adopting an appropriate education model. In this aspect, the present National Education Policy proposal 2019 is an inclusive model with many innovations to provide liberal but specialized and customized both school and college education by incorporating research components both at school and college levels [66]. Apart from highlighting the features of the proposal, in this paper, we have analysed the strengths and weaknesses of the proposal and offered some suggestion to further improve the model as an optimum model by considering the local conditions of the country.

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