



**GOVERNMENT OF KERALA
KERALA STATE PLANNING BOARD**

**FOURTEENTH FIVE-YEAR PLAN
(2022-2027)**

**WORKING GROUP ON
SCHOOL EDUCATION**

REPORT

**SOCIAL SERVICES DIVISION
MARCH 2022**

FOREWORD

Kerala is the only State in India to formulate and implement Five-Year Plans. The Government of Kerala believes that the planning process is important for promoting economic growth and ensuring social justice in the State. A significant feature of the process of formulation of Plans in the State is its participatory and inclusive nature.

In September 2021, the State Planning Board initiated a programme of consultation and discussion for the formulation of the 14th Five-Year Plan. The State Planning Board constituted 44 Working Groups, with more than 1200 members in order to gain expert opinion on a range of socio-economic issues pertinent to this Plan. The members of the Working Groups represented a wide spectrum of society and include scholars, administrators, social and political activists and other experts. Members of the Working Groups contributed their specialised knowledge in different sectors, best practices in the field, issues of concern, and future strategies required in these sectors. The Report of each working Group reflects the collective views of the members of the Group and the content of each Report will contribute to the formulation of the 14th Five-Year Plan. Each Report has been finalised after several rounds of discussions and consultations held between September to December 2021.

This document is the Report of the Working Group on “School Education”. The Co-Chairpersons of the Working Group were Prof. M.A Khader, Former Director, SCERT and Sri. A.P.M Muhammed Hanish IAS, Principal Secretary to Government. Smt. Mini Sukumar, Member of the State Planning Board co-ordinated the activities of the Working Group. Dr. Bindu P. Varghese, Chief, Social Service Division was the Convenor of the Working Group and Smitha H, Research Officer, Social Service Division was the Co-Convenor. The terms of reference of the Working Group and its members are in Appendix I of the Report.

Member Secretary

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SUMMARY

SCHOOL EDUCATION

Kerala occupies premier position in the educational map of India. Compared to the literacy rate of 74.04 per cent in the country in 2011, Kerala's pre-eminence is evident in its literacy rate of 94 per cent where women's literacy rate stands at 92.07 per cent. On enrolment in the 5 – 17 years age group, the State is nearing 100 per cent. Regional, social, economic, cultural, rural - urban and gender disparities are narrow in the state. And the state has a well-knit network of public schools to study up to 12th class. Almost the entire population of the school-going age is enrolled in standard I and they complete school education. Dropouts are very low.

Social intervention in education has been quite prominent in Kerala. It has its own historical background. There seems continuity in these efforts. The 'Poduvidyabyasa Samrakshana Yajnam' (Public Education Rejuvenation Campaign) provides current evidence of societal involvement. Education plays an important role in determining the progress of Kerala society and also in inculcating social values to strive for the ideals of social justice, equality, democracy and secularism.

Now, the State addresses the learning needs up to 12th class of nearly 50, 00,000 students by accommodating them in 12961 schools with the support of more than 1, 80,000 teachers. During the period of pandemic the system supported students educationally in engaging in learning activities.

During the ensuing five year plan we have to address many issues such as:

1. Revising curriculum comprehensively to address the present day challenges.
2. Incorporating appropriate work education component in curriculum to enhance the knowledge level, ability or skill of students who seek higher education or to become part of the workforce.
3. The mentoring programme has to be strengthened for ensuring proper personal attention to each child.
4. Mass campaigns and education activities have to be conducted to bring children back to school physically, mentally and emotionally after the pandemic.
5. Enhancing professionalism among teachers.
6. Integrating the financial resources available within the education system.
7. The steps initiated already to unify school education structure have to be extended to all levels in a time bound manner.
8. Developing a comprehensive database for education which can be used for educational planning at all levels.

For addressing the present day challenges and ensuring Equity, Quality and Inclusion in School Education and literacy & lifelong education the working group put forward the following suggestions.

Equity and excellence are the twin attributes of a system of people's education. Equity in education entails equal opportunities for all, not only in access, but also in conditions for

performance with an understanding that each child can learn and develop. The guidance provided by qualified and understanding teachers will enable the child to identify and develop their own potential rather than making them feel that non-conformity will result in being left behind or pushed out. The socialization process is crucial for children's emotional, social and mental development. The issues of equality and justice are central to equity considerations. Issues of social justice involve judgment and sensitivity on the part of not only teachers but also all actors in the education system. Equity considerations are also relevant in the notion of work and education. This is different from vocational education or skill education. It is integrating education with the world of work, where students undertake physical and tactile tasks, and learning happens in a holistic manner. It also offers to render the school as a democratic institution, where students take responsibility in the upkeep and management of the school, its campus and environment. Universal access implies access to laboratories and libraries, and opportunities to participate fully in all school-related endeavours, including arts, sports and all other creative activities.

1. The notion of quality is one of the most contested aspects of education. It is a complex amalgam of what the state provides (curriculum, textbooks, qualified teachers), school processes (pedagogy, assessment and active learning) and achieving the objectives (performance in subsequent stages of higher education or in employment). All these are correlated. So, speaking of quality only based on outcomes is specious.
2. A policy of inclusion shall be the overarching principle of the functioning and teaching learning process of all schools and the general education system. The participation of all children needs to be ensured in all spheres of their life in and out of the school. Schools need to become centres that prepare children for life and ensure that all children, especially the differently abled, transgender, the children from marginalized sections, the children of immigrant people, the children from costal and tribal belt and children in difficult circumstances to get the maximum benefit of this critical area of education. The basic premise of this position is that each child can learn and develop.
3. The curriculum needs to be flexible and appropriate to accommodate the diversity of school children including those with disability in cognitive as well as non-cognitive domains of children. It shall address concerns about Nurturing Physical, Aesthetic and Skill capabilities. This needs to be complemented by capacity building of teachers to function sensitively and effectively in an inclusive setting. Support using information technology can greatly enhance this. This also requires partnership with institutions of higher learning. Specific programmes to address the issues of children coming from marginalized families, deprived families, disadvantaged background, tribal areas, fishermen areas, trans-genders and families of guest workers are also needed. We have to think about the rehabilitation of these children, especially Children With Special Needs (CWSN) children after school years.
4. All this requires considerable collaboration with parents and families of children with special needs and aforementioned groups. It calls for education officials at all levels according centrality to inclusion in education.
5. School councils need to become the arenas in which structures of democracy and

culture are activated in schools. Critique of social practices and norms needs to be encouraged in a collegial atmosphere.

6. The school environment needs to function as a practicing or experiencing space for inculcating values and civic senses which comprises of waste management, water and energy conservation and integrated farming practices. Keeping campuses green and clean cannot remain a slogan but must become an arena of practice for life and in the larger society.
7. Teacher education and teacher professional development programmes, as well as training of educational functionaries at all levels, must be reoriented towards equity and quality considerations. The teacher should be someone who knows how to evaluate each child's progress in terms of the child's own growth trajectory, rather than by comparing each child exclusively with others. The state has to design a comprehensive project for developing teacher professionalism that fosters academic excellence. All teachers are to be trained to address the issues of inclusion. It should be a part of both pre-service and in-service teachers' training.
8. Serious thinking is needed conceptually and practically to transform the evaluation system.
9. Gender justice requires an elaborate programme of action cutting across curriculum, pedagogy and school practices. We have to critically assess from a gender perspective the existing text books and other learning materials, school practices including the process of learning and all other activities taking place in the school campus. We have to evolve a strategy for converting girls' and boys' schools even though it might be in small numbers into co-education schools with social consensus during this plan period.
10. There should be proper mechanism to ensure connectivity among various bodies/institutions like Directorate of General Education (DGE), State Council of Education Research and Training (SCERT), Samagra Shiksha Kerala, Kerala Infrastructure and Technology for Education (KITE), State Institute of Educational Management and Training (SIEMAT), State Institute of Educational Technology (SIET), etc. There should also be proper linkages among District Institute of Education and Training (DIETs), Block level Resource Centres (BRCs) and Cluster Resource Centres (CRCs) with the state level academic apex body SCERT so as to improve all academic activities including teacher professional development.
11. A lively school campus with proper infrastructure is one of the prerequisites for developing the institution as Centre of excellence. A committee can be appointed to analyze the issue of infrastructure facilities and suggest a comprehensive plan to address this issue. Learner-friendly school designs shall be developed. Serious thoughts are needed regarding the classroom architecture appropriate for democratic class rooms.
12. Steps have already been initiated to unify school education structure by integrating different directorates. This process should be accelerated. Continuity should be ensured for the already initiated systemic reforms in school education based on the Expert Committee Report.
13. E-governance should be strengthened for enhanced effectiveness, efficiency, transpar-

ency and timely decision making. This should be extended to the appointment and transfer of employees including those teachers in aided schools.

14. Thrust has been given to reformulate work education. Work-related generic experiences (basic, interpersonal and systemic) could be pursued at all stages of education. This includes critical thinking, transfer of learning, creativity, communication skills, aesthetics, work motivation, work ethics of collaborative functioning, and entrepreneurship-cum-social accountability. Age-appropriate, work-integrated education may be provided to all students from primary to higher secondary stages. However those who opt for vocational subjects at higher secondary level should be given in-depth understanding and experience of the vocational subjects concerned.
15. Technological knowledge shall be ensured for students at primary, secondary and higher secondary levels. ICT-enabled learning process needs to be adopted in the process of learning of all subjects. There should be an integration of existing platforms to make an integrated Learning System. In this new integrated system there should be provision for uploading and storing the digital portfolios of students. The digital portfolio and student performance indicators for different subjects may be included in the system for assessing and mentoring students' performance.
16. Society plays a key role in the progress of school education in Kerala and there seems to be a historical continuity in this. Community by and large participates in all activities of the school through parent teacher associations or old student associations or through school development committees. For addressing the second generation issues in school education of which the equity-quality issues are prominent, a large scale community support is inevitable. Without mobilizing local expertise, the school cannot address many of the pertinent issues of equity and quality dimensions. Hence there is a need of evolving a proper methodology for a continuous and comprehensive School-Society interface.
17. Role of local self-government is important in addressing quality and equity questions of education. Education Committees at Local Self Government Department (LSGD) level should be an important forum for mitigating local educational needs and issues. If necessary, changes can be adopted in the structure of the committee to assure representation of all sections as done in School Management Committees/Parent Teacher Association (PTA).
18. We have to evolve a new strategy in the front of Literacy and Life Long Education. At present the state is giving thrust for the equivalency programmes and other social literacy programmes in the domains of health, environment, gender etc. The state envisages the strengthening of local economy that is very crucial after the post Covid scenario. Helping the workforce to have training and opportunities for exposure in using small scale technologies as part of skill up gradation is a major task to be undertaken by the state. At the same time we have to evolve a strategy for addressing any backlog in literacy related activities and continuous and lifelong education relevant to Kerala context. We have to redefine the term literacy in the state specific social context and should plan and implement a large scale citizenship education programme. The components shall

include legal literacy, civic sense literacy, hygienic practices, the importance of waste management, conservation of water and sources of water, energy, land literacy, the dangers of drug abuse, alcoholism etc. There should be concerted dialogues regarding equity and quality in the domains of gendering, gender justice, addressing the issues of disabled persons etc.

19. As part of life long education a comprehensive skill upgradation programme has to be planned. We have to upscale the skills of the work force enabling them to become part of a quality workforce. Institutional role of Kerala State Literacy Mission Authority (KSLMA) and State Council for Open and Lifelong Education (SCOLE) Kerala shall be redefined accordingly. Collaborative action plans for skill upgradation and providing exposure for exploring the scope of value added products by utilizing the natural resources available in the locality shall be done by these institutions.
20. We have to think about Action Points for Initial Phase.
 - In the context of Covid pandemic a comprehensive plan shall be formulated with an emergency rehabilitation package operative for the next two years through an empirical audit of schools and assessing the requirements of the system. Bringing back children back to school physically is comparatively easier to that of bringing them back socio-emotionally. There should be proper programmes for providing educational support to all needy children. LSGIs also can play a pivotal role in this regard.
 - The education department has to develop a special plan for addressing the education issues of tribal children and children belonging to coastal areas.
 - We have to examine whether there are issues like anemia and stunt growth etc. among students. We have to introduce a comprehensive School Health Programme that not only envisages healthcare, food and nutrition but also envisages the development of the child into a physically equipped and mentally and emotionally alert individual.
 - School campuses must function as a centre to inculcate democratic values and understanding the relevance and practice of waste management, minimizing the use of plastic, energy and water conservation and taking a strong position against drug and substance abuse.
 - All schools in the state have to be made disable-friendly. We have yet to transform our schools barrier free in true sense for children with special needs.
 - Special programmes shall be implemented to address the needs of children belonging to different areas/sections such as tribal, costal, marginalised and disadvantaged family backgrounds in a phased manner.

CHAPTER 1

STATUS AND REVIEW OF THE 13TH PLAN

Education

Kerala occupies premier position in the educational map of India. Compared to the literacy rate of 74.04 per cent in the country in 2011, Kerala's pre-eminence is evident in its literacy rate of 94 per cent where women's literacy rate stands at 92.07 per cent. On enrolment in the 5 – 17 years age group, the State is nearing 100 per cent. Regional, social, economic, cultural, rural - urban and gender disparities are narrow in the state. And the state has a well-knit network of public schools to study up to 12th class. Almost the entire population of the school-going age is enrolled in standard I and they complete school education. The proportion of dropout at lower primary level is minimal. Dropout rates at the upper primary and secondary levels are also very low.

Social intervention in education has been quite prominent in Kerala. It has its own historical background. There seems continuity in these efforts. The 'Pothuvidyabyasa Samrakshana Yajnam' (Public Education Rejuvenation Campaign) provides current evidence of societal involvement. Education plays an important role in determining the progress of Kerala society and also in inculcating social values to strive for the ideals of social justice, equality, democracy and secularism. Given the constraints of economic inequality and caste barriers, the sustained efforts for total enrolment and raising educational standards are features of the recent history of the State. Thanks to social reform movements and positive action by successive governments since independence, every child has now physical access to school. Kerala has fulfilled the constitutional directive of universal and free elementary education despite having economic constraints and is now aiming at universalisation of education up to class 12.

Today, the State addresses the learning needs up to 12th class of nearly 50, 00,000 students by accommodating them in 12961 schools with the support of more than 1, 80,000 teachers.

Emerging Trends in School Enrolment

After 1990s, there seems to be a decreasing trend in public school enrolment which has had its own impact on the school system. Questioning the reason d'être of the decline in the number of students, many parents are reluctant to send their children to public schools. During the 13th five-year-plan period, the State government launched a campaign named 'Pothuvidyabyasa Samrakshana Yajnam' (Education Mission) as part of Nava Kerala Karmapdhathi to rejuvenate public education with the active participation and support of the public. The Education Mission campaign could reverse the enrolment trend of the last decade. Many parents shifted their children from private institutions to public schools, resulting in additional enrolment in public schools. From the academic year 2017-18 to 2021-22, an estimated 9.34 lakh children enrolled additionally in public schools from classes 1 to 10.

In 2019-20, girls constituted 48.96 per cent of the total student enrolment in schools. Boys outnumber girls in all the districts. But the gender gap in enrolment is very narrow in Kerala.

Table 1.1 No. of Schools in the State 2019-20

| Sl.No | Schools | Govt. | Aided | Unaided | Total |
|-------|------------------------------------|-------|-------|---------|-------|
| 1 | Higher Secondary | 839 | 858 | 380 | 2077 |
| 2 | Vocational Higher Secondary | 261 | 128 | 0 | 389 |
| 3 | High School | 1228 | 1432 | 458 | 3118 |
| 4 | Upper primary | 870 | 1873 | 242 | 2985 |
| 5 | Lower Primary | 2595 | 3911 | 342 | 6848 |
| 6 | Special Schools | 7 | 36 | 2 | 45 |
| 7 | Anglo Indian | 0 | 18 | 1 | 19 |
| 8 | Teacher Training Institutes | 38 | 64 | 74 | 176 |
| 9 | Fisheries Schools | 14 | 18 | 26 | 58 |
| 10 | Tribal Schools | 90 | 0 | 0 | 90 |
| 11 | Sports schools | 3 | 0 | 0 | 3 |
| 12 | Modal Residential Schools | 13 | 7 | 1 | 21 |
| 13 | MGLC | 270 | 0 | 0 | 270 |
| 14 | Technical High Schools | 39 | 0 | 0 | 39 |
| 15 | Technical Higher Secondary Schools | 15 | 0 | 0 | 15 |

Source: Directorate of General Education

Table 1.2 No. of additional enrolment

| Year | Additional enrollment |
|---------|-----------------------|
| 2017-18 | 156565 |
| 2018-19 | 184724 |
| 2019-20 | 163558 |
| 2020-21 | 174821 |
| 2021-22 | 254642 |
| Total | 934310 |

Source: Directorate of General Education

Efforts have been taken to ensure accessible and affordable school education to all sections, especially to the children belonging to the marginalised communities. Hence, a universal enrolment can be seen and the proportion of SC/ST students in schools seems to be at par with the proportion of population.

In 2019-20, Scheduled Caste (SC) students constituted 10.31 per cent of the total students in the State, while ST students constituted 1.98 per cent of the total enrolment. It is seen that the percentage of SC and ST students in government schools is higher than that of private aided and private unaided schools

Table 1.3 Proportion of SC/ST Students in Schools, 2019-20

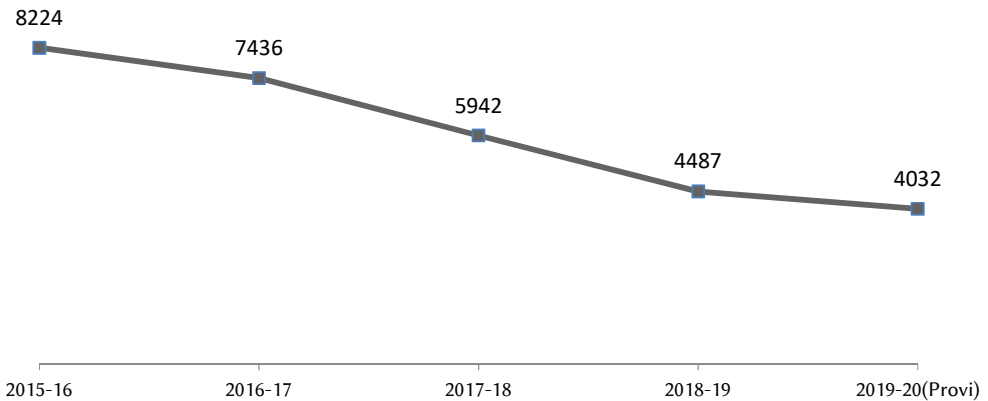
| Management | Others | SC | ST |
|-----------------|--------|-------|------|
| Government | 83.25 | 13.06 | 3.70 |
| Private Aided | 88.73 | 9.95 | 1.32 |
| Private Unaided | 95.47 | 4.06 | 0.47 |
| Total | 87.71 | 10.31 | 1.98 |

Source: Directorate of General Education

Dropout-Rate

Kerala has achieved the distinction of having the lowest dropout-rate of school students among Indian States. In the year 2019-20, dropout-ratio among school students in Kerala was 0.11 per cent. As per the MHRD report on Educational Statistics at a Glance, 2018, the all- India average dropout-rate of primary students is 4.13 per cent while it is 4.03 per cent in upper primary and 17.06 per cent in secondary levels.

Figure 1.1 No of Students who dropped out from 2015 - 16 to 2019 - 2020



Source: Directorate of General Education

The dropout-ratio of SC-ST students has significantly declined over the years. The dropout-ratio of SC and ST students is still higher than that of students from the category of 'others'

Table 1.4 Drop-out Ratio among different categories

| Year | SC | ST | Others | Total |
|---------|------|------|--------|-------|
| 2016-17 | 0.39 | 2.29 | 0.16 | 0.22 |
| 2017-18 | 0.13 | 1.42 | 0.14 | 0.16 |
| 2018-19 | 0.12 | 1.29 | 0.09 | 0.12 |
| 2019-20 | 0.13 | 1.16 | 0.07 | 0.11 |

Source: Directorate of General Education

13th Five-Year-Plan, Expenditure Pattern

The plan outlay and expenditure for school education

Table 1.5 School Education: Annual Plan Outlay and expenditure during XIII plan

| Financial Year | Outlay | Expenditure | % of Expenditure |
|----------------|---------|-------------|------------------|
| 2017-18 | 863.08 | 742.50 | 86.03 |
| 2018-19 | 1013.98 | 662.66 | 65.35 |
| 2019-20 | 992.60 | 482.86 | 48.65 |
| 2020-21 | 926.75 | 738.62 | 79.70 |
| 2021-22 | 920.60 | 863.23 | 93.77 |
| Total | 4717.01 | 3489.86 | 73.98 |

Source: State Planning Board (Budget Documents and Plan Space)

(As per the Planning Board, in the 12th Five-Year-Plan period, a total amount of Rs.4573.65crore was earmarked for the Education sector. Out of this the outlay earmarked for School Education was Rs. 1870.37crore. The expenditure incurred during the12th five year plan period for school education was Rs. 2112. 82 crore (112.96 per cent). During the 13th Five-Year-Plan from 2017-18 to 2021-22, a total amount of Rs 4717.01 was earmarked for school education and the expenditure incurred during the period was Rs 3489.86 (73.98 per cent)

An analysis of the activities undertaken by various agencies under General Education Department can be broadly classified as follows:

1. Providing Infrastructural facilities
2. Digitalization of school education
3. Programmes for promoting academic excellence
4. Academic support for students & student centric programmes
5. Programmes to support children with special needs
6. Governance and monitoring
7. Nutritional support programmes
8. Institutional support
9. Supporting centrally sponsored schemes
10. Literacy & continuing education and Equivalency programmes

All these programmes were carried out by General Education Department and its different agencies. And during the plan-period the State Government formulated an education mission named Pothuvidyabyasa Samrakshana Yajnam, one of the four missions under the ambit of Nava Kerala Karmapaddathy.

Pothuvidyabhyasa SamrakshanaYajnam (Education Mission)

Pothuvidyabyasa Samrakshana Yajnam (The Public Education Rejuvenation Campaign or Education Mission) has been initiated to revamp the school education sector in Kerala. As part of the campaign, multifarious programmes have been implemented to improve infrastructure facilities, to promote academic excellence, to ensure availability of modern

technology in all schools and to inculcate democratic and secular values in children.

During the Mission-period, infrastructure facilities of public schools improved considerably. KIIFB played a major role in providing financial support for infrastructural development of schools. For improving the facilities in aided-schools, the Government initiated a programme titled the Challenge Fund Scheme for providing financial support to aided schools, where State Government provided aided-schools with a matching grant based on certain prescribed norms.

Kerala has been declared the first digital state in India in school education. The entire activities in the school education sector from classrooms, teacher training, academic activities, admissions, transfers, to governance have been digitally enabled. All the classrooms from class 8 to 12 in government and aided-schools are made technology-friendly. Digital Labs have been set up in all primary and upper primary schools. Kerala Infrastructure Investment Fund Board (KIIFB) provided financial support for this digitalization programme.

All the schools in the state prepared Academic Master Plans for improving the academic aspects of schools in a phased manner. Sahitham, an innovative programme for mentoring students continuously and comprehensively by identifying and promoting their talents and nurturing their skills has been successful in identifying academic issues of every child and in providing necessary inputs for improving their abilities. Talent Lab was a novel strategy to improve the potentials of the students by identifying their innate talents and promoting them.

The programme 'Padanothsavam' (Festival of Learning) has enabled society to witness the academic performance of students. This has promoted the effective participation of people in improving the facilities in schools. This programme functioned as an academic auditing programme of schools. The programme 'Vayanayude Vasantham' (The Spring of Reading) has provided the student community the opportunity to read books by eminent writers. Class libraries set up in schools have been effective in promoting the spirit of reading. Biodiversity parks have been developed in the schools so as to enable the students to understand the need of conservation of environment in the context of global warming and climate change and this has also been instrumental in making the school campus 'environment-friendly'.

Through various programmes for supporting public educational institutions across the state, the Mission brought together teachers, parents, students, alumni and people's representatives on a single platform and developed activities in the form of people's campaign.

Pandemic Period

The Covid 19 pandemic virtually made social life come to a standstill and affected the mobility of people. Children were forced to cope with this unnatural environment. This situation has affected the learning process and emotional and social development of children in one way or the other. Children cannot be subjected to long-term forced confinement. COVID 19 limited avenues for children to learn, socialize, gain new experiences and engage in creative activities. The spread of the pandemic has forced the education department to proactively plan new initiatives to cope with the unprecedented situation.

It is in this scenario that, since June 2020, the Government of Kerala has tried to reach out to the students through digital platform to keep them engaged and dispel their feeling of loneliness. Accordingly, the Government devised a programme of Digital Classes named “FIRST BELL” broadcast through VICTERS Educational Channel. SCERT has given the academic support and KITE has undertaken the technical coordination of the First Bell digital classes. Samagra Shiksha Kerala (SSK) and SIET have also been associated with this programme. The overall coordination of the programme was done by the Directorate of General Education. Apart from First Bell, SIET Kerala initiated another digital initiative - Poottatha Padasala- through Doordarshan. In order to address children with special needs Samagra Shiksha, Kerala developed separate content under the project named “White Board” and materials were uploaded on YouTube. To cater to the needs of Tamil and Kannada Medium students, digital classes were telecast by KITE with the academic support of DIETs and these were telecast through the local channels and uploaded on YouTube. Digital classes in Vocational Subjects were made available to students through the ‘VHSE eVidyalayam’ YouTube Channel.

AksharaVriksham (The Tree of Letters)

Creative content such as stories, poems and articles prepared by the students during the lockdown period was collected, compiled and published. This programme provided avenues for the students to write short stories and poems on Environment, Hygiene, Covid-19 and Prevention of Diseases. These were uploaded in School Wiki (www.schoolwiki.in), the portal of KITE. Over 50,000 entries from across the State were received. SCERT Kerala then selected the best content, which was later published. This event earned a place in the India Book of Records.

Different agencies under General Education Department

Directorate of General Education (DGE)

DGE spearheads all the activities in the domain of school education. The Government decided to integrate the three directorates that function as a part of school education - Directorate of Public Instruction, Directorate of Higher Secondary Education and Directorate of Vocational Higher Secondary Education. The Directorate of General Education was formed, based on the recommendation of the expert committee headed by Prof. M A Khader, during the 13th plan- period. DGE formulated various programmes to address the education support programmes and mid-day meal programme, infrastructure development activities, etc. DGE also introduced a comprehensive teacher transformation programme for Higher Secondary School Teachers which may be considered a pilot experience for future in-service teacher training programmes.

State Council of Educational Research and Training (SCERT)

SCERT Kerala is an autonomous body entrusted with planning, implementation and evaluation of all academic programmes from pre-school to higher secondary levels. SCERT (Kerala) functioned as an academic authority at the state level by providing guidance, support and assistance to the General Education Department in its endeavour to improve the quality of school education and teacher education. To achieve this goal, SCERT conducted research studies, developed information systems, curricular policies and instructional

materials. It co-ordinates in-service education for teachers at all levels. SCERT is in charge of the academic aspects of school education including formulation of curriculum, preparation of textbooks and teachers' handbooks and teacher training. It advises the Government on policy matters related to school education. During the pandemic period, SCERT Kerala coordinated the academic activities for digital classes in collaboration with KITE. It also initiated the novel programme, 'Aksharavrikshangal' which was recorded by the India Book of Records.

Samagra Shiksha, Kerala (SSK)

SSK is an integrated scheme on school education that envisages the 'school' as a continuum from pre-school to Higher Secondary levels. The creation of such a single administrative structure assists in developing a school sector-wide strategy, stressing improvement in the quality of education. The common objectives of the scheme are: enhancing access through the expansion of quality school education; promoting equity through the inclusion of under-privileged groups and weaker sections; improving the quality of education for all; bridging social and gender gaps in school education; ensuring equity and inclusion at all levels of school education and promoting vocationalisation of education. All the activities by the SSK have been undertaken in order to achieve the broader objectives of Pothuvidyabhyasa Samrakshana Yajnam and to bridge the academic lacuna for ensuring age-appropriate education as envisaged in the Right to Education Act.

State Institute of Educational Management and Training (SIEMAT) Kerala

SIEMAT-Kerala has been contributing in various ways for imparting management training for leaders in educational sector including the heads of the institutions, educational officers, parents, LSG members, administrative staff and special school functionaries. Providing training to teachers in classroom management in order to create a child friendly environment in schools has also been one of the major objectives the training programme. Over the years, SIEMAT-Kerala has also made a mark with its involvement in micro-level planning activities, conducting impact studies and action researches and preparing handbooks and documents which have contributed notably towards educational planning and management in the domain of school education. It has emerged as a vital presence in decentralizing educational planning and management.

Kerala Infrastructure and Technology for Education (KITE)

KITE is an enterprise of Kerala Government set up to foster, promote and implement modernisation of educational institutions in the State. It is owned by the State and run with the aid of the Government. KITE is registered as a Section 8 Company, by transforming the erstwhile IT@School Project. It is the major implementing agency for ICT enabled programmes in the State. As part of the Rs.493.50 Cr Hi-Tech school project in Secondary schools and Rs.300Cr Technology friendly Labs in primary schools, technology friendly classrooms and technology friendly labs has been setup in all schools in the State. With the efforts of KITE, schools in the State now stand equipped with the latest ICT gadgets supported by high-speed broadband connectivity, necessary digital resource portals and trained teachers, thus establishing a total ICT enabled eco-system. Strict adherence to the use of Free and Open Source Software (FOSS) has helped the State to bring in world

class educational software released under FOSS license and to have its own customised Operating System with all packages bundled to it.

KITE has also developed SAMAGRA Digital Resource Portal to enable teachers to transact Learning objectives in the school curriculum and syllabi. In terms of ICT content, the SAMAGRA resource portal (samagra.kite.kerala.gov.in) developed in collaboration with SCERT provides access to a variety of multi-media resources linked to the curriculum and syllabi for teachers and students alike. KITE also promoted the formation of IT Clubs in schools titled 'Little KITES' for nurturing children's interest in the IT field and they are trained to acquire in-depth practical applications in various fields such as animation, programming, mobile app development, graphic designing, Malayalam computing, hardware, electronics, robotics and cyber security. During the pandemic, KITE spearheaded the digital education project, namely FIRST BELL, by collaborating with SCERT and other agencies. KITE also collaborated with SCERT as part of the programme 'Akshara Vrukshangal' to compile and publish the stories, poems and articles composed by students during the lockdown period and uploaded the same in School Wiki, of KITE.

State Institute of Education Technology (SIET)

The main objective of SIET is to make use of educational technology for improving the teaching learning activities in schools. SIET Kerala develops digital content like video, animation and interactive software. It also imparts training to teachers to empower them with digital resource management capabilities. All Kerala Children's Educational Film Festival of SIET is a major event of General Education Department. Exposure programmes for students are provided in National Institutes like IIT Mumbai, IIM Ahmedabad, TISS, TIFR and NID. SIET also developed digital classes for First Bell telecast. SIET developed digital classes on 23 rare subjects of higher secondary classes and uploaded the same on SIET YouTube Channel.

State Institute for the Mentally Challenged (SIMC)

SIMC imparts special education, training and rehabilitation services to the mentally challenged in Kerala. The Government of Kerala has envisaged the institute as a nodal apex institute to co-ordinate all these activities and to promote research in the area of intellectual challenges. The Institute provides various services in the field of intellectual disability viz, Special School for intellectually disabled children, Clinical Service, Physiotherapy Centre, Assessment, Early Intervention Centre, Vocational training Centre, Documentation and Information Centre, Dormitory and Hostel facilities, Preparation and Servicing of food to all intellectually disabled children in the institute, Cleaning Services, Transportation Services, Placement Services, Counseling Services, conducting of two year D.Ed SE (MR) course, D.Ed (ASD) course, and one year DVR Course and Statewide Parental training programme. All these services are managed and facilitated by the institute's office.

Kerala State Literacy Mission Authority (KSLMA)

KSLMA has been implementing innovative programmes in the field of literacy and continuing education. Literacy is not merely the ability to read and write, but, in a broader

dimension, it also means the basic awareness about how to lead a healthy and progressive social life. Keeping this in mind, KSLMA has launched social literacy programmes in the field of health, environment, gender, renaissance of Kerala, Constitution of India and e-learning. KSLMA conducts focused and specialized literacy programmes for SC/ST, migrant workers and trans-genders which are relevant in the context of Kerala. The adult learners under literacy and continuing education are the direct beneficiaries of these programmes. KSLMA has also initiated Equivalency programmes on a large scale.

State Council for Open and Lifelong Education - Kerala (SCOLE - Kerala)

The main objective of SCOLE - Kerala is to provide an opportunity for lifelong education to every individual who is willing to learn. This institution offers opportunity for higher secondary education to those who are unable to continue their education through regular stream. Besides, a job oriented Diploma Course i.e., Diploma in Computer Application, is also being conducted. SCOLE - Kerala aims at creating a potential generation by conducting a wide spectrum of skill-based and life enrichment courses capable of enhancing skills in the respective fields and acquiring sufficient training to work in Social Service Sector. One of the major objectives of SCOLE – Kerala is to enhance the quality of the workforce through various training programmes.

During the 13th plan period a variety of programmes for academic enhancement were implemented in harmony with the state position, 'Quality Education Pupils Right'. Programmes were initiated and implemented for students in need of educational support in Languages, Science, Social Science and Mathematics. Student Attachment Programmes were also formulated and implemented by linking students excelling in their studies to higher education institutions.

The achievement of these academic interventions is evident. Kerala is placed on top in the SEQI (School Education Quality Index) prepared by NITI Aayog. Kerala has always maintained the top-layer position or grade in PGI (Performance Grade Index) prepared by the Ministry of Education (formerly MHRD). The State stood first in the SDG India Report by the United Nations and the NITI Aayog in SDG 4 Quality education.

Challenges

1. Kerala has attained considerable progress in academic achievements in the domain of school education. However, the State has to move forward and work towards ensuring equity, quality and inclusion. The curriculum needs to be revised comprehensively to address the present day challenges.
2. The school system could not ensure confidence, grade and age appropriate knowledge level, ability or skill to students who seek higher education or to actual life or earning a livelihood, even after completing 12 years of schooling.
3. Even though we have conducted the digital classes successfully, there are technical and academic constraints to utilize the same to the maximum extent possible. Though the children preferred online classes by their own teachers, it could not be materialized because of the lack of gadgets, connectivity issues and lack of proper bandwidth.
4. The state has yet to evolve a methodology for developing a comprehensive pro-

gramme-planning system by integrating the financial resources available (i.e., centrally sponsored schemes, plan schemes and resources ear-marked for the same objectives) within the education system.

5. A process was initiated to unify school education system as a part of structural changes but it has been done only at the State level. The delay in extending the changes to other levels causes limitations in monitoring school as a single unit. The steps initiated already to unify school education structure have to be extended to all levels in a time bound manner.
6. We have to create a conducive social environment to transform all schools into co-education centres.
7. The School Resource Groups have to be strengthened to ensure the development of proper action-plans according to the school-level Academic Master Plans and a mechanism for properly monitoring the same has to be evolved.
8. The mentoring programme has to be strengthened for ensuring proper personal attention to each child.
9. An Academic and Technical Support Group have to be formed to support the system to formulate a comprehensive and integrated education plan by including the scope of all resources and also by monitoring the programme. Education Mission may be entrusted with this task.
10. Though we have evolved a novel methodology for teacher training by introducing the project titled 'Teacher Transformation Programme for higher secondary teachers', in place of the conventional and traditional teacher empowerment programme, we could train only a limited section of the teachers. Hence to enhance professionalism among teachers, time bound Teacher Transformation Programmes have to be envisaged and implemented.
11. Mass campaigns have to be conducted to bring children back to school physically, mentally and emotionally after the Pandemic. Addressing the issue of learning gaps through short-term and long-term educational support schemes needs to be prioritised by different agencies of general education and local- Self Government bodies in an integrated mode. Education Mission shall be entrusted with the responsibility to coordinate this effort.
12. Kerala is envisaging a knowledge society and also envisioning a society that strengthens the local economy. Accordingly, changes are needed in the school curriculum. Short-term and long-term programmes for preparing the society to cope with the curriculum changes shall be developed.
13. We have to develop a comprehensive database for education which can be used by even LSGIs at all levels for their educational planning.
14. Documentation of all projects has to be done in both print and digital mode. This can be utilized for sharing the experiences and make people understand the achievements of the academic and educational actions.
15. Planning board has to conduct programme evaluation with the help of academic bodies of various programmes and projects put forth every year as plan schemes.

Chapter 2

PERCEPTIONS AND RECOMMENDATIONS ON SCHOOL EDUCATION

I. Equity, Quality and Inclusion in School Education

Equity and excellence are the twin attributes of a system of people's education. Equity in education entails equal opportunities for all, not only in access, but also in conditions for performance with an understanding that each child can learn and develop. Equity in education can be brought into effect by the removal of prejudices transmitted through the accident of birth or the social environment, and in terms of special consideration for those who have been discriminated against in the past on such grounds. In this perspective, what is envisaged is a neighbourhood school, where children come together irrespective of religion, class, caste or economic status. "The guidance provided by qualified and understanding teachers will enable the child to identify and develop his/her own potential rather than making him/her feel that non-conformity will result in being left behind or pushed out" (Ashok Mitra- Report 1999) . Scholars advocating "universal school education" (Naik, 1975) often seem to have assumed that universalisation of school education would lead to educational equality. However, as our experience has shown in the last few decades, especially in Kerala, universality does not necessarily imply equality.

It is in this context that equity in education acquires its defining role. If schooling is the process by which the nation can hope to prepare its citizens to contribute eventually to nation building, equity in education is the means by which it can do so. What becomes a part of the curriculum and is not a part of it is therefore a social decision, and reflects the self-image and identity of that society. A democratic ethos of the school and an inclusive curriculum which promotes reflection and action around issues of equity and diversity play an important role.

Despite its tremendous heritage, our society is still weighed down by strife and division and a long history of oppression within. With vast resources and incipient poverty, a physical and natural environment that is being continually degraded, and a growing affluent educated middle-class juxtaposed with a large segment of population caught in primary production with little access to or control over natural resources, this society is riven by contradictions. Good quality education remains the best hope for addressing these strengths and weaknesses, for devising a way forward that gives confidence and hope for all.

Kerala achieved considerable progress in universal enrolment and retention in school education. The major challenge is to ensure equitable education for all by providing good quality learning environments and resources, including professional teachers who understand and nurture children from diverse and disparate backgrounds. More importantly, this requires upgrading the provision and quality of education for all at the secondary and higher secondary stages.

¹Report of the Kerala Education Commission, Chaired by Dr. Ashok Mitra, Constituted by: Kerala Sastra Sahitya Parishad, January 1999.

²Naik, J.P. Elementary Education in India: A Promise to Keep. Allied Publishers, New Delhi, 1975.

This calls for a school ethos that relates to every child without exception and engages the child with an expectation of success. This is possible only by school education addressing the hopes and aspirations of every child, and instilling the confidence that education can provide the means for fulfilling those aspirations. The school cannot remain alienated from children's experienced lives; it cannot be alienated from their social and economic lives. When society perceives a disconnect between education and skills needed for livelihood and employment, with education providing only an entry level passport into employment and little of value thereafter, all educational processes are held to ransom by certification processes.

We need to view education as a resource of dignity in individual life. This is the essential spirit of inclusion in education. For children from marginalised sections and children with disabilities educational opportunity is not merely an economic opportunity, but also one that provides an indispensable resource for leading a life of dignity.

It is necessary to spell out the elements of a state policy on equity, quality and inclusion in school education.

1. The equity dimension

a) The issues of fairness and justice are central to equity considerations. That all children must be treated equally and in a fair manner, independent of their socio-economic background, is the central tenet. When children from the weakest sections are deprived of resources and family support, equal treatment involves a commitment to providing more resources to address such a need. Moreover issues of social justice involve judgment and sensitivity on the part of not only teachers but also all actors in the education system.

b) Children encounter several barriers to achieving their potential in education. These may be geographical, developmental, cultural or social. All of them require focused effort. Special attention needs to be given to language barriers. Note that this is not merely an issue of the mother tongue as the medium of instruction. As in all other social contexts, language acts as a powerful instrument of exclusion. In the case of children from urban middle class sections, the language of the school tends to align with their home language and allows them easier access to the academic discourse, whereas poor or rural children suffer alienation and incomprehension. The unnecessarily formal disciplinary language of mathematics, natural sciences and social sciences also create problems for children, forcing all to memorise rather than develop conceptual understanding.

c) This burden of incomprehension as emphasised by the Yashpal Commission Report is further exacerbated by the fact that experiential knowledge that the child comes with (of plants and trees, birds and insects, flora and fauna) is not given its due place in the process of learning. Textbook knowledge, stated in an unfamiliar idiom, takes precedence and assessment mechanisms further act towards exclusion. Thus social structures of inequity persist in education, which was supposed to act as an instrument against inequity.

d) Equity considerations are also relevant in the notion of work and education. This is different from vocational education or skill education. It is integrating education with the

world of work, where students undertake physical and tactile tasks, and learning happens in a holistic manner. It also offers to render the school as a democratic institution, where students take responsibility in the upkeep and management of the school, its campus and environment. While dignity of labour is formally celebrated through lessons, almost all subliminal messages at school privilege intellectual work over physical work, and in this sense, the curriculum remains hypocritical in its attitude to labour. Further, by having little opportunity for hands-on work with physical material such as wood, metal, mortar and soil, or for building things on the one hand, and an exclusive emphasis on written work on the other hand, the school ends up developing a false attitude not only towards labour but also to technology and nature itself, while cutting itself off from the creative endeavours of life.

e) The pandemic has also highlighted inequity in access to technology, especially digital means for education. With the advent of Artificial Intelligence in all sectors including education, these new structures of inequity may see further manifestations. We have to combat with the emerging notion that online 'lessons' and transmission of information can result in learning. This mechanism completely negates the basic process of how children learn, not alone but by interacting with others, and actively making sense of the world around them. The socialization process is crucial for children's emotional, social development and mental development.

f) There are also implications in terms of physical and educational infrastructure. Universal access implies access to laboratories and libraries, and opportunities to participate fully in all school-related endeavours, including arts, sports and all other creative activities.

2. The quality dimension

a) Evidence from research shows that equity is tied to quality and that reducing school failure (of any kind) strengthens individuals' and societies' capacities along many dimensions. Those who struggle at early stages but receive adequate, timely support and guidance have a high probability of success, despite any difficulties in their family or social background. In many countries, the focus is shifting towards providing education that promotes equity by keeping children in mixed groups and supporting their different learning needs. Therefore quality is not so much a matter of what education is offered but how different educational needs are met.

b) The notion of quality is one of the most contested aspects of education. It is a complex amalgam of what the state provides (curriculum, textbooks, qualified teachers), school processes (pedagogy, assessment and active learning) and achieving the objectives (performance in subsequent stages of higher education or in employment). All these are correlated. So, speaking of quality only based on outcomes is specious. What is clear from all accounts is that the socio-economic background of the family is an added factor and it is here that the role of the state becomes indispensable, as the state needs to compensate in this for children from the poorest and marginalised sections of community and for children with special needs.

c) The quality of education also needs to be discussed in relation to the challenges posed

by the economic, social, political and physical environment in the 21st century. It is a sad comment on our education system that a significant fraction of students passing out of school are yet to acquire confidence, knowledge, ability or skill required to excel either in higher education or in securing a sustainable livelihood.

d) These can be viewed from several standpoints:

Economic: The best educational outcomes do not guarantee performance in higher education or in the economic sphere. This is often discussed under the rubric of unemployability but the problem lies deeper and points to a deep disconnect between knowledge and skills acquired in school and the ability to apply them in context.

Social: While the entire society rushes to offer unity in times of disaster such as floods or during the pandemic, matters of religious practice show how deeply divided the society remains, and how miserably incapable is the rational public debate to resolve such issues. This attests to another deep disconnect, between formal knowledge acquired in school and belief systems; it also shows that constitutional values and understanding of social equality remain superficial.

Physical: While every home takes pride in keeping itself clean; our public spaces remain uncared for. Among the greatest challenges we face are climate change, global warming and extreme events. These challenges are expected to be aggravated in coming decades. A deeply rooted ecological understanding, a commitment to environmental conservation that simultaneously addresses developmental challenges, is needed to build a sustained resource-consciousness.

Personal: Every year we note the occurrence of teenage suicides and the prevalence of depression and a sense of failure among teenagers. Yet, building a sense of autonomy, personal responsibility to oneself, managing uncertainty and resilience are never even articulated as goals of education and reviewed as such. We do not even expect autonomy in learning. Independent study is not seen as an essential component even at the higher secondary stage.

Interpersonal: The processes of education do not even address, let alone nurture in students, the ability to work together, to take the lead at times and to follow someone else's lead at other times, to complete work on time, to acknowledge other persons' needs and to address conflicts and resolve them. To the contrary, a spirit of highly individualised and competitive educational performance seeking external validation is encouraged.

e) All these attest to the dire need to redefine educational quality, by articulating the aims in such terms and then tune up, in accordance with the physical and social environment, policy, curriculum, classroom processes and the relationship of school education. All attempts at perceiving quality exclusively in terms of inputs (teacher student ratio, etc.) or in terms of outputs (exam scores, enrolment in higher education, etc.) need to be resisted.

3. Inclusion

a) A policy of inclusion shall be the overarching principle of the functioning and teaching learning process of the entire schools and the general education system. The participation of all children needs to be ensured in all spheres of their life in and out of the school. Schools

need to become centres that prepare children for life and ensure that all children, especially the differently abled, the children from marginalized sections, the children of immigrant people, the children from coastal and tribal belt and children in difficult circumstances to get the maximum benefit of this critical area of education. The basic premise of this position is that each child can learn and develop.

b) Addressing the issues of Children with Special Needs (CWSN) is most important. As per Central Government norms, there are 21 different kinds of disabilities. Specific plans are needed to address each disability during the school days of CWSN. Top priority needs to be accorded for removing all physical barriers and enabling the participation of children with disabilities in schools. Access-friendly physical spaces need to become the norm. It is important not only to sensitise all children and teachers to this need, but also to make it a part of the lived reality of all children.

c) The curriculum needs to be flexible and appropriate to accommodate the diversity of school children including those with disability in cognitive as well as non-cognitive domains. This needs to be complemented by capacity building for teachers to function sensitively and effectively in an inclusive setting. Support using information technology can greatly enhance this. This also requires partnership with institutions of higher learning as well as governmental and non-governmental organizations that have developed expertise in this regard. Special teachers who specifically help children with special needs should be acknowledged as full-fledged members of the teaching community.

d) The needs of visually impaired and hearing impaired children in terms of educational resources in Braille and sign language has to be addressed on a vastly larger scale than has been done so far. Learning these needs to be provided as optional subjects for all children.

e) Education for children with special needs should not be reduced to skill development or an instrumental academic training but should nurture all aspects of the personality, viz., cognitive, affective, and connotative. Games, dance, drama, music, art and craft must be given equal importance and value with subject-based academic teaching.

f) While discussing inclusion, education department should plan for specific programmes to address the issues of children coming from marginalized families, deprived families, disadvantaged background, tribal areas, fishermen areas, trans-genders and families of guest workers.

g) All this requires considerable collaboration with parents and families of children with special needs and other above mentioned groups. It calls for education officials at all levels according centrality to inclusion in education.

Recommendations

1. While developing perspectives and action points or programmes with the understanding that all children learn, we have to focus on the idea that each child learns. And we have to ensure equal opportunity for equitable quality education for each and every child while formulating the policy guidelines and action plans.

2. A comprehensive programme of action on the school ethos:

i Unless democratic principles and participation are integrated into the school experience, it is unreasonable to expect students to manifest them in adulthood. The school ethos must frontally address problems of equity and social identity. Fairness must be ensured in dealing with equity issues.

ii The school ethos must also explicitly encourage diversity practices and train teachers accordingly. Appreciation of plurality and diversity requires sensitization as well as cultures of practices.

iii School councils need to become the arenas in which structures of democracy and culture are activated in school. Critique of social practices and norms needs to be encouraged in a collegial atmosphere. Equal opportunity offices should be established in secondary schools, and students must have free access to them.

iv The school environment needs to function as a practicing or experiencing space for inculcating values and civic senses which include waste management, water and energy conservation and integrated farming practices. Keeping campuses green and clean cannot remain a slogan but must become an arena of practice for life and in the larger society.

3. Teacher education and teacher professional development programmes, as well as training of educational functionaries at all levels, must be reoriented towards equity and quality considerations. Social justice, fairness in school practices and diversity curriculum should be made essential for teachers. The understanding of quality to include the social, economic, environmental, personal and interpersonal aims of education needs that every actor in the system need to perform should become a part of the orientation of educational functionaries. The teacher should be someone who knows how to evaluate each child's progress in terms of the child's own growth trajectory, rather than by comparing each child exclusively with others.

4. The state has to design a comprehensive project for developing teacher professionalism that fosters academic excellence. This requires planned action not only at state level but also in every district.

5. Digital Technology can play a transformative role both in breaking many entry barriers for the poor, in providing networks for students and teachers to be part of, and in vastly expanding access to a range of educational resources. On the other hand, digital technology brings its own barriers, and so it needs to be deployed carefully.

6. Examination-centric uniformity is a structural provision in the present school education system. Public exams ensure apparent parity among students and thereby equality of opportunity for success among students whose economic and social backgrounds are sharply diverse and unequal. On the other hand, overemphasis on outcomes and certification has hijacked the processes in education to merely serve the role of coaching for performance in examinations. Hence serious thinking is needed conceptually and practically to transform the evaluation system.

7. Gender justice requires an elaborate programme of action cutting across curriculum, pedagogy and school practices. We have to critically assess from a gender perspective the existing text books and other learning materials, school practices including the process of learning and all other activities taking place in the school campus. We have to evolve a strategy for converting girls' and boys' schools even though it might be in small numbers into co-education schools with social consensus during this plan period.

8. The system has to ensure justice to the differently abled children, the children from marginalized sections, the children of immigrant people, the children from costal and tribal belt and children in difficult circumstances requires special attention and divergent programmes cutting across curriculum, pedagogy and school practices. We have to think about the rehabilitation of these children, especially Children with Special Needs (CWSN) children after school years.

9. Resource consciousness needs to be built into the school ethos. Public responsibility, ecological thinking and environment conservation are values that need to be promoted from the perspective of equity and quality as well.

10. Arts & Sports provide educational opportunities that can break social and cultural barriers more easily than in the academic arena. This is a potential that needs to be consciously nurtured.

11. Every student must get enough space and opportunity to express their creative abilities as part of the schooling process. We have to develop a social perspective that all children should learn and develop and for that the society must ensure equal opportunity for equitable quality education in its true sense.

12. The role of the newly emerged pedagogy market in reinforcing structures of social inequity needs careful examination. These are predominantly based on neo-behaviourist technology-driven ideas on learning and their implications on teaching.

13. There is need for assessing the programmes put forth by the education department both by developing internal systems and also by the external agencies with the leadership of State Planning Board. We have to formulate a mechanism for conducting social audit in fixed intervals.

14. Overall, action for equity, equality and quality needs to be taken up by all sections within the system, and this requires a coherent and committed policy.

II. Systems (institutional) Linkages and Governance

1. For ensuring Equity, Quality and Inclusion in school education systems (institutional) linkages and governance have a pivotal role to play. There should be proper mechanism to ensure the connectivity of various bodies/institutions like SCERT, Samagra Shiksha Kerala, KITE, SIEMAT, SIET, etc. In order to make use of the full potential for achieving the overall aim of education and specific aim of each institution, we have to ensure proper institutional development. There should also be a mechanism to monitor their growth, proper convergence among them, linkages with secretariat departments like finance, education

etc., convergence of ideas and programmes, infrastructure development and the idea of governance, data capturing and data processing, linkage between school education and higher education etc.

Recommendations

1. Convergence

- i. The review of the 13th plan revealed that lack of proper integration and coordination among different agencies resulted in duplication of the same programmes by different educational agencies and even with LSGI projects. There should be a mechanism for integrating the plan programmes especially for academic interventions. A state level Technical Support Group (TSG) shall be established in this regard. It can be entrusted to support the system for integrating programmes and preventing duplication of various programmes and enabling the system for proper programmatic convergence.
- ii. Ensure integration and co-ordination of the functions of the different Departments, LSGIs and Centrally Sponsored Schemes.
- iii. Suitable linkages of SIEMAT, KITE and SIET with the Directorate of School Education and SCERT should be established so as to improve coordinated activities.
- iv. There should be proper linkages among DIETs, BRCs and CRCs with the state level academic apex body SCERT so as to improve all academic activities including teacher professional development.

2. Institution building

- i. The main focus of this plan should be ensuring academic excellence. For taking the lead role in academic aspects SCERT has to be strengthened. It has to be developed into an autonomous academic institute in its true sense.
- ii. Proper school management system has to be developed by exploring and making use of various potentials around each school. SIEMAT has a crucial role to play in augmenting school management system. Hence SIEMAT has to be strengthened accordingly.

3. Infrastructure development

- i. A lively school campus with proper infrastructure is one of the prerequisites for developing the institution as centre of excellence. During the 13th plan period this issue has been addressed on a large scale with the support of KIIFB and plan fund. But there are Government Schools, especially primary schools, where the number of students is not more than 500. A comprehensive infrastructure plan has to be formulated to address this issue.
- ii. A mechanism has to be evolved to help the infrastructure up-gradation of single management aided schools which are in deplorable conditions. The victims are the children of that locality because the children don't have any alternative for accessing public funded education.
- iii. Education department should appoint a committee to analyze the issue of infrastructure facilities and suggest a comprehensive plan to address this issue.

- iv. Learner-friendly school designs should be developed. They should include eco-friendly buildings that would promote the physical, emotional and intellectual developmental needs of children. Along with developing new designs for school buildings, serious thoughts are needed regarding the classroom architecture appropriate for democratic class rooms.
- v. Multi-purpose labs must be instituted at the primary level to promote the acquisition of knowledge through actual practice and to facilitate the development of skills.
- vi. Work sheds should be built in secondary schools so as to enable children for acquiring hands-on experiences as a part of work education.
- vii. Top priority should be accorded to the assessment of the need for wash rooms as per the strength of students and also the provision of extra wash rooms has to be undertaken in a time-bound manner. Girls- friendly facilities, including rest rooms, should be established in all secondary schools. Also, disabled-friendly toilets have to be ensured in schools.
- viii. In the context of global warming and climate change, conservation of nature is most important. Biodiversity Parks should be developed in all schools, enabling children to understand the relevance of protection of nature and also to transform the learning environment green and clean.
- ix. Facilities for proper waste management have to be developed in all schools, particularly in secondary schools, converting it as a demonstration place for various kinds of waste management practices.

4. Governance and Monitoring

- i. Steps have been already initiated to unify school education structure by integrating different directorates. This process should be accelerated. Continuity should be ensured for the already initiated systemic reforms in school education based on the Expert Committee Report.
- ii. Proper coordination, including programmatic and financial integration among the different agencies within education department, should be ensured. A Technical Support group should be institutionalized for facilitating this coordination.
- iii. E-governance should be strengthened for enhanced effectiveness, efficiency, transparency and timely decision making. This should be extended to the appointment and transfer of employees including those teachers in aided schools.
- iv. A comprehensive data management system, including data analytics at district level and state level, should be developed. Proper access to data is most important for the planning process of LSGIs. The possibilities of using the potentials of DIETs at district level should be explored. At state level there should be a mechanism just like National Institute Educational Planning and Administration (NIEPA) at National level. The potentials of SIEMAT can be utilized for this.
- v. Pursuing the twin goals of eliminating stark inequalities and establishing an egalitarian framework of quality education for all requires action on several fronts. This indeed is a

transformational goal that has to be pursued consistently over several years. First, we have to evolve a method of measuring and establishing benchmarks for identifying schools against predetermined standards, in terms of inputs, processes as well as outcomes – with both quantitative and qualitative indicators. The system of education statistics needs to be recast to capture this perspective. While we may continue to produce data on traditional indicators, it is necessary to develop a new matrix of measurement to capture the Quality-Equity status in an intersectional framework.

vi. There should be effective separation and streamlining of the academic and administrative functions of the Department so as to increase its efficiency in both. One possible method is to rationalize the functioning of the DIETs so that they are capable handling the problems related to the implementation of the Curriculum and Teaching Learning process and the conversion of the present BRCs into a regular academic monitoring group. CRCs can be transformed into Panchayat Education Offices and the officer of the same shall be vested with the administrative and monitoring functions of the schools at the Panchayat level. They can function as Panchayat level implementing officers.

vii. Multiple monitoring devices on schools, conducted by different projects and the Department must be discouraged. A single functioning monitoring system comprising administrative officials having academic experiences and DIET faculties, BRC trainers should be entrusted for academic monitoring. Different projects including SSK will have to function through the system.

viii. No new schools should be sanctioned in the unaided, unrecognized sector on whatever grounds. Careful assessment has to be carried out on the functioning of schools based on RTE regulations. Stringent actions, including closing down of such schools that refuse to abide by the RTE regulations and refuse to follow the syllabus and textbooks recognized by the SCERT, should be considered.

ix. Establishing a legal cell in all offices from state level to district level has to be considered to address the legal issues in time.

5. Linkage between school education and higher education

i. Nearly 50% of children after completing school education have been opting different streams of higher education within or outside the state. At present there are no proper linkages between school and higher education sectors. For this a higher level committee including officials and academics related to school education and higher education has to be formed.

ii. While formulating the curricula, there should be a mechanism for mutual consultation between SCERT and University academic bodies.

iii. The facilities and academic expertise of higher education centers, either universities or colleges, should be used for teacher transformation programmes.

iv. In the same way, there should be avenues for linking talented students to higher education institutions.

6. Linkage between other departments

There is scope and need for proper integration among various departments with that of school education. At present education department has a departmental activity in Model Residential schools, Sports schools, Fisheries Technical schools, and has linkages with SC/ST department, Sports department, Fisheries department, Women and Child department, Social Welfare department, Civil Supplies department, Health department and Local Self Government department. Hence mechanisms for establishing linkages with other departments have to be evolved.

III. Professional Development of Teachers and Transformation of Curriculum

1. Professional Development of Teachers

No classroom can transcend teachers' capacity and commitment. The last three decades have witnessed enormous investment in the training of teachers through standard packages under SCERT, SSA and now SSK, KITE, SIEMAT and DIETs. But the impact has not been commensurate with the investment in transforming teaching and learning in schools. Kerala society has been seriously discussing the perception of Knowledge Society and strengthening the local economy. Knowledge Society can be achieved by enabling children to construct knowledge, a practice that is possible only through providing ample space for experiential learning where the process of learning becomes significant. All these have curricular implications. Hence, preparing and supporting teachers are crucial.

- i. Effective teacher-professional-development programmes should be designed and implemented for enabling teachers to cope with the modern development in the world of knowledge and pedagogy.
- ii. Comprehensive teacher-professional-development programmes are needed for equipping teachers to engage with the present day challenges of providing adequate experiences to the learners. One such endeavour in the past was the Higher Secondary Teacher Transformation Programme, a teacher empowerment programme launched and implemented at the Higher Secondary level during 2017-19. Equipping the teachers to assimilate new knowledge and emerging pedagogic practices is important. The methodology of teacher-professional-development needs to be revised accordingly. It needs to move from training to transformation of teachers.
- iii. Every teacher must undergo a two-to-three-week residential teacher-transformation programme once in 5 years, as part of in-service programme which has to be made mandatory. Cluster level get together of teachers every month as booster programme has also to be planned.
- iv. While conducting teacher-professional-development programmes, we have to be more flexible and adaptive to local contexts and environments and also to the problems and requirements of individual teachers. This goal cannot be met through predetermined packages, however well-prepared they may be.
- v. Teacher support system has to be more localized particularly in dealing with primary schools in different areas such as tribal, coastal etc. by building capacities at cluster and

block levels. For relatively bigger schools, we have to move towards school-based (school-wide) programmes for capacity building of teachers.

vi. For providing support to teachers on specific academic issues, the potential of Digital Technology can also be used. Digital Technology could be of great value in personalizing the support system for individual teachers. It is of essence that our system should conceive a paradigm shift in organizing in service at hand support to teachers.

vii. Along with face-to-face teacher training, alternative methods are to be explored for transforming teachers.

viii. Research, the world over, has also shown that effectively functioning systems are those which are diligently monitored and supervised. This, indeed, requires careful consideration.

ix. We have to strengthen our school supervision system. There have been repeated observations in the public domain on the issue of teacher accountability with respect to quality. But the tendency to measure accountability only in terms of learning outcomes is not desirable. Also, accountability cannot be considered in isolation from the teacher support and supervisory systems. On the whole, the teacher-issue requires a holistic assessment probably through a Teacher Commission.

x. Introducing measures to improving teacher quality has to be done in a participatory mode with full involvement of the teaching community. Unilateral approach only triggers tension within the system.

2. Developing Kerala Curriculum Framework and Curriculum

The focus of the present curriculum, syllabi and textbooks in vogue in Kerala is on learning outcomes rather than on the input, learning process and the enabling environment. There was an effort by the textbook writers to include more 'content' in the textbooks as they felt that the textbooks developed based on National Curriculum Framework (NCF-2005) and Kerala Curriculum Framework (KCF 2007) gave prominence only to the process of learning than the content and outcomes. As a result, information was loaded in the textbooks ignoring activities and processes (Sarva Shiksha Abhiyan Joint Review Mission (SSA JRM) Report-2014). The focus given to learning outcomes and delivery of the 'content' resulted in the return of classroom process into conventional 'transmission' approach, where syllabi 'topics' are meant to be 'delivered' by the system and 'received' by the students. The dichotomy between 'processes'/'issues'-based KCF-2007 and 'content'/'outcome'-based present curriculum needs careful critical reflection.

i. NEP 2020 demands the development of a new Kerala Curriculum Framework. The system has to critically review the KCF 2007 and make proper reforms in the document to include the latest trends of knowledge (content) and pedagogy and also incorporate the perspective of transformation into a Knowledge Society and a society envisioning to strengthen the local economy. This can be done by integrating societal perceptions and suggestions in the Curriculum Framework Development process. A large scale dialogue with people should be planned for getting the societal feedback. SCERT collaborating with all other agencies should spearhead this programme.

ii. The school curricula and related materials need to be revamped based on constitutional values, progressive pedagogic practices, and in the perspectives of sustainable and inclusive development, technological advancements and post-Covid 19 pandemic scenario.

iii. Integration of work education into the school curriculum which includes development of attitude and aptitude should be considered. While formulating the curriculum there should be scope for linking all work spaces in the neighbourhood of the schools to that of the process of learning. Age-appropriate and ability-appropriate work education should be provided so as to enable students to have positive attitude towards work and enhanced capability when they become a part of the work force.

iv. A systemic environment should be created to enable all students to achieve the objectives put forward by the curriculum, by making use of the potentials of the multiple agencies within the department and of teachers and other supporting structures and also by making use of the judicious and effective use of educational technology including Digital Technology.

v. Along with inculcating constitutional values, the schools should function as a practicing or experience-providing space for inculcating values and civic senses which include waste management, water and energy conservation and integrated farming practices, with the motto 'Clean campus Green campus'.

vi. The curriculum committee should monitor the preparation of textbooks, educational accessories and technologies and the timely delivery of these resources to schools. Before printing the text books, curriculum committee should ensure proper gender auditing of the developed text books and other teaching learning materials.

3. Pre-School education

There are 53 Pre-schools directly run by the General Education Department where teachers are recruited through Kerala Public Service Commission on the same pay scale as that of Primary School teachers. There are 2182 Government Schools with Pre-primary classes which are run by Parent Teacher Associations. Honorarium to teachers and ayahs is paid by the Government. (As per Unified District Information System for Education (UDISE) data 2019).

In most of the Government approved Pre-schools the medium of instruction is the home languages of the children, viz. Malayalam, Kannada, and Tamil. These Government approved Pre-schools follow the curriculum, Activity Book titled Kalippattam and the worksheets titled Kalithoni prepared by SCERT. Most of the private unaided Pre-schools in private sector favour English as the medium of instruction. They also prefer using text books in English prepared by private agencies. The pre-schooling experiences of the present Anganvadi system may also be considered as a part of Early Childhood Care and Education (ECCE).

i The state has to develop a comprehensive policy of Early Childhood Care and Education that promotes nurturance and promotion of holistic development and active learning capacity of all children below 6 years of age. The conflicts whatsoever between Anganwadis as

part of WCD department and Pre-schools coming under Education Departments have to be resolved.

ii Child care is most important in the early years. We have to explore whether we can take a position that 3+ and 4+ children can be enrolled in Anganwadis and 5+ children in Pre-schools attached to formal schools for one year pre-schooling.

iii The medium of interaction in the ECCE centres should be the home language or mother tongue of the children. ECCE teachers/caregivers must be trained in supporting children based on sound pedagogic principles and best of research.

iv The ECCE needs to address the physical, mental, emotional and social developmental facets of the children.

v All children of this age group have to be provided with age-appropriate food and nourishment without considering the location of enrolment.

4. Academic Master plans

Implementation of educational programmes in schools in the state is based on a 'top-down' approach i.e., the role of the school level functionaries including teachers is limited to the implementation of programmes conceived and planned at the state level. However, the Education Mission initiated from 2016-17 has envisioned a 'bottom-up' approach where all schools prepare academic master plans with the support of the community. While preparing academic master plans teachers, parents, general public, educational experts, members of Panchayat and alumni sat together and discussed the improvements to be made in the school-infrastructure, teaching & learning processes and the academic achievements of students for a period of 5 years. The plan also spelt out in detail the funding and the source of expenditure.

i Developing school based academic master plans should be institutionalized and made mandatory as an essential responsibility of the school system. The State has to conceive developing Right To Education (RTE)-envisaged School Development Plans of all schools.

ii School Resource Groups (SRGs) play a major role in developing the schools' academic master plans. Hence SRGs have to be strengthened to conceive and implement the academic master plans at school level.

iii As part of academic master plans the schools need to fix learning indicators for learners at each level of school stages. This would enable the learners (and the teachers) assess themselves. The teachers and the system can use these data for midcourse correction, if needed, and for providing educational support to the needy students. The assessment data can also be utilized for identifying the talents and aptitude of children and for helping them to optimize their talents. All schools need to provide a platform for students to discharge their self-expression and creativity. Even local expertise can be availed for facilitating children's creative ability and self-expression. The academic master plans must have a space for developing the health status and artistic ability of all children in the schools.

5. Assessment

Since 1997, Kerala had a system in which assessment tools for term-end examinations were set by teachers in school clusters. Each of these tools was considered a 'learning activity' and was conducted in a non-threatening atmosphere. However, after the undue focus given to learning outcomes, the system of preparing assessment tools at the state level became a norm. At present, Continuous and Comprehensive Assessment of learning of each child in classrooms has been conducted in the State in an unsound manner.

i The State has to formulate a policy of Continuous and Comprehensive Evaluation (CCE) while developing the new curriculum reflecting the true spirit and purpose of Continuous and Comprehensive Assessment. Providing feedback on a continuous basis needs to be adopted and recorded for knowing the progress of the learners.

ii Assessment tools should be prepared by teachers in school clusters through creative discussion, and the tools may be considered a 'learning activity' rather than a written test and the assessment tools may be used in the classrooms in a non-threatening atmosphere. This has to be regarded as one of the opportunities and strategies for teachers' professional development.

iii The introduction of diversified evaluation procedures, such as the incorporation of laboratory work, educational tours to historical sites, geographical spots, industrial and agricultural worksites and enumerative and observation-based field visits should be incorporated into the Continuous and Comprehensive Evaluation modules.

iv Tools for data analysis may be developed for analyzing and improving academic and related areas in school education.

v Quality must be seen in light of how societies define the purpose of education. Mostly, two principal objectives are at stake: the first ensures the cognitive development of learners and the second emphasizes the role of education in nurturing the creative and emotional growth of learners and in helping them to acquire values and attitudes for responsible citizenship. Finally, quality must go in hand with equity: an education system characterized by discrimination against any particular group cannot fulfill its mission.

vi Some institutional mechanism should be evolved to capture the socially desirable characteristics of quality, including the democratic functioning of school as an institution nurturing values like democracy, secularism, empathy, cooperation, collaboration and attitude for working together as team. We have to make a monumental contribution to school evaluation and improvement that combines quality and equity in an integrated framework. Developing such an integrated framework is a challenging task, but the State has to undertake such a task during the 14th plan period.

6. Medium of instruction

The schools in the State follow Malayalam, English, Tamil and Kannada as the media of instruction. However, there is an increasing tendency among the Public Schools in the State to opt English as the medium of instruction.

i The issue of medium of instruction should be carefully reviewed based on sound principles and the best of research-evidence. It needs to be emphasized that all classrooms are by default multilingual as children use different languages. We need to find theoretical models and pedagogical practices that respect the language of each child. A child's cognitive growth and conceptual clarity are closely tied to her languages. The medium of instruction needs to be the mother tongue of the children at all levels of school education.

ii Curriculum should promote education in the mother tongue at all levels for the child to acquire a deep knowledge of Malayalam/mother tongue so that he/she can use the language for acquisition of knowledge and expression of creativity.

iii Proper consideration should be given for acquisition of linguistic skills in a multilingual environment which enables the learner to acquire any language of her choice or requirement, so that children are not inhibited in their linguistic abilities and expression at any level in any language.

iv Steps should be taken to enrich the quality of teaching and learning of English in Government and Aided schools in the State. Every school needs to have adequate number of English teachers who will teach English through English or by using the languages of children in a way that the learning of English is assured. The state should develop English Language Teaching pedagogy that may be rooted in multilinguality, treating the languages of learners as a resource rather than as an obstacle. Every possible effort should be made to revive the Child-centered, Discourse-oriented Pedagogy which has already demonstrated its success in the State (Ref:Joint Review Mission on Teacher Education Report-2014). The positive aspects of the interventions made to date, such as Hello English and E- cube English may be reflected in the curriculum reform.

7. School time table

The current school time-table and period-system in schools is not suitable for operational work. Presently the period-system of teaching extends to 30 - 35 minutes per subject. In a child-centered, activity-based classroom process, this sort of period-system is not in tune with the curriculum and the teaching-learning process.

i Period-system may be reviewed in such a way as to provide time for all three factors: experience, overview of the day, and additional educational support for those in need including the differentially-abled children, the marginalized, the children of migrant people, children in coastal and tribal areas and children living in difficult circumstances.

ii The rigid time-table system has to be flexible so that autonomy may be given to schools in designing time-table based on the learning needs, teaching learning process and activities.

8. Work and Education

In earlier periods, the system introduced work-education in the form of 'Work Experience'. Later, it was termed 'Socially Useful Productive Work' (SUPW) for developing attitude and aptitude towards work. Unfortunately all these didn't gain much in perceiving work-education. Gradually every kind of work-education vanished from schools, especially from primary and secondary schools. Now it is limited to Vocational Higher Secondary Schools in

the form of NSQF. There are 387 Vocational Higher Secondary schools in the state as part of the Vocational Higher Secondary wing of Directorate of General Education. Though the Vocational Higher Secondary course was launched for vocational education, other subjects started creeping in gradually. The learners of this course are not in a position to gain in-depth understanding and experience in the vocational subjects concerned.

i A set of work-related generic experiences (basic, interpersonal and systemic) could be pursued at all stages of education. This includes critical thinking, transfer of learning, creativity, communication skills, aesthetics, work motivation, work ethics of collaborative functioning, and entrepreneurship-cum-social accountability.

ii Age-appropriate, work-integrated education may be provided to all students from primary to higher secondary stages. However those who opt for vocational subjects at higher secondary level should be given in-depth understanding and experience of the vocational subject concerned.

iii At the higher secondary level, a strategy to formally recognize local expertise for work as resources for providing practical experience of the students may be explored rather than teaching just the theory of vocational education.

9. Information and Communication Technology (ICT) in education

As part of Education Mission, the Government of Kerala has set up digital-friendly classrooms and computer labs in all primary, upper-primary and secondary schools. In order to make use of these facilities in schools, KITE with the academic support of SCERT developed a comprehensive resource portal titled SAMAGRA, which is a repository of digital resources of all subjects from class 1 to 12. The ICT-enabled learning process in vogue in the State makes learners active constructors of knowledge rather than mere receivers of information. All teachers at primary, secondary and higher secondary levels use, as part of the learning process, ICT tools for promoting effective learning. One of the major strengths of the ICT-enabled pedagogic process is that the use of FOSS (Free and Open Source Software) for digital content development resulted in a lot of freedom to the user to modify and upgrade the content. The involvement of students and teachers in digital resource development has given them a sense of ownership over the ICT-enabled pedagogic process.

The major challenge for implementing ICT-enabled learning process was that the curriculum and textbooks were not prepared adequately considering the scope for ICT-integrated learning. Moreover, the teachers should be able to be critique, and to select and modify appropriate ICT resources which are appropriate to their students. This necessitates the need to improve SAMAGRA by developing more digital resources appropriate to all students in diverse classrooms.

i Technological knowledge shall be ensured for students at primary, secondary and higher secondary levels. Students need to be capable of reporting and presenting their activities and products digitally, especially at secondary and higher secondary levels.

ii ICT-enabled learning process needs to be adopted in the process of learning of all subjects. There should be an integration of existing platforms to make an integrated Learning

System. In this new integrated system there should be provision for uploading and storing the digital portfolios of students. The digital portfolio and student performance indicators for different subjects may be included in the system for assessing and mentoring students' performance.

iii Knowledge to use digital collaborative environment may also be provided to students in all stages. This helps them work together to solve problems, complete the tasks, or create products as a part of collaborative learning.

iv Infrastructure development is important because hands-on experiences are necessary for acquiring technological knowledge. The development of software as well as hardware infrastructure is equally important.

v VICTERS educational channel is now functioning in a 24x7 basis. A second channel has also started functioning. Action may be initiated to strengthen District Resource Centres to produce quality and innovative educational resources for VICTERS educational channel.

IV. Inclusive Education - Emerging Concerns

1 Inclusive education materializes when all students, regardless of any challenges are placed in age-appropriate education in their own neighbourhood schools. They have to receive high-quality instruction, interventions, and supports that enable them to achieve success in the core curriculum. It is based on the premises of accepting, understanding, and attending to student-differences and diversity which includes physical, cognitive, academic, social, cultural and emotional domains. It is critically important that the adults – teachers, staff, parents, etc. - also need to be sensitized in this regard. Inclusive Education, as it is conceived, facilitates better relation among children as there is a scope for peer-coaching.

2 RTE 2009 has broadened the scope of Inclusive Education, which, hitherto was limited to children with physical and intellectual challenges only. RTE promotes access and opportunity for education to all children who are either excluded from formal education or neglected within the system due to numerous reasons.

3 The major focus of Inclusive Education in Kerala is on Special Education itself. There are 320 registered institutions in Kerala for children with disabilities. Barrier-free Education, Autism Park, etc. also are offered for these children. But little mention is made on other disadvantaged children who are vulnerable, victims of discrimination, linguistic minorities, trans-genders, juvenile delinquents, etc. Though they are enrolled in schools they may need special attention due to their unique environments.

i Proper engagement is needed to address lack of broader perception about inclusion. Even now the issues of children who fall under the following broad categories are in one way or other excluded.

Physically and intellectually challenged, Socially, culturally and geographically challenged - children belonging to migrant workers, linguistic minorities, transgender/gender groups, tribes, plantation workers, children of HIV patients, children from coastal area, etc., and vulnerable and taboo-driven juvenile delinquents, children of prisoners, orphans, etc.

(The State has already made many a stride in educating these children. But their characteristic issues are to be addressed if they are to merge into the formal stream.)

ii A detailed plan of action has to be formulated for ensuring social justice and equity to Children with Special Needs. Adequate support mechanism in the form of human resources (special educators) and material resources including proper equipment and other accessories has to be ensured. The need for rehabilitation has to be addressed by giving top priority. The scope of attaching rehabilitation programmes to that of the BUDS schools under LSGIs must be explored.

iii The following issues in relation to Inclusive Education within the 14th plan period needs to be addressed:

a. Inadequacy of data to plan Inclusive Education programmes: Either absence or non-utilisation of data on the numbers, types and areas of excluded children. Usually, those who enroll voluntarily undergo education. There are a number of bedridden CWSN children in the State. A larger chunk remains invisible. They may be identified and brought into the mainstream. The data of exclusion/inclusion-ratio may help in planning.

b. Commutation: Better commutation provides higher access. In areas where neighbourhood schools do not function, commutation is an unresolved issue resulting in absenteeism.

c. Infrastructure: Specially designed toilets and seats for physically challenged children are absent in many schools.

d. Lack of Social and Linguistic skills: Children from deprived sections and minorities, including linguistic and migrant families, may not have appropriate social skills, which may make them aloof.

e. Lack of acceptance: social stigma and taboos may make children unacceptable to other children, teachers, staff and even the society close to the school.

f. Sensitisation of parents and other adults: Mechanisms for sensitizing parents, teachers, staff and the society, which is essential for Inclusive Education, are insufficient.

g. Teachers' Training: Teachers' Training, which is one of the weakest links in Inclusive Education, has to be addressed.

h. Evaluation: The common evaluation procedure stamps these children as under achievers and failing students. It does not assess their uniqueness and other achievements.

i. Technology-Aided Education: Presently access to technology-aided education is very poor as far as vulnerable and deprived children are concerned.

iv Pilot study may be conducted to identify the children of the target group. They may be broadened to a State-wide research so that accurate data could be made available. Monitoring and Research may go hand in hand with every attempt in the domain of Inclusive Education.

v Inclusive Education may be made broad-based so as to include all the children excluded or

unattended so far. Children with special needs, trans-genders, juvenile delinquents, linguistic minorities, children of migrant labourers, children from tribal hamlets, children from fishermen community, children from marginalized and disadvantaged families, etc. come under this category.

vi All teachers are to be trained to address the issues of inclusion. It should be a part of both pre-service and in-service teachers' training.

V. Concerns about Nurturing Physical, Aesthetic and Skill capabilities

One of the major criticisms regarding the recent developments in education is that educational agendas focus on a narrow set of skills mostly geared to meet the requirements of the overall local and global job markets. The neo-behaviourist position of the market has created such an educational perspective of segregating skills from the process of education. This approach is unacceptable in the educational context of Kerala.

Skills may be categorised as physical, psycho-social, vocational, and aesthetic, all of which aim at improving the quality of life. While these are important for pedagogical purposes, a closer look at the state of schools in Kerala reveals a greater scope for improvement.

1. Physical

Studies revealed that, when a minority of students in Kerala, from grades five to nine, is tested, they meet the goal of performance established for the Total Physical Fitness Test. But there remains more work to be done to ensure high levels of physical fitness for students in Kerala. All students could benefit from a greater emphasis on areas of physical fitness, especially aerobic capacity, body composition, muscular fitness and flexibility. Even though the mortality rate is coming down in our state, as per various reports, the morbidity rate is higher than the desirable level. We have to address this from the very school- years. The avenues of health and physical education are fewer in our school education. The societal perception focuses only on the cognitive development of students. This has become more serious as the increase in screen-time and the decrease in time spent outdoors have further brought down pupils' activity levels. Along with academic skills, we need to have physical literacy skills too. Inactivity is one of the major risk factors of NCDs in adult life.

i While Kerala enjoys recognition for promoting sporting events at both the school and professional levels for talented pupils, a focus on physical skills must go beyond a select few.

ii We extend the framing of the term 'physical' skills and education to link to the task of improving children's quality of life. Given the increase in illnesses such as obesity among children in Kerala, a comprehensive physical skill-building programme must account for their larger health and physical welfare.

iii Particular attention must be paid to engaging with families and parents to invest their energies in understanding children's needs for and concerns about physical fitness.

iv Within the schools, measures to discuss nutrition, hygiene, and disease-control can help pupils develop an awareness of their bodies throughout their years in school. Students with talent in specific sporting events such as athletics require special attention and help; schools'

physical education schemes must target all pupils with varying needs according to their age, gender, pre-existing health condition, and bodily health indices.

v School system should make platforms to involve physical fitness programmes and enable them to make their own independent decisions regarding their body and health.

vi In lower primary section, physical education should be integrated with the overall learning experiences and teachers have to train accordingly. But from upper-primary onwards children have to get expert service in this regard.

2. Aesthetic

Aesthetic education refers to the cultivation of certain artistic skills by developing sensory awareness and potential through visual forms, performance forms, media, and materials to enrich pupils' creative possibilities for learning and communication. How best can we encourage these in the space of the school? Can schools accept creative output and not just exam answers? Aesthetic education is a form of learning which encourages pupils to enhance their creativity and improve understanding of abstract and concrete concepts through various art forms. It does not necessarily mean making pupils into performance artists. Instead, an aesthetic education does not discriminate between the varying talents exhibited by pupils. Teachers may find it challenging, but the long term potential of such skill-building is vital towards making children lead meaningful lives. All children must be encouraged to express their grasp of knowledge in artistic ways even in strange environment. Aesthetic expressions can be communicated through symbolic forms like theatre, dance, poetry, and images. Classroom lessons must emphasize these media and strategies both for communication and examination. If adequately encouraged and provided with the environment to learn and grow, pupils are more likely to gain an in-depth knowledge of certain subjects. E.g.: Can there be assignments that will accommodate sketches, photographs, short movies making, etc.?

i Aesthetic education should have an appropriate place in the curriculum. This has to be considered while developing the new curriculum.

ii School Education should provide opportunities for enhancing the ability to transcend logic and express what is indescribable through verbal language and to speak directly to the senses which will encourage pupils to master the ability to express themselves better. During the period of rapid physical and mental growth students need age-appropriate platforms for their creative expression. This becomes critical in the post- Covid 19 pandemic scenario, as children battle various psychological issues and distress in their everyday lives. In such a context, we have to consider a pedagogical approach which imparts resources to sharpen students' sense perceptions, especially of sight, touch, and sound. E.g. encourage pupils to express/comment what they have learnt or any aspect of what they have learnt through poems, music, drawing, dance, etc.

iii A similar facility for arts and culture can be envisaged in association with Sangeeta Nataka Academy, Lalita Kala Academy, Sahithya Academy, Chalachitra Academy, Folklore Academy and so on. The State has already successfully demonstrated 'Talent Labs' where

training and mentoring was provided to students in different aesthetic art forms by experts and trained teachers.

iv Schools have to impart necessary training to teachers on aesthetic skills before a long-term programme can be introduced. Resources such as computers, art materials, cameras and musical instruments etc. should be provided to schools.

v Myths regarding art education as a 'futile' pursuit must be actively challenged at PTA meetings and other school gatherings. An awareness programme may be organized to sensitise society to understand and appreciate the relevance of aesthetic education.

vi Teachers trained specially in the arts may be encouraged to lead activities related to various forms of aesthetic education and campaigns within the schools. Schools may also invite distinguished artists in various fields to interact with the students on a regular basis.

3. Life-skills

Life skills is a broad term that encompasses a range of skills directed at helping young people cope with crises and improve their ability to navigate difficult situations in school, home, and neighbourhood. Dominated by frameworks in developmental psychology, there is an ongoing debate on the efficacy of Life Skills Education in schools, especially concerning those from poor and marginalised backgrounds. Recent sociological research shows that poor children are taught Life skills to cope with structural imbalances in society and economy as an 'individual' problem, and encouraged to aspire to the value systems of dominant social groups. Therefore, planners must exercise adequate caution before implementing Life Skills curriculum in the context of Kerala.

i Concerning specific skills associated with Life Skill training, the acquisition of English language assumes high priority. As English remains one of the major languages for social mobility and economic success, school-going pupils and families look for quality English learning resources. Schools in Kerala must adapt its language curriculum in order to enhance English proficiency of pupils while also focusing on expanding their knowledge and creativity offered by English as a second language. To improve English language skills, teachers must receive rigorous training in reading and writing fluency. Also, learning aids, a range of children's literature in English and other languages in the school libraries, and digital tools should be provided to encourage children's self-learning. Instead of privileging English language skills alone in the classroom, pupils must also be encouraged to master their mother tongues and other languages too. Research has shown that mastery over one's mother tongue assures improved performance when acquiring a new language skill.

ii The little KITES endeavour and the school digital magazines are impressive resources that showcase various schools' digital outputs and creativity. Such efforts need to be streamlined as part of classroom learning with a definite road map as well. There is, however, a tendency for schools in many parts of the world to invest their finances into procuring software applications for e-learning which are short-lived. These must be judiciously done keeping in mind the relevant needs of each school and skills of teachers and pupils.

iii Digital literacy programmes can be linked to local community welfare action. School

children's ability to master technological skills can be utilised to help local neighbourhood in specific campaigns such as social media awareness, financial literacy, research, cyber crimes and anti-online abuse campaigns.

iv Developing Reading and Writing Skills shall be prioritized properly. Schools must avoid rote-learning methods geared towards just scoring high grades in examinations. Instead, active reading fluency and writing workshops/classes must be held in consultation with school teachers and experts to improve fundamental literacy skills. Though well-versed in languages at the school level, school students often do not meet the same level of competence in applied writing skills in various sectors. Both reading and writing programmes in Malayalam/mother tongue and English must be integral to the school's academic master plan.

VI. School-Society interface

Society plays a key role in the progress of school education in Kerala and there seems to be a historical continuity in this. Community by and large participates in all activities of the school through parent teacher associations or old student associations or through school development committee. Hence Kerala is facing the second generation issues in school education of which the equity-quality issues are prominent. For addressing these issues, a large scale community support is inevitable. Without mobilizing local expertise, the school cannot address many of the pertinent issues of equity and quality elements.

i Each and every school must utilize the social expertise for developing the school level academic master plan. This will function as one of the best school-society interfaces.

ii Role of local self-government is important in addressing quality and equity questions of education. Education Committees at LSGD level should be an important forum for mitigating local educational needs and issues. If necessary, changes can be adopted in the structure of the committee to assure representation of all sections as done in School Management Committees.

iii In order to address the equity and quality issues in tribal areas new programmes should be formulated to create a conducive environment with full participation of the community. In the first phase, we have to formulate an innovative Tribal package aimed at the elimination of the drop-outs and to bring all children back to school after the Covid19 pandemic period. While formulating the new curriculum, the cultural environment of the tribal children and their language should get a space. Proper attention should be given for the creation of a school environment that would enthuse them to move forward.

iv The school PTAs and School Management Committees (SMCs) have to be strengthened. And proper training has to be given to make them realize what they can do for ensuring quality education upholding equity and inclusiveness.

v The State has to arrive at some kind of social consensus regarding the resource support to be provided to Aided schools by the government system. We cannot achieve a sustainable transformation of the public school system by only focusing on Government Schools. We cannot afford to entertain thinking of schools in binary mode as Government vs. Aided. Irrespective of how the schools are managed, they are integral to the public education system.

Neither our quality improvement efforts nor our endeavour to reduce inequality within the education sector will succeed if we continue to deal only with Government schools only as has invariably been done under centrally sponsored schemes such as Samagra Shiksha. Aided schools have to participate in this exercise for holistic transformation of the system whether it is quality up-gradation programmes or in our effort to restructure the system to make it more egalitarian. Transformation cannot be achieved by standardised action emanating from the State Government. We have to begin by mapping out strategies for action in a decentralised and differentiated manner. This is a difficult proposition but not impossible, as Government and Government- aided schools occupy a huge part of the education space in Kerala. The State has demonstrated its will and determination to integrate and create a unified programme of twelve years of school education, while the neighbouring States have continued to dither taking such bold steps.

CHAPTER 3

LITERACY AND LIFE LONG EDUCATION

As per 2011 census the literacy rate of Kerala is 94 per cent compared to the literacy rate of 74.04 per cent in the country. Women's literacy rate is 92.07 per cent where that of the country is 65.46 per cent. Now the state is giving thrust for the equivalency programmes and other social literacy programmes in the domains of health, environment, gender etc. The state envisages the strengthening of local economy that is very crucial after the post Covid scenario. Helping the workforce to have training and opportunities for exposure in using small scale technologies as part of skill up gradation is a major task to be undertaken by the state.

- i We have to evolve a strategy for addressing any backlog in literacy related activities and continuous and lifelong education relevant to Kerala context.
- ii Even though we have higher level achievement in literacy among other Indian states, there are islands where one can see illiterates. Focused and designed interventions are essential to locate pockets of illiteracy and to eradicate it by involving LSGIs. Special programmes have to be planned for achieving this objective.
- iii We shall utilize the emerging need for equivalency courses at various levels. Equivalency courses need not be in par with the same content of the school education. The experiences of the adult learners gained through their life experience must get due weightage in the procedure of assessment.
- iv The State has been outstanding in literacy status. But it is necessary to bring the two sectors closer in goals, content and perspective. Having practically wiped out adult illiteracy, it is time that adult education is transformed into social/parental education, particularly on matters of child development and early learning including health and hygiene. Parents have to be helped to appreciate the child-centered education that our schools are trying to adopt. It is time to take such efforts to scale up under a revamped literacy programme.
- v We have to redefine the term literacy in the state specific social context and should plan and implement a large scale citizenship education programme. The components shall include legal literacy, civic sense literacy, hygienic practices, the importance of waste management, conservation of water and sources of water, energy, land literacy, the dangers of drug abuse, alcoholism etc. There should be concerted dialogues regarding equity and quality in the domains of gendering, gender justice, addressing the issues of disabled persons etc.
- vi As part of life long education a comprehensive skill up gradation programme has to be planned. We have to upscale the skills of the work force enabling them to become part of a quality workforce. Institutional role of KLSMA and SCOLE Kerala shall be redefined accordingly. Collaborative action plans for skill up gradation and providing exposure for exploring the scope of value added products by utilizing the natural resources available in the locality shall be done by these institutions.
- vii The scope for providing quality training for skill up gradation and for producing value added materials shall also be explored.

CHAPTER 4

ACTION POINTS FOR INITIAL PHASE

After the unprecedented pandemic scenario the schools are gradually coming back to normalcy. But for becoming normal it will take more time and we can't ignore the threat of new mutant forms of corona virus and it is unpredictable how these new forms of virus will affect humanity.

Disruptions due to the pandemic and lockdown have severely affected the life of people in general and children in particular. It has affected children from different sections of the society and different stages of education. State has to initiate a comprehensive and authentic assessment of the impact of Covid-19 and school closures in the domain of general education. Use of digital platforms may have caused more inequity in learning besides creating general deficit across the schools. In this context the following points/areas shall be considered for immediate action during the initial phase of the 14th plan.

- i A comprehensive plan shall be formulated with an emergency rehabilitation package operative for the next two years through an empirical audit of schools and assessing the requirements of the system. Bringing back children back to school physically is comparatively easier to that of bringing them back socio-emotionally. There should be proper programmes for providing educational support to all needy children. Locating the educational need itself is a challenging task. SCERT collaborating with other agencies must develop an academic plan to address this issue and it should be inclusive in true sense. LSGIs also can play a pivotal role in this regard.
- ii SCERT shall develop education support materials and provide training to teachers to help them understand the difference between routine class room transaction and education support process. The potentials of Samagra Shiksha and KITE can also be made use of for this programme. For education support programme we can utilize the local expertise also as resource.
- iii Directorate of General Education may form a committee to assess the infrastructure need of all schools including aided schools. We have to address the disparity in the infrastructure facilities that exist in the state. This committee shall assess the sanitation requirements of schools too.
- iv The department have to facilitate for developing a comprehensive maintenance plan by all government schools so as to utilize the available maintenance grant from the respective LSGIs
- v SCERT shall formulate a detailed plan for developing Kerala Curriculum Framework for pre schooling, School Education, Teacher education and Adult education. Before formulating the framework we have to get the societal perceptions and suggestions too.
- vi An institutional mechanism need to be developed to gender audit the content and process of general education. The body shall undertake the gender auditing of learning materials including text books and the process of learning, the class room process, the use of school campus including the school ground before completing the curriculum revision.

- vii SCERT shall formulate a comprehensive teacher professional development plan for this plan period collaborating with other agencies within the general education department.
- viii The education department has to develop a special plan for addressing the education issues of tribal children and children belonging to coastal areas.
- ix Education department shall explore the scope of establishing Experimental labs, learning labs and technology workshops in schools to facilitate the acquisition of knowledge and skills within the school environment. A committee may be appointed to get a detailed plan of action in this regard.
- x All the recent studies revealed that there are issues like anemia and stunt growth etc. among children especially among the marginalised groups. These all point out for the need for introducing a comprehensive School health programme that not only envisages healthcare, food and nutrition but also envisages the development of the child into a physically equipped and mentally and emotionally alert individual.
- xi Education department need to develop a comprehensive master plan for setting up common library facility in all secondary schools and class libraries in all class rooms cut across different stages of school education.
- xii School campuses must function as a centre to inculcate democratic values and understanding the relevance and practice of waste management, minimizing the use of plastic, energy and water conservation and taking a strong position against drug and substance abuse.
- xiii All schools in the state have to be made disable-friendly. We have yet to transform our schools barrier free in true sense for children with special needs.
- xiv Special programmes shall be implemented to address the needs of children belonging to different areas/sections such as tribal, costal, marginalised and disadvantaged family backgrounds in a phased manner.

ANNEXURE I
PROCEEDINGS OF THE MEMBER SECRETARY
STATE PLANNING BOARD
(Present: Sri. Teeka Ram Meena IAS)

Sub: - Formulation of Fourteenth Five Year Plan (2022-27) – Constitution of Working Group on **School Education** – reg.

Read: 1. Note No. 297/2021/PCD/SPB dated: 27/08/2021
2. Guidelines on Working Groups

ORDER No. 448/2021/SS(SEdn.)SPB Dated: 08.09.2021

As part of the formulation of Fourteenth Five Year Plan, it has been decided to constitute various Working Groups under the priority sectors. Accordingly, the Working Group on **School Education** is here by constituted with the following members. The Working Group shall also take into consideration the guidelines read 2nd above in fulfilling the tasks outlined in the ToR for the Group.

Co - Chairperson

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Co- Convener

Smt. Smitha H, Research Officer, Social Services Division, State Planning Board, Ph: 9496714282, e-mail: ssdnklaspb@gmail.com.

Terms of Reference

1. To assess and evaluate the initiatives of the Government of Kerala in the field of school education over the last five years.
2. To suggest specific interventions and changes required in syllabi, pedagogy, evaluation, and teachers' training and intellectual development in the field of school education.
3. To evaluate and suggest improvements in the system of statistics on school education of the State.
4. To evaluate the existing infrastructural facilities in government schools and provide suggestions for improvement.
5. In each of the areas specified in (2) and (4), provide an estimate of financial requirements.

Terms of Reference (General)

1. The non-official members (and invitees) of the Working Group will be entitled to travelling allowances as per existing government norms. The Class I Officers of GoI will be entitled to travelling allowances as per rules if reimbursement is not allowed from Departments.
2. The expenditure towards TA, DA and Honorarium will be met from the following Head of Account of the State Planning Board "3451-00-101-93"- Preparation of Plans and Conduct of Surveys and Studies.

(Sd/-)

Member Secretary

To

The Members concerned

Copy to

P.S. to V.C

P.A to M.S

C.A to Member (Dr.Mini Sukumar, Ph: 9495629694, minisukumars@gmail.com)

Sr. A.O, SPB

The Accountant General, Kerala

Finance Officer, SPB

Publication Officer, SPB

Sub Treasury, Vellayambalam

Accounts Section

File/Stock File

Forwarded by Order

(Sd/-)

Joint Director
Social Services Division
State Planning Board