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School Complexes in India Existing Practices and Future Prospects in the Light of National Education Policy 2020

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School Complexes in India

Existing Practices and Future Prospects in the Light of National Education Policy 2020[#]

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Abstract

The school Complexes emerged as a necessity to address the critical issues related to access and equity in providing the resources for quality improvement of schools in India. Historically, it was on the recommendations of the Education Commission (1964-66) and subsequently by the Janardhan Reddy Committee (1992) that school complexes were formed in different parts of the country. It is strongly realised that the current structure of schools and complexes do not seem to be adequate in providing access to well-resourced schools. The paper draws an understanding of the functioning of school complexes from the review of national and international literature and the overall perception of state-level administrators on the current arrangement of school complexes in India. It has been brought to the fore that there is a need for overall improvement in all kinds and sizes of schools. The National Education Policy 2020 recognized the need to provide equitable access of all children to a quality school by establishing a school complex or cluster in a specified geographical area. The complex is seen to be restricted to primary schools as feeder schools in the existing structure, and the NEP 2020 extends boundaries to include Anganwadis as part of the complex. The New Education Policy envisions school complexes to be decentralised units located as independent units for greater resource efficiency to facilitate coordination, leadership, governance and management of schools and ignite the academic rigour effectively within a complex. The paper presents potential models of school complexes that have worked in different contexts in a diverse country like India. The paper brings to the fore that a cluster or complex of schools has the potential of bringing equity among schools to ensure access to quality education for all.

[#] This occasional paper titled ‘School Complexes in India: Existing Practices and Future Prospects in the Light of National Education Policy 2020’ draws inspiration from the NIEPA document titled ‘NEP 2020 Implementation Strategies’. The Occasional paper outspreads its spectrum by presenting a comprehensive landscape of School complexes in India, a descriptive analysis of experiences and perceptions of field functionaries and school practitioners and the models proposed for diverse contexts for different parts of the country. The occasional paper, therefore, does not bear any resemblance to NIEPA’s document on a similar theme.

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1. Understanding a School Complex

In the most simple terms, a school complex constitutes a network of institutions and individuals within a geographical area where physical facilities and human resources are shared among schools while engaging with the premise of improving the quality¹ of schools, teachers, student learning and equity-centered concerns. School Complexes function through creating a network of schools, bringing together individuals or institutions, breaking the isolation of schools, facilitating a professional learning community driven by exchange of ideas, learning from each other's experiences, and collaborative problem solving, all leading to improvement in teacher performance. The operation of the school complexes rests upon mutual trust and motivation leading to the empowerment of professionals across all levels at every school in the complex. According to Bray (1987), - a school cluster is a group of schools that serve multiple purposes for administrative and educational purposes encompassing economic, pedagogic, administrative and political goals. A typical school cluster model consists of one 'core' school, the leader of other schools within the cluster. The head of the 'core' school coordinates the working of the schools in the cluster and ensures resource management and teacher management and development. A cluster may be composed of primary schools alone, secondary schools alone, or a combination of both primary and secondary schools. For Giordano (2008), school clusters operate on the premise that learning is a social process and that learning requires people to collaborate and come together to share information and ideas. The school cluster provides the space for exchanging knowledge and ideas, especially for teachers and students. Chikoko (2007) contends that the aim of establishing school clusters is to improve the quality and relevance of education in schools. School cluster is a result of concerns regarding micro-planning, decentralisation, school mapping and stakeholder participation and is seen as a way to improve the educational quality and enhance the use of resources.

¹ The term quality denotes different indicators based on the context with reference to the size, location, resources, instruction, enabling inputs, learning outcomes etc. of the school. Thus, in general it refers to the availability of infrastructure and human resources leading to the desirable learning outcomes in students.

2. Roles and Significance of School Complexes: A Review

Addressing Equity and Access Concerns

A plethora of research findings throughout the 1970s-2000s underline the school factors responsible for falling standards, low learning levels and high incidence of silent exclusion. This refers largely to those critical incidents where children are enrolled in schools, but they hardly learn. As a result, the probability of their dropping out before completing the primary or secondary school cycle becomes high. Most children who drop out or are likely to drop out are those who fail in a particular class several times, and the majority belong to low-income groups or poor families. This shows that access and retention are also major concerns that need attention. Considering that school quality and school processes are inseparable from educational access and outcomes, school complexes can be seen as a viable mechanism to ensure seriousness in thinking and planning for the education of quality for all children and taking appropriate actions and measures, particularly in the domain of pedagogy, teaching-learning processes for those at risk within the zone of silent exclusion. Multi-pronged approaches can be seen to be followed in the schools attached to complexes or clusters, ensuring equitable access to a good school, expanding access to secondary schooling, multi-disciplinary approach, same facilities of laboratories, libraries, equal attention to classroom processes and same treatment to reduce the incidence of silent exclusion, high failure and low transition with high dropout rates from one stage of schooling to another, etc.

Improving School Quality and Student Learning

From time to time, studies have pointed out the direct and indirect impact of school complexes/school clusters on school quality and overall school improvement. The impact of School complexes has been studied through various means: some through inter-school collaborations, some through teacher study groups, and some through school networks. All these studies have revealed changes in different school-related variables, teacher variables and student variables. The studies have reported improvement in school quality, teacher efficacy, motivation and student achievement.

Teacher study groups: Puchner and Taylor (2006) described the experiences of teachers who were part of a lesson study group in the US. The study highlighted

that teachers experienced changes in the way they planned their work as they collaborated on lesson studies, resulting in increased student engagement and thereby in increased teacher efficacy. Jackson and Brueggemann (2009) study analyzed the importance of peer teaching for teachers. It was found that students' achievement improved when teachers collaborated through peer teaching methods. A study by Hochweber et al. (2012) further examined the impact of teacher cooperation on instructional quality and learning. It was found that teacher support had a strong impact on student learning and teacher motivation. Hattie (2015) maintains that teacher quality alone accounts for 30 percent of the variance in student performance. The study highlighted that proactive teaching practices lead to enhanced teacher effectiveness and expertise in improving classroom teaching. It further asserts that variability within schools could be reduced if the teachers' collaborative expertise is improved resulting in successful school transformation.

Interschool collaborations: A research report on the theme by Armstrong (2015) highlights the scope of interschool collaborations for school improvement. According to the report, interschool collaborations could include collaborative activities that are formal and sometimes informal or both and involve schools of different types collaborating for varied reasons and with differing timelines and resulting in different degrees of impact and sustainability. The report revealed that school heads in such collaborations function as system-level leaders and practice shared leadership to facilitate change and improvement in schools. It further highlights that such collaborations provide scope for the shift of school leadership from the traditional concept of institutional leadership where the school heads lead their schools to a much broader sphere of responsibility, encompassing multiple schools and educational well-being across wider geographical boundaries. (Chapman, 2015, p-3). Regarding the direct impact of inter-school collaboration on student attainment, the results are mixed. Some studies reported no association between school involvement in the inter-school collaborative activity and increase in student attainment (for example, Woods et al., 2006; Sammons et al., 2007), whereas others suggest a possible association (Hutchings et al., 2012). One notable large-scale research study revealed that students attending certain types of federation outperformed their peers in non-federated schools in terms of their attainment (Chapman and Muijs, 2014). The indirect impact of interschool collaborations on

school improvement reported improvements in staff professional development and career opportunities (Hill et al., 2012; West, 2010); sharing good practice and innovation (Stoll, 2015; Chapman et al., 2009a); reduction in the workload of school heads and organisational and financial efficiency (Woods et al., 2010; Woods et al., 2013). The report revealed that interschool collaborations positively impacted teachers motivation to engage in professional dialogues with colleagues, with a shift towards more learning-oriented and enquiry-based cultures in schools (Stoll, 2015), and further towards curriculum development and problem-solving (Ainscow et al., 2006).

Promoting Networks and Professional Learning Communities

The networks of schools build a community of teachers and leaders who have transformed schools into learning organisations. Networks bring together individuals or institutions in a horizontal partnership in the form of learning communities, where there is a democratic exchange, and mutual stimulation and motivation, rather than top-down reforms. DuFour et al. (2005) advocate the increase of collaborative activities in the form of professional learning communities, stating that such communities “hold out immense, unprecedented hope for schools and the improvement of teaching.” In support of building school network, Barletta et al. (2017) contend that networks help overcome the isolation of schools and educators by providing opportunities for organised, professional exchange, development and enrichment.

Bill and Melinda Gates Foundation (BMGF, 2017) launched the Networks for School Improvement Strategy (NSI), which are groups of secondary schools working in partnership with intermediary organisations to achieve a common goal using continuous improvement methods to significantly increase the number of Black, Latino, and low-income students earning a high-school diploma, enrolling in a post-secondary institution, and staying on track to earn a credential with labour-market value. Outcomes from the 25 NSI networks show three major outcomes; Network Health Outcomes; School System Outcomes and Student Outcomes. Healthy network outcomes included the development of open relationships and distributed leadership across schools, the ability to provide customised support to schools, and the establishment of strong network data and information-sharing systems.

School system outcomes reflected improvements in the school's continuous use of data and evidence, distributed leadership, and high-performing faculty. Finally, these networks influenced student attainment as well as students' attitudes and behaviours. In turn, these are likely to influence academic results such as learning mindsets and attendance rates.

The study on NSI revealed that for successful outcomes, there is a need for involvement of school and district level stakeholders, the establishment of a clear goal that is relevant to school contexts and needs, relational trust between network partners and supportive and distributed partnerships

Overcoming the Issue of Sustaining Networks among Schools

There have been instances where school networks have failed to maintain an ideal balance or 'lost' connections in accountabilities between schools and networks. Few school networks also face dilemmas in understanding how to generate and manage complex collaborative processes across organisational boundaries so that outcomes are consistently positive. Networks often come at a cost such as the significant amount of time needed for relationship building; the personal 'energy' and additional resources needed to sustain high-quality deliberative decision making; and loss of knowledge when a significant leader departs. Alford and O'Flynn (2012) have pointed out though the networks have the freedom to define a problem and innovate to solve them, but also limited in definite outputs of actions

Interschool collaborations also have to face barriers to effectiveness and sustainability. Some of the factors that act as barriers include threats to school autonomy (Chapman et al., 2009a); perceived power imbalances between schools (Lindsay et al., 2007); additional workload associated with the collaborative activity (Aiston, 2002), difficulties in establishing shared objectives and common goals (Woods et al., 2010) and centrally driven initiatives might hamper sustainable collaboration between schools (Woods et al., 2006) (Hayes and Lynch, 2013).

Few other challenges that were found to be common across the studies are as follows:

- Governance systems rooted in bureaucratic rules or high-stakes accountability impede the transparency in practice and results, room for experimentation and

failure, and inter-school collaboration that effective continuous improvement practices require (Barletta et al., 2017, Armstrong, 2015).

- Network members often lack time to understand and practice continuous improvement and to engage in network activities, which can lead to initial mistrust, resistance, and a sense of incompetence throughout the network.
- Inadequate root cause analysis, as well as misalignment between a network's overall goal and the needs of individual schools, between individual network members, and between the network's work and schools' competing initiatives or reforms, impede the coherence that improvement of networks requires (Megan et al., 2019).
- Traditional methods of evaluating treatment effects can be inadequate for measuring the impact of improvement networks, given their experimental nature and variations in the way networks function.
- Head teachers of network schools regularly meet and collaborate; even senior management groups like subject leaders or departmental heads have cross-network groups, but other staff are not directly involved, especially classroom teachers (Mujis et al., 2010).
- The challenge for systems is also about deciding the 'right' level of support and incentives to stimulate the collaborations that make a difference and contribute to the improvement of school-to-school networks and educational quality (Suggett, 2014).

3. Tracing School Complexes in National Policies and Commissions: The Backdrop

Recognising the importance of reforming every school within easily accessible distances, the Education Commission (1964-66) recommended establishing a network of schools as a complex. Under the plan, the school complex may comprise of a group of primary and upper primary schools (five to six lower primary schools and one higher primary school, within a radius of 5-10 miles) attached to a high school, a training school, a technical school, etc. (could also include six to seven upper primary schools with one secondary school or six to seven secondary schools with one college). This would facilitate in providing equal opportunities of access and sharing of educational facilities and experiences among all the schools. School Complexes as institutions were envisioned to function cooperatively for the improvement of educational standards across all levels of schooling. The headmaster of the higher primary school was envisaged as the Chairman and would lead the school complex.

The National Policy on Education, 1986 reiterated the idea of setting up a school complex, defined a wide range of functions relating to the running of schools, but confined the spectrum bringing schools together to share and exchange resources, including staff. At the same time, the policy, however, is not explicit on the autonomous nature of the school complex in a decentralised governance framework. It's the CABE Committee Report on NPE, 1986, that recommended 'Educational Complexes' as autonomous registered societies. The Programme of Action (1992) for implementation of NPE 1986 viewed the concept of educational structures within the framework of local area planning.

A leap forward, around the same time, it was under the Janardhan Reddy Committee in 1992 that expanded the conceptualisation of school complexes as the lowest viable unit of planning emanating from a cluster of 8-10 institutions. The report brought to the fore the element of 'autonomy' of school complexes in the decentralised governance system. The Committee visualised school complexes to work in close collaboration with the education department of the state at block and district level; the local bodies, *Panchayati Raj* Institutions and local development and social welfare agencies voluntary or government and the Institutes of Higher and Technical Education. School complexes, in this setup, were seen as a network of institutions collaborating on a flexible pattern with support from institutions such as DIET, Teacher Education College, ITIs, and Polytechnics (particularly community polytechnics). This arrangement expects a school complex to reinforce intellectual discourse among the professional learning community on curriculum, syllabi, content and processes, evaluation, monitoring, teacher training, exchange of resources, personnel, materials, teaching aids, etc., ensure observance of norms and conduct and follow its self-monitoring system and quality mechanisms.

Post NPE (1986) and POA (1992), several efforts were made to establish different models of school networks/complexes across the country. One such model was conceptualised by the Central Board of School Education way back in 1987 with the introduction of the premise 'Freedom to learn; Freedom to Grow through *Sahodaya* school complex.' It began more so as a movement to invoke the dormant, creative potentials in every teacher and every school through friendly interaction between schools, to re-energise the hidden potentials existing in the different schools.

The *Sahodaya* school complexes operated with the belief that schools hold the biggest concentration of real resources and competencies. There was a strong belief that if outside agencies are involved, the changes never endure without undermining their capability and capacity to provide facilitation, encouragement and support. The *Sahodaya* schools have stood on their strong foundation with a collaborative spirit, and therefore several of them have been able to sustain changes over the decades.

It has been 20 years since the concept of school complexes was mooted, and consequently, this policy priority as a practice got established in several Indian States. The recent New Education Policy, 2020, strongly endorses the idea of school complexes to ensure universal access, participation and quality of education under the broad agenda of providing equitable and quality education in schools. NEP 2020 visualises the school complex as an integrated semi-autonomous unit for improving accessibility, effective school governance, resource sharing and community participation. NEP 2020 envisions the expanded outreach of school complexes by including *Anganwadis* in a network of schools.

NEP 2020 emphasises the role of school complexes in supporting small schools. The policy quotes the U-DISE 2016–17 data (p.28) ‘28 percent of India’s public primary schools and 14.8 percent of India’s upper primary schools have less than 30 students. In the year 2016–17 alone, there were 1 08,017 single-teacher schools, the majority of them being primary schools serving Grades 1–5.’ It illustrates that the teaching-learning process in small schools is getting more challenging due to the lack of teachers and physical resources. In such circumstances, teachers have to teach multiple subjects, while important subjects like music, arts, sports, etc., are mostly not taught because of a lack of teachers. Highlighting the educational challenges in small schools, Diwan (2015) enumerates the status of small schools that are struggling with limited human and material resources, low enrolment and a high incidence of teacher and student absenteeism, mostly with single or two teachers and following multigrade teaching and mostly catering to the rural marginalised communities. Drawing on the critical need to ensure equity, the study emphasises the need to sustain these schools through attaching small schools with lead schools with sufficient resources, ensuring teacher accountability, providing enabling conditions for teachers, fostering dialogue between various stakeholders, establishing linkages

with other private and public sectors. According to NEP 2020, formation of school complexes would be considered as an important mechanism especially for small schools, because it will ensure adequate number of teachers for all subjects which includes arts, music, sports, vocational training, ICT etc; ensure that resources are shared which includes science equipment, science labs, libraries, computer labs, playground etc; reduce isolation among teachers and encouraging the teachers to engage in joint professional development programmes, joint content development, sharing of ideas and teaching-learning resources and exposing children to activities such as quiz, science fairs, exhibitions; support for education of children with disabilities; improved governance by situating the school complex as a semi-autonomous unit of governance that includes primary and secondary schools while devolving decision making to school principals, teachers and other significant stakeholders including the school complex management committee; improved monitoring, more scope for innovations, and more scope for local level initiatives.

4. The Emerging Perspectives

The aforementioned discourse highlights school complex or cluster of schools emerging as a strategy firstly to provide access to every primary and secondary school in a complex or cluster and secondly to improve equity and quality schooling and facilities. The following section elaborates on the wider scope of the school complex in fulfilling the premises of equitable access to quality education to all children in schools.

Promoting Equitable Access

India witnessed an unprecedented expansion of school education to reach out to the fast-growing demand for schooling across all sections of society. Several flagship programmes of the Government of India, such as *Sarva Shiksha Abhiyan* and *Rashtriya Madhyamik Shiksha Abhiyan*, and *Samagra Shiksha*, contributed significantly to the rapid expansion of schools and student participation in the country. The massive expansion also led to a diverse management of schools resulting in challenges in providing access to children across all levels of schooling. The diversity in schools and choice of schools ranging from high fee charging so-called *quality institutions* to private-aided and government-aided English medium

schools with quality in question and on the other end local body, government or municipal schools, labelled as struggling schools to cater to the children of the poor or from low-income families contributed to inequality in schooling experiences. Diversity in schools at the same time reciprocated the entrenched class distinctions in the society too. Since the researchers also point out that ‘countries that have made progress in addressing the challenge of equity using a much more inclusive way of thinking, rather than relying on market forces.’ (Ainscow, 2016). Incidentally, hierarchy among schools ranging between ultra-small (enrolment less than 10) small (enrolment less than 25; single teacher) medium (enrolment above 50 managed by single, two teachers) and bigger setups (enrolment more than 250 and teachers more than 20 and beyond) widened the gulf between the masses. The policy directives from Education Commission (1964-66), NPE (1968), NPE (1986) and further revised Programme of Action in 1992 on the adoption of the Common School System in the country to promote social cohesion by mandating all public schools to admit students on the basis of merit and also to provide a *prescribed* proportion of free-studentships to prevent segregation of social classes seems to be elusive. In the present context, a common school system seems to be a utopian endeavor. Based on a review of the experiences of children from Scheduled Castes (SC) and Scheduled Tribes (ST) communities in the school system, Ramachandran (2004: 27) stated, ‘the process of increased universalisation is accompanied by growing segregation by class, caste and gender.’ Location and resources have been the most challenging factors in access to a good school. School complex comes as a viable mechanism to ensure access of every child to the best facilities and resources within a specified jurisdiction, which may not be possible in an independent school.

The question posed now is whether unequal access to schooling among equals or equal access to the unequal. One can find an answer to this ardent issue when applied to a school complex or cluster in the ‘real field’ situation. For example, in a remote rural area, there is hardly a secondary school in the range of 1-5 kilometers, and the primary or elementary schools located in the neighbourhoods may not have the basic resources. With the establishment of school complexes, at least one school in each complex could be sufficiently resourced with audio-visual and other teaching aids like projector, library books, laboratory, computers and shared with all the other schools in one area. The establishment of school complexes as envisaged in the

National Education Policy 2020 (p.27) to increase high-quality educational opportunities in aspirational districts, Special Education Zones, and other disadvantaged areas will have stronger implications, particularly for addressing quality in schools and learning. To ensure equitable access to quality schooling for children with disabilities, the policy further recommends that (pp. 26-27) '*school complexes to be provided resources for the integration of children with disabilities, recruitment of special educators with cross-disability training, and for the establishment of resource centres, wherever needed, especially for children with severe or multiple disabilities.*' School complexes can be seen to address differential learning needs, including learning disabilities and specific devices required by all children to ensure participation and retention of all in an inclusive classroom situation. In fact, establishing school complexes in rural and remote areas, marginalised pockets, and scattered habitations ensure equitable access to resource sharing and learning for all students in the area.

Towards Equitable Quality Education

Improving school quality has been the biggest challenge in the Indian context as policy recommendations and subsequent discourses on quality have been raising serious concerns to bring schools to comparable global standards. India currently has a total of about 1.5 million schools situated in diverse contexts. In an education sector that is constantly expanding, addressing quality concerns and ensuring equitable access and educational opportunities for children of such magnitude seem to be a gigantic task. The Right to Education Act 2009 legitimising free and compulsory quality education to all children warranted merit in the beginning, but it faded away soon.

As derived from a plethora of literature and empirical studies, significant factors such as teacher quality, curriculum transaction, teaching methodology and strategies, professional training of teachers, availability of subject experts, etc., are responsible for improving school quality. An analysis regarding the quality of school education in India based on parameters such as teacher vacancies, pupil-teacher ratio, percentage of qualified teachers, and percentage of professionally trained teachers from UDISE data for the year 2015-16 reveals there is a large number of teacher vacancies in the states. In Jharkhand, the vacancy of teachers is 38.39 per cent; Delhi,

24.96 per cent; Punjab, 23 per cent; UP, 23 per cent; Chandigarh, 23 per cent; and Bihar, 34.3 per cent. If the teacher is taken as a quality parameter and as the data illustrate, if there are zero or few teachers in a school, how can the issue of quality in schools be addressed?

Regarding pupil-teacher ratio, at the primary level, states such as Bihar and UP have PTR more than RTE prescribed norms (36 and 39 respectively); at the upper primary level, UP has a PTR of 31. At the secondary level, states such as Bihar (66); Chhattisgarh (33); Dadar and Nagar Haveli (30); Gujarat (34); Jharkhand (62), West Bengal (39); UP (56); Madhya Pradesh (39) have above the RTE prescribed ratio of 30:1 ratio. UDISE (2015-16) data also reveals that states such as Assam, Bihar, Nagaland, Arunachal Pradesh, Bihar, Karnataka, Odisha, Tripura, Sikkim, etc. have a percentage of qualified teachers lower than the national average of 74 per cent while states such as Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Jammu Kashmir, Jharkhand, Madhya Pradesh, Manipur, Meghalaya, Mizoram, West Bengal, Tripura, Sikkim, and Nagaland have a percentage of professionally trained teachers lower than the national average of 80 per cent.

According to the National Achievement Survey (NAS, 2017) for Grades III, V, and VIII, student learning is influenced by the socio-economic background of students, school contexts and institutional factors such as schools, teachers, and learning environment (NAS 2017, p-xxvi). The survey reiterates that for facilitating students' learning, there is a need to cater to teacher quality (wherein teacher quality implies their ability to engage students in classroom practices), teachers' high expectations from students and their understanding of curricular goals and institutional resources (includes educational kits, self-prepared TLM and books other than textbooks, resources for peer and group learning) as they are the prominent determinants of the learning levels of students. NAS (2017) illustrates that while school-related factors such as a functional library, monitoring of the schools by the education department and participation of the school in literary activities further influence the learning achievement of students. Similarly, teacher-related factors such as their engagement in professional development, peer support and networking, and job satisfaction significantly contribute to the learning achievement of students. NAS (2017) further reveals that resources neither were adequate nor utilised optimally

in most schools though studies reveal that the learning achievement in schools improved by 12 percent points using libraries and laboratories effectively. Thus, there is a need to prioritise and allocate more funds for the learning resources provide guidelines for efficient use and maintenance of libraries and laboratories for better learning results for children. In fact, catering to teacher quality and provision of adequate resources is more important in rural areas because 84.7 per cent of schools are located in rural areas while only 15.29 per cent of schools are located in urban areas (U-DISE 2015-16).

It seems to be a difficult proposition to address multiple and diverse requirements of every school in the country, e.g., the appointment of an additional teacher, setting aside a budget for facilities, provision of subject experts, etc. especially in upper primary and high schools in every rural and urban school. The New Education Policy, 2020 visualises school complexes as the unit that would facilitate collaborative work, share and optimise resources, identify, test and refine solutions for schools across the network, and seek improved learning outcomes among children. The policy envisages nurturing a culture of sharing common resources in the journey of learning optimally. The teachers, subject experts, special educators, art and craft teachers of the complex get involved with all the schools in the complex. Teachers function best in communities and teams; the complexes would facilitate on-the-job training and student training for teachers. Group of schools and teachers of one another complex can get a lot of freedom to improve their programs. Schools will gain power and will be able to make the system adaptable to the context and vibrant through concerted efforts at the grassroots level. Thus, breaking the isolation of independent school structures providing scope for sharing resources and instructional work among the different constituent schools is the first step to improving the quality of not one school, per se but quality education for all schools, teachers, and students.

One successful model of the school complex, as mentioned earlier, that has achieved the goal of ensuring quality education is the *Sahodaya* school complexes that coming of schools together in *Sahodaya* school complexes have the potential of reducing the dangers of elitism in education reduces the urban-rural gap in access, enrolment and retention, thereby providing equivalent opportunity across schools and equal access to knowledge to all children in the schools affiliated to the cluster. There

is scope for mutual sharing of learning and experiences from one another, creating a stimulating learning environment through peer interactions and sharing of teaching-learning materials and also ensuring a fear-free environment., Well-trained and qualified teachers are available to all schools, and the availability of subject-specific teachers provides impetus to better learning. In such an arrangement, multiage grouping and peer learning can be facilitated. Teacher professional development strategies in the form of observations, feedback, coaching and mentoring, and professional learning communities make a difference in improving student learning. Clusters encourage teachers to come together to solve the learning issues of children with special needs. A regular assessment of children forms an integral part of introducing remedial measures to improve teaching-learning processes. The talented, bright children with specific interests in varied subjects are nurtured with highly enriched materials to trigger higher-order thinking, critical and analytical minds, problem-solving abilities, creating more opportunities for learning and introduction of more student activities and participation like the establishment of science clubs, math club, poetry circles, yoga club, eco-club, etc. Thus, a school cluster aims to provide a holistic and multidisciplinary education to develop in children intellectual, social, aesthetic, physical, moral and emotional capabilities.

For achieving what has been discussed above, a realistic plan needs to be drawn to translate policy into real practice to enhance the quality of every affiliated school to a complex and the school complex as a whole. It needs to be visualised as a combination of academic and administrative arrangements like periodic training for principals teachers along with a school-based development plan and a school complex development plan. It is here that leadership, the principal with teachers, sets a direction for the school to follow a participatory process involving SMC/SDMC members of every school create a roadmap and work on the stated vision, mission and goals based on requirements and priorities, form teams, and chalk out strategies to the achieve goals in a stipulated time frame. The same trajectory will be followed in the preparation of Cluster/Complex Development Plan. Every school-based plan will be made compatible with the school complex plan, or rather the school complex plan can encompass school-based development plans for facilitating the improvement trajectory of every school in a complex, thereby moving towards equitable quality education of all in a school complex or cluster as a whole.

5. Functioning of School Complexes: The Ground Report

The section captures the ground realities based on the perceptions of field functionaries and school practitioners on the experiences of school complexes where they existed and opinions, they hold on models that ‘might work’ as envisaged in the NEP 2020. The information was collected through an online questionnaire (Google Form). The themes covered in the form included questions on school complex leadership and autonomy; roles and functions of school complexes, challenges inherent in its functioning; workable models of school complexes, and how school complexes as envisaged by NEP 2020 can address the issues of resource management, teacher professional development, teacher autonomy, community participation and collaboration and improvement in student learning. The respondent practitioners belonged to the States of Odisha, Telangana, Assam, Karnataka, Andhra Pradesh, Maharashtra, Rajasthan and Himachal Pradesh. Around 55 participants from eight states responded to the questionnaire. The participants included officials at the state, district and block levels and school practitioners from the states that have still sustained the school complexes over the years and also include officers from SCERTs/SIEMAT, etc., designated as School Leadership Academies by the National Centre for School Leadership. As per the information received from the state of Himachal Pradesh, Maharashtra, and Rajasthan a few suggestive models for school complexes was analysed, and the following themes emerged:

- i) Roles and functions of school complexes
- ii) Contemporary issues faced in the school complexes
- iii) Scope of school complexes
- iv) The NEP 2020 Framework on School Complexes: Opinions of Practitioners
- v) Articulating vision for ideal school complexes
- vi) Addressing issues related to sharing of resources and balancing administrative and academic responsibilities
- vii) Role of supporting institutions
- viii) Workable state specific models of school complexes.

Each of these themes is discussed in the ensuing paragraphs. For a quick view, structure of school complex, state provisions, role and responsibilities, practices unique to few complexes in select states are also presented in tabular form below:

State	Structure of the School Complex	State Provisions	Roles and Responsibilities	Practices Unique to Few Complexes
<i>Telangana</i>	<ul style="list-style-type: none"> • The academic unit between schools and block level. • Consists of 10 to 20 schools in rural areas; some urban clusters are comparatively large. • Separate school complexes were established for primary and secondary schools. 	<ul style="list-style-type: none"> • Grants to school complex to meet the expenditure on meetings, stationery, TA for school visits, documentation and conducting subject-specific TLM <i>Melas</i>. • Appointment of Cluster Resource Persons (CRP) for providing subject-specific academic support to schools. • Provision of Rs. 22000/- as School Complex development fund to be spent by the SCMDC for development of schools in the complex. • Administrative authority devolved to the cluster level and the complex head addresses the basic administrative and financial matters. • School supervision and monitoring are also devolved to the complex head. 	<p><i>Academic Strengthening and Reviews</i></p> <ul style="list-style-type: none"> • Conducting a minimum of six meetings annually to discuss issues of dropouts, out-of-school children, retention and steps for their mainstreaming. • Conduct review and discussion meetings on curriculum and draw strategies to improve learning outcomes of students. • Monthly School Cluster meetings are also used to discuss and share lesson plans and academic problems, if any faced by the teachers. <p><i>Administrative Responsibilities</i></p> <ul style="list-style-type: none"> • School Complex Head Master has been vested with the powers of sanctioning leaves, drawing and disbursing salaries and maintenance of service registers of teachers working in the complex. • Disbursing the provisions made by the centre and state governments to all the beneficiaries for supporting the education of children through distribution of uniforms, textbooks, bicycles, etc. • Monitoring the quality of Mid-Day Meals and the maintenance of health and hygiene, cleanliness, infrastructure facilities and availability of resources. • Collecting, Collating and Sharing data which includes the demographic data of students, grade-wise student profiles, attendance records, TPR, student participation records, achievement records. 	<p>Some well-established complexes share computers, laboratories and library resources with neighbouring schools in the complex. There is also twinning of schools in certain complexes.</p>

			<ul style="list-style-type: none"> • Teacher profiling in terms of attendance, punctuality, teaching-learning, innovations and use of activities for teaching-learning. <p>Developmental Roles</p> <ul style="list-style-type: none"> • Preparing School Complex Development Plan and involving all stakeholders in realising it. • Implementation of the State Curriculum Framework in consonance with the NCF. <p>Capacity Building Roles</p> <ul style="list-style-type: none"> • Orientation of teachers on the different administrative tasks like data collation on U-DISE, NAS inventory, School Self Evaluation (<i>Shala Siddhi</i>) • Teacher Training workshops with regards to the nuances in pedagogy, development of question bank, • Organise cluster-level meetings with subject experts to resolve content and pedagogic issues at the school level. Thus periodic meetings become in-service training for teachers. 	
Andhra Pradesh	<ul style="list-style-type: none"> • A secondary school with proper infrastructure, adequate staff, well accessible to all schools in the cluster as Lead School. • All management of schools, government, private, aided and unaided schools as part of the complex. • Ensuring equal-sized complexes in every <i>mandal</i> or block. 	<ul style="list-style-type: none"> • CRPs shall be allotted to every cluster. • All school complexes must be headed by a Gazetted headmaster. • The budget for conducting the school Complex meeting, development of TLM, payment of the conveyance to the concerned teachers shall be as per the norms defined in the manual; 	<p>Administrative Roles</p> <ul style="list-style-type: none"> • To ensure 100 percent attendance of the teachers, conducting monthly meetings and record minutes. <p>Capacity Building</p> <ul style="list-style-type: none"> • Conduct teacher training programme in areas of meditation, yoga, games, theatre and arts. • To develop school leadership <p>Academic Strengthening and Reviews</p> <ul style="list-style-type: none"> • Share and exchange best practices amongst the teachers in the complex. 	

	<ul style="list-style-type: none"> • However, in urban areas where the density of private schools is more, the complexes are large. 		<ul style="list-style-type: none"> • design innovative and low cost and no cost teaching learning materials, and activities. • Discuss hard spots in all subjects, specifically mathematics. • Orient teachers on child psychology and child rights. • Sensitise the teachers on inclusion practices and orient the teachers on formative and summative assessments. 	
Odisha	School complex in Odisha is established with a group of elementary schools, secondary schools, professional and technical schools	<ul style="list-style-type: none"> • Provision of infrastructure and academic resources to schools in the cluster • TA for Cluster heads for the regular school visits and other financial reimbursements and other provisions from different incentive schemes. 	<p>Academic Strengthening and Reviews</p> <ul style="list-style-type: none"> • The schools in a complex join together to identify hard spots in different classes and subjects, conduct model demonstration classes by subjects' experts and educationists, conduct <i>Suravi</i> programme and share resources as per their needs and requirements. • The state conducts Monthly Sharing Meetings (MSM) as a regular feature. The meetings provide a platform for several activities such as essays, quizzes, debates, art and craft activities, organising <i>Srujan</i> programme with a focus on indigenous education and heritage education, encompasses art, craft, folklore, folktales, traditional games, mathematics mela, science exhibition, cultural activities, storytelling and celebrations of festivals. <p>Developmental Roles</p> <ul style="list-style-type: none"> • In Odisha, school complexes get involved in preparing school mapping social mapping during the process of developing the SDP/CDP with the involvement of SMC, community, and local educationists. 	

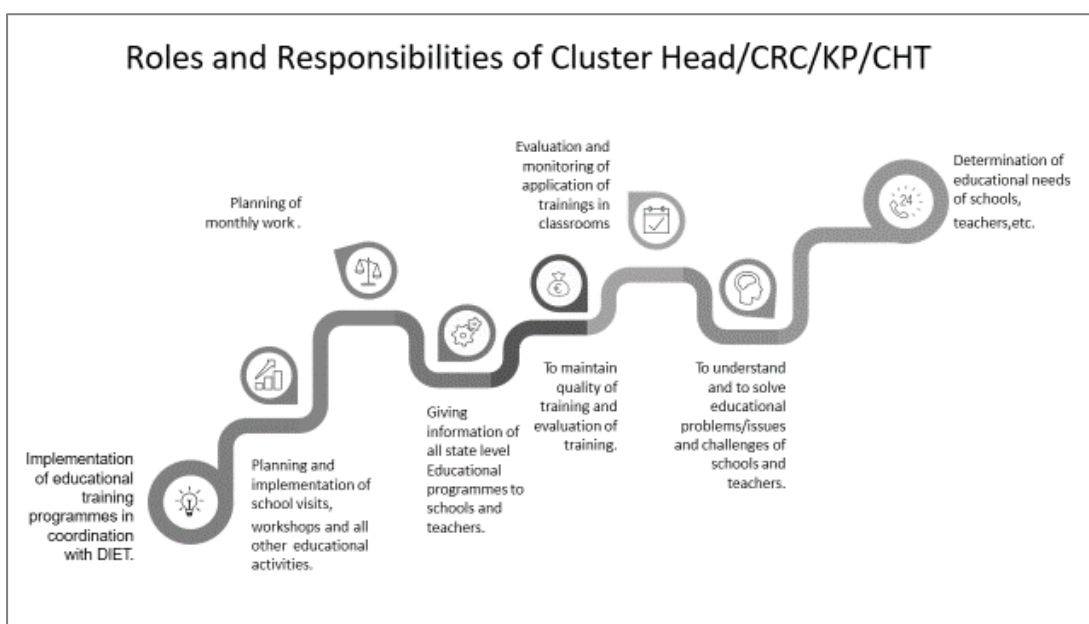
<p>Himachal Pradesh</p>	<ul style="list-style-type: none"> • Clusters/ complexes are largely functional at the primary school levels. For every 5 to 8 primary schools, there is a cluster head known as the Centre Head Teacher (CHT). • While there are bigger clusters led by senior secondary schools as well but they are not truly collaborative and hence only administratively functional. 	<ul style="list-style-type: none"> • The primary school clusters are provided with financial and resource support. • Autonomy is devolved to the centre head teacher in terms of decision making for all the schools in the clusters; however, it is limited to academic tasks only. • The CHT has a provision of a travelling allowance for a visit to schools in the cluster for review and support. 	<p>Academic Strengthening and Reviews</p> <ul style="list-style-type: none"> • The CHT visits the schools in the cluster for review and provides subject-specific and resource support to the schools in the cluster. • Conduct cluster meetings for curriculum planning, identifying learning gaps, conducting baseline and end-line surveys within school clusters. <p>Developmental Roles</p> <ul style="list-style-type: none"> • Meeting the community and SMC members of the schools in the cluster. • Designing a common Cluster Development Plan. • Planning for the infrastructure and resource creation. <p>Administrative roles</p> <ul style="list-style-type: none"> • To ensure 100 percent attendance of the teachers and students • Conducting monthly meetings and recording minutes • Collect all kinds of data from all schools in the cluster and upload it on the state portal. • Conduct regular inspection and monitoring of schools in the cluster. <p>Capacity Building</p> <ul style="list-style-type: none"> • Conduct training for teachers in the cluster, both subject-specific and with regards to any administrative nuance or conduct of large-scale tests like NAS or School self-assessments or any other state initiatives. 	<p>For the small primary school, the CHT is the only head for all the schools in the clusters, and as is the structural design, the CHT owns all the primary schools in its clusters. Hence in most cases, the primary school clusters are truly collaborating and working as a unit. With the CHT owning the development of every school in the cluster and mapping its needs and providing school support.</p>
<p>Maharashtra</p>	<p>A school complex is formed by a group of 18 to 20 schools; however, in reality, the urban school clusters are huge. In most cases, one cluster head manages 2-3</p>	<p>Devolution of administrative and decision-making powers to the cluster head TA for monitoring and supervision and school visits within the cluster for monthly meetings.</p>	<p>Administrative Roles</p> <ul style="list-style-type: none"> • Drawing and disbursal of salaries, the government incentives and provisions like uniforms, textbooks • Monitoring and supervision at the cluster level through regular 	<p>The Kendra Pramukh Leadership Development Program (KPLP), developed by MSCERT in collaboration with UNICEF</p>

	clusters, with as many as 300 schools in certain clusters, which include the private schools as well.	Academic Resource allocation	<p>school visits and monthly meetings</p> <ul style="list-style-type: none"> • Collecting and collating all kinds of data from all schools in the clusters • Conducting monthly meetings and recording minutes <p>Academic Strengthening and reviews</p> <ul style="list-style-type: none"> • Monthly at least one visit to all schools in the cluster is a mandatory requirement. • Conducting review meetings, planning collaboratively for the development of all the schools in the cluster. <p>Capacity Building</p> <ul style="list-style-type: none"> • Conducting Training of teachers in the complex • Identifying learning needs through frequent interactions with the teachers 	and CEQI, is providing system-level leaders, especially the Kendra Pramukhs (KPs) as they are called in Maharashtra academic leadership training and supporting the KPs in reaching out to the teachers in the clusters, conduct classroom and school reviews, conduct monthly meetings on improving learning outcomes, solving pedagogical and content-related challenges and overall improve the quality of education in schools.
Rajasthan	A school complex is formed by a group of 10 to 30 schools which includes Anganwadis to Senior secondary schools in that geographical area. Every <i>panchayat</i> in rural areas in Rajasthan has at least one Adarsh Vidhyalaya, as it is called, or a senior secondary school. Similarly, for urban areas in every ward. This school becomes the Lead School in the cluster and the head of the school known as Panchayat Elementary Education Officer	<ul style="list-style-type: none"> • Rajasthan established school complexes in a very planned and phased manner conducting orientations, making structural changes at the field level and preparing the field for the change. In that series, the state first established a fully resourceful senior secondary school in every <i>panchayat</i> or ward in an urban area. With all human and material resources, these schools were called Adarsh Vidhyalayas. • Appointment of principals to these schools was through RPSC and 	<p>Administrative Roles</p> <ul style="list-style-type: none"> • Collecting and collating all kinds of data from all schools in the clusters • Conducting monthly meetings and recording minutes Conducting regular inspection and monitoring of schools in the cluster. • Drawing and disbursing of salaries, maintenance of service books, the sanction of leaves, grievance redressal and the like <p>Academic Strengthening and reviews</p> <ul style="list-style-type: none"> • Monthly at least one visit to all schools in the cluster is a mandatory requirement. • Conducting review meetings, planning collaboratively for the 	The school complex in Rajasthan is a very structured and independently functional decentralised autonomous unit at the grassroots level. This renders lots of advantages in its functioning as a collaborative unit.

	<p>(PEEO) or Urban Cluster Education Officer (UCEO)</p>	<p>every school head was given capacity building in school leadership and development.</p> <ul style="list-style-type: none"> • Administrative and decision-making powers were devolved to the PEEO/UCEO – the drawing and disbursing of salaries, maintenance of service books, the sanction of leaves, grievance redressals, and the like get addressed at the school complex itself. • Monthly review meetings and frequent monitoring of schools onsite training was also assigned to the PEEO/UCEO • TA to the complex head, funds for capacity building and sharing of practices, resources at the complex level. • Empowering the SMCs, registering all SMCs under the society registration act and giving financial autonomy for developing and utilising its funds through joint decision making at the <i>panchayat</i> or ward level. 	<p>development of all the schools in the cluster.</p> <ul style="list-style-type: none"> • Identifying the learning needs of all schools in the cluster, including the Anganwadis and private schools as well. <p>Developmental Roles</p> <ul style="list-style-type: none"> • Engaging with the community • Engaging with all schools in the complex, including the <i>Anganwadis</i> and planning for the infrastructure and material resource development • Mobilising CSR and community funding • Mobilising the funding from other government departments, a convergence of schemes, twinning of schools • Involving the community, especially SMC, in all kinds of decision-making and problem-solving. <p>Capacity Building</p> <ul style="list-style-type: none"> • Conducting Training of teachers in the complex • Identifying learning needs through frequent interactions with the teachers 	
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School Complexes: Structure, Provision, Roles and Responsibilities

Data from the six states on the structure, roles and responsibilities and functioning, along with some of the unique practices, is mentioned above. While there are many similarities in terms of the roles and responsibilities, there are lots of variations in terms of the administrative structures and provisions and this shows even in its functioning and level of collaboration. The following figure pictorially represents the common roles and responsibilities of the cluster heads across states.



Source: Maharashtra KPALP Program

Issues and Challenges in the Functioning of School Complexes

It is said that *'none of us can do what all of us can do.'* There is no doubt about the power of collaborations and school complexes in their different avatars across the country. The extent to which these complexes have been successful in terms of their independent yet unitary structure and the quality across schools depends upon the extent to which the state has modified the administrative structures and functions, roles and responsibilities, made provisions and provided support, devolved authority, and ensured complete autonomy and accountability in case of academic and administrative decision making. Nevertheless, aligning disparate goals and vision to the institutional goals and working as a collective is a challenging and enduring job and demands great leadership skills. The structure, provisions, roles and responsibilities and some noteworthy practices from some of the states have been mentioned in the table above as voices of field. However, the same voices have

pointed out some of the flaws in the way these complexes are structured, their roles and responsibilities are defined, provisions are made, cluster heads supported and the impact on the operations, which has led to challenges in the functioning of the complexes. These are as follows:

Paucity of Resources-Both Human and Material

A paucity of resources is another challenge faced in the complexes. Certain decisions taken for improvement of areas like arts, music, vocational education and sports never get implemented majorly due to inadequacy of funds and faculty. Telangana reported limited physical facilities, including classrooms, furniture, toilets, etc., and human resources, including clerical and office staff or any other supporting staff to assist the School Complex Headmaster in collecting data from different schools of the complex, to coordinate between activities. The school complexes are not provided with timely grants. Andhra Pradesh reported that the allotment of CRPs is not uniform and is different from one complex to another. There is an absence of regular training of CRPs to further support teachers in the existing school complexes.

Routinised Meetings with Fixed Schedules

Though the previous section elaborated on the supervisory roles of the complex heads almost across all states, there have been many gaps reported; for example, field officers from Telangana reported that school complex meetings are considered more or less routine or compulsory. Sometimes the natural need and flow of academic discussion are interrupted by state authorities by providing a fixed schedule on what to discuss. Teachers have felt that discussing the policy matters does not help much but sharing best practices and challenges in teaching makes a difference. Some of the school complexes do not conduct a meeting even once a year. The meetings in the complexes are often chaotic as there is either an absence of timely communication about the meetings or mismanagement because there is not any proper agenda to follow. Sometimes the complexes are driven by irrelevant and inappropriate discussions. A casual approach on the part of teachers is also noticed; lack of accountability, indifference and withdrawn attitude are quite rampant in the complex.

School Complex Functioning as an Administrative Unit than Academic Support Unit

In most of the states, the field officers mentioned that the idea of school complexes is really good but has largely failed due to improper planning and a lack of understanding of the purpose. The Head of the school complex has become more like a monitoring agent for ensuring attendance and maintaining punctuality or a manager of school records, be it on attendance, dropouts, out of school, incentive schemes, mid-day meals, etc. The School Management Committees (SMC) have not been active either. The practitioners feel that it is important to recognise a school complex as an agency of support rather than act as a monitoring unit. Monthly reviews, enrolment details, dropouts list, etc., seem to be the current concerns of the school complex head due to pressures from higher authorities to submit details of their schools. With the establishment of the complex and the devolution of monitoring and supervisory roles to the complex school heads, the frequency of visits by the inspecting officers is reduced, and they do not participate in the school complex meetings well. The head of the lead school in the complex also, in some cases, shuns the responsibility owing to the excessive workload and frustration, as was reported from Andhra Pradesh. In the complexes where heads are strong and assertive, few collaborative activities take place.

Lack of Administrative Autonomy for Decision Making

In the present scenario, the heads of lead schools in the complex have the power to visit schools under their jurisdiction but do not have the power to take any action against a non-serious teacher or who is not regular in taking classes. Neither do they have any provision for appointing any ad-hoc staff at the complex level, especially for specialised subjects like music, sports, etc. Full administrative control needs to be accorded to the head of lead school in the complex to monitor teachers and their teaching activities as well as students' performance than merely focusing on administrative issues.

Increasing Administrative Workload Leading to Lack of Academic Development

Even though school complexes were established as academic units, the heads of complex continue to perform multiple roles, including discharging all

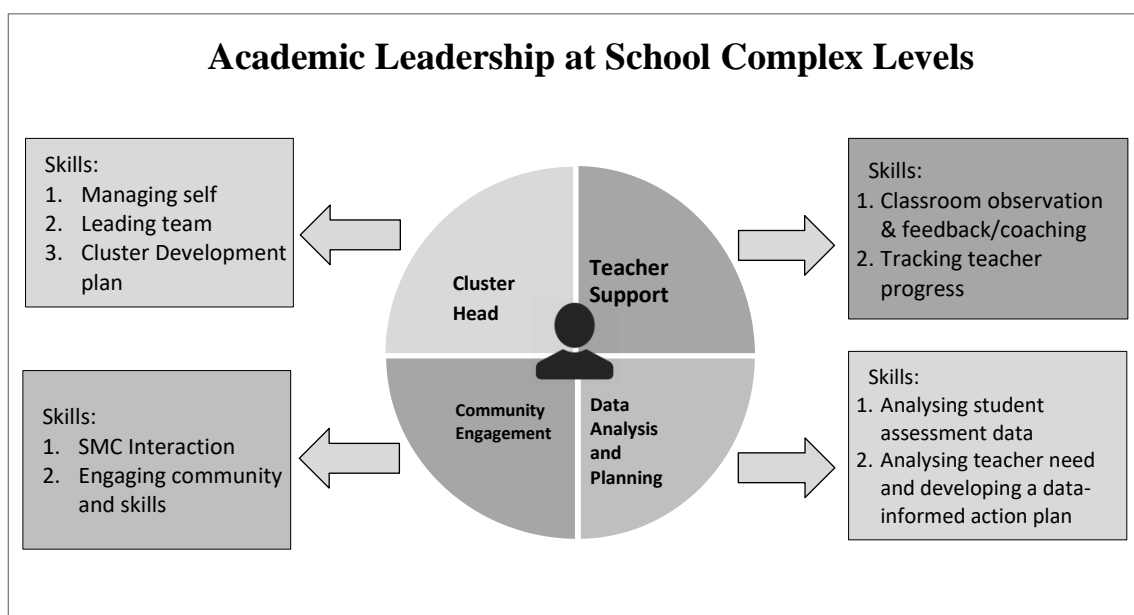
administrative responsibilities. Since Telangana has separate administrative bureaus for primary, upper primary and secondary, organising the academic activities for all the three schools levels—primary, upper primary and secondary schools—together under one school complex is difficult. Odisha also reported that the Cluster Resource Centre Coordinators (CRCC) are primarily discharging duties of an administrator and letter bearers instead of providing academic support to the schools. CRCCs are mainly involved in non-academic work, engaged majorly in data receiving, data providing, data communication, etc. Hardly do they provide onsite academic support and guidance. There is also a lack of monitoring of the functioning of school complexes, no coordination or communication between administrators and the school staff, and between school complexes and community, teachers overloaded with non-academic assignments. At the same time, the School Management Committees are neither adequately educated nor oriented around their roles. There is also a lack of knowledge of ICT amongst the teachers. The Block Resource Cluster Coordinator, the District Education Officer and Block Education Officer are focusing more on teacher management.

Lack of Administrative Autonomy for Decision Making

It may be claimed that the powers are delegated to the school complex, but those remain confined only in granting of leave in primary schools or disbursing of salaries; however, unless complex heads are given autonomy in decision making, there would be a challenge in sustaining school complexes if the proposed structure envisaged in NEP2020 is to survive.

Vision for an Ideal School Complex

The practitioners, based on their experiences in the field, voiced the potential vision they hold about the ideal school complexes. Their concerns unanimously pointed out that excessive administrative workload is one of the major hindrances in envisioning school complexes as academic units with decentralised administrative functions carried out by support staff. The vision they hold for an ideal school complex can be well explained in the following figure:



Source: Maharashtra Academic Leadership Development Program for Kendra Pramukhs

There are other views expressed as well about the structure and functioning of the complex. Following are some of the views shared in terms of the vision for an ideal school complex.

Structure of School Complex

It was proposed an ideal school complex to comprise of at least one secondary school and its feeder primary, upper primary schools, including the *anganwadis*. The schools should be within a 5-8 km radius to ease out teachers' and students' mobility from one school to another. The number of schools in a cluster should be restricted to 15 and not more. It was recommended that even child population within a school complex should be considered as a criterion, especially where there are urban clusters, so that the total cluster size for students does not exceed 3000. Depending upon resource availability, different schools within the complex may be developed as a resource hub, which is based on a particular theme. For example, if one school has provision for a sports center, another may be focused on dance/music, etc. Likewise, science and mathematics may be promoted as hobbies within the school complex. Thus, the structure of the school complex need not necessarily be a hub and rather, it could also be about leadership in rotation for different core areas.

Karnataka came up with a suggestion to locate the school complex in *panchayat*/ward headquarter to enable the SMC and the members of PRIs to play an active role in the complex activities. Learning from the experience, the states suggested separate teams for providing academic assistance as subject experts and separate teams for monitoring and supervisory roles. These teams should be accorded autonomy and power to monitor all academic issues of all school complexes in the *Mandal*. Another suggestion is that school complexes must be headed by regular officers with a full charge, not by in-charge officers like the head masters of high schools as it can burden them with additional duties. Similarly, ad hoc appointees heading school complexes do not have much say in the quality as regular teachers or school heads may not listen to such officers and hamper efficiency in discharging the academic leadership. States like Assam Himachal Pradesh reported different administrative structures for the primary, upper primary and secondary schools and mentioned a major change in administrative structure if schools at various levels have to be a part of a school complex. Similar to the merging of schemes like *Sarva Shiksha Abhiyaan* and *Rashtriya Madhyamik Shiksha Abhiyaan* and the conceptualisation of *Samagra Shiksha*, merging of the education offices under one administrative head is required for the inclusion of *anganwadis* up to Grade 12 in school complexes.

Plan and Vision for the Complex

An ideal school complex should develop a work plan of the activities to be conducted before the commencement of the next academic year. The head of the lead school in the complex needs to decide on broad areas of development in consultation with each school head in the cluster. The practitioners from Telangana suggested that at every *Mandal* level, there has to be at least 3 to 4 Cluster Resource Centres, with well-equipped facilities including sports ground, library, conference hall, laboratory, computer lab, digital lab, printers, projectors, and workshop rooms for promotion of vocational education. School complexes should have subject experts, vocational instructors, computer operators, lab technicians, librarians, art and music teachers, craft instructors, etc. The prime focus of the school complex head should be purely on academic leadership than general administration, such as payment of salaries and service matters, etc.

Odisha chose to proceed step by step with preparatory activities followed by the awareness campaigns to be carried out by the survey teams in the locality and catchment area of the school. SWOC analysis, in the beginning, would help to identify the strengths, weaknesses, opportunities and challenges of the system. Based on it, the preparation of a school development plan and school complex development plan can be drawn as the roadmap for improving various domains in the schools within a complex. The plans will make financial provisions through mergers with other departments involving all the stakeholders like Cluster Resources Centre Coordinator, SMC, PTA, Local people, Teachers, Anganwadi workers, Health workers under the leadership of the Chairperson. It may also be used to work on the optimum utilisation of the available resources, plan various incentives and scholarships such as mid-day meals, school uniforms, stipends, etc., and to assess teacher requirement and their training needs. The implementation plan will be more participatory, involving villagers and the Panchayati Raj Institutions through social and school mapping.

District-level and block-level school complexes can also be established in addition to existing school complexes for better monitoring of the work done by school complexes.

Provisions at the School Complex level

All states articulated a need for recruitment of subject teachers and teachers for art, craft, music, and ICT, at least at the complex level. At least one *Bal Bhawan*-like institution in each complex. If necessary, the complexes should be allowed to take services of locally available human resources such as retired teachers, educationists, scientists and motivational speakers. The services of local industries and companies can also be taken under CSR activities for the provision of facilities like computers, furniture, or any other aid. At least one school in the complex should be fully furnished with infrastructural, academic and human resources, which includes all subject specialisations so that it could then be shared with schools in the complex. For example, the library books can be shared with the schools in the vicinity through one identified central high school. Similarly, special subject teachers and teachers for physical education, art facilities for the entire complex, the services of the medical officer, the counsellor, the special educator, all resources could be shared among all schools in the cluster.

Norms for Collaboration and Leadership

It was contended that the secondary school head must lead the complex not just for the planning or meeting but for all the administrative and academic decision-making and improvement purposes. Norms for collaboration which are commonly agreed upon and take care of the individual school timetable should be developed especially for the rotation of subject specialised expert teachers and specialised services. The budget and expenditure pertaining to the complex can be produced before the teachers, the data on different aspects from students' attendance and participation in schools to achievement could be collated, shared, and discussed at monthly cluster meetings, thereby maintaining transparency and conducting a collective inquiry. The complex meeting should focus on purely academic matters. Homework can be allotted with guidelines to teachers, and follow-up in subsequent meetings should be taken to ensure seriousness in participation. Issues and challenges regarding maintenance of records/ registers, low attendance rate, and learning attainment should be discussed. There has to be a plan for delegation of equal responsibilities to school heads and teachers. Teacher leadership needs to be recognised and enhanced. There has to be an equal distribution of duties and responsibilities among all teachers of all schools to enable them to also focus on workable teaching strategies and other academic activities in the classrooms and beyond.

Strengthening Academic Review at School Complex Level

Periodical meetings of all the teachers can be held in the complex, preferably once a month, to discuss school problems/issues, especially in the academic areas, good practices, etc. The school inspector and other officers of the locality can be effectively used for planning and executing the scheme of the school complex. The headmasters and teachers of high schools of the complex should be visiting primary and upper primary schools in the neighbourhood at least once a month. The schools of the complex may form a WhatsApp group consisting of teachers/HTs/Principals etc., for academic discussions. The evaluation and monitoring plan would entail a cycle of internal review, monitoring and evaluation as well as external guidance and support at regular intervals with the support of the State

Education Department. In-service training of teachers can be arranged during the vacations. Shorter duration special courses can be organised for groups of teachers.

The Complex Head: Roles and Provisions

In addition to the possession of sound knowledge in content and pedagogy, the Complex head needs to have managerial skills and competence, be an efficient facilitator, coordinator, open-minded, punctual, available at all times and cooperative. School leaders in the school complexes will require high-quality leadership training, teaching, and teachers to improve the standards of school complexes.

The Headmaster / Head teacher / Principal of the school needs support from the complex coordinators, who must possess good academic knowledge with good skills in ICT tools, MS Office, and internet. It is also essential to place them under the direct control of the complex head and not under the control of MEO/BEO.

Devolving Administrative and Decision Making Power at the Complex Level

Officers from Karnataka opined that administrative and leadership responsibilities should be decentralised and given to the Head of School Complexes (HoSC). The HoSC will have the autonomy to build teams for framing rules for smooth functioning of the school complex, formation of the School Complex Management Committee, assessing resources available in every school in the complex, additional requirements of schools to carry out different kinds of activities, assign responsibilities for collection of data, distribution of human resources, and maintenance of material and physical infrastructure, coordination between different government departments, State Department of School Education and SCERT, identification potentials and talent and accordingly reallocation or additional job responsibilities to the staff; providing art, music, craft, agriculture, and other vocational teachers and deploying them to different schools of school complex optimally. The most important thing is to change the mindset of teachers and local leaders to share and pair with different schools, both public and private.

Overall Perceptions: NEP 2020 Framework on School Complexes

This section discusses the practitioners' perceptions regarding the idea of school complexes as envisaged in NEP2020. The practitioners have unanimously articulated the need and importance of school complexes in the country. The recommendation of NEP 2020 on establishing school complexes is seen as a turning point to ensure efficient resourcing to improve and equalise access to educational opportunities and also to achieve inclusive and equitable learning outcomes. The response from the states voiced out that the school complexes will be a great asset to small schools. It can lead to equality in the educational development of schools in the complex. Guidance and monitoring in schools will strengthen. Vocational courses and cultural activities will happen smoothly.

Yet, before implementation, the teachers and administrators need to understand the purpose of school complexes. Their mindset needs to change. Monitoring policies for school complexes need to be reviewed and redesigned. The policies must be flexible and amendable rather than a one-time event. Also, regular updating of these policies will help avoid monotony and make implementation successful. Review of the working of the school complexes needs to be conducted for every three months. School complexes need to be given sufficient autonomy so that the complexes can engage in innovative pedagogy and curriculum re-structuring keeping the local context and needs in focus.

Anganwadi centres, as part of the school complexes, need to be strengthened with well-ventilated buildings, child-friendly infrastructure and equipped with trained *Anganwadi* workers or teachers. Equipping *Anganwadis* with trained teachers would ensure strong foundational literacy and numeracy competencies among children as they enter the primary school stage. Issues of dropout and enrolment of children can be catered to while also focusing on providing quality education right from pre-primary through Grade XII.

School complexes may facilitate student learning through establishing Clubs and Circles. Thus, project-based clubs, science clubs, mathematics circles, sports circles, music and dance clubs, eco clubs, health and well-being clubs and Yoga clubs will attract the students. These initiatives would increase enrolment and decrease

dropout rates by making the schools linked to complex attractive and conducive to pedagogy. *Bal Bhavans* can be included as part of school buildings/collections, where children of all ages can visit once a week as a day boarding school, providing options for students to participate in artistic, work-related and play-related activities.

School complex, if accorded the status of the semi-autonomous body, will have the liberty to design academic activities for all-around development of learners as per their requirements and contexts. The arrangement may include all formal and non-formal educational institutions within a geographical area and would need to work in synergy. It can function as a common institution, which will take over the responsibility for -an all-round development of a child right from age 3 up to the age of 18.

Envisaging the Role of Supporting Institutions

In the majority of states, CRC, BRC, DIET, SCERT, local authorities, including *Panchayats*/Municipalities/other local institutions and NGOs, work in collaboration to ensure smooth functioning of schools leading to improved student learning. To address quality improvement in school complexes, the states felt the need to strengthen the supporting institutions.

In Odisha, it was suggested to prepare an academic calendar for a school complex in consultation with schools and supporting institutions. This would help in providing continuous onsite support and monitoring mechanisms to record the progress of the schools and the complex.

In Telangana, it was suggested that a short duration course for local teachers designated as ‘master instructors’ can be designed at BITEs, DIETs, or at the level of school complexes. The purpose is to promote ‘local professionals and local knowledge and skills, such as local art, music, agriculture, business, sports, carpentry and other vocational crafts.’ (GoI, 2020) The implementation of the School Development Plan and School Complex Plan becomes more feasible when local authorities are made partners and their help is sought. The supporting institutions like CRCs, BRCs, DIETs, SCERT, *panchayat* and local authorities can take the schools/school complexes to a higher level by providing required resources. DIETs and SCERTS need to encourage innovative pedagogies by adapting the State

Level Curriculum Framework to the local context. During the school complex meeting, lectures from the faculty of DIETs/SCERTs and other eminent speakers can be organised. The visits of SCERT officials can provide additional guidance in all the activities of school complexes.

Further, the State Resource Group, whose leadership capacities are already built by the National Centre for School Leadership at NIEPA, can be asked to send resource persons to facilitate training and empowerment of School Complexes Heads and staff. Monitoring can be done by DIET faculty and Colleges of Teacher Education along with sectoral officers from *Samagra Shiksha*. Teachers need to be encouraged to take micro-teaching sessions under the supervision of DIET faculty to enhance their teaching capabilities and be trained to implement relevant need-based teaching strategies. Principals of DIETs, IASEs and CTEs may provide academic support to school complexes, making it a vibrant learning organisation in the state through effective management.

6. Context-Specific Models of School Complexes: Workable Possibilities for Implementation of NEP 2020

NEP 2020 (p.29) recommends ‘the establishment of the School Complex, consisting of one secondary school together with all other schools offering lower grades in its neighbourhood including *Anganwadi* within a radius of five to ten kilometers to promote resource efficiency and effective management of schools in the cluster.’ Seen from this perspective, we understand that an ideal school complex has at least one secondary school and its feeder *Anganwadi*/pre-primary/lower primary, upper primary and private schools. While creating the school complexes, the schools under other managements are also to be taken into account, i.e., the *Kendriya Vidyalaya*, *Jawahar Navodaya Vidyalaya*, Special Schools, Tribal Welfare Department-managed schools, etc. The schools in a complex ideally should be within a 5-km radius to enable movement and participation. The total child population within a school complex may be from 2000 to 5000. Formation of School Complex and identification of lead /nodal/central schools to give directions and coordinate amongst all the feeder schools is the key to the success and/or failure of the policy decision of establishing school complexes for efficient resourcing governance and improvement of school quality.

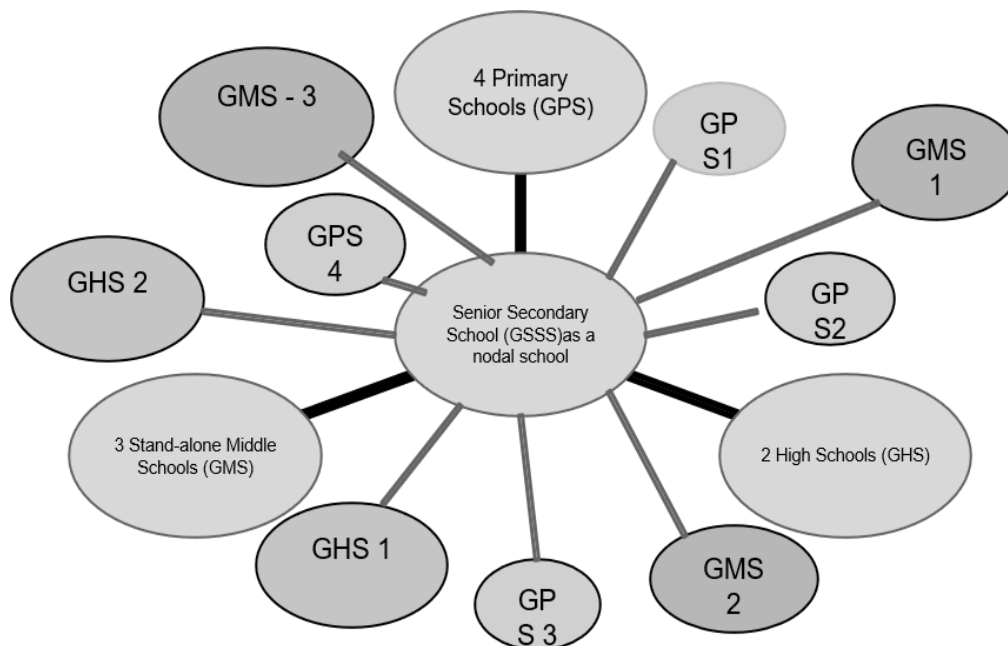
Looking at the magnitude of schools in the country and the diverse context in which it functions in terms of size, location and other factors, one may wonder, how is it possible to bring schools together to form a complex when every school is uniquely placed in terms of physical and human resources, or location, particularly in difficult geographical areas or topography like in difficult terrains, remote rural/desert/border areas and the like. One uniform model of school cluster with one lead and a few feeder schools may not work. The clusters/ complexes apart from geographical proximity also need to be looked at from the lens of social and contextual proximity.

What Works: A Case of Himachal Pradesh

The School Leadership Academy, SIEMAT, Himachal Pradesh, based on their insight, experience and statistical understanding of schools, has chalked out a diagram of how school complexes could be formed and visualised for the state of Himachal Pradesh. While this figure includes only the Government Schools, the *Anganwadis*, the training schools, DIETS, BRC and/or BEO and willing private schools could also be seen as part of the school complex. Sufficient care should be taken to check the distance amongst schools and between the nodal schools not exceeding 5-10 kilometers in any case.

Figure 1

An Illustrative Model of School Complexes for Himachal Pradesh*



[Note: *This model was shared by *Shri D.R. Chauhan, State Planning Officer (Samagra Shiksha) and Principal School Leadership Academy (SIEMAT), State Project Office, Himachal Pradesh, Shimla*]

If the above structure is implemented, the state of Himachal Pradesh will have 1820 school complexes with 8-10 schools in each complex and full autonomy, roles and responsibilities as envisaged in the NEP, 2020.

Depending upon resource availability, different schools within the complex may be developed as a resource hub based on a particular theme. For example, if one school is more focused on sports, another may be on dance/music. Likewise, science/mathematics hobby centres may be developed within the school complex. At least one *Bal Bhawan*-like institution (by developing a school or establishing a new one) may be developed in each school complex.

What Works: A Case of Maharashtra

The geographic regions in Maharashtra portray diversity and different contexts in which schools are located. The diversity ranges from the metro city of Mumbai, Pune and other bigger cities to narrow coastal lowland in the Konkan region, hilly

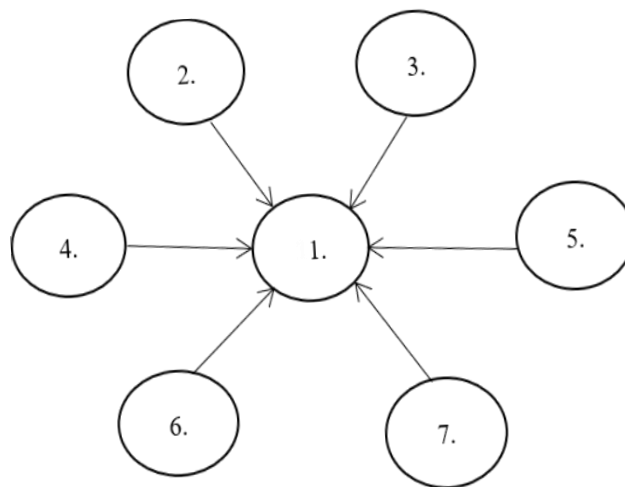
locations hampering physical access to the Satpudas hills Bhamragad-Chiroli-Gaikhuri ranges and the plateaus and flat-topped skyline. The schools located in these areas function in specific contexts like the size, location, human and physical resources, distance and proximity between the schools, feasibility of establishing a school complex within a particular geographical area, availability of *Anganwadis*, access issues for small children, quality of teaching and teaching-learning materials, the nature of the occupation of in such habitations and the value they add to education and schooling of their children, etc. The challenges and complexities for a school leader to manage resources while at the same time addressing the educational needs of children around are peculiar. This calls for multiple models that suit the varying local contexts of school complexes.

Central Secondary School as Lead

This model follows the policy directives in the NEP. Here school 1 is the central secondary school, and other schools are connected to it for administrative aspects and resources. School 1, which should function as a lead school, has all the resources. School 2 and 3 can be envisioned as twin feeder schools, and therefore sharing of resources and activities can be planned according to a suitable schedule in consultation with the lead school. This is the most simple arrangement of a school complex between two schools.

Figure 2

Model for a Lead School

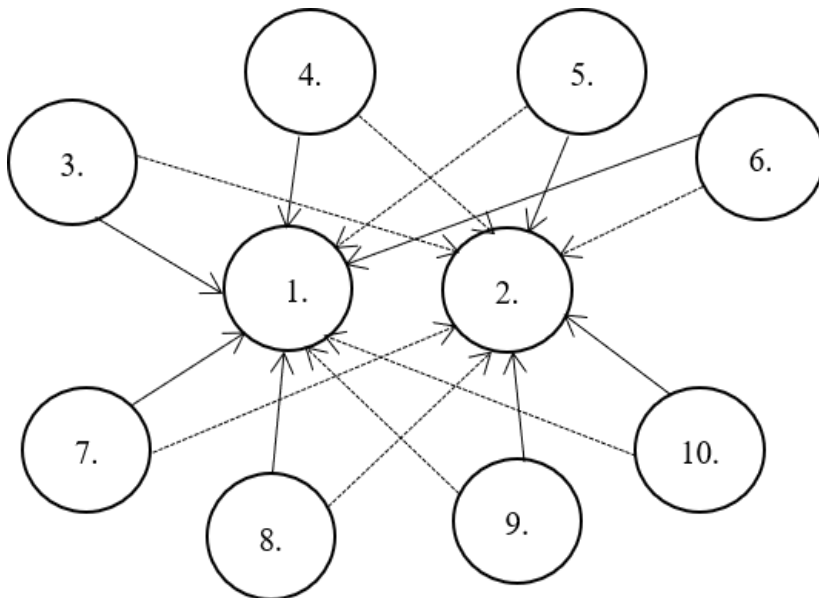


The Complex with Dual Lead Schools and a Web of Schools

The model is already functional in the Cluster Resource Centres (CRC), where a primary school is located and two secondary schools in a nearby area. Among these two secondary schools, administrative and academic responsibilities are shared. In case even if one of the central schools lacks particular resources, those can be complemented by others. Further, it can facilitate ease of access and resource sharing effectively.

Figure 3

Model for Dual Schools in Lead

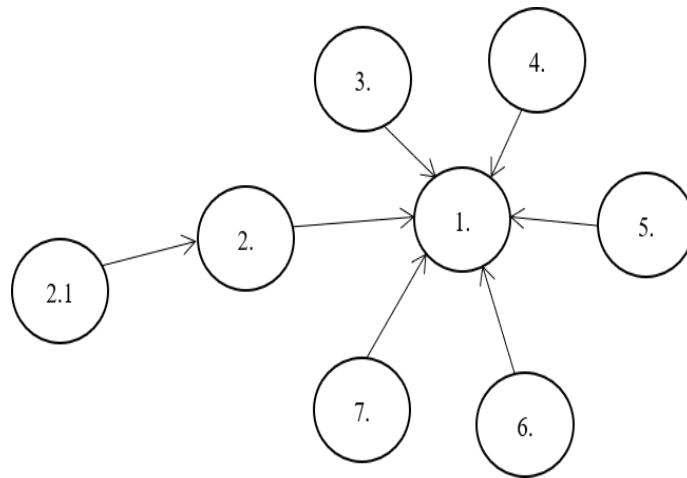


Branching out the Schools

In the remote and hard-to-reach locations of Maharashtra, the model seen to be workable is a central school connected to feeder schools. The central school is connected to one school, which is the locus of other schools, as it connects to other schools in a specific geographical area. The shortage or absence of transportation because it caters to other schools is the limitation of this model, and it is a problem that needs immediate attention. In Fig. 3, the central school is indicated as 1. School 2.1 in figure 4 is located in a remote place and has a lack of good transportation facilities. In this case, school 2 will serve as a point of contact for school 2.1 in the figure.

Figure 4

Model for Branching Out the Schools

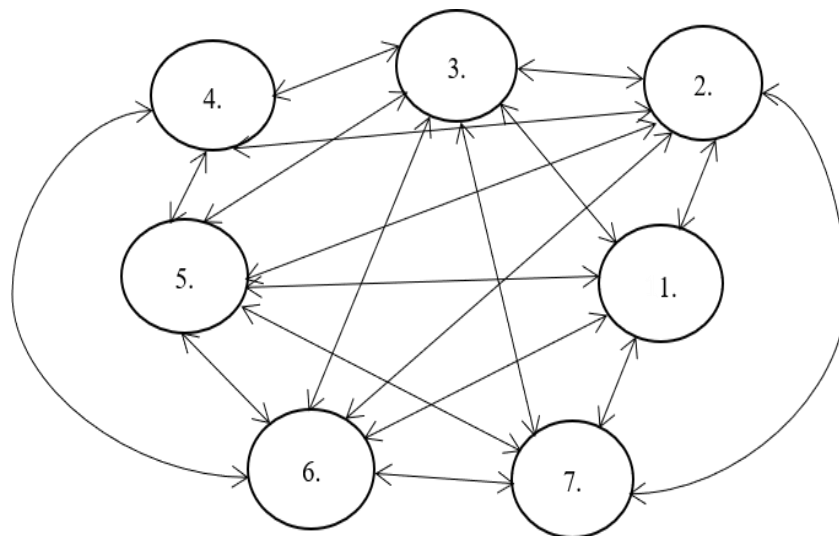


Creating a Web of Resources

With 1233 independent secondary schools, the distribution of these schools, particularly in geographically challenging situations, is uneven in Maharashtra. In the current arrangement, the independent schools may not be well-equipped to provide the best to the attached schools, even when the latter are at a distance of 5-10 kms. Therefore, in such situations, creating a web of schools to facilitate each other with necessary resources seems to be a workable proposition.

Figure 5

Model for Creating a Web of Resources for School



As one can see in this model, 1 represents a central school which is a primary school (or a secondary school with very limited resources). Here, resources from each school can be shared, and though for administrative ease, there is a central school, and resource sharing can be done by all (or most of) the other schools.

Other Practices that have Worked Well

- In remote areas of Maharashtra, projects like ‘Resources on Wheels’ with the help of NGOs can be one of the models to be adopted where resources can be taken to every school.
- E-learning/ video calls/ virtual classes have worked in rural and remote locations can be used effectively to facilitate effective resource sharing to enhance student learning
- SMC and local bodies can be involved to support resource sharing.

There is a need to draw actionable points for establishing school complexes, more context-specific, that can make NEP-2020 implementable in the country. There is also a need to address perspectives on the quality of school complexes and the schools.

Improving Quality in School Complexes: The Way forward

School complexes are established with a vision to bring quality to the school system. The success in translating vision into real practice largely depends on understanding the contextual realities of the locales in which a complex is to be established. Establishing a complex is not an easy exercise. It involves strategic planning by assessing and analysing the situation in terms of locales, topography, feasibility and accessibility and quality of teachers, teaching efficiency and other resources available to the complex. There has to be an assessment on what works best in what kind of situation and what helps improve the quality of every school and complex to ensure every school and school complex in this country gets better.

NEP 2020 underlines that a school complex can help improve every school in the country. It can only be in a complex that all the attached schools change their learning culture by creating enabling conditions for the learners to derive the best from

the expert teachers available to them, to realise their dreams by tapping multiple human and physical resources as per their potential and strength within. And the entire onus lies on the impetus, energy and commitment of a proactive, dynamic school principal and a complex head who work to address quality issues seriously.

School-based improvement and overall effectiveness of school complex depend on a three-pronged approach:

1. Focus on improving the quality of instruction
2. Effective principal leadership
3. Re-visiting administrative, academic and financial policy and guidelines

Improving Instructional Quality

School Complexes, by and large, provide scope for improving the quality of instruction in the following ways:

- The mutual supervision and feedback of teachers, principals and cluster/complex heads within a complex reinforce student learning and growth in learning by creating a culture of learning in the schools and the Complex as a whole.
- Sharing materials enhances awareness and learning levels among students in all the schools attached to the complex/cluster. The new teaching aids learning materials can be functionally made available to either one school in one viable area or every school in a complex. Sharing material ensures that every urban and rural school has access to good quality resource materials.
- Teachers, working collaboratively, will be motivated to incorporate and to adapt learner-centered approach (book reading, storytelling, drama, etc.), activity-based approach (project/experiment based activities), integrated approach (group discussion, role play, effective use of newspapers and academic papers, puzzles, quiz, etc.). The classroom instruction becomes positive and stronger with synergistic effects that come from consistency in teachers' instructional behaviour and capability of integration in class-level activities and interactions. This would include raising the levels of academic

- performance measured in test scores in various subjects, creating blocks of time for subjects, while at the same time, a focus on mastery of key learning skills.
- Ensure availability of expert teachers to provide rich learning experiences for students by planning new educational experiments.
 - School complexes would enable teachers to lead multi-skill activities, teaching methods, time on task and also provide them with opportunities to learn innovative instructional processes, grouping procedures, ideal teacher behaviour, evaluation methods, with an emphasis on cognitive development.
 - The cooperative effort of principal and teachers as the leaders in a complex together promotes organisation of teaching-learning activities in every school of the complex. In such an arrangement, principals and cluster heads in every complex and across the complexes can form professional learning communities to provide academic guidance with a purpose to improve instruction by making strategies as per the teaching competence and academic capacity of students and other physical resources available in the school and complex.

Leadership is Central to Improvement in School Complexes

- School complexes are much more than optimum sharing of resources and re-allocation of teachers. In a school complex arrangement, the *Anganwadi* supervisor, the school principal and the cluster leader plan, strategise and implement key ideas characterising change and development that eventually have the capacity to bring a holistic change in the school system.
- The school principal, *Anganwadi* supervisor and the cluster/complex leader collaboratively work to manage early learning initiatives along with health and nutrition, right from *Anganwadi* level to larger factors that affect schools and classroom-level variables at higher stages of schooling.
- Improving schools and complexes largely depends on the extent of acceptance to bring change and the process of implementation of an innovation.
- Empirical evidence has brought to the fore that education systems have improved when the strategies are closely linked to multiple change models in

diverse contexts. This implies that in every school complex, the leaders at different levels identify levers of change that work best in their context (including location, resources, the distance from one school to another and the topography within a specified geographical area).

- The dynamic leader ignites learning in every school in a complex by making it a lively, vibrant and attractive place, providing impetus for children and teachers to be regular and derive the best benefit in classroom teaching and from a variety of resources from other schools.
- Learning from success stories of leadership profiles, the influential leaders have the capacity to alter schools with community cooperation and partnership. In a school complex, the leadership exerted at all levels can promote coordination, teamwork among teachers and, through strong interpersonal relations, can mobilise support from external sources, the community and parents, SMCs, SMDCs, DEO, BEO and other system-level officials to improve every school attached to the Complex/Cluster.
- Successful leadership in school complex would entail that school complex Heads are provided the autonomy to lead their schools
- School complex leaders should also be empowered through Leadership development programmes focused on improving the skills of team building, building partnerships with the community and leading the teaching-learning process.

Re-visiting Administrative, Academic and Financial Policy Guidelines

There is a need to revisit the academic, administrative and financial policy and guidelines to make school complex a reality and achieve the vision of access and quality. School complexes need to be portrayed as academic units rather than as administrative. There is a need for academic inputs that provide leadership capacity building and professional development opportunities to teachers and school heads. These capacities would enhance the skills like working as a team, planning activities for the school, evidence-based decision making, subject expertise and innovative pedagogies that would foster the quality dimension.

The administrative arrangements require that guidelines are generated for every state on the successful functioning of school complexes. Guidelines on the roles and responsibilities of individual staff, number of meetings to be conducted, focus of the meetings, development of school development plan and school complex development plan needs to be provided. Guidelines should also include ways/processes to facilitate coordination for sharing available resources across the cluster, especially by supporting institutions existing in the state, district, block and cluster. For instance, the existing KGBV and Residential Welfare Schools, *Bal Bhavans*, can be included for attracting children and providing institutional support. This would also entail strengthening the support institutions with quality human and material resources. Lastly, the financial requirements may also be actualised by managing existing resources in a cohesive manner and timely release of funds.

The three dimensions of academic, administrative and financial though cross-cutting, but needs serious plan to translate policy into practice. This is attainable only through the framing of specific guidelines for school complexes in terms of scope, purpose and functions. Similarly, need-based, context-specific orientation programmes or short duration programmes for various stakeholders can be designed with follow-up activities onsite mentoring to ensure that a stable, subtle, positive progression in the school complexes is happening. The quality and success of the school complex to function as an academic unit rest on the maximum support from the officials of the supporting institutions.

Concluding Remarks

The future of the 2020's policy goal '*Achieving Equitable and Inclusive Quality Education For All*' lies in seriously addressing the issues and challenges in sustaining school complexes as quality institutions. This calls for recognition that school complex heads and school principals do play a critical role in improving the school system, their voices heard, powers decentralised, and autonomy granted in taking decisions for the schools and complexes. Overall, there has to be trust and determination to transform school situations through leadership at different levels. This transformation calls for a high commitment from leaders at all levels—right from system administrators to institutional practitioners. All efforts will have larger implications when backed up with relevant professional capacity-building

programmes at regular intervals with all stakeholders. This calls for involving a wider range of individuals, institutions and professionals and experts, creating conditions for their participation in schools and building an eco-system conducive to promote equitable access to quality education for every child in the country.

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