RASHTRIYA MADHYAMIK SHIKSHA ABHIYAN

Secondary Education in Karnataka

Perspective Plan for Expanding Secondary Education 2009-2017

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Department of Public Instruction
Government of Karnataka, Bangalore

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Perspective Plan for Expanding Secondary Education 2009-2022

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Content

Outline

In order to expand the secondary education the Government of India has launched a centrally sponsored scheme Rashtriya Madhyamik Shiksha Abhiyan (RMSA) with goal of achieving universalisation of secondary education by 2020 in India. The implementation of RMSA scheme at the state level envisages the preparation of the state specific perspective framework plan (PFP) to achieve the goal of universalisation of secondary education within the time frame of RMSA. It is a definite plan for improving access, increasing retention and ensuring the learning achievements.

The main aim of the document is to present an overview of the status of secondary education in the state and to suggest analytical framework and projection models that might be applied in further analysis and strategic plans for the secondary education in the state. The analysis identified the selected indicators of secondary education to develop projections of supply and demands at secondary level. Taking note of financial implications of enrolment projections, policy options are identified to provide easy access at an affordable cost. The document is useful for the policy decision makers and other stakeholders while planning for the expansion of secondary education in the state.

The PFP document of Karnataka consists of six chapters following the executive summary of the whole plan at the beginning. The second chapter details the state level aims of the RMSA. This is followed by the state level status report on secondary education based on an analysis of SEMIS data for 2007-08 in the third chapter. The fourth chapter contains the projection models and the cost simulations. The fifth chapter details the policy issues and options arising out of the status report and projection modelling. The sixth chapter summarises the planned outcomes and strategies to be implemented.

In addition, the present PFP of Karnataka contains five annexure. Annexure I presents the consolidated targets and plan outcomes in tabular form. Annexure II describes the state norms with respect to secondary education in the state. Annexure III discusses the curriculum issues and its implementation. Annexure IV presents the management structure, flow of funds and the implementation strategy of RMSA and the Annexure V is about the proposal for the Model Schools.

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Expanding Secondary Education in Karnataka

Perspective Plan 2009-2022

Executive Summary

There is a mounting pressure on the secondary education. The demand for the skilled manpower in the emerging knowledge based economy indicate that eight years of the elementary education is not sufficient to equip a child for a better life and to be a competent citizen in future. Recognising the importance and demand for secondary education, the Government of India has launched a centrally sponsored scheme Rashtriya Madhyamik Shiksha Abhiyan (RMSA) to achieve the goal of universalisation of secondary education. The vision of RMSA is to make the secondary education of good quality, available, accessible and affordable to all young persons of the age group of 14-16 years. The implementation of RMSA at state level envisages the preparation of state specific perspective framework plans.

The performance of Karnataka under Sarva Shiksha Abhiyan (SSA) initiatives at elementary level is promising and the present document is about the Perspective Framework Plan (PFP) for expanding secondary education in the state. The main aim of the document is to present an overview of the status of secondary education in the state. It is also to suggest analytical framework and projection models that might be applied in further analysis and strategic plans for the secondary education in the state. The analysis identified the selected indicators of secondary education to develop projections of supply and demands at secondary level. Taking note of financial implications of enrolment projections, policy options are identified to provide easy access at an affordable cost. The document is useful for the policy decision makers and other stakeholders while planning for the expansion of secondary education in the state.

Structure and Status of School Education in Karnataka

The school education in Karnataka consists of class I to X and class XI and XII are managed by a separate PUC Board. The structure of schools education in Karanataka as well as in few other states is different from the all India pattern. The main difference is that the elementary level in the state covers class I to VII and the secondary level covers class VIII to X. However, following recommendation of an advisory group the structure of schooling education is getting realigned with the National level pattern wherein class VIII is being brought in to elementary system.

The ratio between lower and upper primary schools is one to two (2**:**1)**;** likewise the ratio between upper primary and high schools is 2.6:1. The ratios indicate that given the number of schools available for lower classes/sections, the number of school places available for the higher classes/sections are sufficient in Karnataka.

Enrolment and System Efficiency

There are 100.93 lakhs children enrolled in class I to X in Karnataka as on 30th September 2009. Of this total, 55.42 lakhs children are enrolled in classes I to V, 20.28 lakhs children

are in classes VI and VII and 25.22 lakhs children are enrolled in classes VIII to X. For the classes IX and X, about 15.61 lakh children are enrolled in the state. It is noted that the enrolment in elementary classes is declining during four years period due to the demographic transition in the state: declining fertility and thereby the declining size of the school-age child population.

The GER in primary classes (I-V) is 100 percent and above whereas in other elementary classes i.e. class VI, VII and VIII, GER is between 87 and 97 per cent. For the secondary classes (i.e. class IX and X) the GER is between 64 and 75. The average GER of primary classes is about 107.4 per cent, for the elementary level it is around 100 per cent and for the secondary level (class IX and X) it is around 70 per cent. A gap about 30% in GER is observed between elementary level and secondary level in Karnataka.

When efficiency of the system is examined the promotion rate in primary classes is 95 per cent and above but in upper primary or higher elementary classes it between 80 and 95 per cent. The promotion rate/transition rate between last grade (class VIII) of elementary level and first grade (class IX) of secondary level is around 82.6 per cent and between the secondary classes (IX and X) the promotion rate is 85.5 per cent. The repetition rate in elementary and secondary classes seems to be constant at around 2 per cent and below. Dropout rate appears to very minimal in elementary classes but it is significantly high in secondary classes.

Access to Schooling

There are about 69273 schools in the State of which 26644 are lower primary, 30876 are middle and 11753 are high schools. It may be noted that primary schools cover classes I to V, middle schools cover classes VII and the secondary/high schools cover classes VIII to X.

In terms of coverage, there was one school with primary classes for every thousand total population and for every 127 primary school-age (6-10 years age) population and is covering 3 sq km of geographical area in the state (Table 3.4.1). With respect to school places available for upper primary classes (VI-VII), for every 1900 all-age population and 70 school-age (11-12 years age) population there is one school place and it is covering 6 sq km of geographical area. As regards the school places available for secondary classes (covering class VIII, IX and X), there is one secondary school place for every 5000 all-age population and 284 secondary school-age (13-15 years age) population and it is covering 16 sq kms of geographical area in the state. It indicates that existing schools are sufficient in number. However, for a large number children located in remote rural areas especially tribal location, the school with secondary classes are located at far away distance.

Equity

When the achievement of equity is observed from the two angles i.e. participation and learning level, it is observed the educational process in Karnataka is not following the equity norms. The number of children belonging to disadvantaged communities/sections enrolled in both the elementary and secondary classes were not in proportion to their share in the population except children of SC community. In other words, the proportion of SC children in total enrolled at both the elementary and secondary level is found to be higher than their (SCs) share in the total population whereas for the children of ST, OBC, Muslims and girls, it is below their respective share in the population.

Quality of Schooling

While improving quality of schooling both the quantitative and qualitative factors needs due attention. Quantitative factors are concerned with physical infrastructure (like number of classrooms, laboratory, library etc.,) and human resource (teachers), the qualitative factors are related to pedagogy and the learning process. It is observed in Karnataka there are a large number of school do not have necessary physical infrastructure and learning resources which will improve the quality of education. Although a large number of secondary schools are reporting availability of laboratory and library, they (such facilities) are no way meeting the standard norms. With respect to human resource, there is enough number of teachers available for secondary classes in the state. But they do not have proper in-service training facilities and professional development programmes.

Institutional Reforms in School Education

Given the status of the schools education in the state, there is a long way to go in terms of the goal of universalisation secondary education. For further improvement in the system it needs the institutional reforms. There has not been any initiative in this direction to the date in Karnataka. Therefore, there is a need for institutional reforms in the education system of the state.

Expanding Secondary Education in Karnataka: Perspective Plan (2009-20)

The primary goal of RMSA is to make secondary education of good quality available, accessible and affordable to all adolescent girls and boys of 14-15 age groups by 2020. While implementing RMSA scheme, for the state of Karnataka achieving national level targets may not be difficult. Particularly achieving GER=75% by 2012 and GER=100% by 2017. However, it has to set state specific targets of the secondary education system different from national level targets. Herein it is to be noted the present perspective plan is for expanding secondary education particularly of class IX and X only.

GER Targets

Future prospects of secondary education in the state are explored with three alternative projection models. Of the three variants of projections models of enrolment, one (Variant I) is based on the past performance and the second (Variant II) is based on the performance of the state in terms of the enrolment in elementary schooling especially that of enrolment in class VIII and the third (Variant III) is based on the RMSA norms. Besides, a simulation model also explored the future prospects of enrolment in secondary classes. Given the GER=69.5% at secondary level in the state by 2008, all the four projections models shows that achieving GER=75% by 2012 and GER=100% is not a difficult task for the state. With the initiatives under SSA, enrolment in elementary classes especially that of class VIII is promising and hence it ensures enough number of elementary graduates to enter into secondary level.

Therefore, for Karnataka, the mid-term GER targets at secondary level are 84% by 2012 and 100% by 2017. It means that the enrolment in secondary level will increase from 1.56 million in 2008 to 1.8 million by 2012 and 2.1 million by 2017. Due to the demographic transition experienced in the state, the size of secondary school-age (14/15 years) children has been continuously declining. Therefore, the enrolment in secondary classes would not more than 2.1 million. It will be possible to achieve universalisation of secondary education in Karnataka by 2020.

However, the short-term target of GER=84% by 2012 is very demanding. To achieve it would require annual growth of enrolment in secondary classes at 5 per cent particularly a large increase in the number of girls, children belonging to SC/ST/OBC/Muslim communities in a short-period, rapid reduction in dropout and repetition rate at elementary level, an increase in the transition rate, and sustained investment in new classrooms and new teachers. The new entrants in Class IX would have to increase by as much as 5% per annum in the 11th Five Year Plan period. In order to expand the secondary education in Karnataka, large-scale inputs in terms of additional secondary school places, additional classrooms and teachers, and other facilities need to be provided to meet the challenges of access, quality and credibility, and equity in the secondary education.

The projection exercise has shown that the maximum enrolment in class IX and X would not go beyond 2.1 million in Karnataka. That means it has to accommodate around 0.45 million additional enrolment in these classes by 2017. The state would need to be able to provide for schools, classrooms, teachers and classrooms to cater to this additional enrolment and create adequate infrastructure and other facilities for total enrolled children to improve the quality of education. As about 50,000 students increase per year on an average from 2008 to 2017, the state should be prepared to provide additional space and educational facility each year. The average additional number of teachers in government schools must be 1000 per year from 2008 to 2017, thus totalling to 10000 especially for the upgraded middle schools. In addition to classrooms created by strengthening and upgradation, about 15000 would be required to accommodation additional enrolment especially between 2012 and 2018, with an average of 2500 classrooms per year. It is necessary to ensure the classroom-pupil ratio 1:30 norm.

Range of Initiatives

To achieve the GER target the secondary education system has to be expanded and hence needs a range of initiatives.

To improve the access to secondary schooling, an initiative is to ensure available a secondary school within distance of 5 Km radius for every habitation in the state. In this regard, upgradation of about 2000 middle schools and opening of 74 model schools will be taken up during 11th Five Year Plan Period. Besides, strengthening of about 4000 existing secondary schools increases their capacity accommodate more number of children in secondary classes. Another initiative to improve the access is provision of free bus/train passes for the children living in distant habitation from the secondary school place.

To improve the equity, the implementation of RMSA scheme envisages the special incentive schemes for students belonging to SC/ST/OBC/minority/other weaker sections of the society to improve their enrolment. The equity will be improved by Provision of residential schools, scholarships, free hostel facilities, cash incentives, uniform, and text books for students belonging to SC,ST,OBC and minority communities; Provision residential schools, hostel facility, cash incentive, uniform, books, and separate toilets for girls. All the necessary facilities will be provided for the differently abled children in all the schools.

To improve the quality a minimum requirement of physical infrastructure and human resources will be ensured. All the schools in the state will be ensured with infrastructure like, black board, furniture, library, science laboratory, computer labs, toilet blocks; to maintain classroom-pupil ratio (CPR) 1:30 additional classrooms will be ensured. Each secondary school will be ensured with a minimum seven core-subject teachers; and in-service training of all the teachers; to ensure PTR 30:1, additional teachers will be recruited; Residential

accommodation for teachers in rural and difficult hilly areas. National Curriculum Framework (NCF) 2005 will be implemented; change in the instructional time to increase the learning opportunity time for the students; change in the pedagogic practice and innovative methods and technique will be encouraged.

Also institutional reforms are required for the expansion of the secondary education in the state include: Reforms in school governance- improve schools' performance by decentralizing their management and accountability; Adopting a rational policy of teacher recruitment, deployment, training, remuneration and career advancement; Undertaking reforms in educational administration including modernization/e-governance and delegation/de-centralization; and Provision of necessary professional and academic inputs in the secondary education system at all levels, i.e., from the school level upwards; and streamlining financial procedures for speedy flow of funds and their optimal utilization. Involvement of Panchayati Raj and Municipal Bodies, Community, Teachers, Parents and other stakeholders in the management of Secondary Education, through bodies like School Management Committees and Parent–Teacher Associations will be ensured in planning process, implementation, monitoring and evaluation. It also needs a necessary strengthening of resource institutions at various levels, SCERTs, State Open Schools, SIEMATs, etc., at the State level; and University Departments of Education, Reputed Institutions of Science / Social Science / Humanities Education, and Colleges of Teacher Education (CTEs) / Institutions of Advanced Study in Education (IASEs) funded under the centrally-sponsored Scheme of Teacher Education.

Financial Implications

For the cost estimations the perspective plan of Karnataka includes both the government and aided schools with secondary classes (IX and X) in the state. The per capita recurring expenditure per enrolled children in the secondary classes in the state based on the projected recurring costs is going to increase as the state increase the enrolment in secondary classes further. It would marginally increase (during 11^{th} and 12^{th} FYP period) from the baseline 2009 (Rs. 8900) to around Rs. 10452/- by 2012 and Rs. 11500/- by 2017.

The projected cost of expansion is well above the baseline (2008-09) level, but it is at an affordable level. The projected cost of expanding secondary education indicates that the state has to spend 1 to 0.5 per cent of its GSDP on lower secondary education (class IX and X) only. Over a period during the projection period (2009-2020) the expenditure on education as % of GSDP is declining. It seems that the state of Karnataka can afford the projected expansion in secondary education. However, the emphasis should be on modest growth in expenditure per child linked to improved quality rather than a decline in share and amount per child as a % of SGDP.

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Chapter I

Introduction

1.1 Introduction

Education is a crucial factor for the quality of the life of an individual as well as the quality of the growth of an economy. Ever since independence, however, the focus of educational programmes in India was concentrated on elementary education. As the constitutional commitment is free and compulsory education to all children up to the age fourteen, all efforts were focused on achieving the goal of universal elementary education. Secondary education had never been in the focus and all the activities were concentrated on elementary education. But the level of education beyond the elementary stage matters especially in the context of emerging knowledge based society. Elementary education lays educational foundation in an individual and basic skills but the changing technology all over the world demands the education levels beyond the elementary level. Not only the secondary and higher secondary levels improves further knowledge base and basic skills but also lays base for the vocational training courses specialised to form specific skills which are demanded in the labour market or in the industry.

While recognizing the growing importance of secondary education, the Government of India has constituted a task force on secondary education. In 2006, a CABE sub-committee on Secondary Education was constituted. As a consequence like Sarva Shiksha Abhiyan (SSA), the Department of School Education and Literacy of the Ministry of Human Resource Development (MHRD), Government of India has launched *Rastriya Madhyamic Shiksha Abhiyan* (RMSA) in 2009 with an aim to achieve Universal Access and Quality Secondary Education.

Since education is a state subject by Constitution in the Indian federal system and thereby the state governments are the policy/decision makers on this subject, the RMSA is to motivate the state government and prepare them to take up the goal of Universalisation of Secondary and Higher Secondary Education in their respective states. Unlike the Universalisation of Elementary Education which is by Constitution a mandate, the Universalisation of Secondary and Higher Secondary Education is not mandatory by Constitution but by morale and by need.

Under the RMSA the central government through the Ministry of Human Resource Development (MHRD) helps the states in mapping the secondary education system at present, approach and strategy for universalising the secondary and higher secondary education, setting the goal and targets, plan of action, programmes design and implementation and mobilising resources for all these activities. In this context, this document is to present the status and perspective plan for the secondary education in Karnataka.

At the national level the vision, aims/goals and objectives of RMSA and the approach and strategy to achieve the goal of universalisation secondary education were developed and the individual states have to develop state specific vision, aims/goals and objectives and they must comply with national level one. Therefore, the vision, aims/goals and objectives of

RMSA at the state level for Karnataka and its approach and strategy to achieve the goal of universalisation of secondary education is elaborated in this document.

1.2 Background of Karnataka

Karnataka is one of the major states located in southern part of India. The state was created in 1956 with the passing State's Reorganization Act in Parliament. The state was originally known as the stat of Mysore and latter it was renamed as Karnataka in 1973. The state covers about 191,976 sq kms of geographical areas which account 5.83 per cent that of all India. Karnataka is eighth largest state in India by area and ninth largest state in terms of population. Bangalore the capital city of the state is at the forefront of the rapid economic and technological development that India is experiencing.

Table 1.1: Administrative Units in Karnataka

Sno	Administrative Unit	Number
1	***2***	***3***
1	Divisions	4
2	Districts	30
3	CD Blocks	177
4	Panchayats	5788
5	Number of Revenue Villages	31955
6	Inhabitated Villages	27028
7	Number of Habitations/Hamlets	51533
8	Number of Urban Agglomerations	9
9	Number of Towns	130

Note: ***CD Blocks*** – Community Development Blocks.

Source: Department of Planning, Karnataka.

For administrative purpose the state of Karnataka is divided in to 4 divisions, 30 districts and 500 community development blocks (CDBs) and the state is having 5788 Panchayats. There are 327028 revenue villages of which 27028 villages are inhabited and there are 51533 habitation/hamlets, 9 urban agglomeration and 130 towns in the state.

1.2.1 Demography

According to the 2001 census of India, the total population of Karnataka is 52,850,562, of which 26,898,918 (50.89%) are male and 25,951,644 (49.11%) are female. In other words there are 964 females for every 1000 males. Size of the population in 2001 in the state registers a 17.25% increase over the population in 1991. The population density is 275.6 per sq km and 33.98% of the people live in urban areas.

By religion, 83% of the population are Hindu, 11% are Muslim, 4% are Christian, 0.78% are Jains, 0.73% are Buddhist, and with the remainder belonging to other religions.
Kannada is the official language of Karnataka and spoken as a native language by about 64.75% of the people. Other linguistic minorities in the state as of 1991 are Urdu (9.72%), Telugu (8.34%), Tamil (5.46%), Marathi (3.95%), Tulu (3.38%), Hindi (1.87%), Konkani (1.78%), Malayalam (1.69%) and Kodava Takk (0.25%).

The state has a birth rate of 2.2%, a death rate of 0.72%, and an infant mortality rate of 5.5% and a maternal mortality rate of 0.195%. The total fertility rate of the state is 2.2.

1.2.2 Economy and Development

The Karnataka Economy is one of the leading economies among all the states in the country in terms of economic development. The state's GDP at constant prices (2002-03) at Rs. 72,399 crore accounted for 5.5% of the national GDP. Karnataka Economy has witnessed a healthy 6.5% CARG in the GSDP for the ten year period 1994-2003, being the highest among the leading states in the country.

Karnataka economy is largely service oriented and income from the sector contributes half the state's GDP with the agricultural and the industrial sector contributing to nearly 25% each. The major manufacturing oriented industries in the state include: Sugar, Paper and Cement. Among the service oriented sectors, Karnataka leads the Indian biotechnology industry. IT/ITeS is another thriving industry in the state, concentrated in and around Bangalore - the silicon valley of India.

The state has a strong infrastructure base. There are 20 ports across Karnataka, the two major ones being the Mangalore port and the Karwar port. A number of national and state highways facilitate inter-city and town communication. Karnataka also has a strong railway and airport network. Karnataka is relatively more preferred destination for investments. The Karnataka Udyog Mitra is a single contact point for all investors who wish to invest in the state.

1.2.3 Human Development

It is observed that the level of human development is much higher in Karnataka (0.650) than at the all-India level (0.621). Among the major Indian states, it ranks seventh, with Kerala occupying the first place. At the international level, Karnataka's position is at 120 while India is at 127. The attainment of human development in Karnataka is more or less on par with that of Egypt and considerably above the level of Pakistan, Nepal, Bhutan and Bangladesh. It can thus be argued that the state is well placed in the context of human development in South Asia. The HDI for the state has increased from 0.541 (revised) in 1991 to 0.650 in 2001, showing a 20 per cent improvement (KHDR, 2005).

With respect gender development though the GDI in Karnataka (0.637) is much higher than the all-India figure (0.609) in 2001, Karnataka is sixth among the 15 major states in gender development and seventh in human development. At the international level, Karnataka's rank in terms of the GDI is 99th as against 103rd for the entire nation. The GDI at state level has improved from 0.525 in 1991 to 0.637 in 2001, registering an increase of 21 per cent in ten years. The pace of reduction in gender disparities, however, has been rather slow. It is only marginally higher than the increase of 20 per cent in the HDI during the same period. The values for the GDI of districts are lower than the corresponding values for the HDI (KHDR, 2005).

1.2.4 Educational Profile of Karnataka

As per the 2001 census, there were about 000 literates in Karnataka. Of the total literates 000 were males and 000 were females. The state had a literacy rate of 67.04%, with 76.29% of males and 57.45% of females in the state being literate.

In terms of educational institutions, as of March 2006 Karnataka had 54,529 primary schools with 252,875 teachers and 8.495 million students, and 9498 secondary schools with 92,287 teachers and 1.384 million students. There are three kinds of schools in the state, viz., government-run, private aided (financial aid is provided by the government) and private unaided (no financial aid is provided). The primary languages of instruction in most schools

are Kannada and English. The syllabus taught in the schools is either of the CBSE, the ICSE or the state syllabus (SSLC) defined by the Department of Public Instruction of the Government of Karnataka. The State has one Sainik School in Bijapur also.

In order to maximize attendance in schools, the Karnataka Government has launched a mid-day meal scheme in government and aided schools in which free lunch is provided to the students. State-wide board examinations are conducted at the end of the period of secondary education and students who qualify are allowed to pursue a two-year pre-university course; after which students become eligible to pursue under-graduate degrees.

There are 481 degree colleges affiliated with one of the universities in the state, viz. Bangalore University, Gulbarga University, Karnatak University, Kuvempu University, Mangalore University and Mysore University. In 1998, the engineering colleges in the state were brought under the newly formed Visvesvaraya Technological University headquartered at Belgaum, whereas the medical colleges are run under the jurisdiction of the Rajiv Gandhi University of Health Sciences. Some of these baccalaureate colleges are accredited with the status of a Deemed University. There are 123 engineering, 35 medical and 40 dental colleges in the state. Udupi, Sringeri, Gokarna and Melkote are well-known places of Sanskrit and Vedic learning. An Indian Institute of Technology Muddenahalli has been approved by the central government as part of the 11th 5 year plan. This will be the first IIT in Karnataka State. In addition, a Rs. 600 crore worth Visvesvaraya Institute of Advanced Technology (VIAT) is being constructed in Muddenahalli-Kanivenarayanapura.

The state is home to some of the premier educational and research institutions of India such as the Indian Institute of Science, the Indian Institute of Management, the National Institute of Technology Karnataka and the National Law School of India University.

1.3 Objectives of the Report

The main aim of this document is to present an overview of the status of secondary education in the state and suggests analytical frameworks and projection models that might be applied in further work and strategic plans for secondary education. The perspective framework plan (PFP) covers a time-span next thirteen years from 2009 including 11^{th} and 12^{th} Five Year Plan periods. The objectives of the document are as follows.

- The analysis is to identify gaps, and opportunities for strategic decision-making.
- To identify opportunities to develop projection models and framework plan to expand access within budget constraints.
- To develop a long-term strategic plan of action.

The exercise has identified selected indicators of access, equity and exclusion, to generate new projections of supply and demand and the magnitude of financial resources required. It is to identify the policy options to provide more access at an affordable cost. The document is useful for the decision makers and other stakeholders to consider while planning for the expansion of secondary education in the state.

1.4 Structure of the Report

The PFP document of Karnataka consists of six chapters following the executive summary of the whole plan at the beginning. The second chapter details the state level aims of the RMSA. This is followed by the state level status report on secondary education based on an analysis

of SEMIS data for 2007-08 in the third chapter. The fourth chapter contains the projection models and the cost simulations. The fifth chapter details the policy issues and options arising out of the status report and projection modelling. The sixth chapter summarises the planned outcomes and strategies to be implemented.

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Chapter II

RMSA in Karnataka
: Vision, Goal and Objectives

The current status of secondary education in Karnataka is on par with the national average and so the aims of the RMSA have to be at a more modest level than the national ones. These have been detailed below.

2.1 Vision, Aims and Objectives of State Level RMSA - Karnataka

The last two decades the state of Karnataka has witnessed remarkable progress in terms of increase in enrolment secondary schools in the state and the recruitment of new teachers to improve both the quality and access in secondary education in the state. The RMSA vision, goals and objectives have been modified to suit the state specific situation of Karnataka.

2.1.1 Vision

Provision of free access to good quality secondary education to all young persons in the age group 14 - 15 years irrespective of gender, creed, religious denomination, physical and mental disabilities and social and economic status so as to enable them to progress towards becoming socially and economically active citizens capable of contributing positively to their own holistic development and that of the state and country as a whole.

2.1. 2 Goals

- Provision of a secondary school within reasonable distance of any habitation with a maximum distance of five kilometres. If required residential schools shall be opened for girls, socially and economically weaker sections, religious minorities and sparsely populated regions.
- Ensure universal access and thereby universalisation of Secondary Education in the state where the state will reach GER of 80% by the end of the eleventh five year plan in 2012, and a GER of 100 % by end of twelfth five year plan in 2017.
- Improve the quality of education being provided in all secondary schools.

2.1.3 Objectives

i) To ensure that all secondary schools have physical facilities, staff and supplies according to the standards prescribed in the RMSA norms with special emphasis on achieving and sustaining a pupil/teacher ratio of 30, pupil/classroom ratio of 40, adequate and fully equipped laboratories, computer rooms and libraries.

ii) To provide full financial support in case of Government, Local Body and Government aided schools and also encourage public private partnership of various kinds and extent with NGOs and private providers of education.

iii) To ensure that no child is deprived of secondary education of satisfactory quality due to poverty, gender, socio-economic, disability and other barriers.

iv) To improve quality of secondary education through appropriate curriculum development, learning methodology and teachers' training.

v) Achievement of the above objectives would also imply substantial progress in the direction of the Common School System as detailed in the report of the Common School System Commission.

2.2 Approach and Strategy for Secondary Stage in Karnataka

In the context of the Universalisation of Secondary Education (USE), large-scale inputs in terms of additional schools, additional classrooms, teachers and other facilities need to be provided to meet the challenge of numbers, credibility and quality. It, inter-alia, requires assessment and provision of educational needs, physical infrastructure, human resources, academic inputs and effective monitoring of implementation of the programmes. The scheme will initially cover up to class X. Subsequently, the higher secondary stage will also be taken up, preferably within two years of the implementation. The strategy for universalizing access to secondary education and improving its quality are as under:

(a) Well-qualified trained teachers and optimal pupil-teacher ratios;
(b) A common curriculum framework with a core component with comparable syllabi applicable to all schools, but adequate flexibility in relation to textbooks, teaching aids, teaching-learning process, evaluation parameters, etc;
(c) A pedagogy which is holistic and child-friendly and which has a liberating influence and which provides appropriate knowledge and skill to the students to realize their potential and contribute to livelihoods and employability?
(d) A decentralized school management with adequate autonomy and representation of parents and
(e) A common language policy.

2.2.1 Access

Universal access to quality secondary education in Karnataka will be achieved by:

- Expansion of existing Secondary Schools by building extra classrooms and other facilities.
- Upgradation of Upper Primary Schools based on micro planning exercise with all necessary infrastructure facilities and teachers. Ashram Schools will be given preference while upgrading upper primary schools.
- A school mapping exercise to be conducted and the data digitised onto a real time GIS framework.
- Enhanced SEMIS to monitor and locate the flow of students into and through secondary school.
- Increasing the number of teachers to achieve a 30:1 pupil teacher ratio.
- Opening of new Secondary Schools in underserved areas based on the above school mapping exercise. These buildings will have mandatory water harvesting systems and will be physically challenged friendly.
- Applying norms of provision including minimum school size to expanded capacity
- Special provision for girls, SCs STs and other under-enrolled groups
- Rain harvesting systems will be also installed in existing school buildings and they too will be made disabled friendly.
- New schools will also be set up in PPP mode.

2.2.2 Quality

The quality of secondary education in Karnataka will be achieved by:

- Providing required infrastructure like, Black Board, furniture, Libraries, Science & Mathematics laboratories, Computer rooms, toilet clusters separately for boys, girls and staff and facilities for extra-curricular activities.
- Appointment of additional teachers and in-service training of teachers at PTR 30:1.

- Bridge courses for enhancing learning ability for students passing out of class VIII and seeking admission into class IX as a temporary measure whilst investing to improve quality and achievement in grades I-VIII.
- Reviewing curriculum to meet the National Curriculum Framework 2005 norms (NCERT, 2005) and ensuring that the syllabi and pedagogy are designed to derive maximum educational advantages from the presence of and provide the fullest opportunity for socialisation to the children coming from a variety of socio-economic, cultural and other backgrounds, including the dalits, tribals, religious and linguistic minorities and physically and mentally challenged children.
- Residential accommodation for teachers, especially female teachers, in rural and difficult hilly areas.

2.2.3 Equity

The following measures will be adopted to ensure equity in secondary education in the state -

- Free lodging and boarding facilities for students belonging to SC, ST, OBC and minority communities and girls as appropriate for their safety.
- Hostels and residential schools, cash incentives, uniforms, books, cycles and separate toilets for girls.
- Providing adequate scholarships to meritorious students coming from under privileged social and economic backgrounds at the secondary level.
- Special efforts will be made to provide all necessary facilities for the differently abled children in all the schools**.**
- Expansion of Open and Distance Learning will be undertaken, especially for those who cannot pursue full time secondary education, and for supplementation and enrichment of face-to-face instruction. This system will also play a crucial role in the re-enrolment of drop out children at the class eight level into the secondary school system.
- Systems will be put in place for proper assessment and monitoring of learning
- A system of cost recovery from economically more well off sections whose children attend the government school system will be combined with proactive financing of schools in socially and educationally backward areas.

2.3 Institutional Reforms & Strengthening of Resource Institutions

Institutional reforms in the delivery and management of secondary education are necessary for its improvement. The institutional reforms to be undertaken are -

- Improvement in schools' performance by decentralizing their management and accountability and the inclusion of parents representatives in management bodies.
- Adoption of a rational policy of teacher recruitment, deployment, training, remuneration and career advancement;
- Undertaking of reforms in educational administration including modernization, e-governance, delegation of authority and de-centralization;
- Provision of necessary professional and academic inputs in the secondary education system at all levels from the school level upwards
- Streamlining financial procedures and audit systems for ensuring speedy flow of funds and their optimal utilization.
- Involvement of Panchayat Raj and Municipal Bodies, Community, Teachers, Parents and other stakeholders in the management of Secondary Education, through bodies

like School Management Committees and Parent – Teacher Associations should be ensured in planning, implementation, monitoring and evaluation.

- Special Central Government Schemes shall be properly implemented -
  (i) ICT@ schools for computer education and computer aided education in secondary schools,
  (ii) Integrated Education for Disabled Children (IEDC) for main streaming the disabled children in school education,
  (iii) Strengthening of Boarding and Hostel facilities for Girl Students of Secondary and Higher Secondary Schools (Access and Equity) for providing assistance to NGOs to run Girls' Hostels in the rural areas and
  (iv) Quality improvement in schools which includes provision of assistance to State Governments for introduction of Yoga, for improvement of Science education in schools, for environment education and for population education in addition to International Science Olympiads.

2.4 Specific Targets of Expanding Secondary Education in Karnataka

The primary goal of RMSA is to make secondary education of good quality available, accessible and affordable to all adolescent girls and boys of 14-15 age group by 2020. While implementing RMSA scheme, for the state of Karnataka achieving national level targets may not be difficult. Particularly achieving GER=75% by 2012 and GER=100% by 2017. However, it has to set state specific targets of the secondary education system different from national level targets. It is targeted to achieve 85% Gross Enrolment Ratio (GER) at secondary level in the short term by 2012 and 100% GER in the mid-term by 2017. It will be possible to achieve universalisation of secondary education in Karnataka by 2020.

The proposed investments can be captured in tabular form as indicated below.

Goal	Indicators	Data Source
To make secondary education of good quality available, accessible and affordable to all adolescent girls and boys up to the age of 16 in Karnataka by 2020.	1) **Increase in the Enrolment** · Increase in the enrolment in secondary education of young people aged 14 to 15 years from · 1.56 million in 2008 to 1.8 million by 2012 to 2.1 million by 2017. 2) **GER at Secondary Level** · GER at secondary will increases from 69% in 2008 to 85% by 2012; and increase to over 100% by 2017; 3) **Enrolment share of Girls** · Enrolment shares of girls, SCs, STs and minorities in secondary classes increase in proportion to their share in the population in the state. 4) **Dropout rate at secondary level** · Dropout decreases from 20% to less than 1% by 2017. 5) **Transition rate** · Transition rate from Class VIII to IX increases from 83% in 2008 to 90% in 2012 and to 98% by 2017 6) **Promotion rate to Class X** · Promotion rate from Class IX to X increases from 85% in 2008 to 90% by 2015 and 98% by 2017. 7) **Learning levels** · Learning levels at Classes IX and X will be improved adequately and will be monitored regularly;	Household surveys; All India School Education Survey; SEMIS; NCERT quality monitoring and assessment data; Class X Examination data

Objectives	Indicators	Data Source
1 All secondary schools in the state conform to prescribed norms.	1) **Facilities -** · All schools will have space and facilities according to prescribed norms of minimum quality standards, including one classroom for every 30 students; a laboratory and library; differently abled access; separate toilets for girls. · Computer and other ICT facilities will be available in all secondary schools according to prescribed norms.	
2 Availability and access of secondary schooling to all adolescent girls and boys up to the age of 16 in Karnataka by 2020.	2) **Access -** · All habitations will have access to a secondary school within a radius of 5km except those in special circumstances. i) **Model Schools -** · Opening of 74 new model schools on KVS template by 2012. ii) **Middle School Up gradation -** · Upgradation of 2000 middle schools with 4,000 additional classrooms for secondary classes by 2012. iii) **Expanded capacity -** · Expanded capacity for 4000 existing secondary schools with 8000 additional class rooms by 2012. iv) **Girls Hostel –** · Establishment of 64 girls' hostels for secondary level girl children in EBBs by 2012. v) **Transition rate from VIII to IX -** · Transition rate improves from 83% in 2008 to 90% by 2012 and 98% by 2017. vi) **Dropout rate -** · Dropout rate at secondary level reduces from 20% in 2008 to less than 1% by 2017. vii) **Out of School Children** - · Number of out of school children of secondary school age (14-16) reduces to less than 5% of the age group by 2017.	

Objectives	Indicators	Source of Information
3 Equity through the removal of regional, gender, socio-economic and disability gaps.	**3) Equity -** · Disaggregated enrolment data for girls, SC, ST, Muslims and differently abled at the state and district level will be available. i) **Share of Disadvantaged groups in Enrolment**- · Share of girls, SCs, STs, Muslims and differently abled in enrolment at secondary level will be increased in proportion to their share in the population at the state and district level. ii) **Means-cum-Merit Scholarships** - · Provision of means-cum-merit scholarships for specific disadvantaged groups according to schedule. iii) **Incentives for Girls** - · Provision of incentives for girls (especially from disadvantaged groups, SC, ST) to promote their participation in secondary education according to schedule.	

4: Education of good quality for all students	**4) Quality –** . About 10,000 additional teachers for upgraded middle schools by 2012; i) **Pupil-Teacher ratio** (PTR) - · Pupil-Teacher ratio at secondary level improves from 37 : 1 to 35 : 1 by 2012; and to 30 : 1 by 2017. ii) **Trained Teachers** - · Percentage of trained teachers in secondary schools will increase from 80% to 100% by 2012; · Percentage of teachers receiving in-service training will be improved against annual targets by 2012; · DIETs and Colleges of Education will be strengthened to support secondary school teachers' professional development through the model schools/resource centres. iii) **Text Books** - · Availability of textbooks for all the enrolled children of secondary classes will be ensured. iv) **Teaching Learning Materials** - · Availability of teaching learning materials will be improved; · NCF 2005 will be fully implemented. vi) **Model schools** - · Model schools shall serve as pace setting institutions of excellence and also as resource centres for the professional development of secondary school teachers within each block. vi) **Others** - · Change in classroom practices as measured by time spent on task; · Student attendance rates will be improved. · Teacher attendance rates will be improved. vii) **Supervision** - · Percentage of schools having functional management committees and village education committees with reporting role in school supervision will be improved. viii) **Learning levels** - · Learning levels of Class IX and X will be improved.	

* * *

Chapter III

Status of School Education in Karnataka

In this chapter the current status of school education including both the elementary and secondary school education in Karnataka is analysed.

3.1 Data sources and limitations

The status report on school education in the state of Karnataka used the data source from the Census of India, Statistical Abstract of Karnataka, Selected Educational Statistics (SES) of Karnataka, Budget documents and data collected through the data capture formats of District Information on School Education (DISE). In fact, the NUEPA has developed a software viz., Scondary Education Management Information System (SEMIS) to prepare a baseline status report so that the planning for secondary education could be made at district level onwards. The SEMIS database while mapping secondary schools, it is having profile of schools, enrolment figures, teachers profile and infrastructure related information. However, this report utilizes DISE data in place of SEMIS data for the information related secondary schools, enrolment, teachers and others. For the present analysis of secondary level school education, DISE data is as much information as that of SEMIS. Moreover, DISE data much more validated than SEMIS and the secondary level has been covered in DISE data capture format (DCF) for last four years particularly in Karnataka.

3.2 Population

The state of Karnataka is the 8th largest state in terms of geographical area and the 8th largest state in terms of population in India. According to the Census 2001, the size of the state population was about 53.0 million which forms about 5.9 per cent of the all-India population. The projections of Registrar General of India (RGI) indicate that the state population would increase to 56.2 million in 2006 and to 59.4 million in 2011. The population of the state is projected to grow at 1.4 per cent per annum during 2001-11 and it will grow at 1.4 per cent during 2011-21 where the size of population will increase to 64.8 million in 2021.

Table 3.2.1: Growth of Population in Karnataka

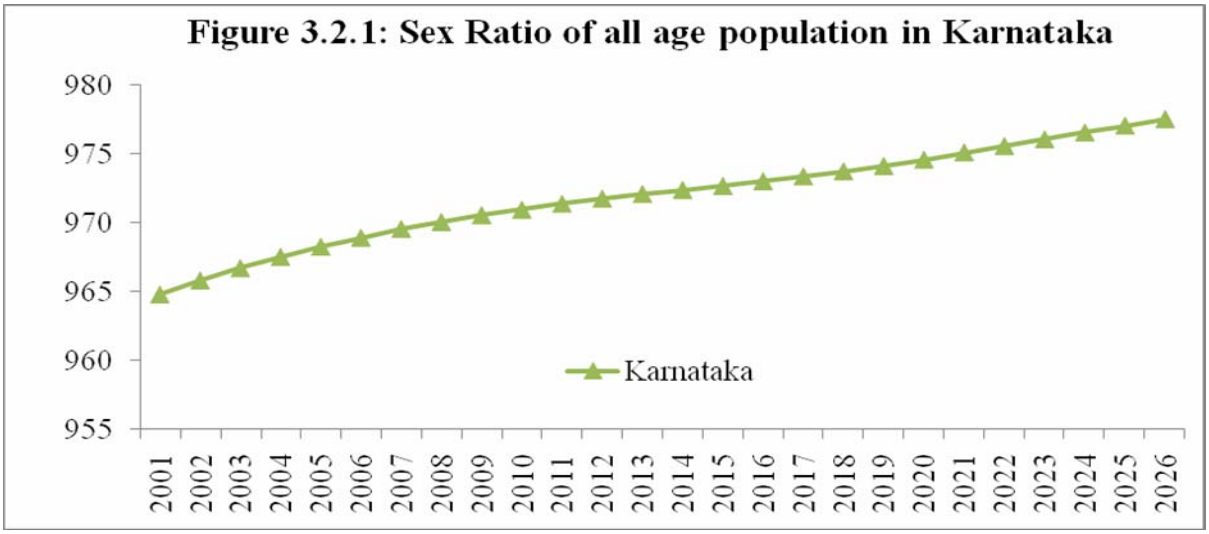
Year	Population (in Millions)				Growth				% of TP	
	Total	SC	ST	Other	Total	SC	ST	Other	SC	ST
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***
1961										
1971										
1981										
1991										
2001	52.8	8.6	3.5	40.7					16.3	6.6
2006										
2011										
2016										

Note: 1. Growth is Compound Annual Average Growth Rate (CAGR); 2. ***% of T P*** – Percentage of SC/ST in the Total Population.

Source: Census of India and RGI Projections.

Although there is a sex ratio against women, the projected population indicating improving sex ratio in the state. The female share in the total population of the state is about 49.1per cent and the sex ratio is 919 in 2001. The RGI projections indicate further decline of sex ratio against females to 965 in 2011 and 975 in 2021 (Figure 3.2.1). In terms of urbanization, about 18 million consisting of 34.1 per cent of the total population in the state are located in urban localities. Projections indicate a further increase in the urban population.

Figure 3.2.1: Sex Ratio of all age population in Karnataka



The geographical area of the state is about 191 thousand sq.kms and it accounts about 9.4 per cent of the total geographical area of India. The size of the population and the area spread in Karnataka indicate that it must be a sparsely populated state. In fact Karnataka is one of the states in India with the lowest density of population 196 per sq.kms in 2001 whereas the all India average was 313. Herein, it is to be noted that the catchment area for any public service delivery (e.g. health and education) is higher in relatively thickly populated areas than that of sparsely populated one. The number of public service delivery institution required for the sparsely population region would be more than that of the thickly populated area and thereby the cost of service delivery. Given the geographical area and the size of population, although the state has a relative advantage in terms of per capita land available per person is very high particularly when compared to any other state in India, it has a disadvantage of lowest population density especially in terms of public service delivery.

Size of the School-Age Population

The number of children in school-age group (6-15 years) by single years of age in 2001 and the projected population figure for the same is presented in Table 3.2.1. The projected figures are based on RGI projections. Population figure shows that in 2001 there are more than a million (or 10 lakh) children in each single year of age in Karnataka and the projection indicate that the size of child population will be declining after 2001. Therefore rate of growth is negative during projection period (i.e. between 2001 and 2026).

If we consider primary school-age children (6-10 age group) in Karnataka, there were about 5.7 million children in this age group in 2001 and there were about 8.1 million children in the primary and upper primary classes (I-VII) age group (6-12 years). For the elementary level classes (I to VIII), there were about 9.3 million children (6-13 year age). There were about 2 million (14-15 age) secondary school-age children (for class IX and X) in the state. As

mentioned in previous para the size child population in these age groups is continuously declining over projections period between 2001 and 2026.

Table 3.2.2: Size and growth of School-age Population in Karnataka

Year	Age of the Child									
	6	7	8	9	10	11	12	13	14	15
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***
Size of the Population (in '000')										
2001	1105	1117	1129	1139	1148	1167	1188	1192	1181	1154
2006	1032	1044	1056	1069	1083	1098	1113	1126	1136	1144
2011	978	975	979	990	1009	1027	1041	1054	1067	1081
2016	967	966	967	969	974	974	973	978	989	1007
2021	944	957	966	969	966	963	964	966	968	972
Sex Ratio										
2001	961	960	957	954	949	948	944	941	936	933
2006	958	964	966	967	962	959	958	955	952	949
2011	937	935	937	941	948	956	962	966	965	960
2016	938	936	938	936	936	936	934	935	939	944
2021	936	935	936	934	934	934	936	934	934	932
Growth (CAGR)										
2001-06	-1.4	-1.3	-1.3	-1.3	-1.2	-1.2	-1.3	-1.1	-0.8	-0.2
2006-11	-1.1	-1.4	-1.5	-1.5	-1.4	-1.3	-1.3	-1.3	-1.2	-1.1
2011-16	-0.2	-0.2	-0.2	-0.4	-0.7	-1.1	-1.3	-1.5	-1.5	-1.4
2016-21	-0.5	-0.2	0.0	0.0	-0.2	-0.2	-0.2	-0.2	-0.4	-0.7

Note: **1**. Projections are as on 1st March; **2**. ***Sex Ratio*** – number of females per 1000 males; **3**. ***CAGR*** – Compound Annual Growth Rate.

Source: RGI.

With respect to the gender dimension, the projected growth of male and female population shows a gender imbalance. Between 2001 and 2011 the rate of decline in female population in all the age groups is lower than that of the males and thereby the sex ratio will be improved. Thereafter, since 2011, the rate of growth of female population will be marginally higher than that of males so that the sex ratio worsens. Unlike the sex ratio in general population which indicates a continuous improvement from 2001 onwards, the sex ratio in the school age population will be improved for one and half decade and then it will begin to decline.

For the planning purpose it is necessary to have the social groups-wise projections with respect to the population size. However, after Census 2001 there are no readymade estimations available for social group-wise school-age population for India as well as for Karnataka.

3.3 Participation, Enrolment, and Efficiency in School Education: Karnataka

At the outset it is to be noted that unlike many other states in India, Karnataka and few other states have different structure of school education. The elementary system in these states cover class I to class VIII and the secondary education department of the government of Karnataka has the responsibility for classes eight, nine and ten so far. In India a few states like Karntaka have last grade of elementary level classes i.e. class VIII is covered under the secondary school system. The higher secondary stage at the moment in the state is mostly a part of colleges with only a few schools having provision for class eleven and twelve.

3.3.1 Number of Enrolled Children

There are 100.93 lakhs children enrolled in class I to X in Karnataka. Of this total, 55.42 lakhs children are enrolled in class I to V, 20.28 lakhs children are in class VI and VII and 25.22 lakhs children are enrolled in class VIII to X of the high school sections. It is noted that total enrolments in class I to X in the State, during 2008-09 has just crossed the 10 million mark. It is observed that in the class I to IV there is a noticeable fall at class V and class VII. The fall is clearly perceptible from class VIII to IX and class IX to X. Perhaps the up-gradation of a large number of HPS with class VII to HPS with class VIII has arrested the fall of enrolment in class VIII. The fall at the secondary stage needs better attention.

3.3.2 Gross Enrolment Ratio (GER)

School-age wise population and class-wise enrolment at elementary and secondary level and the corresponding GER is presented in Table 3.3.1. It is to be noted that the table refers to the academic year 2008-09.

Table 3.3.1: Gross Enrolment Ratio (GER) by Class and Level of Education in Karnataka

Age	Population (in '000') (2008)	Class/Grade	Enrolment (2008-09)	GER (%) (2008-09)
1	***2***	***3***	***4***	***5***
6	1009	I	1138540	112.8
7	1017	II	1126656	110.8
8	1029	III	1116428	108.5
9	1045	IV	1105383	105.7
10	1062	V	1055409	99.4
11	1076	VI	1035771	96.2
12	1089	VII	991870	91.0
13	1101	VIII	964335	87.6
14	1112	IX	831614	74.8
15	1128	X	726095	64.3
6-10	5162	Primary (I-V)	5542416	107.4
6-12	7327	Upper Primary (I-VII)	7570057	103.3
6-13	8428	Elementary (I-VIII)	8534392	101.3
14-15	2241	Secondary (IX-X)	1557709	69.5

Note: **1**. Population figures are as on 1st October 2008; **2**. Both the boys and girls.

Source: RGI Projections and DISE.

The GER figures indicate that at elementary level the GER in primary classes (I-V) is 100 percent and above whereas in other elementary classes i.e. class VI, VII and VIII, GER is between 87 and 97 per cent (Table 3.3.1). For the secondary classes the GER is between 64 and 75. The educational level wise consolidated GER shows that in primary classes, it is about 107.4 per cent and for the elementary level it is around 100 per cent. But the consolidated GER is only around 70 per cent for the secondary classes (IX and X). There is a huge gap (30%) in GER between elementary level and secondary level in Karnataka. Therefore there is a need to improve the GER at secondary level in the state.

3.3.3 Efficiency of School Education: Wastage and Stagnation

For the education system efficiency means maximization of educational outcomes like primary and secondary completion rates, universalisation of elementary and secondary education, enrolment in higher education etc., with respect to investments made in the

system. In education it is 'internal efficiency' that is most concerned with the internal flow of pupil from one grade to another over academic calendar years within the educational cycle and the transition from one level to another. There are different indicators in use to measure the internal efficiency of education system.

The promotion rate is an indicator to measure grade-to-grade transition or flow rate of the education system. The promotion rate is a percentage of children promoted to a class (i.e. X) in a school year (2008-09) to the total enrolment of immediate previous class (i.e. IX) in the previous school year (2007-08). The repetition and dropout rates are indicators of grade-to-grade flow rates of the educational system. They indicate the stagnation and wastage in the system where the minimization of which increases the efficiency. Repetition rate is the percentage of repeaters in the current school year in a grade to the previous school year's total enrolment in the same grade.

Table 3.3.2: Efficiency of School Education in Karnataka: Promotion, Repetition and Dropout Rates

Class/Grade	Enrolment (2007-08)	Enrolment (2008-09)	Repeaters (2008-09)	Promotion Rate %)	Repetition Rate (%)	Dropout Rate (%)
1	***2***	***3***	***4***	***5***	***6***	***7***
I	1138540	1154715	23304	97.3	2.0	0.7
II	1126656	1127594	19831	97.2	1.8	1.1
III	1116428	1113590	18709	93.6	1.7	4.7
IV	1105383	1062397	17421	97.1	1.6	1.3
V	1055409	1094494	21176	96.2	2.0	1.8
VI	1035771	1034935	19235	96.9	1.9	1.2
VII	991870	1017728	14077	90.5	1.4	8.0
VIII	964335	921164	23058	82.6	2.4	15.1
IX	831614	815920	19792	85.5	2.4	12.2
X	726095	726931	16315	66.3	2.2	31.5
Primary (I-V)	5542416	5552790	100441	96.3	1.8	1.9
Upper Primary (I-VII)	7570057	7605453	133753	95.6	1.8	2.7
Elementary (I-VIII)	8534392	8526617	156811	93.9	1.8	4.2
Secondary (IX-X)	1557709	1542851	36107	75.9	2.3	21.8

Note: **1**. Both the boys and girls.

Source: DISE.

All the three proxy indicators measuring internal efficiency of schools education in Karnataka are presented in Table 3.3.2. In Karnataka, the promotion rate in primary classes is 95 per cent and above but in upper primary or higher elementary classes it between 80 and 95 per cent. The promotion rate/transition rate between last grade (class VIII) of elementary level and first grade (class IX) of secondary level is around 82.6 per cent and between the secondary classes (IX and X) the promotion rate is 85.5 per cent. The repetition rate in elementary and secondary classes seems to be constant at around 2 per cent and below. Dropout rate appears to very minimal in elementary classes but it is significantly high in secondary classes.

3.3.4 Management wise Enrolment in Elementary and Secondary Classes

Overall enrolments in the State and in the Department of Education have marginally decreased during the period 2007-08 to 2008-09 at 1st standard, at LPS 1 to 5 HPS 1 to 7/8 and 1 to 10 standards. Enrolments at 1st standard have marginally declined – overall in all management except in private unaided schools; the overall declined being a phenomenon of

population deceleration. There is a decrease of 26000 students during the reference period while the enrolment at 1st standard in the State is 11.38 lakhs and it is 7.02 lakhs in the Department of Education. Proportion of enrolment at 1st standard in the Department of Education is 61.69 percent of the total enrolments in the State. Enrolment in 1 to 5 lower primary schools has marginally decreased from 55.97 lakhs to 55.43 lakhs.

Table 3.3.3: Enrolments in schools by Management in Karnataka (in Lakhs)

Management	Year	I	I to V	IV to VIII	I to VII	I to VIII	I to X	IX-X
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
Education Dept	2006-07	7.69	38.48	18.73	53.05	57.21	63.31	-
	2007-08	7.59	37.47	18.84	51.74	56.31	62.63	6.3
	2008-09	7.02	35.62	18.01	48.96	53.63	60.01	6.4
SW+LB	2006-07	0.11	0.49	0.36	0.7	0.86	1.13	-
	2007-08	0.08	0.39	0.34	0.59	0.73	0.95	0.2
	2008-09	0.06	0.30	0.42	0.58	0.72	0.91	0.2
Aided	2006-07	0.9	4.66	4.69	6.8	9.34	14.35	-
	2007-08	0.87	4.48	4.47	6.5	8.95	14.04	5.1
	2008-09	0.83	4.38	4.73	6.39	9.10	14.39	5.3
Unaided	2006-07	3.15	13.38	6.01	17.36	19.39	23.08	-
	2007-08	3.01	13.2	6.09	17.23	19.28	23.08	3.8
	2008-09	3.40	14.78	6.50	19.25	21.28	24.87	3.6
Others	2006-07	0.05	0.23	0.17	0.35	0.4	0.5	-
	2007-08	0.09	0.43	0.22	0.61	0.66	0.75	0.1
	2008-09	0.07	0.35	0.25	0.52	0.60	0.74	0.1
Total	2006-07	11.90	57.24	29.96	78.26	87.2	102.37	-
	2007-08	11.64	55.97	29.96	76.67	85.93	101.45	15.5
	2008-09	11.38	55.43	29.91	75.70	85.33	100.92	15.6

Note: SW – Social Welfare; LB – Local Body.

Source: DISE 2006-07, 2007-08 and 2008-09.

Enrolment in class I to VII higher primary schools has marginally decreased from 76.67 lakhs to 75.70 lakhs. Enrolment at the 8 to 10 high school stage has marginally decreased from 101.45 lakhs to 100.92 lakhs. Enrolments have declined at all stages in schools of the Department of Education. Enrolments at 6 to 8 standards have marginally appreciated at the Higher Primary Stage under all managements except at the Department of Education. There appears to be a marginal lateral shift from the schools of the Department of Education towards private unaided and aided schools. Proportion of children in 1 to 5, 6 to 8, 1 to 7 and 1 to 10 stages in the schools of the Department of Education are 64.26, 60.21, 64.68 and 60.05 percent respectively, has a proportion of total enrolments at these stages in the State.

3.3.5 Gender Parity in Enrolment

When Gender Parity differentials between 2007-08 and 2008-09 across all levels / stages of schooling in the State are compared, it is observed that the Gender Parity indicator has almost remain stationary between the two years 2007-08 and 2008-09 as the parity figures are 48.26 and 48.27 for the two years respectively. There is no negative and reverse trend can be a sigh of relief, though not of satisfaction. Gender Parity has increased in the private unaided schools at all stages and marginally in private aided schools. This trend in contrast to the gender parity record between the years 2006-07 and 2007-08.

While the state recorded a decrease of 53000 students in 1 to 10 standards, overall, the decrease in regard to girls enrolment is 25000. The decrease in 1st standard at the State level

is 26000, in case of Girls it is 12000. However it is also noted that gender equity is not a perfect uno numero.

Table 3.3.4: Proportion of Children pursuing their studies with various Mediums of Instruction in Karnataka, 2008-09

Medium of Instruction	Kannada	English	Urdu	Tamil	Telugu	Marati	Hindi	Others
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
Total Enrolments (%)	75.39	16.17	5.36	0.31	0.25	2.03	0.39	0.11
Secondary Enrolment (%)	77.69	17.29	2.87	0.03	0.08	1.92	0.11	0.00

Note: Total enrolment includes class 1 to 10 and secondary enrolment consists of class 9 and 10.

Source: DISE.

Table 16 reveals that 16.17 percent of children enrolled in schools are studying through the English Medium. As per population census, proportion of people whose mother tongue is English is far below this percentage. Hence it is understood that either children whose mother-tongue is not Kannada and at the same time facility for schooling in their mother-tongue is not available at their place of stay or others who do not prefer to pursue their studies in their mother tongue may opt for English as Medium of Instruction. It is also noted that the proportion of children pursuing their studies through English as Medium of instruction was 10.40 percent during 2007-08 while it is increased by 5.77 percent children. This difference is contributed by 5.63 percent of Kannada Medium children, 0.66 percent of Urdu Medium children. There is a insignificant decline of children of from other media of Instruction also in favour of English Medium Schools.

Table 3.3.5: Enrolment in School Education in Karnataka by Social Category

Social Category	Enrolment in Number			Enrolments in percentages		
	Boys	Girls	Total	Boys	Girls	Total
1	***2***	***3***	***4***	***5***	***6***	***7***
Total Enrolments 1st to 10th (in lakhs)						
Scheduled Castes	9.89	9.11	19.00	18.94	18.70	18.82
Scheduled Tribes	4.07	3.72	7.79	7.79	7.64	7.72
Other Backward Castes	26.17	25.07	51.24	50.11	51.46	50.77
General	12.09	10.81	22.90	23.15	22.19	22.69
Muslims (Separately)	6.96	7.00	13.96	13.33	14.37	13.83
Other Minority (Separately)	1.43	1.35	2.78	2.74	2.77	2.75
Total	**52.22**	**48.71**	**100.93**	100.00	100.00	100.00
Secondary Enrolment: IX-X (in lakhs)						
Scheduled Castes	1.4	1.2	2.6	17.2	16.4	16.8
Scheduled Tribes	0.6	0.5	1.1	7.1	6.5	6.8
Other backward Castes	2.4	2.3	4.7	30.2	30.6	30.4
General	2.5	2.3	4.8	31.4	30.4	30.9
Muslims (separately)	0.9	0.9	1.8	10.7	12.6	11.6
Other Minority (separately)	0.3	0.3	0.5	3.4	3.6	3.5
Total	8.1	7.5	15.6	100	100	100

Note: Categories included in other Backwards castes are: OBC, Category 1, Muslims, Other Minorities.

Source: DISE.

If the enrolment of boys in class I to V is compared with that of girls, the Gender Parity, a ratio of 0.937 gets on surface. Likewise, this ratio works out to be 0.925 for 1st to 10th standards. It is clear that the index of gender parity is more than 0.9. This is a welcome development, as compared with national level update. The Department is on the right path in

reducing sex-wise disparities in enrolments, through there is a need for intensifying the efforts in future.

Table 3.3.6: Distribution of SC/ST Students in Schools of Karnataka by Management (in lakhs), 2008-09

Levels	Category	Education Dept		SW + LSG		Pvt. Aided		Pvt. Un-Aided		Others		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***	***12***	***13***	***14***
LPS	SC	8.45	77.74	0.09	0.83	0.87	8.00	1.42	13.06	0.05	0.46	10.87	100
	ST	3.60	80.36	0.08	1.79	0.23	5.13	0.56	12.50	0.01	0.22	4.48	100
HPS	SC	2.88	76.19	0.09	2.38	0.38	10.05	0.40	10.58	0.02	0.53	3.78	100
	ST	1.22	79.74	0.04	2.61	0.11	7.19	0.15	9.80	0.01	0.65	1.53	100
Total LPS (1^{st} to 7^{th})	SC	11.33	77.34	0.18	1.23	1.25	8.53	1.82	12.42	0.07	0.48	14.65	100
	ST	4.82	80.20	0.12	2.00	0.34	5.66	0.71	11.81	0.02	0.33	6.01	100
High Schools (8^{th} to 10^{th})	SC	2.19	50.34	0.11	2.53	1.40	32.18	0.63	14.48	0.03	0.69	4.35	100
	ST	0.96	53.93	0.03	1.69	0.55	30.90	0.23	12.92	0.01	0.56	1.78	100
Class 9 and 10	SC												
	ST												
Total	SC	13.52	71.16	0.29	1.53	2.65	13.95	2.45	12.89	0.10	0.53	19.00	100
	ST	5.78	74.20	0.15	1.93	0.89	11.42	0.94	12.07	0.03	0.39	7.79	100

Note:

Source: DISE.

Percentages of enrolment of Scheduled Caste and Scheduled Tribe children out of a total enrolment of all children in 1 to 10 Standards during 2008-09 are 18.82 and 7.72 respectively.

Enrolments of SC/ST at Elementary Stage

There are 55.42 lakh children who are studying in the lower primary stage of 1^{st} to 5^{th} standards. This stage included enrolments in 1^{st} to 5^{th} standards in 1^{st} to 5^{th} lower primary and 1^{st} to 7^{th} or 1^{st} to 8^{th} higher primary schools as well as 1^{st} to 10^{th} high schools or 1^{st} to 12^{th} higher primary schools [see TABLE 15]. Like-wise, there are 20.28 lakh children in 6^{th} & 7^{th} standards, in the State. They may be distributed in HPS / HS or HSc schools.

It may be observed from Table 21 that there are 20.66 lakh children from the SC/ST categories among 75.01 lakh children in 1^{st} to 7^{th} standards in the State. Of them, 14.65 lakh are SC while 6.01 lakh are ST students. That is, the proportion of SC/ST children in 1^{st} to 7^{th} standards in the State is 27.04 percent. 20.66 lakh children from SC/ST categories are in 1^{st} to 7^{th} standards in the system of schooling in the State. An analysis of location of these 20.66 lakh children in the schools of the State by management reveals that 77.34 percent of SCs and 80.20 percent of STs in 1^{st} to 7^{th} standards are in schools run by the Department of Public Instruction. Proportion of SC/ST students in State and State supported schools, that is schools run by Education Dept, by Department of Social Welfare, Local Self Government Institutions and Private Aided Institutions is 87.32 percent. SC/ST proportion in un-aided schools of the State at 1^{st} to 7^{th} standards is quite low as they cannot afford to pay fees charged by such institutions. Their total proportion is just 12.24 percent.

Enrolments of SC / ST at High Schools Stage

There are 25.22 lakh children (Table) in 8^{th}, 9^{th} & 10^{th} standards in the State. 4.35 lakh SCs and 1.78 lakh STs are out of this total constituting 6.13 lakh children or 24.31 percent. Analysis of distribution of SCs and STs in high school stage by management reveals that

50.34 percent of SCs and 53.93 percent of STs are in high schools belonging to the Department of Education.

3.4 Number of School Places in Karnataka

School is the fundamental and a foundational unit of an educational system. Number of schools is indicative of the size of a system. There are about 69273 schools in the State of which 26644 are lower primary, 30876 are higher primary and 11753 are high schools.

The ratio between lower and upper primary schools is one to two (1**:**2)**;** likewise the ratio between upper primary and high schools is 1:2.6. The ratios indicate that given the number of schools available for lower classes/sections, the number of school places available for the higher classes/sections are sufficient in Karnataka. It is to be noted that all the schools with upper primary classes/sections in Karnataka are having primary classes/sections as well. Therefore, while counting number of schools for lower primary classes/sections both the primary only schools and those with primary and upper primary classes/sections are taken into account. Moreover, all the high school places in Karnataka are having class VIII, IX and X.

To examine the adequacy of school places available for, we have considered three indicators i.e. number of schools places per lakh total population (AAP –all age population) and per lakh school-age population (SAP), and per thousand geographical area. The other way round we have considered is coverage in terms of on an average one school is covering how much of total population, school-age population and geographical area.

Table 3.4.1: Number of School Places and their Coverage in Karnataka, 2008-09

Sno	Details	Total Schools	Per lakh Population		Per 1000 Sq. Km. of GA	Coverage: one school covering		
			AAP	SAP		AAP	SAP	GA
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
1	LPS	26644	46	516	138.8	2174	194	7
2	UPS	30876	53	1426	160.8	1876	70	6
3	***Total ES***	***57520***	***99***	***785***	***299.6***	***1007***	***127***	***3***
4	HS	11753	20	352	61.2	4929	284	16
5	Total	**69273**	120	649	360.8	836	154	3

Note: 1. ***LPS*** – Lower Primary Schools; ***UPS*** – Upper Primary School; ***ES*** – Elementary Schools (including all schools with primary and/or upper primary sections/classes); ***HS*** – High Schools (with classes VIII, IX and X); **2.** ***AAP*** – All Age Population; ***SAP*** – School Age Population; ***GA*** – Geographical Area; **3**. For the school age population (SAP) - 6-10 age group for LPS, 11-12 age for UPS, 6-12 age for ES, and 13-15 age for HS are considered.

Source: DISE.

It may be observed that there were 46 schools with primary sections only (covering class I to V) and 53 schools with primary and upper primary sections (covering class I to VII) per lakh population (AAP) in the state (Table 3.4.1). Together, there were 99 schools with elementary classes/sections per lakh population. Whereas there were only 20 high schools (covering class VIII, IX and X) per lakh population in the state. When we consider schools per lakh schools age population, there were 516 schools with primary classes only (I-V) per lakh primary school-age (6-10 years age group) population. But the total number of schools available for primary classes includes both LPS and UPS so that the number of schools per lakh 6-10 age group population is 785. The number of school places with upper primary classes (VI and VII) were 1426 per lakh population with respect to upper primary school-age (11-12 age

group) population, it appears to be very high. For the high school-age population (13-15) number of high school places available per lakh school-age population is 352.

In terms of coverage, there was one school with primary classes for every thousand total population and for every 127 primary school-age (6-10 years age) population and is covering 3 sq km of geographical area in the state (Table 3.4.1). With respect to school places available for upper primary classes (VI-VII), for every 1900 all-age population and 70 school-age (11-12 years age) population there is one school place and it is covering 6 sq km of geographical area. As regards the school places available for secondary classes (covering class VIII, IX and X), there is one secondary school place for every 5000 all-age population and 284 secondary school-age (13-15 years age) population and it is covering 16 sq kms of geographical area in the state.

When we examine the average size of the school place in Karnataka in terms of enrolment, it shows that the average enrolment of primary classes to the school places covering primary classes in Karnataka is 132, and for the upper primary school places the average size of enrolment in upper primary classes is 66. The average size of enrolment in secondary classes (including class VIII, IX and X) per a high school is 210. It means that if we keep 1:30 classroom-pupil ratio (CPR), the enrolment in all three secondary classes (VIII, IX and X) must be arranged into 7 to 8 sections. In other words there must be, on an average, 7 to 8 sections per high/secondary school in Karnataka.

If we consider secondary classes IX and X only, the average size of enrolment per a high school is 131 only. This average size of enrolment in class IX and X may be arranged into 4 to 5 sections while taking into account 1:30 CPR. It means that in Karnataka, on an average, there must be 4 to 5 sections for secondary classes (IX and X) per a high school. The average size of enrolment in class IX and X indicates there is a scope to increase the enrolment in these classes in the existing high school places.

3.4.1 Number of School Places in Karnataka by Management

Schools have been classified under 5 heads as: Management-wise, Standards of Instruction Covered (LPS / HPS / High Schools), Location (Rural / Urban), Medium of Instruction, Sex-wise (Girls only / Boys only / Co-Education). Schools in Karnataka are run by 17 types of Managements. Some of the prominent types may be mentioned here. They are: Department of Education, Department of Social Welfare, Local Self-Government Institutions, Private Aided, Private Un-Aided, and Others (Jawahar Navodaya, Central, Sainik, NRI, Madarasas, Arabic, etc.,). Schools run by the Department of Education, Department of Social Welfare and by the Local Self Government Institutions are classified as State Government Schools.

More than 1 out of every 6 elementary schools in the State either are run by the Government or supported by the Government. Nearly 4 out of 5 are directly managed by the Government. Nearly 9 out of 10 lower primary schools are managed by the Government. It is only at the high school level that private participation is considerable. Still it is observed that 3 out of 4 high schools are either managed or supported by the Government.

The proportion of schools in rural and urban areas out of the total number of schools of all managements in the State are 76.98 and 23.02 percent respectively. There is a marginal gain of 1.92 percent schools from rural to urban areas during the year.

A comparison of availability of facilities for lower primary, higher primary and secondary education reveals that their proportions in rural areas are 88.74, 72.89 and 61.06 percent respectively. This data indicates that there is a greater need for secondary schools in rural areas.

Table 3.4.2: Number of School Places in Karnataka by Management, 2008-09

Sno	Details	Edn Dept	SW + LSG	Aided	Unaided	Others	Total
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***
1	Lower Primary Schools	23500	196	272	2653	23	26644
2	Higher Primary Schools	21976	358	2177	6217	148	30876
3	**Total Primary Schools**	**45476**	**554**	**2449**	**8870**	**171**	**57520**
4	High Schools	4142	245	2997	4245	124	11753
5	**Total Schools**	**49618**	**799**	**5446**	**13115**	**295**	**69273**

Note: 1. Edn Dept – School managed by Department of Education; SW = Social Welfare; LSG = Local Self Government Institutions; Others include Sainik / Navodaya schools etc.

Source: DISE.

There are 15,947 schools in urban areas of which 11,370 and 4,577 are elementary and high schools respectively. About 42.10 percent of elementary schools in urban areas belong to the Department of Education while the proportion of aided schools is 13.05 percent. 44.74 percent of schools are constituted by un-aided and other category schools. In case of high schools, proportions of schools in urban areas that belong to Department of Education, Aided, Un-Aided and others categories are 14.64, 32.42 and 52.94 respectively. It is noted that while a high proportion of elementary schools are run in urban areas by the department of education, a high proportion of high schools in urban areas is run by private un-aided managements.

Table 3.4.3: Schools in Urban Areas by Management in Karnataka, 2008-09

Level	Edn Dept	SW + LSG	Aided	UnAided	Others	Total
1	***2***	***3***	***4***	***5***	***6***	***7***
LPS	1723	59	130	1076	12	3000
HPS	3064	101	1354	3767	84	8370
Total Schools (LPS+HPS)	4787	160	1484	4843	96	**11370**
High Schools	670	93	1152	2583	79	4577
Total Schools	**5457**	**253**	**2636**	**7426**	**175**	**15947**

Note: 1. Edn Dept – School managed by Department of Education.

Source: DISE.

It is observed that while the figure of total schools in urban areas was 14409 during 2007-08 while the corresponding figure for 2008-09 is 15947. The increase in urban areas between the 2007-08 and 2008-09 is 1,538 schools, which works out to be 9.65 percent. It is noted that there is an increase of 1,684 schools, 17.39 percent at the elementary level while there is a decrease of 146 high schools, 3.09 percent, at the secondary school level.

There are 53326 schools in rural areas of which 46150 are elementary schools and 7176 are high schools. 88.81 percent of total number of schools in rural areas belongs to the Department of Education while private aided and private un-aided schools constitute 5.26 and 10.67 percent respectively. In case of high schools 48.38 percent of such schools in rural areas belong to the Department of Education while the proportions for aided and unaided managements are 25.70 and 23.16 respectively. It is to be noted that a great majority of schools in rural areas are managed by the Department of Education.

Table 3.4.4: Schools in Rural Areas by Management in Karnataka

Level	Edn Dept	SW + LSG	Aided	UnAided	Others	Total
1	***2***	***3***	***4***	***5***	***6***	***7***
LPS	21777	137	142	1577	11	23644
HPS	18912	257	823	2450	64	22506
Total Schools (LPS+HPS)	**40689**	**394**	**965**	**4027**	**75**	**46150**
High Schools	3472	152	1845	1662	45	7176
Total	**44161**	**546**	**2810**	**5689**	**120**	**53326**

Note: 1. Edn Dept – School managed by Department of Education.

Source: DISE

Even though the proportion of schools run by the Department of Education in the State is 88.81 percent it goes upto 92.10 percent in case of lower primary schools. The participation of private players both in regard to aided and unaided managements is quite low in rural areas. It is marginally visible only in case of high schools which are normally located in big villages. It is clear that commercial designs overweigh concerns of rural development among private players.

3.4.2 Tally of Schools in the State 2007-08 to 2008-09

There have been increases in number of schools in the state at all levels in the Department of Education. This incidence of increase is 19.87 percent at the high school stage and this is the highest incidence. There have been decreases in number of private unaided schools in the state at all levels. This decrease is highest at the lower primary stage the decrease being 14.11 percent. There have been 3.64 percent 10.5 percent increases at LPS and high school stages in private unaided schools. In total there is an increase of 1.04 percentages of schools in this sector.

Table 3.4.5: Management wise number of schools in Karnataka 2006-07 to 2007-08

Year	Management	LPS	HPS	Total	HS	Grand Total
1	***2***	***3***	***4***	***5***	***6***	***7***
2006-07	DOE	24547	19807	44354	3452	47806
	AIDED	326	2173	2499	2633	5132
	UNAIDED	3243	5468	8711	4133	12844
2007 – 08	DOE	24877	19972	44849	4138	48987
	AIDED	280	2128	2408	2820	5228
	UNAIDED	3361	5050	8411	4567	12978
2008 – 09	DOE	23500	21976	45476	4142	49618
	AIDED	272	2177	2449	2997	5446
	UNAIDED	2653	6217	8870	4245	13115

Source: DISE 2006-07 2007-08 & 2008-09.

The Department of Education the Private Aided Schools and the Private Unaided Schools are the major players in the field of education in the State. They are subjected to comparative analysis herein. Decreases in number of schools are observed under all the managements at the lower primary stage. This is because LPS during 2007-08 might have got upgraded as HPS during 2008-09. Data in case of HPS schools confirm this. Highest gain of 10.30 percent during the year across all stages of schools is recorded by the DoE at the HPS stage. The private unaided schools have experienced a decrease at the high school stage while quite a number of private unaided schools were brought under grant-in-aid during 2008-09. Overall the gain in number of schools inclusive of all schools is 1.29 percent 4.17 percent and 0.01 percent respectively across DoE Aided and Unaided managements.

3.4.3 Schools by Medium of Instruction

Majority of students are pursuing their studies in schools which have adopted Kannada English Urdu Marathi Telugu and Tamil as Medium of Instruction. Information about number of schools by the Medium of Instruction adopted by them is given in the following tables.

Table 3.4.6: Schools in Karnataka by Medium of Instruction

Category	Medium of Instruction						
	Kannada	English	Urdu	Tamil	Telugu	Marathi	Hindi
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***
Number of Schools							
LPS	23562	346	2237	48	41	404	22
HPS	25924	3424	2141	133	66	656	112
High Schools	8407	2740	345	6	19	226	77
Total	**57893**	**6510**	**4723**	**187**	**126**	**1286**	**211**
Percentage							
LPS	88.38	1.30	8.39	0.18	0.15	1.52	0.08
HPS	79.87	10.55	6.60	0.41	0.20	2.02	0.35
High Schools	71.13	23.18	2.92	0.05	0.16	1.91	0.65
Total	**81.61**	**9.18**	**6.66**	**0.26**	**0.18**	**1.81**	**0.30**

Note:

Source: DISE.

The figures of total schools in this table may not tally with the figure of total schools in the State as given in Table 4. This is because of the possibility of a school adopting more than one medium of instruction.

Table 3.4.7: Details of Schools for Boys only Girls only and Co-Education in Karanataka

Sno	Type of School	Type			
		Total	Boys only	Girls only	Co-Education
1	***2***	***3***	***4***	***5***	***6***
1	LPS	26644	39	86	26519
2	HPS	30876	497	692	29687
3	High Schools	11753	169	570	11014
Total		**69273**	**705**	**1348**	**67220**

Note:

Source: DISE.

Around 97 percent of schools in the State practice co-education. Single sex schools are hardly 3 percent in proportion of which 2 percent are girls – only schools. This practice of co-education is popular in both rural and urban areas.

3.5 Teachers in the System

There were 193600 teachers (sanctioned) in 2007-08 in Department of Education of the state. This figure increased to 200621 during 2008-09 an increase of 7021 posts. Likewise this figure increased from 35732 to 39727 in the state at the high school stage. There were 13264 vacancies of teachers during 2007-08 while it got reduced 11503 during 2008-09. The percentage of gap between sanctioned and working posts got reduced from 6.85 during 2007-

08 to 5.73 during 2008-09 even after absorbing 7021 additional posts during 2008-09. Around 1581 additional posts for sanction for private aided schools during 2008-09.

Table 3.5.1: Number of Sanctioned Teachers in Karnataka at LPS / HPS / HS

Management	LPS 1 to 5	HPS 1 to 7/8	LPS + HPS	High Schools	Total
1	***2***	***3***	***4***	***5***	***6***
DoE	52414	148207	200621	39727	240348
%	80.29	66.02	69.24	36.81	60.44
SW	566	2136	2702	1527	4229
%	0.87	0.95	0.93	1.42	1.06
LB	92	367	459	527	986
%	0.14	0.16	0.16	0.49	0.25
Total Govt.	**53072**	**150710**	**203782**	**41781**	**245563**
%	81.30	67.14	70.33	38.72	61.75
Aided	1082	18382	19464	28139	47603
%	1.66	8.19	6.72	26.08	11.97
Un-aided	11033	53073	64106	35883	99989
%	16.90	23.64	22.12	33.25	25.14
Others	93	2319	2412	2109	4521
%	0.14	1.03	0.83	1.95	1.14
Total	**65280**	**224484**	**289764**	**107912**	**397676**

Note: 1. DoE – Department of Education; SW – Social Welfare; LB – Local Body.

Source: DISE.

The number of vacant posts of teachers has declined from 16875 during 2007-08 to 16172 during 2008-09 at the elementary stage across DoE SW+LB and Aided schools. 3995 additional posts of teachers for sanctioned at the high school stage during 2008-09. There was already a gap of 5273 teachers that is the difference between sanctioned posts and working teachers during 2007-08 after fresh recruitment of teachers during 2008-09 by the department of education at the high school stage. The number of vacancies stood at 5794. However the percentage a gap between sanctioned and working teachers at the high school stage in department of education decreased from 14.76 percent to 14.58 percent even with absorption of 3995 additional sanctions during 2008-09. The government sanctioned 3309 additional teachers to private added schools with this increase and fresh recruitment for added schools, the percentage of gap between sanctioned posts and working teachers at the high school stage increase marginally from 12.07 percent during 2007-08 to 14.55 percent during 2008-09. Salary and other allowances from the state treasury was met for 266737 teachers working in government and aided schools during 2008-09. Such expenditures have been met for 230885 teachers during 2007-08. An additional 35852 teachers came under government support during 2008-09.

Number of teachers who are working at the lower primary higher primary and high school stages in the schools of the Department of Education are 49365 139753 and 33933 respectively. In sum 223051 teachers are working in the Department of Education.

Nearly 3 out of every 5 teachers working in the State therein including all levels of schooling belong to the Department of Education. If a tally is taken of only Elementary School level teachers this percentage goes up to nearly 7 out of 10 teachers. If a tally of proportion of teachers for paid by the government that is Department of Education plus schools run by the Department of Social Welfare and Local Bodies along with private schools getting grant in aid are considered then the proportion of teachers maintained by is nearly 75 percent of the

elementary level and 62 percent at the High School level. Teacher Pupil ratios are in a satisfactory state in Government schools. This ratio is below 24.40 at the elementary schools. Still variations in this ratio are observed across districts of the state blocks within districts and schools within blocks. For instance this ratio is 1**:32.36** in Koppal district while it is 1**:**15.51 in Chikmangalur district. A process of rational deployment of teachers is in progress so as to set right such imbalances in teacher pupil ratios.

Table 3.5.2: Number of Working Teachers in Karnataka at LPS / HPS / HS

Management	LPS 1 to 5	HPS 1 to 7/8	LPS + HPS	High Schools	Total
DoE	49365	139753	189118	33933	223051
%	78.93	65.20	68.30	34.24	59.32
SW	457	1815	2272	1305	3577
%	0.73	0.85	0.82	1.32	0.95
LB	103	345	448	380	828
%	0.16	0.16	0.16	0.38	0.22
Total Govt	**49925**	**141913**	**191838**	**35618**	**227456**
%	79.83	66.20	69.28	35.94	60.49
Aided	815	14421	15236	24045	**39281**
%	1.30	6.73	5.50	24.26	10.45
Un-aided	11708	55973	67681	37603	**105284**
%	18.72	26.11	24.44	37.94	28.00
Others	92	2047	2139	1840	**3979**
%	0.15	0.95	0.77	1.86	1.06
Total	**62540**	**214354**	**276894**	**99106**	**376000**

Note: 1. DoE – Department of Education; SW – Social Welfare; LB – Local Body.

Source: DISE.

Table 3.5.3: Number of Working Teachers at Elementary Level in Karnataka by Management

Management	**No. of Students**	**No. of Teachers working**	**PTR**
1	***2***	***3***	***4***
DOE	4895772	189118	26
SW+LB	58134	2720	21
AIDED	639276	15236	42
UN- AIDED	1924771	67681	28
OTHERS	52104	2139	24
TOTAL	**7570057**	**276894**	**27**

Note: 1. DoE – Department of Education; SW – Social Welfare; LB – Local Body; 2. PTR – Pupil Teacher Ratio.

Source: DISE

There being one teacher for every 26 students in the Department of Education these ratios are observed to be 42 and 28 in private aided and unaided schools.

TPR for Sanctioned Teachers

Lower primary schools (1 to 5)

The average TPR for the state is being 17.40, a total of 16 districts record an average higher than the state average. Highest TPR is observed in Gulbarga district (28.51). Lowest TPR is observed in Chikmangalur district (11.83)

Higher Primary schools (1 to 7/8)

The average TPR for the state at higher primary level is being 26.88, a total of 15 district record an average higher than the state average. Highest TPR is observed in Bijapur district (33.98). Lowest TPR is observed in Chikmangalur district (16.94)

TPR count when LPS and HPS are clubbed together

The average TPR for the state is 24.40, 15 districts record an average TPR which is higher than the state average. Highest TPR is observed in Koppal district (32.36). Lowest TPR is observed in Chikmagalur district (15.51)

TPR in (1-5) and (1-7/8)

Following 8 districts appear in both the lists in a tally of TPR of 10 districts that is having high TPR they are Koppal Raichur Yadagiri Bellary Dharwad Bagalkot Bangalore South and Bijapur. Likewise following 10 districts appear in both the lists in tally of TPR of bottom 10 districts (Highly favourable TPR): Shimoga Ramanagara Kodagu Bangalore Rural Uttara Kannada Tumkur Hassan and Chikamagalur.

TPR for Working Teachers

TPR for working Teachers at 1 to 5 LPS and 1 to 7/8 HPS stages.

Lower Primary (1 to 5)

The state average TPR is 18.48. 16 districts record an average higher than the state average. The highest TPR is recorded in Gulbarga district (30.25) and the lowest TPR is recorded in Hassan district (12.50).

Higher Primary schools (1 to 7/8)

The state average TPR is 28.51. 15 districts recorded an average higher than the state average. District with the highest TPR is Koppal district (35.37) and the lowest TPR is in Chikmagalur (18.23).

Scenario when LPS and HPS are clubbed together

The state average TPR being is 25.89 15 districts record an average TPR higher than the state average. Highest TPR is recorded by Koppal district (34.14). Lowest TPR is recorded by Chikmagalur district (16.69). Following 8 districts appear in both the lists in a tally of TPR of top 10 districts that is having high TPR they are Koppal Yadagiri Raichur Bellary Dharwad Bagalkot Chikkodi and Bijapur. Likewise following 9 districts in both the lists across the bottom 10 districts of TPR at total elementary stage are Shimoga Ramanagara Kodagu Uttara Kannada Bangalore Rural Tumkur Chikmagalur and Hassan districts.

3.6 Infrastructure Facilities in Schools

The Sarva Shiksha Abhiyan accorded special significance and weightage for the provision of infrastructure facilities to schools. School buildings additional classrooms maintenance and repairs of school buildings are included herein. There is recognition of 8 facilities as Basic Facilities for schools comprising of Common Toilets Girls' Toilets Electricity Play Ground Ramps Library Compound and Drinking water. A review of progress of schooling in the light of provision of infrastructure facilities to schools reveals that there have been notable

improvements in enrolments of children, enrolment ratios, retention rates, student – classroom ratios, teacher-pupil ratios, transition rates and gender parity in enrolments.

3.6.1 School Buildings

45476 out of total of 57520 elementary schools in the State belong to the Department of Education. 95.93 percent of schools of the Department possess / own the buildings. Rent needed not be paid to 1.64 percent of schools owned by the Department. Another 1.02 percent of schools are run in rented buildings. 0.20 percent of schools are run without any building facility.

Figure 3.6.1: Classification of Elementary Schools by type of ownership of buildings.

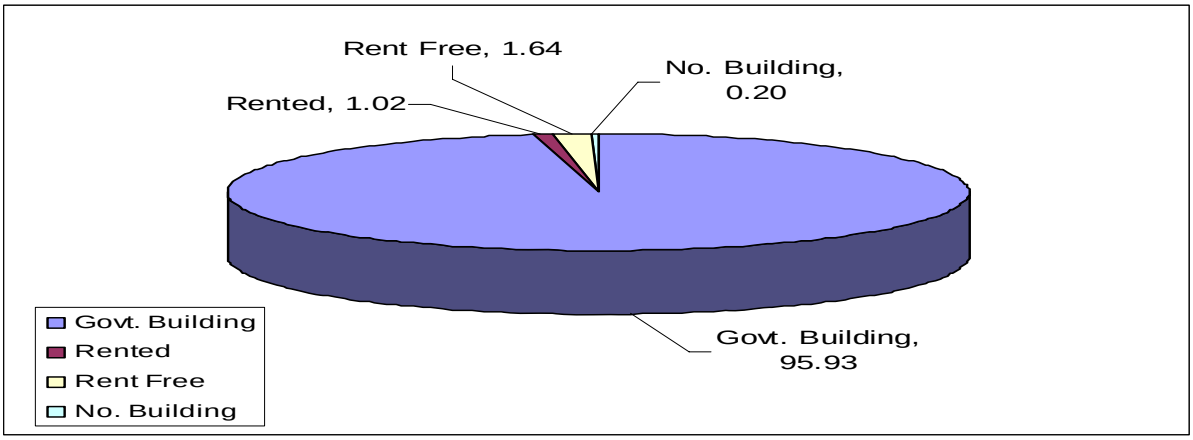
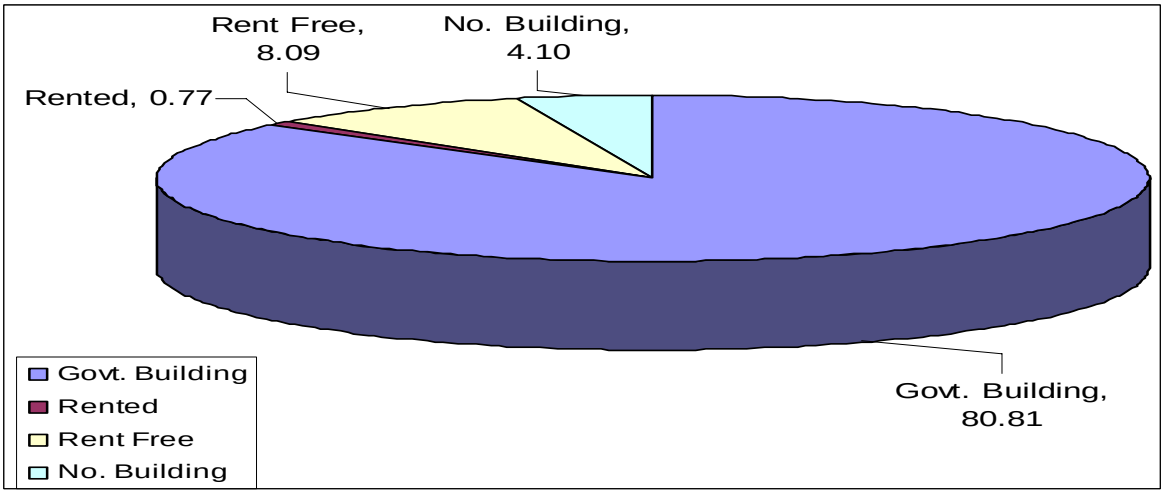


Figure 3.6.2: Classification of High Schools by type of ownership of buildings



The Department of Education runs 4142 high schools. 170 schools in this set do not have a building of their own. 80.81 percent of schools possess the building while 0.77 percent of high schools are run in rented buildings. 8.09 percent of schools do not need to pay rent for the buildings in which they are functioning. They are rent-free. Information on rest of the 4.03 percent of schools is incomplete.

There 47 school places having their own buildings under construction stage. About 10 schools have reported it their buildings are not fit for use. There are 151 government schools which are run in private buildings – it is not clear whether they are rented or rent free. There is no information of any kind on 50 schools. It is noted that the member of building less

schools (own building) decreased from 355 in 2007-08to 170 during 2008-09 while in another 47 cases construction is in progress.

3.6.2 Classrooms

There are 188941 classrooms in 45476 elementary schools of the Department of Education. 74.71 percent of classrooms are in good condition. 15.99 percent of classrooms need minor repairs while 9.31 percent of classrooms are waiting for major repairs. It is to be noted that the position regarding to classrooms which are in good condition and that require minor repairs has improved marginally. However the percentage of classrooms which require major repairs has increased from 7.55 percent during 2007-08 to 9.31 percent during 2008-09.

There are 19635 classrooms in 4142 high schools of the Department of Education. 81.40 percent of classrooms are in good state. 11.69 percent of classrooms need minor repairs while 6.91 percent of classrooms need major repairs.

Number of classrooms at the elementary stage of schools has increased from 177688 in 2007-08 to 188941 during 2008-09 an increase of 11253 classrooms. This is good. However number of classrooms in 4142 high schools of the State has decreased from 19894 during 2007-08 to 19635 during 2008-09 a decrease of 259 classrooms. This decrease has to be read along with information on classroom needing major repairs wherein there were 1508 number of classrooms in high schools which needed major repairs during 2007-08 while their figure declined to 1356 during 2008-09.

3.6.3 Basic Facilities (8 as per MHRD specifications)

Even though increasing attention is being given over the years to provision of basic facilities in schools available data on availability of basic facilities leaves much to be desired. The EMIS data of 2008-09 informs us that there is no separate toilet for girls in every alternate elementary school while 19.46 percent elementary schools do not have drinking water facility. The 8 Basic facilities identified by MHRD are: Common Toilet; Girls Toilet; Electricity; Play Ground; Computers; Ramps; Compound; Drinking Water; Library.

Pancha Soulabhya

The government of Karnataka identified 5 facilities on top priorities as most essential for schools some of them are common to the 8 basic facilities identified by the MHRD. The five facilities are: 1) Drinking Water; 2) Common Toilets; 3) Play Grounds; and 4) Compound wall. The fifth one is school buildings. An update across all these facilities follows.

Table 3.6.1: Infrastructure Provision in Elementary Schools of the State

Years	Common Toilet	Girls Toilet	Electricity	Play Ground	Ramps	Compound	Drinking Water	Library
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
2007-08	69.75	42.11	65.91	49.31	25.70	22.09	76.50	78.10
2008-09	82.95	50.23	84.44	49.00	52.10	68.20	80.54	86.44
% Increase	+ 13.20	+8.12	+ 18.53	-0.31	+ 26.40	+ 46.11	+ 4.04	+ 8.34

Provision of Infrastructure facilities was given increased attention during 2008-09 both at the Elementary and High School stages. The overall provision went up from 53.71 percent in 2007-08 to 69.24 percent during 2008-09 at the Elementary stage while it went up from 55.07 percent during 2007-08 to 62.86 percent at the High School stage. There was a gain of 15.53

and 7.79 percentage points respectively at the Elementary and High School stages at the State level while some of the backward districts like Bijapur Yadgir and Kolar got a hike of over 21 percent and beyond at the Elementary stage districts such as Bijapur and Haveri got a hike of over 21 percent at the High School stage. Highest attention was received by the following facilities; construction of Compounds and Ramps at the Elementary stage: Compounds Ramps and Drinking Water at the High School stage.

Table 3.6.2: Infrastructure Provision in High Schools of the State

Years	Common Toilet	Girls Toilet	Electricity	Play Ground	Ramps	Compound	Drinking Water	Library
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
2007-08	64.31	51.26	62.88	62.37	7.47	51.01	68.63	72.60
2008-09	60.28	55.34	67.12	67.12	21.73	68.95	82.79	79.55
% Increase	-4.03	+ 4.08	+ 4.24	+ 4.75	+ 14.26	+ 17.94	+ 14.16	+ 6.95

Notes:

1) Sl.Nos. 1 4 7 and 8 are also included under the State Programme of Pancha Soulabhya.
2) Compound walls for schools at both elementary and high school stages especially at the elementary level have received substantive attention during 2008-09. Position in regard to Ramps in schools is also better than before.
3) Negative signs in 2 places are because new schools have not been provided the concerned facilities; further it is to be noted that the figure in boxes are in 'Percentages of Provisions'.
4) The fifth item in Pancha Soulabhya Programme of the State Government is provision of School Buildings. This has been discussed under the section on School Buildings.

Source: DISE.

In sum it is observed that Student-Classroom ratio at the elementary stage is 25.99:1 while it is 31.90:1 at the high school stage. These ratios are 25.91:1 and 56.31:1 at the elementary and high school stages of the Department of Education respectively.

Table 3.6.3: Student – Classroom Ratio in Schools by Management in Karnataka

Management	Elemenatary Schools			High Schools		
	No. of Children	No. of Classrooms	SCR	No. of Children	No. Of Classrooms	SCR
1	***2***	***3***	***4***	***5***	***6***	***7***
Education Dept	4895773	188941	25.91	1105574	19635	56.31
SW + LSG	58133	2622	22.17	32705	1393	23.48
Aided	639276	19223	33.26	799682	17844	44.82
Un-Aided	1924771	78110	24.64	562410	38247	14.70
Others	52104	2351	22.16	21673	1930	11.23
Total	**7570057**	**291247**	**25.99**	**2522044**	**79049**	**31.90**

Note:

Source: DISE.

There are 188941 classrooms in the 45476 schools of the education department 74.71 percent 141165 classrooms out of the total number are in good condition. Districts which have at least 4 out of 5 classrooms in good condition are: Bellary Koppal Dharwad Bagalkot Yadagiri Bidar Raichur Bangalore North Bijapur Kodagu Gulbarga Gadag. Note even 2 out of 3 classrooms are in good condition in the following 5 districts: Chitradurga Bangalore Rural Ramanagara Hassan Madhugiri. Number of classrooms which are in bad condition and require major repairs are 17562 out of total 188941 classrooms in the State that is 9.29 percent of the total.

3.6.3.1 Method of Calculation and Interpretation of Indexes of Basic Facilities

8 Basic Facilities (as identified by the MHRD) that need to be located in Elementary and High Schools are: Common Toilets Girls' Toilets Electricity Playground Drinking Water Ramps Library and Compound Wall. One score is earmarked for each one of these facilities. A school having all the eight facilities shall get 8 scores. Otherwise the school shall get as many scores as the number of facilities located in it. In this way total scores obtained by each one of the schools of a district are summated and divided by the total number of schools in that district. The product of the division is the index of current availability of 8 basic facilities of the district. Assuming that all schools of the District have all the 8 Basic Facilities the number of schools is multiplied by the digit 8. The product is an index of total availability. Index of current availability is divided by the (assumed) index of total availability and multiplied by 100. The product is an index of percentage of availability of 8 basic facilities.

Illustration

There are 143 high schools in Bagalkot District. If each one of the 143 schools were to have all 8 basic facilities the District would have recorded a maximum score of 1144. However going by the current availability of facilities in these 143 schools the sum of scores obtained by the district is 676. Hence the percentage of availability of basic facilities in the district is 59.09; the figure arrived at by dividing 676 by 1144 and multiplying the product by 100.

The indicative information about the provision of 8 Basic Facilities across the schools of the state in the various districts may be observed from the Status Report (DOE, 2009). They are enabling in identification of districts which are lagging behind in availability of infrastructure facilities. This type of information would be quite useful in prioritization of resource allocations across districts under plan schemes as well as projects in cases of provision of infrastructure facilities. However one has to go beyond statistics in taking district specific decisions in regard to the provision of specific types of infrastructure facilities and prioritize them within the districts. Performance of the State in regard to provision of 8 basic facilities at elementary and high school levels is recorded as 69.24 and 62.86 percent respectively.

When the position in regard to provision of 8 basic facilities in the elementary schools is compared with that in the high schools it is observed that districts which are quite good or quite low in provision of facilities at the elementary level need not also figure as such at the high school stage. There are exceptions of districts to the foregoing generalization. Exceptional districts are identified here. When the top 10 districts in provision of 8 basic facilities in the State at the elementary stage are juxtaposed with top 10 districts on the same counts at the high school stage it is observed that only 7 districts appear in both the lists. These districts are Bangalore Urban (South) Bijapur, Chikmagalur, Haveri, Kodagu, Mysore and Udupi. District which are common in the lists of bottom ten districts in provision of infrastructure facilities at the elementary and high school stages are Chamarajanagar, Chikkodi, Gulbarga, Raichur and Yadagir. There are 7 districts in top 10 lists of elementary and high school stages as well as 5 districts in bottom 10 districts of similar lists in regard to provision of infrastructure facilities. The 5 districts which appear in bottom 10 tally of both the lists need immediate special attention.

3.7 Learning Outcomes at Secondary Level in Karnataka

In a systemic approach the inputs and outputs have always been a matter of concern. In the education system given the inputs in terms of educational infrastructure, the output in terms of learning outcomes are evaluated to indicate the efficiency of the system.

There are different ways to measure the learning achievements in the education system. Although there is no well designed standard measure for the learning achievement in Karnataka as well as of whole of India, one may use the pass out percentage of those appeared for the annual examination as a measure of learning outcome. Hence, for Karnataka we have used pass out percentage in SSLC (Class X) State Board Exam as a learning outcome in the state at the secondary level.

Table 3.7.1: Number of Students Appeared and Passed out in the SSLC (class X) Board Exam of Karnataka, 2009 March

Year	Boys			Girls			Boys and Girls		
	Appeared	Pass	Pass %	Appeared	Pass	Pass %	Appeared	Passed	Pass %
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***
2009	399314	284737	71.31	361093	275788	76.38	760407	560525	73.71
2008	397376	262604	66.08	357965	250751	70.05	755341	513355	67.96
2007	438625	310310	70.75	369314	281203	76.14	807939	591513	73.21

Note:

Source: Karnataka SSLC Board.

At the outset before examining the passed out percentage of class X student, one has to notice that the number of children appearing for the SSLC Board Exam in the state are more than those enrolled in class X. For instance, there were about 7.26 lakh children enrolled in class X during 2008-09 but the number children appeared for the SSLC Board Exam held in March 2009 were about 7.60 lakh. It could be due to the fact that there are some children who may directly appear for the Board Exam as a private candidate without enrolling any secondary school.

Having said if we examine the passed out percentage out of those appeared for the Board exam in the state is about 73.71% for the academic year 2008-09 (Table 3.7.1). When compared to the previous years' the performance during 2008-09 is relatively better especially of 2007-08. It is strikingly noticeable that in Karnataka the performance of girls' children is relatively better than boys in the Board exam.

Table 3.7.2: Subject-wise Passed out percentages in SSLC Board Exam in Karnataka

Sno	Subjects	Appeared			Passed			Pass %: 2009			Pass %: 2008		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***	***12***	***13***	***14***
1	Lang I	390036	355668	745704	335631	327986	663617	86.05	92.22	88.99	89.41	94.15	91.67
2	Lang II	389578	355510	745088	337947	317289	655236	86.75	89.25	87.94	87.63	89.70	88.61
3	Lang III	389384	355453	744837	361223	338198	699421	92.77	95.15	93.90	94.24	96.12	95.14
4	Maths	389986	355706	745692	315715	297338	613053	80.96	83.59	82.21	71.17	74.52	72.77
5	Science	389748	355618	745366	341869	320638	662507	87.72	90.16	88.88	85.25	87.74	86.43
6	Soc. Sci	389724	355612	745336	354650	328875	683525	91.00	92.48	91.71	88.32	89.74	88.99

Note:

Source: Karnataka SSLC Board.

When examined subject-wise performance of students appeared for the Board exam, it may be observed that the performance in 3rd Language subject is relatively better than the other subjects and the performance is relatively poor in Mathematics (Table 3.7.2). In other words, the pass percentage is highest in 3rd Language (93%) followed by Social Science (92.5%), and 1st Language (90%). The lowest pass percentage is observed in Mathematics (82%)

followed by 2nd Language (87%) and Science (88.9%). Subject-wise performance in the Board exam between boys and girls shows that in each subject girls outperform the boys.

When compared to previous academic year's (2007-08) performance with that of the last year (2008-09) in each subject it is observed that in the non-language subjects (Maths, Science and Social Studies) it is improved but in the language subjects the pass percentage has declined (Table 3.7.2).

Table 3.7.3: Percentages of Students Passed out in SSLC Board Exam in Karnataka by Social Groups

Sno	Social Group	Boys			Girls			TOTAL		Pass %	
		Appeared	Pass	Pass %	Appeared	Pass	Pass %	Appeared	Pass	2009	2008
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***	***12***
1	General	322298	227187	70.49	283043	219551	77.57	605341	446738	73.80	71.20
2	Schedule Caste	84976	48430	56.99	68765	42251	61.44	153741	90681	58.98	56.99
3	Schedule Tribe	30119	18292	60.73	23284	15178	65.19	53403	33470	62.67	60.55
4	EBCs	21086	14146	67.09	16180	11673	72.14	37266	25819	69.28	65.43

Note:

Source: Karnataka SSLC Board.

Across social groups the performance in the Board exam is relatively better among children belonging to non-SC/ST (General) community and the SC/ST children's performance is poor (Table 3.7.3). The pass percentage is highest (73.8%) among the children of non-ST/SC community and the least is observed among the children belonging to SC community (59%). Within the backward communities, the performance of SC community children in the Board exam is poorer than ST children.

Table 3.7.4: Percentages of Students Passed out in SSLC Board Exam in Karnataka by Location of School (Rural/Urban)

Location	Boys				Girls				Total			
	Appeared	Pass	% Pass (09)	% Pass (08)	Appeared	Pass	% Pass (09)	% Pass (08)	Appeared	Pass	% Pass (09)	% Pass (08)
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***	***12***	***13***
Urban	166348	113859	68.45	63.60	158387	118787	75.00	69.51	324735	232646	71.64	66.49
Rural	232966	170878	73.35	67.86	202706	157001	77.45	70.47	435672	327879	75.26	69.07
Total	399314	284737	71.31	66.08	361093	275788	76.38	70.05	760407	560525	73.71	67.96

Note:

Source: Karnataka SSLC Board.

The performance of children appeared for the SSLC Board exam by location (rural/urban) shows that the rural children are performing relatively better than that of their urban counterparts in the state (Table 3.7.4). The percentage has increased during the last two academic years in both the rural and urban areas but the improvement in pass percentage is higher among the rural children when compared to those in urban area.

Table 3.7.5: Percentages of Students Passed out in SSLC Board Exam in Karnataka by Management

Management	Boys			Girls			TOTAL		
	Appeared	Pass	% Pass	Appeared	Pass	% Pass	Appeared	Pass	% Pass
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***
Government	153176	101145	66.03	154000	109563	71.14	307176	210708	68.60
Aided	141668	102891	72.63	127275	99883	78.48	268943	202774	75.40
Unaided	104470	80701	77.25	79818	66342	83.12	184288	147043	79.79
Total	399314	284737	71.31	361093	275788	76.38	760407	560525	73.71

Note:

Source: Karnataka SSLC Board.

By management of schools, the children appearing for Board exam from private schools especially from the Unaided schools are performing better than those from the government schools (Table 3.7.5). Across the board, by types of management, girls' children outperform the boys.

Table 3.7.6: Distribution of Students Passed out in SSLC Board Exam in Karnataka by Class/Distinction and Management

Management	No of Schools	Appeared	Pass	Pass%	Distribution (%) of Passed out			
					Distinction	1st Class	2nd Class	3rd class
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
Aided	2866	261993	201760	77.01	3.9	36.9	28.8	30.4
Government	3706	293368	208952	71.23	1.0	30.9	31.0	37.2
Unaided	4199	179479	146060	81.38	10.2	48.5	22.4	18.9
Total	10771	734840	556772	73.71	4.4	37.7	27.9	29.9

Note: Grading is by percentage of marks secured in the exam: Distinction – 70% and above; 1st class – between 60 to 70%; 2nd class between 50 to 60%; 3rd class – between 35 to 50%.

Source: Karnataka SSLC Board.

If we examine the performance in terms of grading within the passed out student (Table 3.7.6), overall 4.4% of the passed out secured the distinction (i.e. 70% and above marks), about 38 percent of the pass out student secured 1st class (between 60 and 70% marks), about 30 per cent secured 2nd class (between 50 and 60% marks) and the remaining 30 per cent are just passed (between 35 and 50% marks). By management, percentage of passed securing higher grades is relatively higher in private school and lower in government schools.

3.8 Existing Schemes for School Education in Karnataka: Incentives

For the secondary school education in the state the Government of Karnataka has been implementing several schemes. Among the most popularly implemented scheme in India two schemes i.e. mid-day meal scheme and free uniform distribution in the are implemented up to elementary school level only in the state so that it is not available for the secondary school children. Another scheme that is implemented is free travel bus/train passes for those students who do not have the school in the nearby facility at a walkable distance and have to travel by bus or train to reach the school.

Table 3.8.1: Types of Incentive Schemes Available for Secondary School Children in Karnataka

Sno	Scheme	Availability	Remarks
1	***2***	***3***	***4***
1	Mid-Day Meal	No	Only up to middle schools
2	Uniforms	No	Only up to middle schools
3	Scholarships	Yes	For SC/ST and OBC students only
4	Text Books	Yes	For SC/ST and OBC students only
5	Bicycles	Yes	For Girls only
6	Free Travel	No	No free Bus/Train Pass facility in the state
7	Fee Exemptions	Yes	For Board Exams only for SC/ST and OBC Girls
8	Hostels	Yes	For SC/ST children
9	Quotas	Yes	Only in Excellence Schools
10	Free Coaching	Yes	Only for SC/ST children

Note:

Source: Department of Public Instruction.

The state distributes the scholarships and free text books for the SC/ST and OBC students. The distribution of bicycles is only meant for girls and is implemented in the state. In Karnataka all the SC/ST children and OBC girls are exempted from payment fee for the Board exams. There are hostel facilities for the SC/ST children in the secondary classes in the state. The quota/reservation is usually not required in the schools education because of the schools are open ended in terms of admission strength limit and admissions are not based on merit.

Table 3.8.2: Physical and Financial details of various Programmes implemented for Primary Level Education in Karnataka

(Rs.in lakhs)

Sno	Details	2006-07		2007-08		2008-09	
		Fin.	**Phy.**	**Fin.**	**Phy.**	**Fin.**	**Phy.**
1	Supply of Free Uniforms (1 to 10th std)	6069.26	64.86 lakhs children	6095.22 1-7 all students 8-10 all girl students	57.26+ 06.33= 63.59 lakh children	7000.00	64.85 lakh children
2	Distribution of School BAgs and Note Books to SC/ST children	250.00	2.35 lakhs children	1222.00	12.56 lakh children	2050.00	19.46 lakh children
3	Centrally assisted Midday Meal Programme (Hot cooked Meal)	25347.57	60.29 lakh children1-7 std	33017.40	70.50 lakh chidlren 1-10 std	37890.28	68.94 (1-10 std children)
4	Reimbursement of Non.Govt. Fees for SC/ST Boys and all girls	293.59	11.29 lakh children	307.04	10.00 lakh children 6-7 std.	324.50	0
5	Free Text Books to Primary School Children	1301.22	74.55 (1-10th std children)	5078.51	76.29 (1-10th std children)	6011.63	74.29 (1-10th std children)

Distribution of free uniforms and School Bags/Note Books/Geometry Box

During 2009-10, one set of Uniform will be provided to all children from standard to 10th studying in Government Primary/High Schools. In order to reduce the dropout rate of SC/ST Boys & Girls in Government Primary Schools, good quality school bags along with notebooks to each are being given to those who are studying in 1st to 5th std in Government Primary Schools. And Note books & Geometry Box will be supplied to each SC/ST Children

those who are studying in 6th to 10th Std. During 2009-10 Rs.2000.00 lakhs is provided for this purpose under State sector scheme.

1st to 5th std. --- One School Bag per Student.
1st to 4th Std --- Three Note Books per Student.
5th to 7th Std --- Five Note Books per Student will be given.
8th to 10th Std --- Six Note Books per Student will be given.

Table 3.8.3: Physical and Financial details of various Programmes implemented for Secondary Level Education in Karnataka

(Rs.in lakhs)

Sno	Description	2006-07		2007-08		2008-09	
		Fin.	Phy.	Fin.	Phy.	Fin.	Phy.
1	Supply of free uniforms (1 to 10th Std.)	6069.26	64.86 lakhs children	6095.22	63.69 lakhs children	7000.00	33 dist. 202 taluks
2	Reimbursement of non-govt. fees for all girls & SC/ST Boys studying in Govt. Secondary School girls	582.00	6.12 lakh children	640.20	33 dist. 202 taluks	704.22	33 dist. 202 taluks
3	Reimbursement of Xth std. examination fees for girls studying in govt. high schools	372.49	1.86 lakh children	424.30	33 dist. 202 taluks	384.10	33 dist. 202 taluks
4	Centrally Assisted Mid-day Meal Programme (Hot Cooked Meal)	25347.57	53.38 lakh children	37460.40	70.50 lakh children(1-10)	37890.28	68.94 lakh children
5	Supply of Free Text Books to High School students	1301.22	74.55 lakh children (1-10 std)	5078.51	76.29 lakh children (1-10 std))	6011.63	74.29 lakh children (1-10 std.)
6	Supply of Geometry Box and Kingsize Note Books to SC/ST children studying in Govt. High Schools from 8th to 10th Standard.	0	0	0	0	445.47	2.98 lakh children

Providing furniture & Equipment to Govt. Secondary Schools:

Furniture & Equipment are being provided to Govt. high Schools in a phased manner. During 2009-10 Rs.461.51 lakhs provided to implement this scheme for Govt. High schools at an estimated cost of Rs.50,000/- per school under district sector scheme

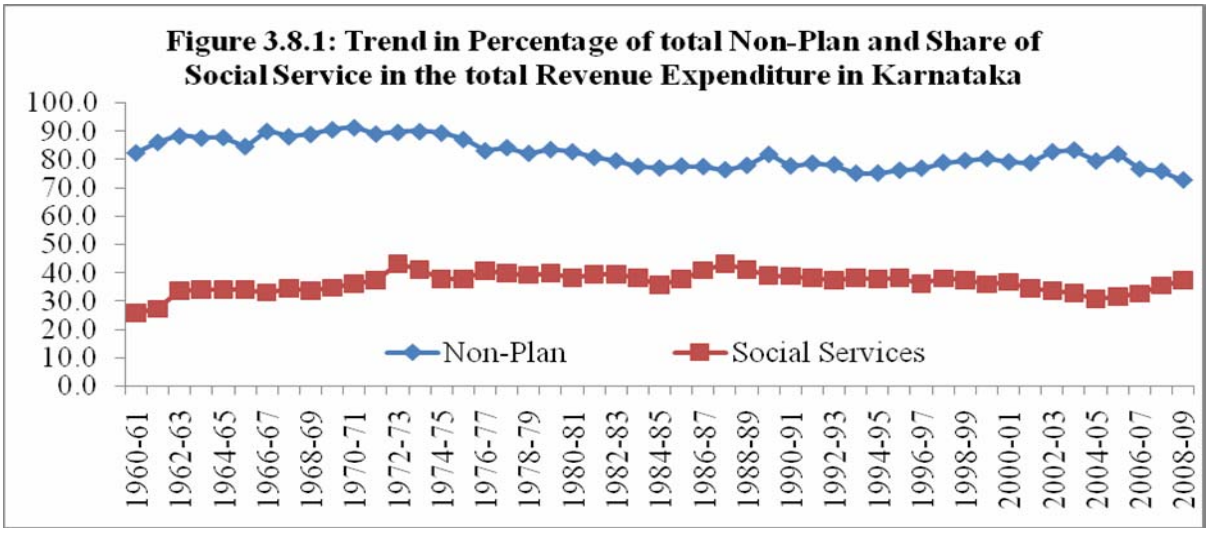
Financial assistance, Reimbursement of fees & Vidya Vikasa:

During 2009-10, Rs.1137.35 lakhs is provided under District Sector to implement the following programmes.

1. Reimbursement of examination fees of 10th Standard girls studying in govt. high schools.
2. Reimbursement of examination fees of 10th Standard SC/ST boys studying in govt. high schools.
3. Reimbursement of non-government fees to all girls and to SC/ST boys studying in 8th to 10th standard in govt. high schools.

3.9 Public Expenditure on School Education

Allocation of adequate financial resources to education is a crucial factor in the educational development of a country/state/region. This section therefore examines the level of financial resources allocated to the secondary and higher secondary education in Karnataka.



The budget expenditure pattern in the state of Karnataka indicates that about 80 per cent of the total revenue expenditure is non-plan expenditure (Figure 3.9.1). The trend over a period since its formation shows that the share of non-plan is declining and there is corresponding increase in the share of plan expenditure. Of the total budget in the revenue account the share of social sector has increase from around 20 per cent to 35 per cent over a period. It means that the priority of social sector has been increasing in resource allocation.

Table 3.9.1: Population GSDP and Budget Expenditure on Education in Karnataka

Sno	Indicator	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***
1	GSDP	103941	109428	117919	129181	149855	167975	188274	215282	226589
2	Pop	5.3	5.4	5.5	5.5	5.6	5.7	5.7	5.8	5.9
Budget Expenditure (Rev A/C)										
3	Rev Exp	16685	18606	18815	21285	24932	28041	33435	37859	45713
4	Social Sec	6132	6429	6326	6965	7723	8899	10937	13445	17138
5	Gen Edn	3350	3356	3400	3610	4185	4571	5360	6435	-
6	School Edn	2745	2843	2850	3053	3608	3971	4715	5719	-

Note: **1**. Figure are in Crores; **2**. in Current Prices; **3**. ***Pop*** – Total Population of Karnataka; ***GSDP*** – Gross State Domestic Product; ***Rev Exp*** – Total Revenue Expenditure of the state Budget; ***Social Sec*** – Budget Expenditure on Social Sector; ***Gen Edn*** – Expenditure on General Education excluding Technical Education Sports and Youth Services; ***School Edn*** – Expenditure on School Education excluding Higher Education Technical Education Sports and Youth Services.

Source: Census CSO and Budget Documents.

When we examine the trend in population GSDP and budget expenditure in Karnataka all of them have shown an increasing trend during past one decade period. While the population of Karnataka is projected to increase from 5.3 crores in 2001 to 5.9 crores in 2009 the GSDP of the state has increased from Rs. 103941 crores to Rs. 226589 crores during the period. There is almost a twofold increase in the GSDP of Karnataka (Table 3.9.1). The total budget expenditure on revenue account in Karnataka has also shown threefold increase from Rs. 16685 crores to Rs. 45713 crores during the same period. But the expenditure on general education has shown a twofold increase from Rs. 3350 crores to Rs. 6435 crores during the period 2001-08. Similarly the expenditure on school education has shown a twofold increase from Rs. 2745 crores in 2001 to Rs. 5719 crores in 2008.

Table 3.9.2: Rate of Growth (%) of Population GSDP and Budget Expenditure on Education in Karnataka

Sno	Indicator	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***
1	GSDP	6.8	5.3	7.8	9.6	16.0	12.1	12.1	14.3
2	Pop	1.5	1.2	1.3	1.2	1.2	1.2	1.1	1.1
3	Rev Exp	11.5	1.1	13.1	17.1	12.5	19.2	13.2	20.7
4	Social Sec	4.8	-1.6	10.1	10.9	15.2	22.9	22.9	27.5
5	Gen Edn	0.2	1.3	6.2	15.9	9.2	17.3	20.0	-
6	School Edn	3.6	0.2	7.1	18.2	10.1	18.7	21.3	-

Note: **1**. Figure are in percentage form; **2**. ***Pop*** – Total Population of Karnataka; ***GSDP*** – Gross State Domestic Product; ***Rev Exp*** – Total Revenue Expenditure of the state Budget; ***Social Sec*** – Budget Expenditure on Social Sector; ***Gen Edn*** – Expenditure on General Education excluding Technical Education Sports and Youth Services; ***School Edn*** – Expenditure on School Education excluding Higher Education Technical Education Sports and Youth Services; **3**. Annual Growth.

Source: Estimation.

In terms of growth the annual rate of growth of population is declining from 1.5 to 1.1 per cent between 2001 and 2009 but the rate of growth in GSDP is above 10 per cent during the period. The rate of growth in budget expenditure in revenue account is high particularly revenue expenditure on social sector has registered a very high rate of growth in the state. The annual rate of growth rate in revenue expenditure on general and school education were showing a continuous increase. Herein one may say that increase in expenditure on general education is not on par with increase in the expenditure on social sector in Karnataka.

The pattern of budget expenditure in the sate shows that though there was a reducing priority of social sector in resource allocation during the last decade period the sector seems to be again prioritized recently. The share of social sector in the total revenue expenditure has declined between 2000-01 and 2004-05 from 36.8 to 31 per cent thereafter it is increased to 37.5 percent in 2008-09 (Table 3.9.3). However the general education seems to be losing its priority in the state budget of Karnataka. The share of general education in the total revenue expenditure is also showing a decline during the period. Similarly the share of expenditure on general education to the total expenditure on social sector has declined from 54.6 per cent in 2000-01 to 47.9 per cent in 2007-08.

Table 3.9.3: Share of Budget Expenditure on Education to Total Expenditure and GSDP in Karnataka

Sno	Indicator	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***
1	SS in TRE	36.8	34.6	33.6	32.7	31.0	31.7	32.7	35.5	37.5
2	GE in TRE	20.1	18.0	18.1	17.0	16.8	16.3	16.0	17.0	-
3	GE in SS	54.6	52.2	53.7	51.8	54.2	51.4	49.0	47.9	-
4	SE in GE	82.0	84.7	83.8	84.6	86.2	86.9	88.0	88.9	-
5	GE in GSDP	3.4	3.2	3.1	3.1	3.2	3.1	3.2	3.4	-
6	SE in GSDP	2.8	2.7	2.6	2.6	2.8	2.7	2.8	3.0	-

Note: **1**. Figure are in percentage form; **2**. ***SS*** – Social Sector; ***TRE*** – Total Revenue Expenditure; ***TEE*** – Total Expenditure on Education; ***GE*** – General Education.

Source: Census CSO and Budget Documents.

If we examine the expenditure on general education as a percent of GSDP it remains constant (3.4 to 3.1%) between 2001-02 and 2008-09. It is to be noted that Karnataka is still half way

through of reaching the 6% norm (expenditure on education to GSDP) despite its better economic growth and funds available for developmental activities.

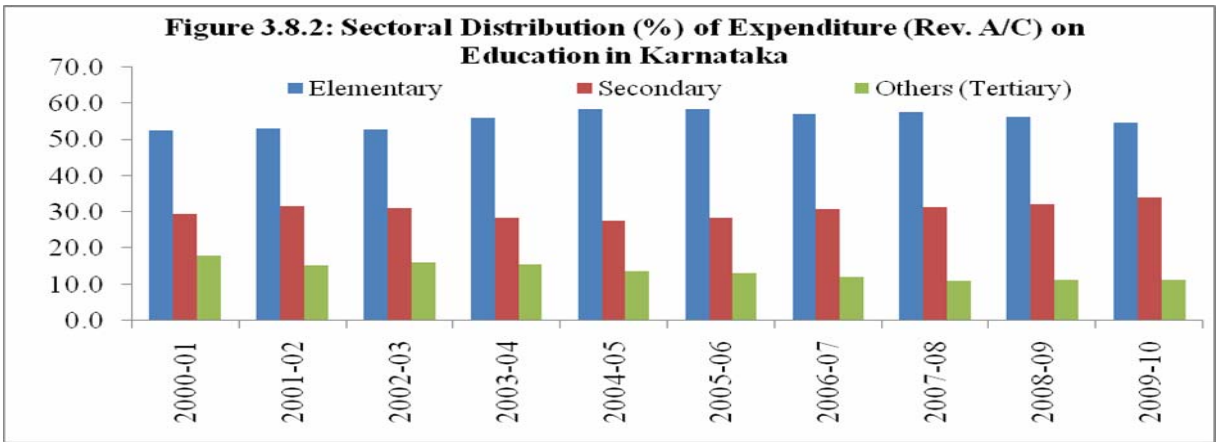
Table 3.9.4: Per Capita (PC) Expenditure on Education to Total Expenditure and GSDP in Karnataka

Sno	Indicator	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***
Per Capita (Rs)										
1	PC GSDP	18712	19493	20276	21576	23349	26764	29653	32862	37164
2	PC RE	3209	3489	3486	3894	4506	5008	5902	6608	7891
3	PC SSE	1179	1206	1172	1274	1396	1589	1931	2347	2959
4	PC GE	644	629	630	661	756	816	946	1123	-
5	PC SE	528	533	528	559	652	709	832	998	-
Growth (%)										
1	PC GSDP	-	4.2	4.0	6.4	8.2	14.6	10.8	10.8	13.1
2	PC RE	-	8.7	-0.1	11.7	15.7	11.1	17.9	12.0	19.4
3	PC SSE	-	2.2	-2.8	8.7	9.5	13.9	21.5	21.6	26.1
4	PC GE	-	-2.3	0.1	4.9	14.5	7.9	15.9	18.7	-
5	PC SE		1.0	-1.0	5.8	16.7	8.8	17.4	19.9	-

Note: 1. Annual Growth; 2. Current prices.

Source: Estimations using data of Census CSO and Budget Documents.

The per capita GSDP in the state is increasing over a period of time. It has increased from Rs. 18712 to Rs. 37164 between 2000-01 and 2008-9. It is a twofold increase with an average annual growth rate above 9 per cent. The per capita income of Karnataka is one of the highest among the Indian states. The average rate of growth in per capita budget expenditure (revenue) is little higher than that of GSDP. The per capita revenue expenditure in the state has also shown a twofold increase from Rs. 3209 to Rs. 7891 during past decade period. Similarly there is a twofold increase in the per capita expenditure on social sector from Rs. 1179 to Rs. 2959 during the period. But the per capita expenditure on general and school education has not shown a twofold increase. Although the average annual rate of growth in per capita expenditure on general and school education in Karnataka is higher than that of its GSDP lower than that of per capita revenue expenditure on social sector.



Having observed above facts it may be of one's interest herein to examine the distribution of expenditure on education by level especially among the elementary secondary and higher level of education. It is observed that elementary education is getting the major share in the state by secondary and tertiary education. The share of elementary education has been

increasing over a period (Figure 3.9.2). It increased from 52 per cent 2000-01 to 58 per cent in 2008-09. Whereas the share of secondary education remain constant between 29 and 31 per cent during the period. However there is a corresponding decline in the share of tertiary education in the state. It may be pointed out that the secondary education in the state budget is getting half of funds allocated to the elementary education in the state.

Table 3.9.5: Expenditure on Secondary Education (Revenue Account) in Karnataka

Sno	Item	2003-4	2004-5	2005-6	2006-7	2007-8	2008-9	2009-10
1	***2***		***3***	***4***	***5***	***6***	***7***	***8***
1	Non-plan	962.8	1075.0	1209.4	1388.3	1704.8	2215.0	2236.3
2	Plan	66.1	84.7	94.8	263.8	308.3	453.8	595.6
Total		1028.9	1159.7	1304.3	1652.1	2013.1	2668.8	2832.0
% of Non-Plan		93.6	92.7	92.7	84.0	84.7	*83.0*	*79.0*

Note: 1. Figure presented are in Crores Rs. and in Current Prices; 2. Secondary Education includes lower secondary (IX-X) and higher secondary (XI-XII).

Source: Budget Documents.

Total expenditure on secondary education in the state was Rs. 1028.9 crores in 2003-04 and there was sharp increase in 2007-08 to Rs. 2013.1 crores. It is to be noted that this expenditure on secondary education in fact includes both the lower secondary (covering class VIII IX and X) and higher secondary education (Class XI and XII). Of the total expenditure on secondary education more than 90 per cent was of non-plan expenditure in 2003-04 and it declined to 84.7 per cent by 2007-08.

Table 3.9.6: Percentage of Expenditure on Secondary Education (Revenue Account) in GSDP in Karnataka

Sno	Item	2003-4	2004-5	2005-6	2006-7	2007-8
1	***2***	***3***	***4***	***5***	***6***	***7***
1	% Secondary in Total Rev Exp	4.8	4.7	4.7	4.9	5.3
2	% Secondary in Total Social Services	16.3	16.7	16.9	18.6	18.4
3	% Secondary in Total Exp. on General Education	28.5	27.7	28.5	30.8	31.3
4	% Secondary in GSDP	0.87	0.90	0.87	0.98	1.07

Note: 1. Secondary Education includes lower secondary (IX-X) and higher secondary (XI-XII).

Source: Calculated using data in Budget Documents and of CSO.

The expenditure on secondary education as a percentage of revenue expenditure is between 4 and 5% during the period between 2003-04 and 2007-08 and as per cent of social sector expenditure it is between 16 and 18% and in the total expenditure on education it is between 28 and 31%. When we examine the percentage of expenditure on secondary to GSDP Karnataka is spending interestingly about one per cent of its GSDP on secondary education (Table 3.9.6).

To work the unit cost of secondary education there is limitation given inclusiveness of budget expenditure figures for the lower and higher secondary. Separate data for expenditure on lower and higher secondary is not available. Given the data constraint we have used a rule of thumb criterion however to distribute the total secondary expenditure between lower and higher secondary where the lower secondary consisting of classes IX and X would be having 41% of the total expenditure on secondary education. In other words it is assumed that about 41 per cent of the total secondary might have been spending on lower secondary given the higher demands for higher secondary education. With this formula the total expenditure on

lower secondary classes would be around Rs. 421.8 crores in 2003-04 and it increased to Rs. 825.4 crores in 2007-08.

Table 3.9.7: Per Capita Expenditure (in Rs.) on Secondary Education (Revenue Account) in Karnataka

Sno	Item	2003-4	2004-5	2005-6	2006-7	2007-8
1	***2***	***3***	***4***	***5***	***6***	***7***
1	Expenditure on Secondary (in Crores)	1028.9	1159.7	1304.3	1652.1	2013.1
2	*Assumed % of lower Sec (IX and X) in total Sec Exp.*	***41***	***41***	***41***	***41***	***41***
3	Expenditure on Lower Secondary (in Crores)	421.8	475.5	534.7	677.4	825.4
4	Per Capita of Total Secondary to All Population	188	210	233	292	351
5	Per Capita of Total Lower Secondary to All Population	77	86	96	120	144
6	Enrolment in Secondary Classes: All Schools	1032498	1232922	1315875	1516442	1552447
7	Enrolment in Secondary Classes: Govt. Schools	770418	923241	988851	1137761	1170451
8	Per Capita of Expenditure on Lower Secondary to Enrolment in Secondary Classes: All Schools	4086	3857	4064	4467	5317
9	Per Capita of Expenditure on Lower Secondary to Enrolment in Secondary Classes: Govt. Schools	5475	5150	5408	5953	7052

Note: 1. Secondary Education includes *lower secondary* (IX-X) and *higher secondary* (XI-XII).

Source: Calculated using data in Budget Documents and of CSO.

Once we separated the expenditure on lower secondary education in Karnataka we have to consider the enrolment in lower secondary classes in those schools which are managed or funded by government departments to work out the unit cost i.e. per capita expenditure on lower secondary education per enrolled child in the state. From the SEMIS data it is observed that total schools covered in the survey and enrolment figures collected are of schools managed/funded by government departments. Given the enrolment figures one may work out the per capita expenditure on lower secondary education in Karnataka as Rs. 5475/- in 2003-04 and it increased to Rs. 7052/- in 2007-08 (Table 3.9.7).

3.9 Summary Statement

This section is intended to present the summary statement of the status of secondary education in Madhya Pradesh and issues arising out of the analysis.

3.9.1 State Norms and RMSA Norms

The state norms with respect to universalisation of secondary education in Karnataka may be mostly in line with the national level RMSA norms. In some cases there are state specific norms which are different from that of the national level RMSA norms (see Annexure I).

3.9.2 Access

While assessing the status of secondary schools in Karnataka it is observed that existing schools are sufficient in number but for a large number children especially located in remote rural areas especially tribal location, the school with secondary classes are located at far away distance.

3.9.3 Equity

It is observed from the existing status of the secondary schooling in Karnataka, the educational process is not following the equity norms. The number of children belonging to

disadvantaged communities/sections (SC/ST/OBC, Muslims and girls) enrolled in both the elementary and secondary classes were not in proportion to their share in the population.

3.9.4 Quality

With respect to the quality of secondary education in the state, there are a large number of school do not have necessary school infrastructure and learning resources which will improve the quality of education.

3.9.5 Institutional Reforms

Given the status of the schools education in the state, there is a long way to go in terms of the goal of universalisation secondary education. For further improvement in the system it needs the institutional reforms. So far there has not been any initiative in this direction to the date in Karnataka. Therefore there is a need for institutional reforms in the education system of the state.

3.9.8 Key Targets and Headline Indicators

To monitor the progress of secondary education in the state, gross enrolment ratio (GER) could be one of the headline indicators. As part of RMSA scheme the state of Karnataka may follow the time frame of national policy and hence the key targets for the state can be 2012, 2017 and 2020. The national level RMSA targets are 75% gross enrolment ratio (GER) by 2012 100% GER by 2017 and achieving the goal of the universalisation of elementary education by 2020. For Karnataka a even by simple projections of enrolment based on its past performance especially during the last two years shows that it will be able to reach GER = 75% by 2012. The phenomenal growth of enrolment in elementary schooling in the state due to the interventions and initiatives through the SSA (Sarva Shiksha Abhiyan) is promising that the enrolment in secondary classes can be further improved with SSA kind of interventions. Therefore the short-term target for the state could be same as that of national one i.e GER = 80% by 2012 and mid-term target GER = 100% by 2017.

*** * ***

Chapter IV

Future Prospect and Financial Implications for the Expansion of Secondary Education in Karnataka

This chapter explores the possible pathways for the achievement of universalisation of secondary education in Karnataka. An attempt is made to explore the future prospects of secondary education in the state using gross enrolment ratio (GER) in secondary classes as an indicator for projecting the expansion in the future.

4.1 Projection Models

4.1.1 Empirical Models

The state of Karnataka has three alternative possibilities for the projections of enrolment in secondary classes. One way of exploring the future prospects of growth in enrolment at secondary level is based on its past growth. It assumes that the enrolment in secondary classes will grow by the same rate of growth in the future also as it has in the recent past.

Table 4.1.1: Growth of Enrolment at Secondary level in Karnataka

Class/Class	Enrolment			Growth (in %)		
	2006-07	2007-08	2008-09	2006/7 to 2007/8	2007/8 to 2008/9	2006/7 to 2008/9
1	***2***	***3***	***4***	***5***	***6***	***7***
IX	812626	820974	831614	1.03	1.30	2.34
X	703816	731473	726095	3.93	-0.74	3.17
Sec Boys	797526	808755	810049	1.41	0.16	1.57
Sec Girls	718916	743692	747660	3.45	0.53	4.00
Sec All	1516442	1552447	1557709	2.37	0.34	2.72

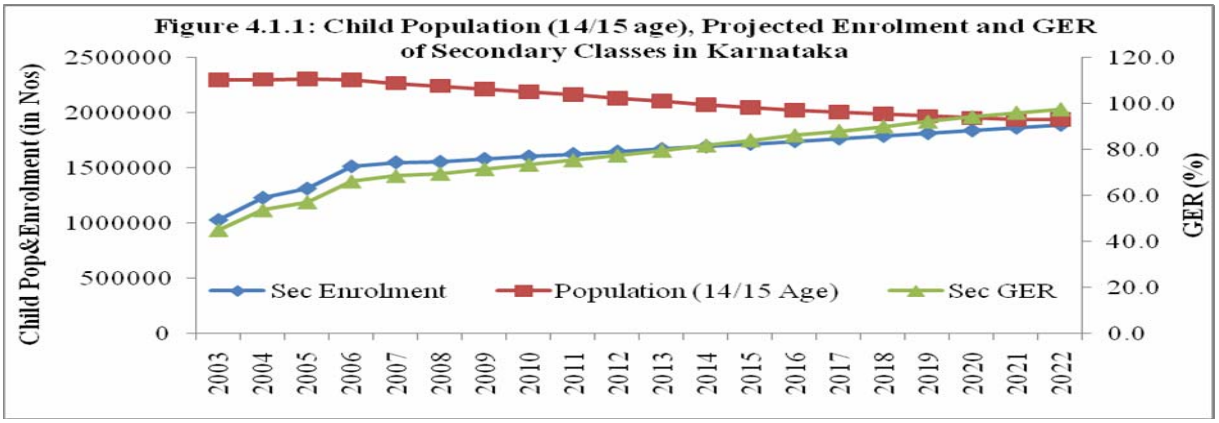
Note: **1**. Figures are in actual numbers (from col. 2 to 3); **2**. Growth is Compound annual average (CAGR); **3**. Sec – Secondary level (i.e. IX and X classes).

Source: DISE/SEMIS of Karnataka.

DISE data of Karnataka with respect to enrolment in secondary classes available for 2006-07, 2007-08 and 2008-09 show that Karnataka had 1.51 million students in class IX and X in 2006-07, 1.55 million in 2007-08 and 1.56 million in 2008-09.

Therefore, the annual rate of growth for enrolment in secondary classes has been 1.41 per cent between 2006-07 and 2007-08, 0.16 per cent between 2007-08 and 2008-09, and the two years average was 1.57 per cent between 2006-07 and 2008-09 (Table 4.1.1). The rate of growth in enrolment of secondary classes among girls has significantly higher than that among boys.

For the projections exercise, the overall annual average rate of growth (1.57%) during 2006-07 and 2007-08 is used (see Table 4.1.1). Figure 4.1.1 shows the projected child population 14-15 years age, enrolment in secondary classes and the GER of secondary classes in Karnataka. It indicates that although the state achieves GER = 75% by 2012, it could not achieve GER = 100% even by 2022 if enrolments grew at 1.6%.



The second alternative future prospects can be based on the state's performance in terms of growth of enrolment at the elementary level owing to Sarva Shiksha Abhiyan (SSA) initiatives. Those who are completing class VII and VIII is a crucial input for enrolment at the secondary level (i.e. for class IX and X). The following analysis presents the performance of Karnataka with respect to growth of enrolment at elementary level.

Table 4.1.2: Growth of Enrolment in Elementary Classes in Karnataka

Year	Class/Grade								
	I	II	III	IV	V	VI	VII	VIII	Total
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***
Enrolment (in Nos)									
2002-03	1228440	1230749	1161899	1138087	1157001	983333	843252	-	7742761
2003-04	1198802	1167693	1211560	1135446	1142833	1076148	918421	762085	8612988
2004-05	1157776	1165968	1163661	1195170	1137165	1065351	1015038	802956	8703085
2005-06	1195681	1119239	1153532	1142867	1166412	1047158	1004798	841061	8670748
2006-07	1167619	1155972	1089777	1122146	1116350	1080288	990357	895204	8617713
2007-08	1164197	1136722	1122508	1070825	1102448	1043861	1026208	926178	8592947
2008-09	1138540	1126656	1116428	1105383	1055409	1035771	991870	964335	8534392
Annual Growth (%)									
2003-04	-2.4	-5.1	4.3	-0.2	-1.2	9.4	8.9	-	11.2
2004-05	-3.4	-0.1	-4.0	5.3	-0.5	-1.0	10.5	5.4	1.0
2005-06	3.3	-4.0	-0.9	-4.4	2.6	-1.7	-1.0	4.7	-0.4
2006-07	-2.3	3.3	-5.5	-1.8	-4.3	3.2	-1.4	6.4	-0.6
2007-08	-0.3	-1.7	3.0	-4.6	-1.2	-3.4	3.6	3.5	-0.3
2008-09	-2.2	-0.9	-0.5	3.2	-4.3	-0.8	-3.3	4.1	-0.7
Average	*-1.2*	*-1.4*	*-0.6*	*-0.4*	*-1.5*	*1.0*	*2.9*	*4.8*	*1.7*

Note: '-' Not Available.

Source: DISE.

The trend in number of enrolled in the elementary classes in the state is varying with class to class over the years (Table 4.1.2). The enrolment in primary classes is declining and upper primary classes especially in class VIII, it is increasing. In fact, in 2004-5 there was a big increase in class VIII enrolment after which in most years a decline. The annual growth rate for enrolment in each class at the elementary level in Karnataka is negative in primary classes (1-5). It could be due to declining child population in the state along with elimination of over-aged children in primary classes. It is interesting to note that the growth of enrolment in the state is higher for class 8 (Table 4.1.2), but this high growth may not continue further as there is low or negative growth in previous classes. Therefore, the projection model would show that there is little growth in the initial period and no growth of output in latter year.

Transition and survival rates are crucial for expansion of education. In Karnataka, the class-to-class transition rate at elementary level has been remarkable, it is above 95 per cent (Table 4.1.3). The crude survival rate in primary classes has been declining over school years in the state owing to decline child population. But in upper primary classes especially in class VII and VIII it has been improving.

Table 4.1.3: Transition and Survival Rate in Elementary Classes in Karnataka

Year	Class/Grade							
	I	II	III	IV	V	VI	VII	VIII
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
Transition Rate (%)								
2002-03	-	95.1	98.4	97.7	100.4	93.0	93.4	90.4
2003-04	-	97.3	99.7	98.6	100.2	93.2	94.3	87.4
2004-05	-	96.7	98.9	98.2	97.6	92.1	94.3	82.9
2005-06	-	96.7	97.4	97.3	97.7	92.6	94.6	89.1
2006-07	-	97.4	97.1	98.3	98.2	93.5	95.0	93.5
2007-08	-	96.8	98.2	98.5	98.6	94.0	95.0	94.0
2008-09	-	95.1	98.4	97.7	100.4	93.0	93.4	90.4
Survival Rate (base year=1000)								
2002-03	1000	1000	1000	1000	1000	1000	1000	1000
2003-04	976	949	1043	998	988	1094	1089	1000
2004-05	942	947	1002	1050	983	1083	1204	1054
2005-06	973	909	993	1004	1008	1065	1192	1104
2006-07	950	939	938	986	965	1099	1174	1175
2007-08	948	924	966	941	953	1062	1217	1215
2008-09	927	915	961	971	912	1053	1176	1265

Note: 1. Figures presented above are in percentage form for transition rate and the survival rate is per thousand entered in class I.

Source: Calculated based on DISE.

Here it is to be noted that in some classes the enrolment figures of a class (say V) in the current year (2004-05) has been higher than that of the previous class (i.e. IV) in the previous year (2003-04). For example, there were 1.135 million children enrolled in class IV in 2003-04 but 1.137 million in class V in 2004-05. In the normal course, it should not have happened because the current year's enrolment in a class depends upon the enrolment of previous class in the previous year. In other words, when the enrolment in class IV is 100 during 2003-04 then the maximum possible enrolment in class V is 100 or below during 2004-05.

It is happening possibly, one reason could be, more number of repeaters in class V. Another reason could be because of the interventions of SSA. Initiatives like Residential and non-Residential Bridge Courses (RBCs and NRBCs) have helped to bring a number of out-of-school children into the fold and to streamline over-aged children. In due course, children are enrolled in age-appropriate classes at the lower level but the problem continues in the upper primary classes to a certain extent.

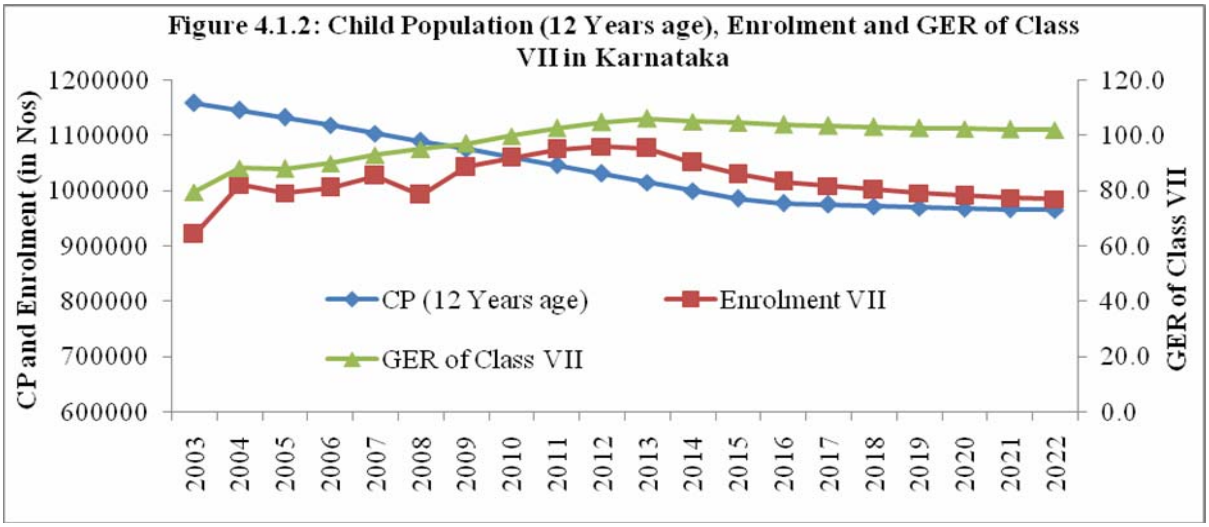
Having observed the trend at elementary level it may be noted herein that the real hurdle lies in transition between elementary and secondary. In Karnataka the last grade of elementary level has been class VII and the secondary level consists of class VIII, IX and X. Recently, the state has made a policy to extend elementary system to class VIII and reduce secondary system to class IX and X. The structural synchronisation process cannot be finished in a year or two, streamlining will be done gradually. At class VII there was a Board Exam which is acted as check point in free flow of students class VII to VIII. Pass percentage in class VII

Board Exam used to be moderate between 70 to 80%. Therefore, the promotion/transition rate between class VII and VIII used to be low. But the Government of Karnataka has removed the Board Exam for class VII children, thus facilitating an easy promotion of class VII to class VIII. This policy helps to keep the repetition and dropout rates in class VII also at check.

The current transition from elementary classes to secondary classes especially class VII to VIII and class VIII to IX, however, is already high at around 90%. If the state could work towards getting as many children completing class VII to enrol in class VIII and then to class IX, its GER of secondary classes would certainly reach more than 75% by 2012 and about 100% by 2017.

In Karnataka, the enrolment in class VII has shown an annual average rate of growth of 1.6 per cent during the last three years (see Table 4.1.2). The annual growth rate of population in general in the state is 1.2 per cent since 2001, and it is negative for the school age population. The growth rate of children of age 12 years, who are the suitable age group for class VII, is also negative (-0.02%). Therefore there would not be much scope for increasing the size of enrolment of school age children in the state.

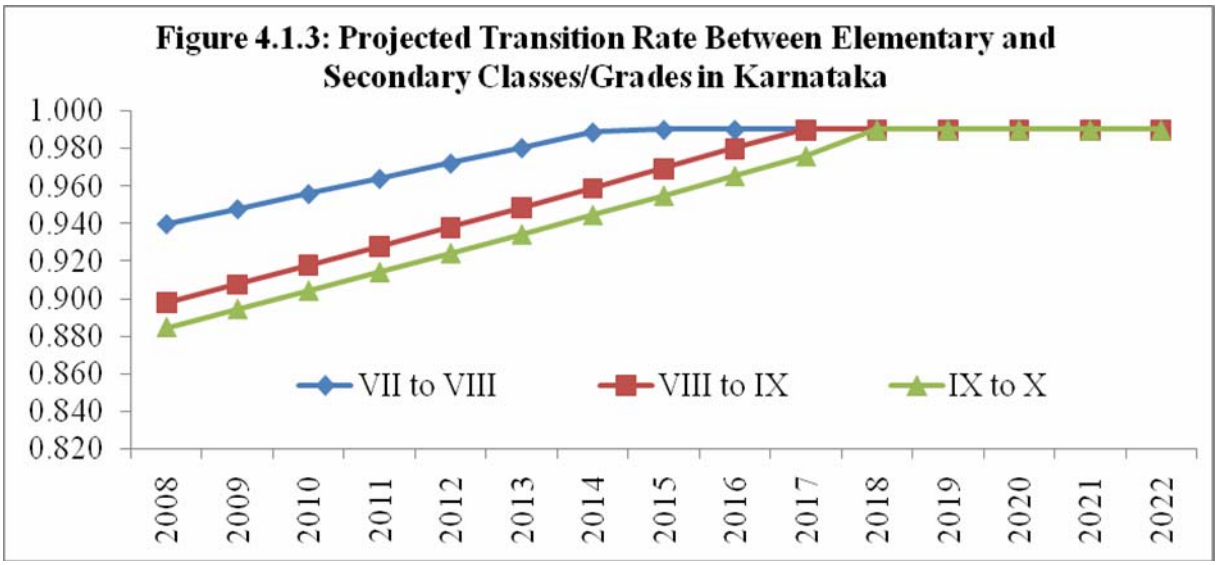
Figure 4.1.2: Child Population (12 Years age), Enrolment and GER of Class VII in Karnataka



It is thus seen that the stabilised size of the population is an advantage for the state. The current rate of growth in enrolment in class VII and VIII can be sustained for a few more years, but it is not practically possible to progressively extend the positive growth of enrolment in class VII and VIII, and hence the GER of these classes will begin to decline after it peaks at around 106%. It may be reasonably expected because of the general demographic trend and the positive interventions of SSA. While the size of the population of 12 and 13 years old in Karnataka is declining and is hence projected to decline from 1.185 and 1.176 million respectively in 2001 to 1.046 and 1.059 million in 2011 and to 0.966 and 0.971 million by 2021 (at an annual rate of growth of around -1.0 per cent during the period). The enrolment in class VII in the state has increased from 0.92 million in 2003-04 to 0.99 million in 2008-09. The enrolment of class VII is projected therefore to its maximum level of 1.079 million by 2012 by following the current (i.e. between 2003-04 and 2008-09) annual average rate of growth (1.6%). The GER in class VII will thus increase from 79.5% in 2003 to 97.0% in 2009 and reaches its peak 106% by 2013. Thereafter both the size of the enrolment in class VII and its GER will begin to decline and stabilise between 100 and 102

per cent depending upon the number of over-aged and under-aged with respect 12 years old, entering into the class VII.

Given the trend of projections of enrolment in class VII, we have used the transition rate between class VII and VIII for the projection of enrolment in class VIII. Similarly, the transition rate between class VIII and IX for the projection of enrolment in class IX and the transition rate between class IX and X for the enrolment in class X. This is a crude form of transition rate i.e. ratio of enrolment in class VIII in the current year (2008-09) to the enrolment in class VII in the previous year (2007-08). The crude transition rate has limitation of leaving out the repeaters.

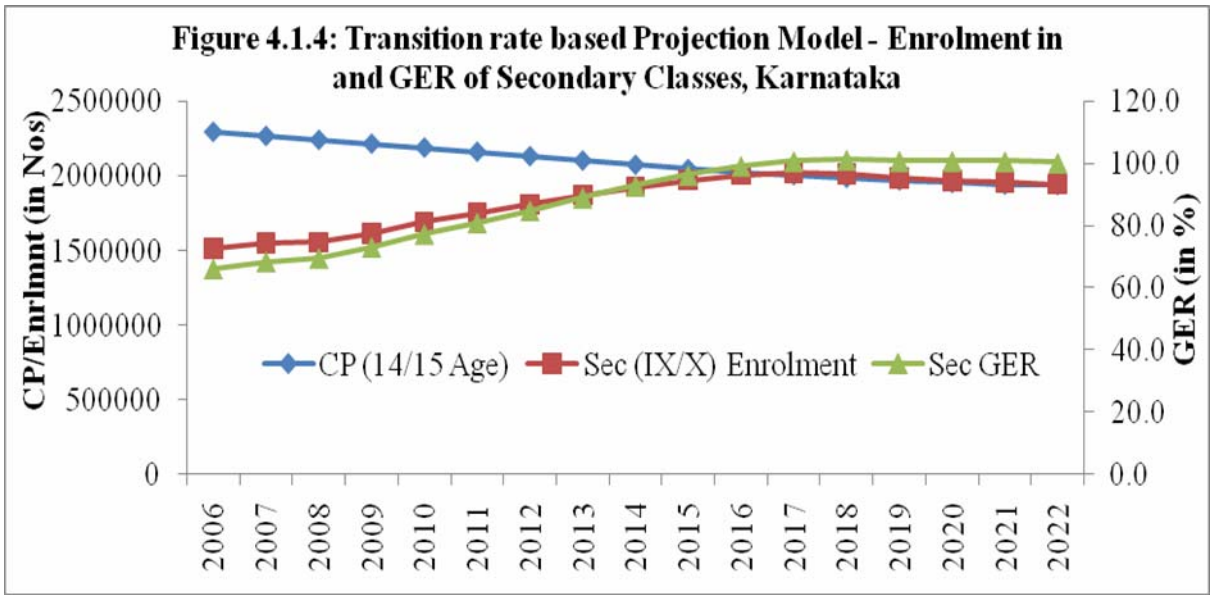


The current transition rate between class VII and VIII is very at 94 per cent. If it (the transition rate) grows at the rate 0.85 per cent (assumed) per annum the transition rate would reach its peak 99.5% by 2015. It is to be noted one cannot expect a 100% transition rate any country/region/state where enrolment/entrants in advanced class in the current year is purely promotes of immediate previous class in the previous year. Over the period, age-appropriate class is getting streamlined. This linear increasing trend in transition rate is expected to have a corresponding linear decline in both the repetition and dropout rate in class VIII.

The transition rate between class VIII and class IX is very high (89.8%) in Karnataka in the year as computed from the state DISE data. The transition rate is expected to grow at the rate of 1.1% per annum during the plan period and the transition rate will increase to 99% by 2017 and continue the same rate thereafter. The expected increase in the rate of growth of transition rate is based on the expectations of dynamism that could be infused into the system with the interventions/initiatives under the RMSA will increases the transition rate further. This linear increasing trend in transition rate is expected to have a corresponding linear decline in both the repetition and dropout rate in class VIII.

Similarly the transition rate between secondary classes i.e. between class IX and X is expected to have a linear increasing trend. The current transition rate between class IX and class X is 88.4 per cent in Karnataka. It is at a high level when compared to many other Indian states but when compared to the transition rate between Class VIII and IX it is 1.4 percentage points lower. It is also expected to grow at the rate 1.1 per cent per annum during plan period and reaches its peak 99% GER by 2018 and continues the same rate thereafter.

The linear increasing trend in promotion rate is expected to have a corresponding linear decline in both repetition and dropout rate in secondary classes.



With the method and assumptions presented in above paras we have projected the enrolment in secondary and thereby derived the GER of secondary classes for the state of Karnataka and they are presented in Figure 4.1.4. The enrolment projections indicate that the state can achieve 85% GER by 2012; it is 10 percentage points higher than the national RMSA GER target for the year. Also, it is not a difficult task for the state to achieve the other RMSA target GER=100% by 2017.

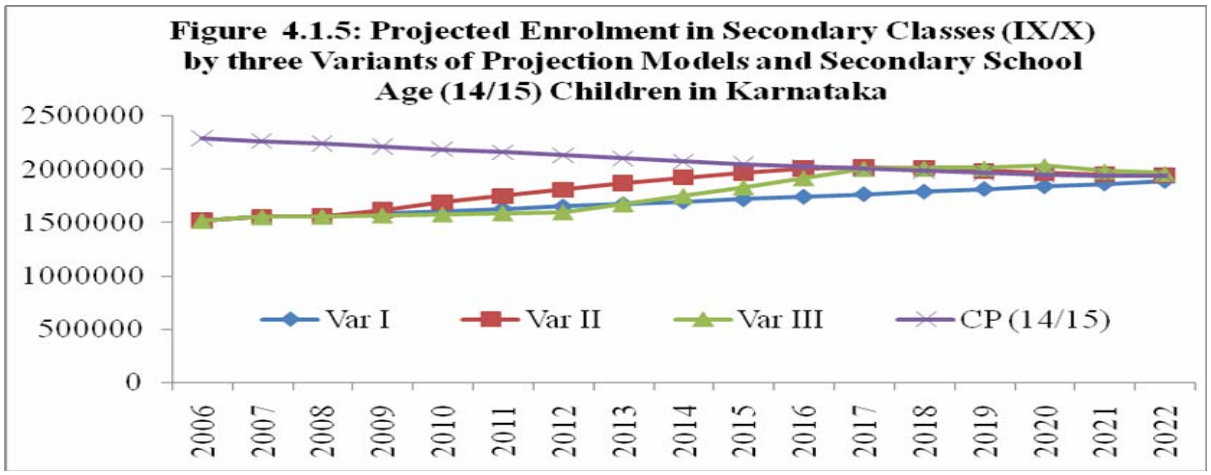
The third alternative is nothing but the possibility of achieving RMSA national level targets i.e. GER=75% by 2012 and GER=100% by 2017. However, the second model has already given us an indication that it is not difficult for Karnataka to achieve these targets.

Having details of the all the three variants projection models, the following presentation is about comparison of size of enrolment, GER and growth of enrolment in secondary classes in Karnataka by three variant projection models.

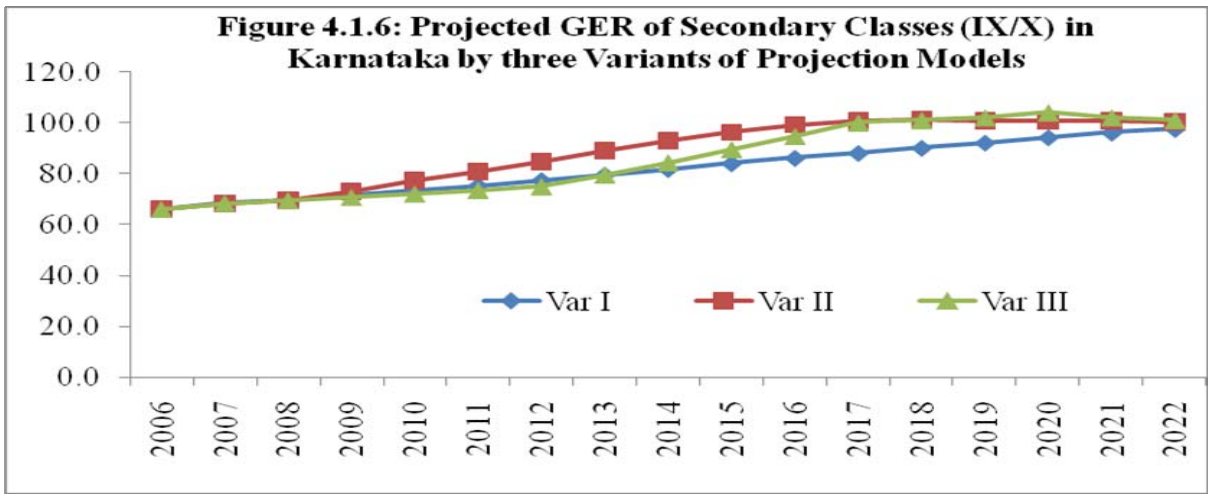
Table 4.1.4: Three Variants of Enrolment Projection Models for Karnataka

Sno	Var Model	Projection Criterion	Remarks
1	***2***	***3***	***4***
1	Variant I	Past performance based – 1.6% growth per annum	
2	Variant II	Growth of Enrolment in Class VII and Transition rate between subsequent classes (VIII, IX and X)	
3	Variant III	GER = 75% by 2012 and GER = 100% by 2017	

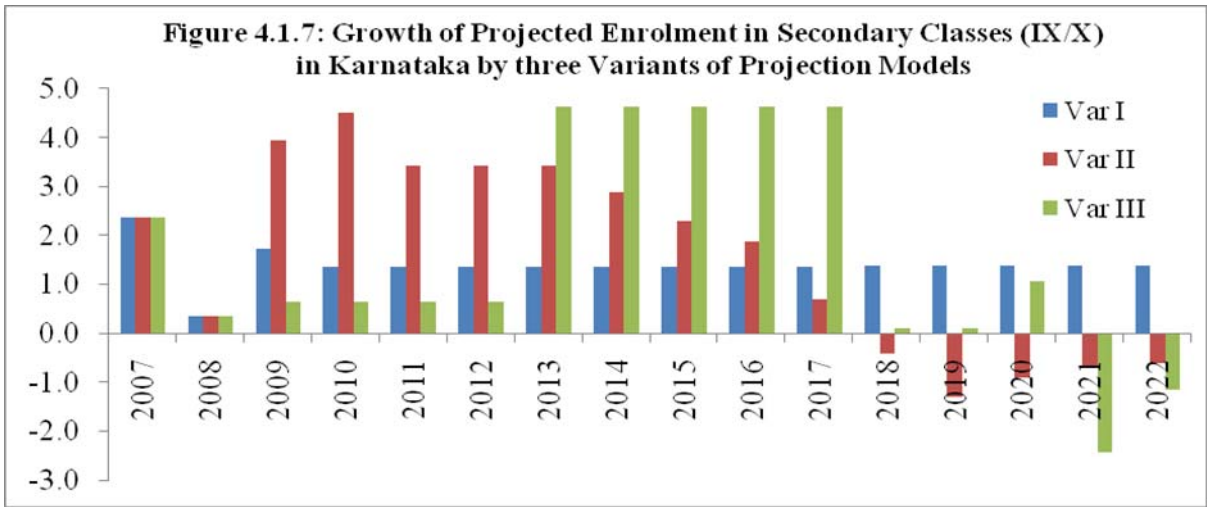
The enrolment projections based on the past growth (Var I) indicates the enrolment in the secondary classes will increase from the base 1.56 million in 2008-09 to 1.65 million in 2012 and to 1.77 in 2017 and further to 1.89 million by 2022. Even then the enrolment figures of secondary classes are not matching with the secondary school age population (14/15age). Projections based on the second model (Var II) indicate that the enrolment in secondary classes will increase to 1.6 million by 2012 and to 2.02 million by 2017 and thereafter it decline to 1.94 million by 2022 (Figure 4.1.5).



The trend in the gross enrolment ratio (GER) by all the three models indicates that achieving GER = 75% by 2012 is not a difficult task for the state of Karnataka. For achieving GER=100%, Var I indicates that it takes very long time and can only be achieved by 2022. The other two models (Var II and Var III) show it can be achieved by 2017. Once GER reaches 100% it gets stabilises so that there may not be much scope for GER being more than 100% because of the elimination process of over-aged children in each and every class has already began and thereby streamlining of age-appropriate class schooling is increasing in the state.



With respect to growth of enrolment in secondary classes, all the three projection models assume a positive growth in Karnataka during the 11th and 12th Five Year Plan period. Thereafter especially during the 13th Five Year Plan period, however, there will be negative growth of enrolment in secondary classes in the state. The negative growth is observed for the last two models, Var II and Var III. The negative growth of enrolment is because of the declining size of the secondary school age population. Besides, the streamlining process of age-appropriate class will eliminate the over-aged children. But the first model (Var I) indicates continuation of positive growth of enrolment in secondary classes during 13th FYP period.



The rate of growth varies with the model (Figure 4.1.5). The annual average rate of growth of enrolment in secondary classes based on Var I projection model is same (1.4 per cent) all throughout the period between 2010 and 2022. And the growth of projected enrolment based on the other model (Var II) shows a varying rate of growth over the period, the annual average during 11th FYP period is 3.8% and it is 2.2% during 12th FYP and thereafter it turns out to be negative at -0.8% during the 13th FYP period. By the third model (Var III), the growth of enrolment in secondary classes is the least among the three models at 0.7% during the 11th FYP period and the highest at 4.6% during the 12th FYP period and it turns to negative at -0.5% during 13th FYP period.

4.1.2 Simulation Model

The fourth alternative is the simulation model developed by Prof. Keith Lewin. Its purpose is to illustrate and iterate medium outcomes against policy goals. The state education system has been modelled from the state school and population census data to generate enrolment projections through to 2022. Uniqueness of the model is that it takes into account whole of the school education system; enrolment right from primary class I to the higher secondary class XII. It also incorporates into it, the gender and social groups. Depending on the availability of baseline data the model can be replicated to gender and social group enrolments. The basic point on which the model is built is that the growth of child population and class-to-class flow rates at elementary level are crucial factors in improving the enrolment at secondary level.

However, in the simulation model the expansion of secondary enrolments is treated as a policy variable and is not linked mechanically to the changing output of primary schooling. The reason for this is that growth in secondary places will not simply expand to absorb predictable proportions of those who reach class VIII. Entry into class IX is a function of secondary school admission policy, availability of local secondary schools of suitable quality at affordable costs, and willingness to attend secondary classes. The number of successful class 8 graduates places an upper limit on the numbers who can be admitted into secondary schooling (Lewin, 2009).

The following baseline facts are considered for the model. In Karnataka population growth in the school age group is falling. It appears to be between -0.5% and -1%. About 48% of the school age population is female.

The baseline enrolment at elementary level in the state shows that in 2008-09 about 8.54 million children were in classes I to VIII. Of these about 0.96 million were in class VIII. This can be compared to the 0.83 million enrolled in class IX. The share of girl children in class I was 48.2% and in class VIII it has marginally fallen to 47.8%. In class IX after transition to secondary level, the share of girl children has in fact improved to 47.7%. There is not much difference in contribution of girl children in terms of enrolment in elementary classes to secondary classes. Girls maintain a similar share of enrolment at all levels. The crude transition rate into secondary level for girls and boys together is 94%. At the secondary level the baseline data indicates that Karnataka had a secondary level GER (classes IX and X) of 69.9%. There was considerable difference between GER at secondary level for girls (67.7%) and boys (71.3%). There were about 923 girls for every 1000 boys in secondary classes.

Given the above facts following key assumptions are made for the Model to obtain enrolment projections at secondary level:

- The transition rates within elementary classes and between elementary and secondary classes and again within secondary classes will follow a pattern to achieve GER=75% by 2012 and GER=100% by 2017.
- The ratio of new entrants to class I to the number in the single age group of 6 year olds will fall from over 1.2:1 to 1:1 by 2020.
- Repetition and dropout rate at primary level by class will fall from current values to less than 1% by 2020.
- Promotion rates for all primary classes will reach or exceed 99%, especially classes V & VI.
- Transition rates into secondary level will rise at rates determined by feasible targets for secondary GER.
- Repetition and drop out by class through secondary school will fall from current values to less than 2% by 2020.

The projections at elementary level indicate that total enrolments at elementary level will decline from about 8.53 million in 2008 to 8.52 million by 2012 and to 8.26 million by 2017. It is for two reasons, growth child population is declining and number over-aged children in primary classes will be greatly reduced. Critically the numbers in class I will fall from 1.14 million to 1.04 million between 2008 and 2017. But the enrolment in class VIII will increase from 0.96 million to 1.02 million by 2017 with a reduction in the gap between boys and girls. The charts below show this projected expansion.

Figure 4.1.8: Enrolment in Elementary Classes in Karnataka

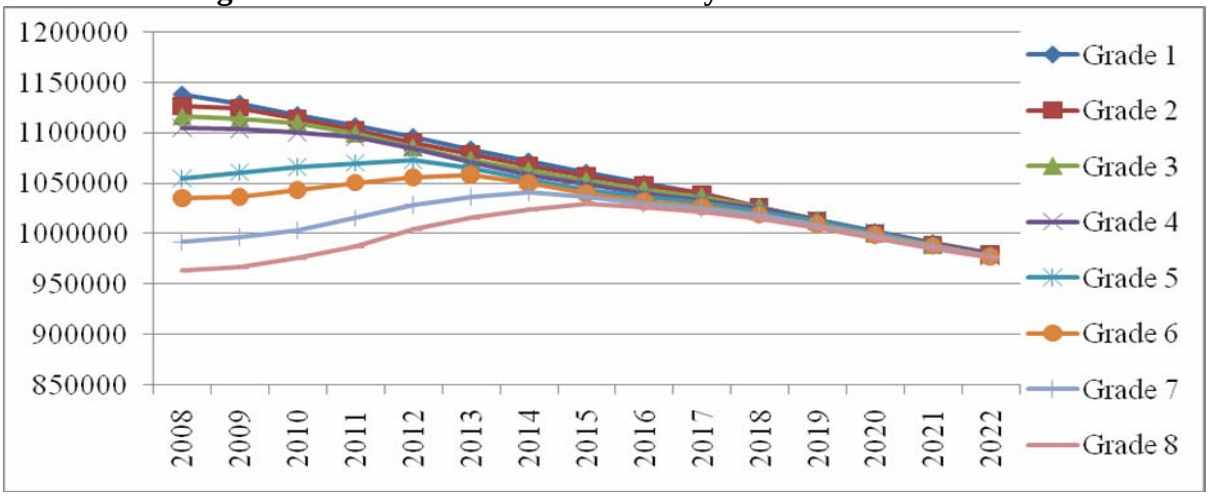


Figure 4.1.9: Enrolment of Boys and Girls by class/grade in Karnataka, 2008

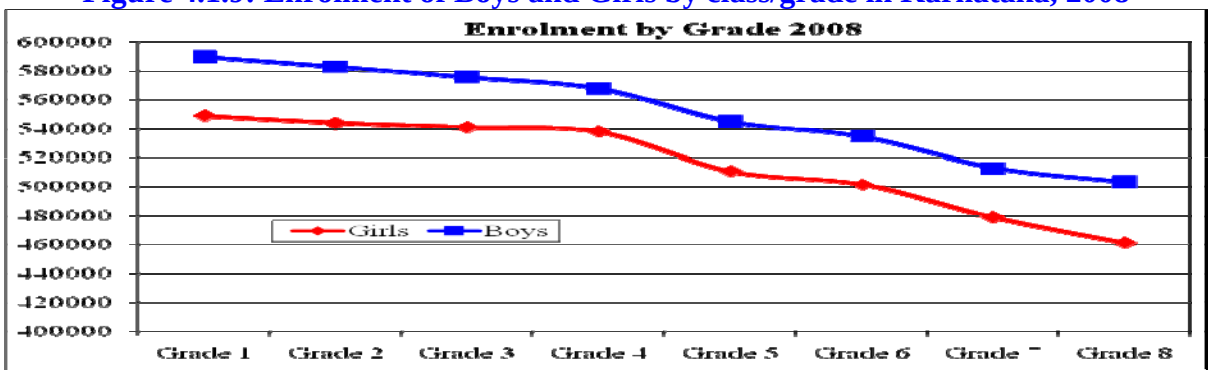
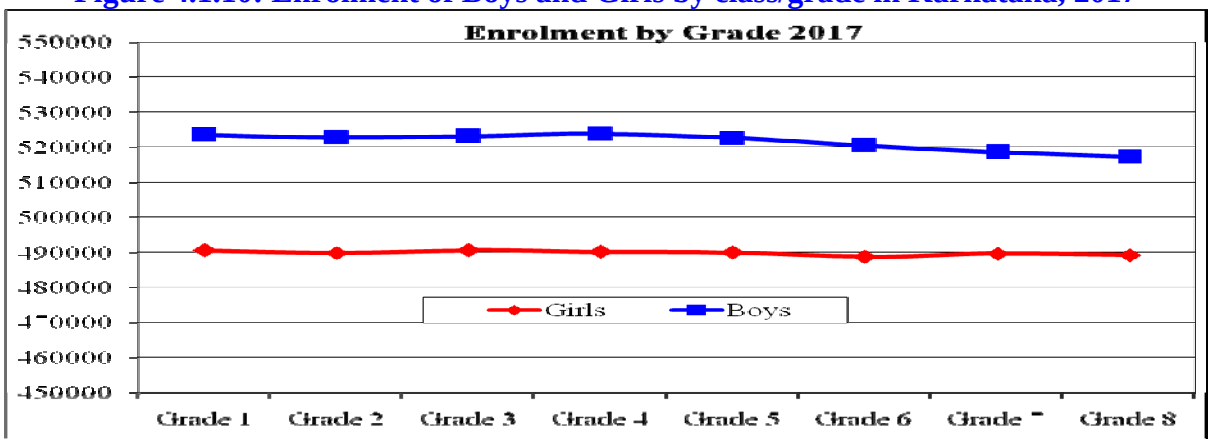
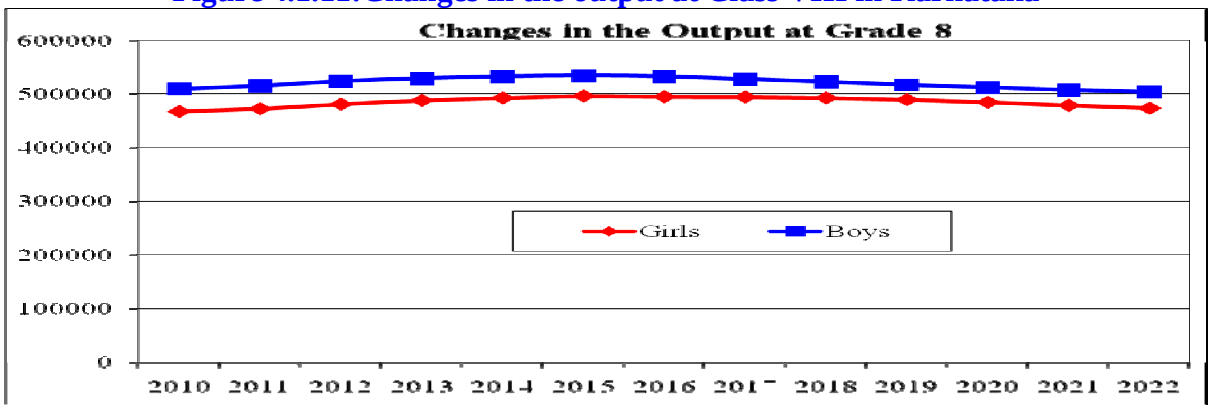


Figure 4.1.10: Enrolment of Boys and Girls by class/grade in Karnataka, 2017



Although the more than 100% GER is expected for both the girls and boys in elementary classes, the difference in number of enrolled boys and girls is continued because of the projected number of girls in the school-age population is less than that of boys in Karnataka.

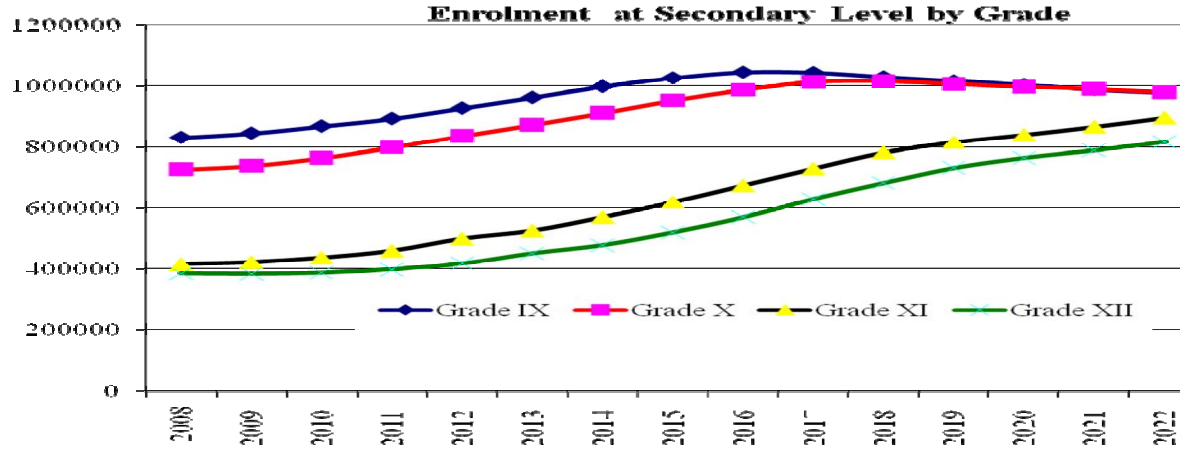
Figure 4.1.11:Changes in the output at Class VIII in Karnataka



Having the situation at elementary level in hand, one can now explore the rate of expansion necessary to achieve the national targets set of GER=75% by 2012 and GER=100% by 2017 for secondary schooling. This would require enough school places for all children to attend class IX and X. It would not ensure that all children attending were class appropriate aged since overage children would continue to occupy places, and hence the places provided might not be matched with effective demand in particular places. This outcome is modelled by increasing the input to class IX. The result is as shown below.

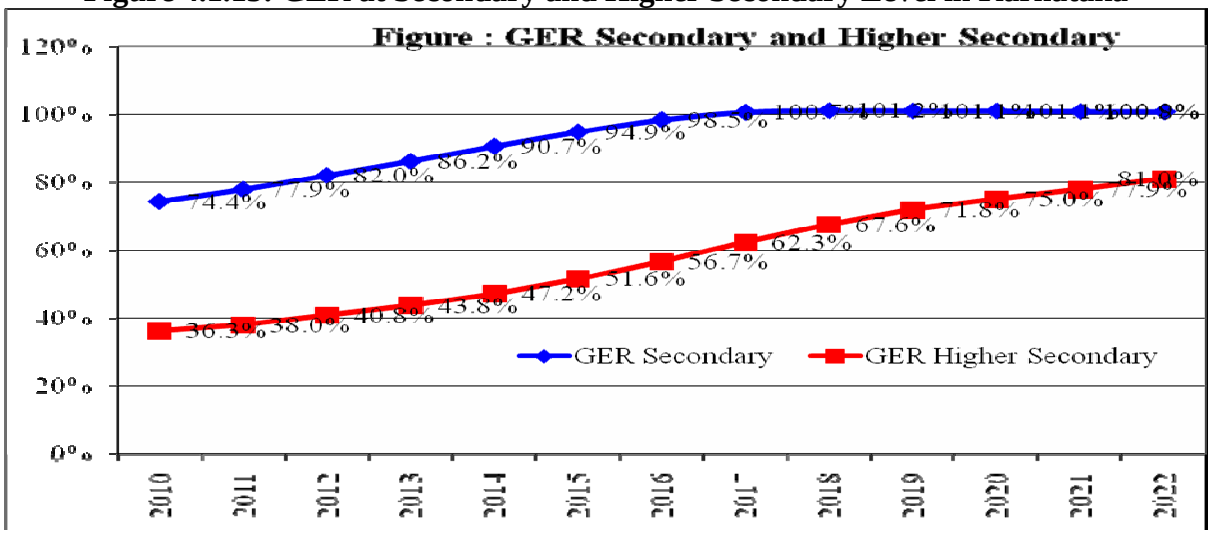
To achieve the national target GER=75% by 2012 at the state level, the number of children to be enrolled in secondary classes have to be increased from 1.56 million in 2008 to 1.6 million in 2012. However, the simulation model indicates achieving GER more than 75% by 2012 in Karnataka. The enrolment in secondary classes would increase to 1.76 million and thus GER would be 82% by 2012.

Figure 4.1.12: Enrolment in Secondary Classes by Grade in Karnataka



To achieve 100% GER by 2017, the number of children enrolled in secondary classes would need to increase to about 2.04 million by the date and the model indicates it is not a difficult task for the state.

Figure 4.1.13: GER at Secondary and Higher Secondary Level in Karnataka



The number of boys and girls that need to be enrolled is shown below. Between 2009 and 2012 the number of boys would need to increase modestly from about 0.81 million to nearly 0.91 million and further to 1.04 million in 2017. The number of girls would need to increase from about 0.75 million to 0.86 million and further to 1.01 million. Thereafter both the number of boys and girls would needed to get enrolled in secondary classes will begin to decline, because of the shrinking secondary school age-group (14-15) population. The number of girls remains less than boys since there are fewer girls in the population.

Figure 4.1.14: Number of Boys and Girls needed to be enrolled at Secondary Level

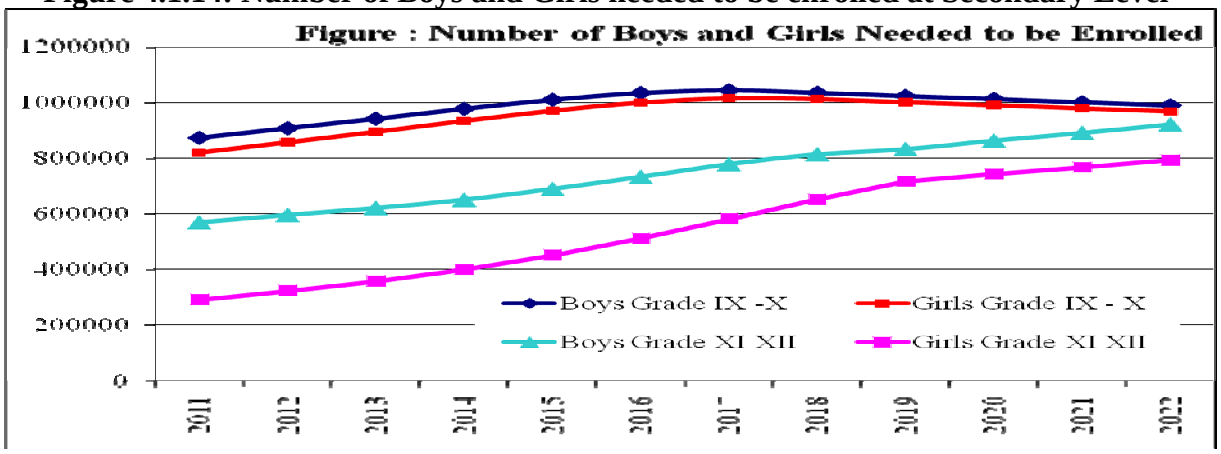
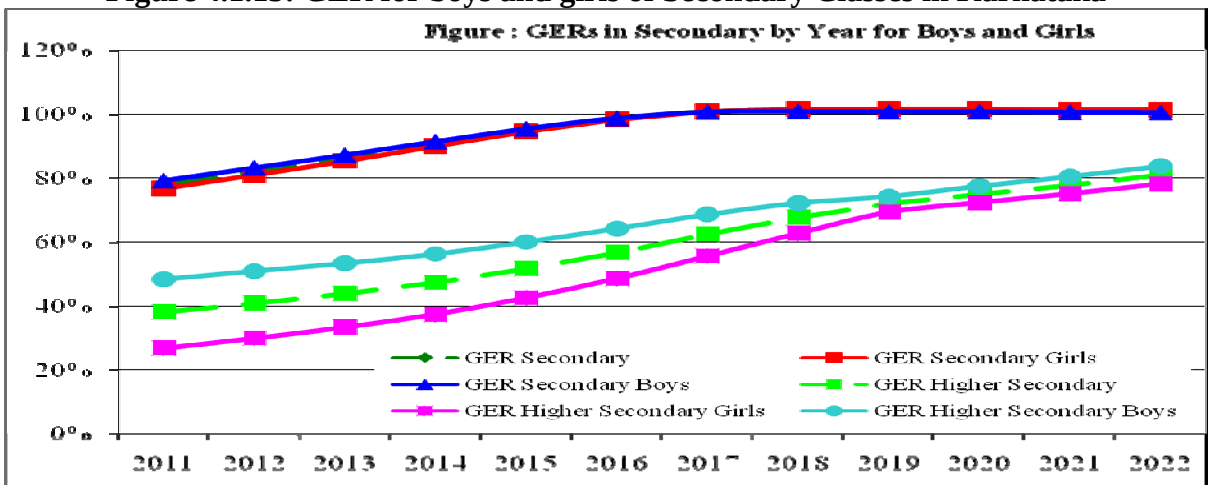


Figure 4.1.15: GER for boys and girls of Secondary Classes in Karnataka



The annual rates of growth needed to achieve GER=100% by 2017 for Karnataka is modest. The annual increase in class IX enrolments is shown below. Assuming that the increase in 2008 was about 2%, the expansion in 2009, 2010, 2011 and 2012 could be below 4%. It could then further increase to 4.4% in 2014 and thereafter the rate of growth declines and turns negative 2018 onwards as the effects of lower population growth become noticeable.

Figure 4.1.16: Overall rate of increase of New Entrants needed in Karnataka

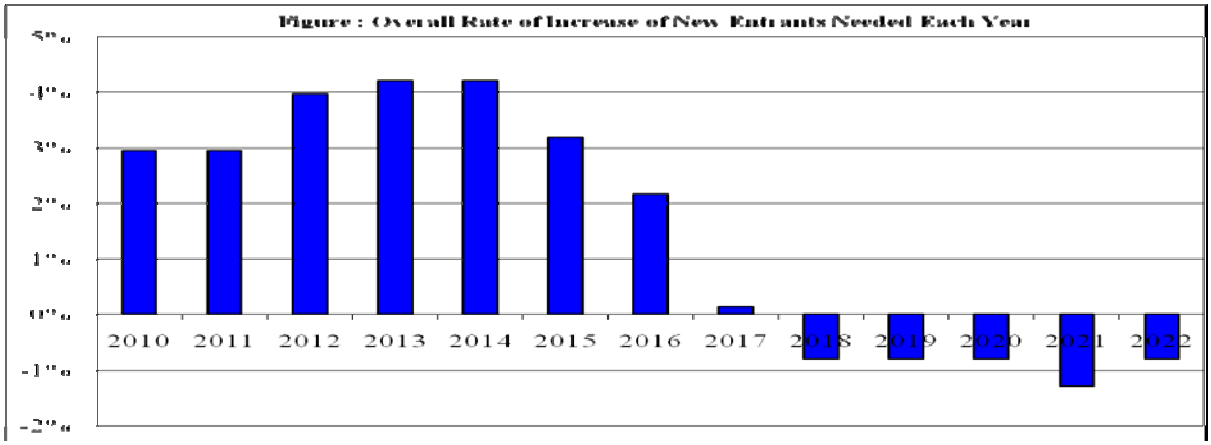
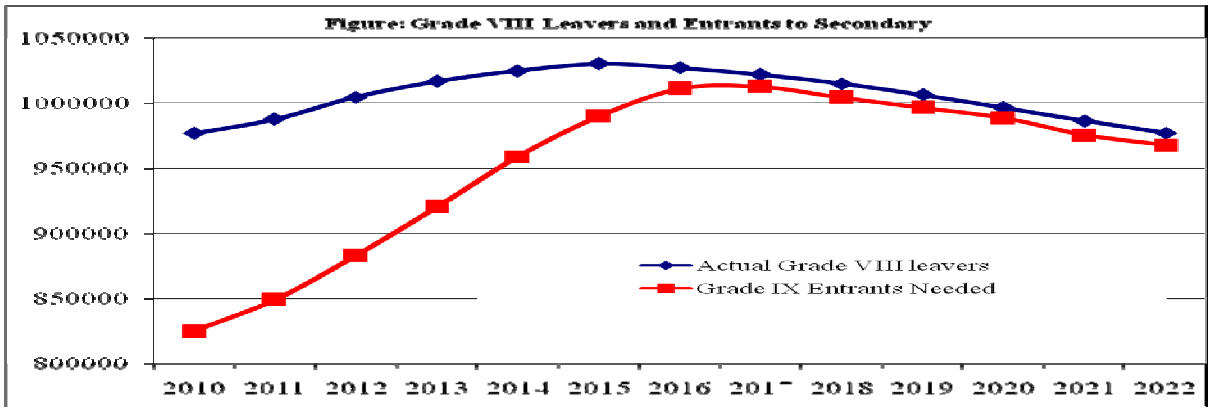


Figure 4.1.17: Elementary graduates required for new entrants in class IX, Karnataka

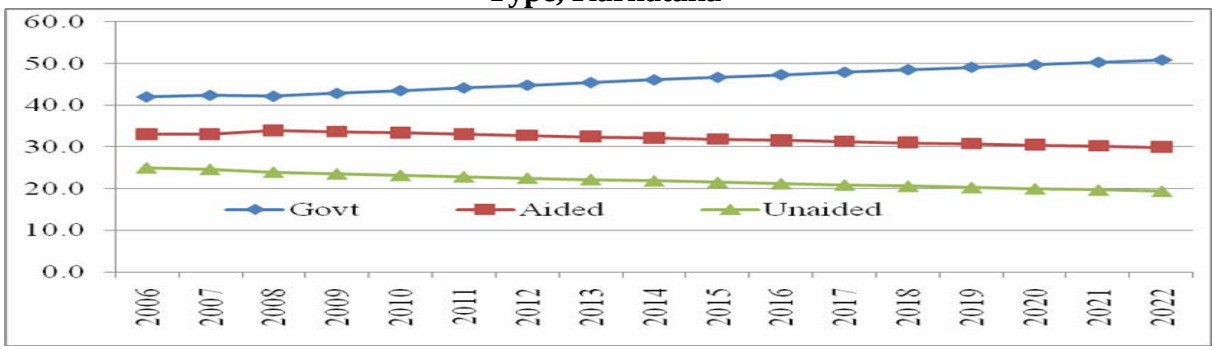


To increase the enrolment in secondary classes and thereby to achieve the RMSA target, availability of elementary graduates especially class VIII leavers is crucial input factor for the new entrants in class IX. When examined the number of class VIII leavers available will be sufficient for the enrolment in class IX to achieve the state RMSA targets (Figure 4.1.17). It is not difficult at all to sustain the modest rates of growth required during the plan period despite the fact that the state is going to witness a decline in class VIII graduates, owing to the impact of demographic transition in the state. The number of students leaving class VIII would fall from 2015 onwards. However, it will be able to provide sufficient number of graduate to get enrolled in secondary classes for achieving the targets. Herein one may say that the expected growth of enrolment in secondary classes is sustainable.

4.2 Distribution of Projected Enrolment by School Management

When we consider the above projections of enrolment in secondary classes for the projections of required resources, schools managed or funded by the state government departments and other agencies must be differentiated because our concern is on cost in schools managed and funded by departments of the state government alone. All the other schools managed by central government agencies or private bodies do not matter to the state exchequer.

Figure 4.1.17: Distribution (%) of Secondary Enrolment in Schools by Management Type, Karnataka



In this context, it is important to note that the share of enrolment in secondary classes in state government schools to the total enrolment in the state during 2008-09 is around 75 per cent. This share of state government schools is expected to increase from the base year level to 81% by 2022 and applied the increasing share of schools managed/funded by state government departments throughout the projection period.

Table 4.2.1: Projected Enrolment at Secondary Level in Karnataka by three Variants of Projection Models

Year	Projected Enrolment								
	Total Enrolment				Enrolment in Government&Aided Schools				% of Govt
	Var I	Var II	Var III	Var IV	Var I	Var II	Var III	Var IV	
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***
2008	1557709	1557709	1557709	1557709	1185270	1185270	1185270	1185270	76.1
2009	1584430	1618996	1567886	1584145	1209770	1236161	1197138	1209552	76.5
2010	1606073	1692045	1578130	1633014	1230472	1296338	1209064	1251113	76.8
2011	1628018	1749880	1588441	1692523	1251473	1345149	1221050	1301058	77.2
2012	1650271	1809745	1598819	1763982	1272777	1395773	1233095	1360478	77.5
2013	1672835	1871715	1672899	1831963	1294390	1448276	1294439	1417518	77.9
2014	1695716	1925770	1750412	1900611	1316314	1494895	1358772	1475366	78.2
2015	1718918	1969911	1831517	1964862	1338555	1534008	1426238	1530077	78.5
2016	1742445	2006852	1916379	2014534	1361118	1567660	1496987	1573660	78.8
2017	1766303	2020572	2005173	2042026	1384006	1583242	1571176	1600052	79.2
2018	1790495	2012378	2007368	2037932	1407225	1581612	1577675	1601696	79.5
2019	1815027	1986034	2009375	2021042	1430780	1565584	1583984	1593180	79.8
2020	1839904	1968060	2030724	2004757	1454674	1555998	1605541	1585011	80.1
2021	1865130	1955218	1981139	1984452	1478914	1550347	1570901	1573528	80.4
2022	1890711	1943444	1958273	1965079	1503505	1545438	1557230	1562643	80.7

Note: **1**. Var – Variant; % of Govt – Share of enrolment in schools managed/funded by state government departments in the state.

Source: Estimations.

Table 4.2.2: Additional Enrolment in Secondary Classes in Karnataka by three Variants of Projection Models

Year	Projected Enrolment							
	Total Enrolment				Enrolment in Government&Aided Schools			
	Var I	Var II	Var III	Var IV	Var I	Var II	Var III	Var IV
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
2009	26721	61287	10177	26436	24500	50891	11868	24282
2010	21642	73049	10244	48869	20702	60177	11926	41561
2011	21945	57835	10311	59508	21001	48811	11986	49945
2012	22253	59865	10378	71459	21305	50623	12045	59419
2013	22565	61969	74080	67982	21612	52504	61344	57041
2014	22881	54056	77513	68648	21924	46619	64333	57847
2015	23202	44141	81104	64251	22241	39113	67466	54711
2016	23527	36941	84862	49671	22562	33651	70749	43583
2017	23857	13721	88794	27493	22888	15582	74189	26392
2018	24192	0	2195	0	23219	0	6499	1644
2019	24532	0	2007	0	23555	0	6309	0
2020	24877	0	21348	0	23895	0	21558	0
2021	25226	0	0	0	24240	0	0	0
2022	25581	0	0	0	24590	0	0	0

Note:

Source: Estimations.

The projected size of the enrolment in secondary classes of all schools and those schools which are managed/funded by state government department is presented in Table 4.2.1 and the projected additional enrolment for the same over years is presented in Table 4.2.2.

4.3 Projected Demand for Teachers and Classrooms

The increase in the size of enrolment obviously requires additional resources. The estimated number of additional classrooms and teachers required to serve the additional projected enrolment presented in Table 4.3.1 and Table 4.3.2.

Table 4.3.1: Total Classrooms required (CPR 1:30) for Secondary Classes in Karnataka by three variants of projection models

Year	Additional Classrooms requirement							
	Total Classrooms required				Classrooms required in Government&Aided Schools			
	Var I	Var II	Var III	Var IV	Var I	Var II	Var III	Var IV
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
2009	668	1532	254	661	612	1272	297	607
2010	541	1826	256	1222	518	1504	298	1039
2011	549	1446	258	1488	525	1220	300	1249
2012	556	1497	259	1786	533	1266	301	1485
2013	564	1549	1852	1700	540	1313	1534	1426
2014	572	1351	1938	1716	548	1165	1608	1446
2015	580	1104	2028	1606	556	978	1687	1368
2016	588	924	2122	1242	564	841	1769	1090
2017	596	343	2220	687	572	390	1855	660
2018	605	0	55	0	580	0	162	41
2019	613	0	50	0	589	0	158	0
2020	622	0	534	0	597	0	539	0
2021	631	0	0	0	606	0	0	0
2022	640	0	0	0	615	0	0	0

Note:

Source: Estimations.

Table 4.3.1: Additional Teachers required for Secondary Classes in Karnataka by three variants of projection models

Year	Additional Teachers requirement							
	Total Additional Teachers				Additional Teachers in Government&Aided Schools			
	Var I	Var II	Var III	Var IV	Var I	Var II	Var III	Var IV
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
2009	802	1839	305	793	735	1527	356	728
2010	649	2191	307	1466	621	1805	358	1247
2011	658	1735	309	1785	630	1464	360	1498
2012	668	1796	311	2144	639	1519	361	1783
2013	677	1859	2222	2039	648	1575	1840	1711
2014	686	1622	2325	2059	658	1399	1930	1735
2015	696	1324	2433	1928	667	1173	2024	1641
2016	706	1108	2546	1490	677	1010	2122	1308
2017	716	412	2664	825	687	467	2226	792
2018	726	0	66	0	697	0	195	49
2019	736	0	60	0	707	0	189	0
2020	746	0	640	0	717	0	647	0
2021	757	0	0	0	727	0	0	0
2022	767	0	0	0	738	0	0	0

Note:

Source: Estimations.

The demand for additional classrooms is based on the norm of pupil classroom ratio 1:30 of the additional enrolment projected. The demand for teachers is estimated based on the method that for every six sections (following 1:30 CPR) of secondary classes a set of six

core-subject teachers and for every 10 sections a set of two other teachers (for Physical Education and Computers) would be required.

4.4 The Demand for Financial Resources

Financial resources required are of two types: one is of development cost which is non-recurring in nature, and the other is recurring costs. The development costs includes the cost of construction of new schools, construction of additional classrooms and other rooms for Head Master, Staff, Administration, etc., and science laboratory, library, toilet blocks, setting up teaching-learning equipment (TLEs) etc.

Seen as a planning exercise, of the three variants Karnataka prefers to choose variant II because the maximum enrolments reflected here will help to ensure that the state will be prepared to provide the necessary classrooms, teachers and infrastructure.

4.4.1 Physical Expansion

In terms of the development cost of secondary school education in Karnataka, the financial resources required will be for the strengthening of existing schools with secondary classes, as many of the schools are found to be lacking adequate basic facilities. There are about 7384 existing schools in the state with secondary classes and managed by the state government departments. Of the total schools about 35 per cent of the schools (2485) need to be strengthened. The strengthening of these schools will have to be completed within the 11th Five Year Plan (FYP) period (Table 4.4.1.1).

Table 4.4.1.1: Expansion of schools for secondary classes in Karnataka

Year	Secondary Schools to be Strengthened*	Up-gradation of Middle Schools*	Opening of Model Schools*	Construction of Classrooms	Total Schools for Secondary Classes
1	***2***	***3***	***4***	***5***	***6***
2008	0	0	0	0	7384
2009	860	548	0	0	7932
2010	1094	548	74	0	8554
2011	1094	548	0	189	9102
2012	1094	0	0	2563	9102
2013	0	0	0	2542	9102
2014	0	0	0	2470	9102
2015	0	0	0	2453	9102
2016	0	0	0	2037	9102
2017	0	0	0	1606	9102
2018	0	0	0	1226	9102
2019	0	0	0	0	9102
2020	0	0	0	0	9102
2021	0	0	0	0	9102
2022	0	0	0	0	9102

Note: * - expected to complete by the end of the 11th Five Year Plan period; Total Schools for Secondary classes – the number of schools are in both the Government and Aided only.

Source: Estimations

Upgradation of middle school is another way to expand secondary education in Karnataka. About 1000 middle schools have reported that they do not have high/higher secondary schools within a distance 5 Km radius. All these schools may have to be up scaled but the viability consideration takes into account those middle schools which have at least 25-50 students in class 8 and one willing to get enrolled in class IX. For this purpose, 800 middle

schools planned to be up classed during 11th FYP are distributed over the years within the respective plan periods (Table 4.4.1.1).

Table 4.4.1.2: Unit Cost of recurring and non-recurring expenditure for secondary school education in Karnataka

Sno	Cost Item	Cost/unit (Rs.)	Remarks
1	***2***	***3***	***4***
I	**Non-recurring**		
1	Class room	610000	including Fixtures and Furniture
2	Science Laboratory	1140000	-do-
3	Lab Equipment	100000	-do-
4	Library	1140000	-do-
5	HM room	610000	-do-
6	Office room	610000	-do-
7	Computers room	610000	-do-
8	Art/Craft Rooms	610000	-do-
9	Toilet Blocks	200000	-do-
10	Teaching-Learning Equipment (TLE)	100000	Per School
11	Upgradation of Middle Schools	6150000	Per School
12	Strengthening of Secondary Schools	4425000	Per School
13	Maths lab	125000	Per School
14	English language laboratories	50000	Per School
15	Model School	3.02 Crs	in Crores, per School
16	Hostel Quarters	600000	Per quarter
17	Major Repairs Grants	200000	Per year
18	Management, Monitoring and Evaluation	2.2%	Per cent in Total Cost
II	**Recurring**		
1	Teachers' Salary	20000	Avg. per teacher per month
2	In-Service Training (INSET)	1000	one teacher per year
3	Non-Teaching Staff Salary	10000	Avg. per staff per month
4	Minor repairs	25000	Per year per school
5	Annual Grants	15000	Per year per school
6	Teaching Learning Material (TLM)	2000	Per year per subject teacher
7	Incentives : Free Books	200	Cost per a set of Books
8	Bicycle(for boys and girls)	2400	Per student
9	Scholarships	1000	Per student per year
10	Hostels	5000	Per student per year
11	Abolition of Special Fees		Total at State Level
12	Monitoring and Evaluation	2.2%	Per cent in total cost

Note: **1**. Figures are in Rs. 0.00; **2**. The cost of construction includes the fixtures and furniture.

Source: Estimations.

Besides, Karnataka is also planning to open 74 Model Schools and the construction of these schools will be completed within the 11th FYP period (Table 4.4.1.1).

4.4.2 Development or Non-Recurring Costs

The estimated cost of the developmental activities with respect to strengthening of secondary schools, upgradation of middle schools, construction of additional classrooms, Maths and English laboratories, and hostels/quarters are presented in Table 4.4.2.1. These estimations are made based on the unit costs presented in the Table 4.4.1.2. One must note the cost projections includes secondary enrolment in schools managed or funded by government departments (i.e. both the government and aided schools).

With respect to additional classrooms it is to be noted that the enrolment projections demand a significant number of additional classrooms for secondary classes. While strengthening the

existing secondary school and upgrading middle schools, a minimum of four classrooms are expected to be available for the secondary classes. Karnataka is planning to have Maths and English labs as a part of quality improvement initiatives. With respect to laboratories, many of the schools with secondary classes in Karnataka are not having such facility and hence all these government secondary schools. While strengthening existing secondary schools about 2485 schools will get laboratory facility. Therefore, rest of the schools (about 1657) are selected to provide the facility. Also, the state is planning to have hostels or residential quarters for the teachers' working in remote area schools with an estimated cost of Rs. 0.5 crore per year during the next four years (i.e. between 2009 and 2012).

Table 4.4.2.1: Projected development cost (non-recurring) for expanding Secondary Education in Karnataka

Year	Strengthening of existing Sec Schools	Upgradation of Middle Schools	Additional Classrooms	Labs	Hostel/ Quarters	Major Repairs	Total Cost (NR)
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***
2009	328.8	516.0	0.0	11.7	1.0	5.5	882.1
2010	328.8	656.4	0.0	13.1	1.0	5.9	1027.4
2011	328.8	656.4	0.0	14.5	1.0	6.4	1029.2
2012	0.0	656.4	9.4	14.5	1.0	6.8	703.3
2013	0.0	0.0	128.1	0.0	0.0	6.8	137.9
2014	0.0	0.0	127.1	0.0	0.0	6.8	136.9
2015	0.0	0.0	123.5	0.0	0.0	6.8	133.2
2016	0.0	0.0	122.7	0.0	0.0	6.8	132.3
2017	0.0	0.0	101.8	0.0	0.0	6.8	111.1
2018	0.0	0.0	80.3	0.0	0.0	6.8	89.0
2019	0.0	0.0	61.3	0.0	0.0	6.8	69.6
2020	0.0	0.0	0.0	0.0	0.0	6.8	7.0
2021	0.0	0.0	0.0	0.0	0.0	6.8	7.0
2022	0.0	0.0	0.0	0.0	0.0	6.8	7.0

Note: **1**. Figures are in Rs. 0.00 Crores; **2**. For the cost related to Additional Classrooms, the reported estimations are based on Var II; **3**. *Total Cost* includes the cost of monitoring and evaluation @ 2.2 per cent of the all the non-recurring cost.

Source: Estimations.

Another development cost that is most important is cost related major repairs. Most of the schools with secondary classes in Karnataka are having age-old building. These schools building need repair activities. For major repairs, it is assumed that for every four or five years each school may get one or the other major repairs. Therefore, the non-recurring cost on major repair is expected for 15 per cent of the total government schools (about 7384) in each year. The fixed grant of Rs. 50,000 available for major repairs is applied to the 15 per cent of the total schools every year. In addition, these developmental activities need monitoring and evaluation with additional cost, hence the cost of monitoring evaluation is included in total cost presented in Table 4.4.2.1.

4.4.3 Recurring Costs

The recurring costs include the salaries of teaching and non-teaching staff, cost to be incurred for the in-service training of teachers, costs of major repairs, annual grants allotted for minor repairs, electricity, water charges and others, grants for teaching-learning materials, and finally the expenditure on incentive schemes like free text books, bicycles, hostels, scholarships etc. Enrolment projections based on the Variant II is used for the estimation of recurring costs.

Annual Grant, however, must be with respect to the school. Therefore annual grant with a fixed amount at Rs. 25,000 is applied to each of the total secondary schools managed by state government departments and for each year.

With respect to teachers' salary, TLM grants and cost teachers' training (INSET) the total number of teachers required is estimated based on the number of sections. In other words, based on the total projected enrolment at secondary level in schools managed by state government departments, total number of sections in secondary classes is derived with 1:40 classroom-pupil ratio (CPR) norm. Given the total number of sections in secondary classes, the total number of teachers required is derived by logic/norm that for every six sections there must be a set of six core-subject teachers and for every ten sections there must be two non-core subject teachers. This logic/norm is reasonable as the core issue for the state of Karnataka with respect to secondary education is quality of education.

Given the method and projected total number of teachers, the grant for teaching learning material (TLM) is fixed at Rs. 1000 per teacher per annum and it must be available at least for six core-subject specific teachers in each school. With respect to the salary of teachers, the average Rs. 15000 per month is considered and applied to total number of teachers available in each year. It is to be noted that expected hike in the teachers' salary with the effect of recent pay review is not accounted here. For the cost of in-service training (INSET) of teachers, an amount of Rs. 200 per day is fixed and training period is five days a year per teacher. Therefore, the cost of in-service training is applied to all teachers.

Regarding non-teaching staff, it is expected to have at least four non-teaching staff per school with secondary classes. The average salary for the non-teaching staff is expected at Rs. 8000/- per person per month. Hence the cost of non-teaching staff is derived as number of schools multiplied by the minimum number of staff required (i.e. 2) multiplied by the average payment per person per month.

Along with quantitative expansion another issue of secondary education in Karnataka is quality improvement. There are, however, quantitative and qualitative aspects of quality improvement. Quantitative aspects of quality improvement aspects such as class size (CPR), availability of number of teachers, are already covered and their cost estimations are made. But the qualitative aspects of quality improvement are yet to be explored and strategies are yet to be designed. However, for the cost estimations for the qualitative aspects of quality improvement we have used a simple formula: one percent of the total recurring cost estimated excluding the cost of incentives scheme and the cost related to management, monitoring and evaluation (MMR).

Incentive schemes play an important role while expanding secondary education in the state. Distribution of free text books for all the enrolled children, distribution of bicycles for the girl children, hostel facilities and scholarship for the children of socially backward communities particularly SC/ST and OBC are popular incentive schemes considered for the recurring cost estimations at secondary level in Karnataka. For distribution of free text books all enrolled children are taken into account and an estimated cost of Rs. 250/- per one set of text books. For distribution of bicycles, all girl children enrolled in secondary classes are (25 per cent of the total projected enrolment) assumed as beneficiaries (number equal to class 9 enrolment) and the cost of a bicycle is fixed at Rs. 2400/-. In case of hostel facility, about 5 per cent of the projected enrolment especially children of the socially backward communities will be accommodated in hostels and residential schools and the cost per student is estimated at Rs.

2000/- per annum. Similarly for scholarships about 5 per cent of projected enrolment especially the children of socially backward communities will be beneficiaries and the scholarship amount is fixed at Rs. 1000/- per annum.

Table 4.4.3.1: Recurring cost for expanding Secondary Education in Karnataka

Year	Annual Grants	TLM Grants	Teachers' Salary	INSET Cost	Other Staff Salary	Quality	Incentives	Total Cost
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
2009	31.7	4.2	891.4	2.8	190.4	11.2	56.4	1214.2
2010	34.2	4.5	959.9	3.0	205.3	12.1	59.8	1307.0
2011	36.4	4.8	1023.5	3.2	218.4	12.9	62.8	1391.9
2012	36.4	5.1	1091.9	3.4	218.4	13.6	65.9	1466.3
2013	36.4	5.5	1165.8	3.6	218.4	14.3	69.1	1546.4
2014	36.4	5.8	1239.0	3.9	218.4	15.0	72.0	1625.6
2015	36.4	6.1	1310.1	4.1	218.4	15.8	74.7	1702.3
2016	36.4	6.5	1380.7	4.3	218.4	16.5	77.1	1778.2
2017	36.4	6.7	1439.4	4.5	218.4	17.1	78.6	1840.8
2018	36.4	7.0	1485.7	4.6	218.4	17.5	79.2	1889.6
2019	36.4	7.1	1521.0	4.8	218.4	17.9	79.2	1926.2
2020	36.4	7.1	1512.9	4.7	218.4	17.8	79.4	1918.0
2021	36.4	7.1	1508.7	4.7	218.4	17.8	79.8	1914.0
2022	36.4	7.1	1505.1	4.7	218.4	17.7	80.2	1910.7

Note: **1**. Figures are in Rs. 0.00 *Crores and in current prices*; **2**. ***TLM*** – Teaching Learning Material; ***INSET*** – In-service Educational Training for Teachers; **3**. ***Quality*** – cost of qualitative components of quality improvement at secondary level, its cost is derived as one percent of the cost of total cost excluding incentives and MMR. **4**. *Incentives* – includes free Text Books, Bicycles, Hostels and Scholarships; **5**. ***Total Cost*** includes the cost of management, monitoring and evaluation (MMR) @2.2 per cent of the all the recurring cost.

Source: Estimations.

In addition to above mentioned popular incentives schemes in Karnataka all the children enrolled for secondary classes are exempted from payment of Examination Fees. The state government also abolished the Special Fees which was earlier collected from the children by school authorities. The state government reimburses schools the revenue amount forgone with the state policy of examination fee exemption and abolition of special fee.

4.4.4 Total Costs for Expanding Secondary Education in Karnataka

Given the procedures mentioned above and thereby the total projected cost including recurring and non-recurring cost of expanding secondary education in the state, the summary statement of the total costs is presented in Table 4.4.4.1.

It may be observed from the Table 4.4.4.1 that the estimated non-recurring cost for the expansion of secondary education in Karnataka is declining over a period. For the first four years beginning from 2009, it is around five crores each year by the end of 11th Five Year Plan period (i.e. 2012), thereafter it declines to ninety five crores. It is because, expansion with respect to strengthening of existing secondary schools and upgradation of middle schools will be completed by the end of the 11th FYP period in Karnataka and hence the cost of the expansion is very high during the period. But the construction of additional classes will continue during the 12th FYP period. The other component of the development cost i.e. major repairs is expected to be there every year especially throughout the projection period. Therefore, the cost related major repairs will remain throughout the projection period.

Table 4.4.4.1: Total projected cost (non-recurring and recurring) of expanding secondary education in Karnataka

Year	Total Amount (in Rs. Crores			Distribution		Annual Growth		
	Rec cost	NR cost	Total cost	% of Rec	% of NR	Rec cost	NR cost	Total cost
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
2009	1214.2	882.1	2096.2	57.9	42.1	-	-	-
2010	1307.0	1027.4	2334.3	56.0	44.0	7.6	16.5	11.4
2011	1391.9	1029.2	2421.2	57.5	42.5	6.5	0.2	3.7
2012	1466.3	703.3	2169.6	67.6	32.4	5.3	-31.7	-10.4
2013	1546.4	137.9	1684.3	91.8	8.2	5.5	-80.4	-22.4
2014	1625.6	136.9	1762.4	92.2	7.8	5.1	-0.8	4.6
2015	1702.3	133.2	1835.4	92.7	7.3	4.7	-2.7	4.1
2016	1778.2	132.3	1910.5	93.1	6.9	4.5	-0.6	4.1
2017	1840.8	111.1	1951.8	94.3	5.7	3.5	-16.1	2.2
2018	1889.6	89.0	1978.6	95.5	4.5	2.7	-19.8	1.4
2019	1926.2	69.6	1995.8	96.5	3.5	1.9	-21.8	0.9
2020	1918.0	7.0	1925.0	99.6	0.4	-0.4	-90.0	-3.5
2021	1914.0	7.0	1921.0	99.6	0.4	-0.2	0.0	-0.2
2022	1910.7	7.0	1917.7	99.6	0.4	-0.2	0.0	-0.2

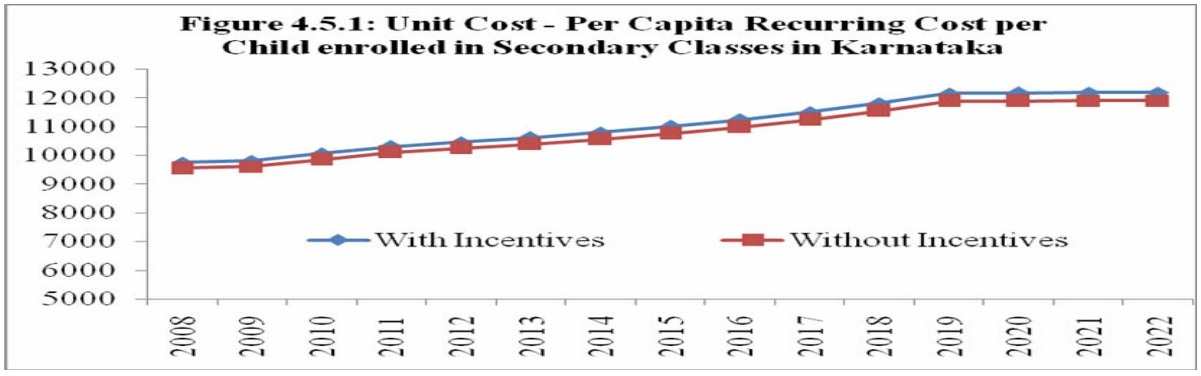
Note: Figures are in Rs. 0.0 Crores;

Source: Estimations.

With respect to the projected recurring cost of the expanding secondary education in Karnataka, it shows increasing trend between 2009 and 2018 and thereafter it is showing a declining trend (between 2018 and 2022). It is because of as the there will not be possibility of further increase in enrolment at secondary level as a result of decline in size of the secondary school-age population in Karnataka, there will not be any additional requirement of resources for the secondary level in the state and thereby there will not be any increase in recurrent cost further. Given the trends in the cost of developmental activities and recurrent cost, the total cost will definitely follow these trends. The trend in total cost shows an increase during the 11th and 12th Five Year Plan periods and thereafter it continuously declines.

4.5 Financial Implications

Financial implications of the resources required for the expanding secondary education with a focus on quality improvement is also a concern at this point. Therefore, the following analysis deals with the financial implications in terms of per capita expenditure on secondary education and the share of expenditure on secondary education in state gross domestic product (GSDP).



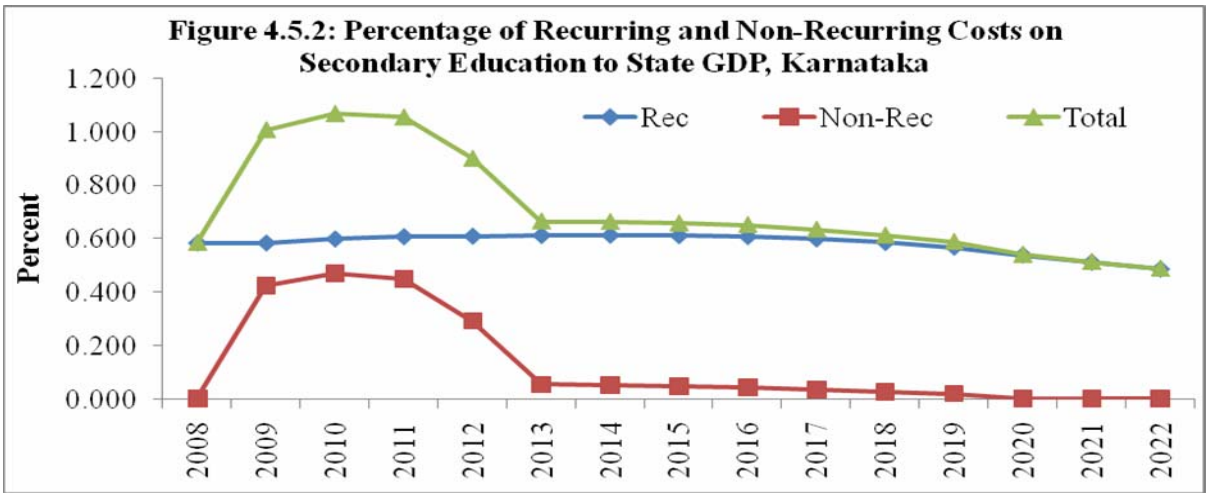
Per capita expenditure on secondary school education is derived with respect to students enrolled for secondary classes in those schools which are managed by departments of state government. From the baseline state budget revenue expenditure, the per capita recurring expenditure on children enrolled at secondary level in schools managed/funded by state government department is observed to be Rs. 5000/- in 2007-08, Rs. 5500/- in 2008-09 and Rs. 8900/- in 2009-10. The per capita recurring expenditure per enrolled children in the secondary classes in the state based on the projected recurring costs is going to increase as the state increase the enrolment in secondary classes further. It would marginally increase (during 11th and 12th FYP period) from the baseline 2009 to around Rs. 10452/- by 2012 and Rs. 11500/- by 2017.

Table 4.5.1: Financial Implications – Recurrent Expenditure on Secondary Education as of GSDP in Karnataka

Year	PC GSDP	% of CP	GER	Rec Exp	PC Exp	% of PC Exp in PCGSDP	% of Exp in GSDP
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***
2009	35451	3.8	73.1	1214.2	9807	27.7	0.585
2010	36835	3.7	77.3	1307.0	10054	27.3	0.600
2011	38282	3.6	81.0	1391.9	10307	26.9	0.608
2012	39795	3.5	84.9	1466.3	10452	26.3	0.610
2013	41378	3.4	89.0	1546.4	10612	25.6	0.613
2014	43035	3.4	92.8	1625.6	10796	25.1	0.614
2015	44764	3.3	96.3	1702.3	11006	24.6	0.612
2016	46573	3.2	99.2	1778.2	11240	24.1	0.609
2017	48504	3.2	100.8	1840.8	11510	23.7	0.600
2018	50518	3.1	101.3	1889.6	11816	23.4	0.587
2019	52640	3.1	100.8	1926.2	12158	23.1	0.570
2020	54883	3.0	100.8	1918.0	12171	22.2	0.540
2021	57256	3.0	100.7	1914.0	12179	21.3	0.513
2022	59705	3.0	100.2	1910.7	12187	20.4	0.488

Note: **1**. Per capita GSDP and Expenditure figures are in current prices and are in Crores; **2**. GSDP is projected assuming 5 per cent annual growth; **3**. ***PC GSDP*** – Per capita Gross State Domestic Product; **4. *% of CP*** – percent of secondary school-age child population to the total population; **5**. ***GER*** – Gross Enrolment Ratio at secondary level; **6**. ***Rec Exp*** – Recurrent Expenditure on (Lower) Secondary Education (i.e. Class IX and X); **7**. ***PC Exp*** – Per capita Recurrent Expenditure on (Lower) Secondary Education; **8**. ***Growth of Exp*** – Annual Growth of recurrent expenditure on (lower) secondary education.

Source: Estimations.



When we examine the recurring expenditure on secondary education as a percentage of the state total income (GSDP) in Karnataka, it is declining from 0.6 per cent in 2009 to 0.5 per cent in 2020 (Table 4.5.1). It is to be noted that the projected GSDP is based on assumed 5 per cent trend growth rate per annum during the perspective plan period (2009-22). Similarly, the per capita recurring expenditure on secondary education as a percentage of per capita GSDP of the state indicates, it is declining from 28 per cent in 2008 to 22 per cent in 2020.

If we examine the non-recurring expenditure on secondary education as a percentage of the state total income (GSDP) of Karnataka, it declines from 0.425 percent in 2009 to its lowest 0.002 per cent by 2020 (Figure 5.5.2). Both the recurring and non-recurring expenditure on secondary education together forms around 1 per cent of state's GSDP in 2009 and declines over a period to 0.5 percent by 2020. It indicates that in the whole perspective plan period (2009-2020), the projected cost (both the recurring and non-recurring) of expanding secondary education in Karnataka is below one per cent. It shows that the cost of expanding secondary education is not too high when we compare it with as a percentage of state GSDP. These facts indicate that the projected expenditure with respect to expanding secondary education while focussing on quality improvement in Karnataka may not be financially burden for the state budget.

4.6 Concluding Remarks

The projection exercise has shown that the maximum enrolment in class IX and X would not go beyond 2.1 million in Karnataka. That means it has to accommodate around 0.45 million additional enrolment in these classes by 2017. The state would need to be able to provide for schools, classrooms, teachers and classrooms to cater to this additional enrolment and create adequate infrastructure and other facilities for total enrolled children to improve the quality of education. As about 50,000 students increase per year on an average from 2008 to 2017, the state should be prepared to provide additional space and educational facility each year. The average additional number of teachers in government schools must be 1000 per year from 2008 to 2017, thus totalling to 10000. The average additional number of classrooms in government schools must be 1000 per year from 2008 to 2018, thus totalling to 10000. The projected cost of expansion is little above baseline (2008-09) level, but it is at an affordable level. The projected cost of expanding secondary education indicates that the state has to spend 1 to 0.5 per cent of its GSDP on lower secondary education (class IX and X) only. Over a period during the projection period (2009-2020) the expenditure on education as % of GSDP is declining. It seems that the state of Karnataka can afford the projected expansion in secondary education. However, the emphasis should be on modest growth in expenditure per child linked to improved quality rather than a decline in share and amount per child as a % of SGDP.

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Chapter V

Policy Issues and Options for Expanding Secondary Education in Karnataka

This chapter is intended to summarise the main challenges and issues and to suggest policy options for expanding secondary education in the Karnataka.

5.1 Modes of Expansion

The status of secondary education in Karnataka indicates that there is a need for its expansion. The current level of GER at 70% indicates that there large number of secondary school-age children who remained out of secondary school system. Efficiency indicators show that there is considerable level of wastage and stagnation between elementary and secondary level and within the secondary system. In this regard the secondary system has to be expanded to get enroll all the elementary graduates and to be strengthened to retain all those enrolled in the system till the completion of the secondary cycle. Ultimately the secondary system has to ensure that all the secondary school-age children will be secondary classes.

Improving physical access to secondary schooling is itself an instrumental factor in expanding secondary education in the state. In general, there are three options for the expansion of secondary education. The capacity of the education system can be expanded vertically or horizontally. In the vertical expansion, secondary classes would be added to extend upwards the existing middle schools. For the horizontal expansion, it is additional classes/classrooms to the existing secondary schools. The third option is opening of new school places in the underserved areas. As regards the costs of expansion, the third option is the most expensive. Least cost is expected with the horizontal expansion. The cost of vertical expansion is moderate one. The policy option among the three alternatives must be situational and based on school mapping at the block level, should not be driven by the cost alone.

In Karnataka there is a large scope for expanding the existing secondary school to increase enrolment in secondary classes in those schools than any other option. There are about 11750 secondary/high school places for class IX and X. These schools places are accommodating about 1.54 million children enrolled in class IX and X. On an average the existing secondary/high school are having about 130 students in secondary classes (IX and X). It means that they must have at least 4 to 5 sections as per the RMSA desired norm of 1:30 classroom pupil ratio (CPR). It indicates that most of the secondary/high schools in Karnataka are smaller ones in terms of size of the enrolment in secondary classes (IX and X). Therefore, many of these school places have huge potential capacity to accommodate additional enrolment in secondary classes without facing overcrowding problem. For this purpose, there is a need for strengthening of existing secondary schools. The strengthening is in terms of additional classrooms, science labs, library, computer lab and the other basic facilities like toilet blocks.

Given the size of the population and the number secondary school places per lakh population, one may arrive at a conclusion saying that the number of existing secondary school place in Karnataka are adequate so that there may not be possibility of creating additional/new school

places for secondary classes. Therefore the expansion of existing secondary schools may be the most optimal option to accommodate expected increase in the enrolment in secondary classes. It is valid from the economic efficiency point of view but the equity point of view the conclusion may not valid. In rural areas, the population of the state is living in small villages/habitations spread over a large geographical area. There is a considerable distance (more than one kilometer) between one village/habitation to the other in the state. The difficulty of children located in distant places reaching secondary school places depends up on the physical connectivity across villages by road and transportation facility. It indicates the problem of physical access to secondary school in the state. For the purpose, upward expansion of the middle schools with secondary classes may be explored before going for opening new schools.

A school based mapping exercise has highlighted that about 15% of the habitations in the state may not have secured by secondary education facility within 5 kms distance. Although Karnataka has 31000 upper primary schools and a proportionately healthy 11750 secondary and higher secondary schools, which is a positive feature, in some areas the distance between middle and the nearest high school may be even 30-40 kilometers especially in hilly and remote areas. Currently, the School Education Department has identified about 2000 such middle schools for upgradation based on distance factor, and awaits results from a more precise habitation access survey for their economic viability in terms of a minimum number (25 or 30) of entrants into class IX. Upgradation is a practical option as schooling structures are already available and adding more facility to such schools will help to address the needs of more students without forcing them to travel greater distances.

Another option is to go for creating new school places for secondary classes (IX and X). Although the un-served and underserved areas are regularly identified, there are financial and other limitations, which do not allow the government to upgrade more number of schools or open new schools in all needy areas. However, in the context of improving secondary education enrolments while implementing RMSA at the state level, special enrolment drives may be carried out to create greater demands for schooling. Hence, depending upon the micro-planning exercise, the exact need for new schools where it would be economically viable may be arrived at. This option may be useful in hilly remote areas as government is the major or even sole provider of schooling in such areas. However, given the economic unviability in terms of high cost of construction and recurring cost with respect to poor enrolment in these remote areas, an immediate option would be to open Residential Bridge Courses (RBCs)/non-RBCs (NRBCs) in needy areas with problems for schooling access to certain sections, particularly girls or tribals. These centres may prepare elementary school completers or dropouts to continue their education and prepare for the tenth board exams. This strategy would come in handy in the short-run.

It is true that the state has a fairly good transportation facility, and students in some of these under-served habitations may be attending secondary schools where the distance factor is not too cumbersome for daily travel. In case of daily bus travel too, the government has been providing free bus passes to students across the state to the cost crores of rupees per year. The state also has hostels attached to schools that cater to areas with wide radius of poor schooling facility. Hence based on a more precise data base, the state would continue to use the option of upgrading middle into high schools as far as feasible. In cases where there may not be adequate number of students for class IX and X enrolments, this policy option may not hold.

Of the three options considered, namely upgrading middle school, opening new schools, and improving facility within the schools offering secondary education, this third mode of expansion would be the major kind in Karnataka, although the first two options will also be essential to suit specific needs. The third kind of expansion is particularly relevant as it could better serve a number of demands in terms of quality such as better teacher attention to students' work and personality, greater scope for suitable teaching-learning practices as particular class of students may need, wider space for teacher and student creativity, etc. With expanded facility in terms of laboratories etc, there would be greater quality time available for students.

5.2 Resource Constraints: Financial

When the expansion secondary education is in terms of new schools, additional classrooms and teachers, and provision of the other basic infrastructure in the state it needs to mobilize sufficient financial resources for the capital expenditure and recurring costs.

The chapters on status of secondary schooling and on projection modeling have both shown that large scale expansion in terms of construction of class rooms and adequate employment of teachers are both essential in Karnataka to reach its goal in universalisation of secondary education. Resource needs would be high in the event of constructing more than 20,000 classrooms to accommodate the 1:30 CPR norm within the next three years. Similarly, the state requires almost another equal or more number of presently available teachers to manage these additional classrooms. In view of upgrading the quality of classroom processes, intensive in-service training of teachers is also planned. Besides, the state would also expand its welfare measures in terms of provision of bicycles to all children in class 9, and such other measures that encourage enrolment and participation across all social groups.

At present, the state budget on primary and secondary education is impressive. While the budget on primary was 324.9 crore rupees in the year 2007-08, that on secondary and higher secondary was at 331.8 crore rupees to meet the differential needs. However, the given projected needs in secondary education it would need far greater financial resources. As teacher salaries occupy a major share of the expenditure, the current status of salaries amounting to Rs.2,41,65,165 for teachers and non-teachers in the year 2007-08 would have to more than double to meet the salary costs of teachers to be in place as per the requirement predicted in the state.

The state of Karnataka is spending 3.4 per cent of its GSDP on the School Education which includes elementary level to the higher secondary and the expenditure on Secondary School Education (including higher secondary) is just 0.38 per cent of the GSDP in the state. In the absence of separate data for secondary and higher secondary, if we assume that the expenditure on secondary and higher secondary is in equal amounts, a rough estimation of expenditure (recurrent) on secondary education as a percentage of GSDP is 0.19 per cent in the state. The per capita expenditure on secondary education with respect to the enrolment of secondary classes in those schools managed or funded by the state government department is around Rs. 5000/- in 2007-08.

While expanding the secondary education in the state, it has to increase the financial resources especially to bear the recurring costs. To increase the GER of secondary classes in the state to 85% by 2012, the corresponding the recurrent cost per capita per student will increase to Rs. 10000/- in 2009 and afterwards. It is now time for the state to increase its total expenditure on education at 6% of GDP, which has been long overdue, and allocate around

1% GDP for investing in secondary education. Marginal rates of return have been proven to be high in secondary education, particularly for women, and have been increasing in higher secondary and tertiary education. There are also many social benefits such as lower fertility rates, better health, and intergenerational mobility, particularly when women are better educated.

5.3 Non-Financial Constraints

There are a number of non-financial constraints needs to be addressed while expanding the secondary education to achieve the goal of universalisaton of secondary education in the state. Universalisation of secondary education is possible with universal enrolment and retention. For the universal enrolment, a necessary condition is universal access.

While the impressive results of the SSA in Karnataka could, to an extent, be attributed to the state support in the form of enacting the Compulsory Elementary Education Act and in promoting wide-spread sensitisation through media etc, secondary education is still in the hands of parents and students to decide participation. A number of pull, push, walk-out factors are at play which stand testimony for high repetition and dropout at class 9. Despite a variety of welfare measures to facilitate class 9 enrolments, still a major area for concerted attention is the need to redress, revamp or rebuild system factors.

To achieve the goal of Universalisation of Secondary Education in Karnataka, the state needs to address three issues: universal enrolment in the secondary classes (IX and X), universal retention while achieving zero dropout rate, and universal performance (quality) at a predetermined level (i.e. at least 60 per cent of the children at secondary level should obtain a minimum of 60 per cent mastery over the core-subjects and the other learning tasks). It also needs to resolve on issues like achieving universal access, equity and social justice wherein education of the focus groups such as girl children and children belonging to SC, ST, OBC and religious minority communities should be the policy concern. All these groups need special assistance and support. Universal access is possible through expansion of schooling facilities, but special efforts are required for achieving equity, social justice and predetermined level of performance of all the diverse groups of learners.

Herein it needs to be noted that universal access must be in broader terms where access must be envisaged in physical, social, cultural and economic terms. The access to school for the differently abled/disabled children must be envisaged not only physical terms but also social, cultural and economic terms. The disability of a child is not only in medical/clinical terms but also seen in social terms as they are seen differently and hence disability is a social construct. In this context, barrier-free physical access gives the disabled child opportunity but his/her retention and continuity depends on how these children are accommodated and how friendly is the learning environment including peer group, teachers and curriculum. Similarly, in the case of the dalit children, it is not the physical access but barrier-free in terms of socio-cultural and economic aspects. Also the gender discrimination in schooling is beyond the physical access. There are poignant accounts of alienating and humiliating schooling experiences with respect these socially marginalised children. In these circumstances either the children are ‘pushed out’ or made to voluntarily dropout or ‘walk out’ in protest against discrimination/ill treatment. Social practices like child marriages and some other taboos have been preventing girls from schooling. These issues indicate that universal access is beyond the physical access.

One of the constraints of universal enrolment emerges from inadequacy in demand for secondary schooling. The opportunity cost of schooling is relatively higher for secondary school age children than those of elementary age. Given the opportunity cost, schooling may not be the optimal choice for poor parents. The state level head count ratio of poverty in Karnataka is not at so high but significantly considerable. Incentives schemes may address direct cost of schooling but not indirect costs i.e. when the child's earnings are substantially contributing to the family's subsistence. It needs a mechanism enabling parents to forgo the child's present earnings for his future. Elimination of poverty and means to improve the family income level is a larger policy issue beyond the Department of Education.

Along with universal access, the quality of education is also matter of concern for the universal enrolment and universal retention. In Karnataka, along with increasing enrolment in secondary classes, the quality of secondary education would be the most important aspect especially while implementing RMSA at the state level. Quality improvements cannot be brought about by adequate provision of physical inputs or teachers alone.

It essentially presupposes a careful inculcation of climate of change across the board involving administrators, teachers, students, community members, parents and a host of stakeholders in secondary education.

In that area, teachers hold major responsibility. Even provided that RMSA successfully reduces classroom strength to not more than 30 per class, still the teacher-guided learning for knowledge and personality building rather than exams must find stable ground in the state. ***Quality is difficult to build but easy to destroy***. In a system where mechanical rote learning and doing without understanding has become common, much rests on teachers to transform classroom processes. Their commitment and effectiveness are the keys. With adequate strengthening of pre-service and in-service institutions, training should help teachers to shoulder responsibility for quality assurance and accountability. Teachers also need clear-cut performance standards that they can measure up to.

But, seen as a system, the capacity building of administrators would also hold some measure of promise. Primarily, the education department must have a clear vision ahead rather than get bogged down by bureaucratic formalities and financial considerations. The state has to do much ground-work on preparing the SCF, based on the NCF 2005 and thereby its content and method are to be transformed to meaning among all personnel who should be engaged in reaching it to the students. Capacity building, dissemination of ideas and greater creative thinking across the board is the need of the day to improve quality in the lines suggested by SCF. Changing the mindsets of all administrative personnel from top to bottom could be a constraint but not an impossible task.

5.4 Modes of Implementation

The expansion of secondary education in the state will be implemented in the mission mode where key performance indicators are targeted and they will be aggressively monitored with regular intervals. The mission mode signifies a focused and time bound arrangement for decision-making and the presence of planning and finance to facilitate the process in the state.

5.5 Monitoring and Evaluation

For implementing the RMSA scheme a healthy system of monitoring, evaluation, appraisal and feedback are important and hence it has to be developed. The goals, objectives, target indicators have to be tracked and regularly monitored and documented.

For the base line assessment of the status of the secondary schools in the state, the SEMIS data is most useful and the continuity of SEMIS will be useful to monitor the progress especially the key performance indicators of the secondary education in India and in the state. There is a lacuna in the SEMIS data capture format to monitor the performance in terms of quality of education, learning levels, issues related to curriculum and pedagogic practices. Therefore, there is a need for a baseline sample survey on these issues. In addition a regular evaluation is needed while conducting evaluation studies at the state as well as at the district level. Evaluation studies may throw light on particular innovation in planning, monitoring and implementation. In this purpose reputed research institutions in the state or elsewhere are to be engaged.

It also needs the social assessment survey to assess the social demand for secondary education and the affordability levels. While planning to increase the enrolment, the demand constraints have to be taken into account.

5.6 Time Table of Activities

The task of expanding the secondary education has already started with assessment of the status of secondary education, and mapping and identifying the middle schools to be upgraded and existing schools to be strengthened. Also as part of preparatory activities, those activities related to systemic issues like constitution of task force committees are completed.

Pre-project activity will begin as soon as the government of Karnataka receives the order from the Government of India and it will be completed within a due time. Of the preparatory/pre-project activities, strengthening of the State and the District Offices, Capacity Building of Functionaries, Community Mobilisation and Awareness, School-based activities, Participatory Exercise will be taken up as next step. And then surveys and evaluation studies will be conducted.

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Chapter VI

Consolidated Targets and Planned Outcomes for Secondary Education in Karnataka

This chapter summarises the targets and outcomes of RMSA by 2012 and 2017 at the state level. The targets and outcomes are identified and placed on a grid. The key mechanisms of implementing policy are identified and interventions are listed along with the forward steps that need to be taken.

6.1 Planning Grid

The goal of universalisation of secondary education by 2020 at national level may not be possible at the state level in Karnataka. The primary goal of RMSA is to make secondary education of good quality available, accessible and affordable to all adolescent girls and boys up to the age of 16 by 2020. Achieving GER=75% by 2012 and GER=100% by 2017 targets in Karnataka is not a difficult task and thereby it would be possible to achieve universalisation of secondary education in Karnataka by 2020.

6.1.1 GER and Enrolment

Given the current GER at 70%, the state of Karnataka is taking up the short-term target of achieving 85% gross enrolment ratio (GER) of secondary classes by 2012 and the mid-term target 100% GER by 2017 and finally committing to achieve the goal of universalisation of secondary education in the state by 2020. To achieve these targets the enrolment in secondary classes in Karnataka has to increase from 1.56 million in 2008-09 to 1.81 million in 2012 and to its peak 2.02 million in 2017. Thereafter it will be declining due to the decline in the size of relevant age group population (14/15 age group) in the state.

To improve the enrolment in secondary classes it is foremost important to improve the internal efficiency at secondary level. The status report of secondary education in Karnataka indicates that the wastage and stagnation in terms of repetition rate and dropout rate at secondary level seems to be very low. Apparently the internal efficiency of secondary education system is relatively better. Nevertheless, there is an internal inefficiency to some extent wherein it is assumed that with the policy intervention and strategies, the dropout rate in secondary classes would decline from 21 per cent in 2008 to below 1 per cent by 2017 and repetition rate would decline from 3% to below one per cent during the same period. Correspondingly, there will be increase in the promotion rate in secondary classes from 76 per cent in 2008 to 90 per cent by 2012 and to 96 per cent by 2017 and further to 99 per cent by 2020.

6.1.2 Equality and Social Justice with respect to Social Disadvantaged

One of the guiding principles of the expanding secondary education while achieving the goal of universalisation of secondary education is to follow equity norms. It means that all the population groups irrespective of their distinctive socio-economic characteristics (gender, rural-urban, Caste, religion etc.,) must be facilitated to participate in secondary education in proportion to their representation in the total population of the state.

In the process, while increasing the size of enrolment in secondary classes, equity across gender and social groups is expected where the share of female children and the children of socially disadvantaged groups (SC/ST) in the enrolment of secondary classes will increase to the level in proportion to their respective share in the population.

In case of ST children, they are representing disproportionately low in enrolment at secondary level when compared to their share in the total population of the state. According to Census 2001, SC population consists of 15 per cent of the total population in the state. Correspondingly, the DISE data for the year 2008-09 shows that SC children consist of 10 per cent of the total enrolment in secondary classes in the state. The share of STs in the total population of the state is about 1 per cent but the share of ST children in the enrolment at secondary level is 0.7 per cent in 2007. Therefore the share of SC/ST children in the total enrolment at secondary level should be improved to maintain on par with ST's share in population of the state by 2017.

In case of girls, they are also under representing in terms of enrolment in secondary classes when compared their share in population. While share of female population in the total population is about 49 per cent, the girl children contribute 38 per cent of the total enrolment at secondary classes. The perspective plan calls for to improve the representation of girl children equal to their share in population (49%) by 2017.

6.1.3 Schools and Classrooms

For the expansion of secondary education, existing secondary schools in Karnataka are already exhaustive. But the state needs strengthening of almost all the existing secondary schools. While strengthening the secondary schools, construction of two additional classrooms are planned. To increase enrolment in secondary classes it needs to increase the number of schools available for secondary classes through upgradation of middle schools to secondary level and opening of new secondary school places. The number of middle schools available for upgradation is limited so that it would be better if the upgradation begins with primary level to upper primary and to secondary level. While upgrading the middle schools construction of four additional classrooms are assumed. About 4000 existing secondary schools are identified for the strengthening in the 11th Five Year Plan period and about 6000 middle schools are identified for upgradation in 11th and 12th Five Year Plan periods. Opening of new school places may not be useful but the state is planned for one Model Schools in each of 64 educationally backward blocks (EBBs).

6.1.4 Teachers

The status report indicated the shortage of teachers in the existing secondary schools, about 15000 core-subjects teachers in 2008-09. The appointment of teachers to fill the shortage in the existing secondary school is planned to complete by 2012. For the upgraded middle schools, a minimum of seven teachers for the core-subjects per school are expected to be appointed. Thereafter for the additional enrolment, the state needs some more additional teachers to cater needs of the increasing enrolment to comply with the state norm 30 : 1 Pupil Teacher Ratio (PTR) by 2017.

Given the number of teachers to be recruited, the current pupil teacher ratio (PTR) at 37 for the secondary schools managed by the state government departments will be declined to 35 by 2012 and to 30 by 2017.

6.1.5 Learning Resources

Important learning resources for the secondary school age children in addition to classrooms teaching and textbooks are laboratory, library, ICT support and other educational programmes. In the perspective plan for Karnataka, every secondary school will be having an integrated science laboratory with required equipments, a library with sufficient books, and provision for ICT support and link with EDUSAT programmes.

Teaching learning material also plays important role in making learning environment more conducive and in improving the quality of education. But there is no provision for the teaching learning material (TLM) at secondary level in the state. However, given the importance of teaching learning material while improving the quality of education, a TLM grant @ 2000 per year for each core-subject teacher is expected in the perspective plan.

6.1.6 Quality and Learning Achievement

The learning achievements of the children are definitely a function of the quality of education provided in the schools. To improve the quality of education, important factors are availability of teachers and their commitment, learning environment, learning resources, instructional process and time, and availability of learning material.

Achieving the goal of universalisation of secondary education must also ensure the universal performance (quality) at a predetermined level (i.e. at least 60 per cent of the children at secondary level will achieve 60 per cent mastery over subjects and the other learning tasks).

To improve the quality and learning achievements, the instructional time is planned to reduce from current 44 minutes to 25 minutes. The rest of the time is allotted to the students learning opportunity time. It is to facilitate the students to interact/ have dialogue with teacher and opportunity to learning.

The targeted learning achievement in the perspective plan is that pass percentage in the school or board exams. It is planned to increase from the base line 50 per cent level to the 100 per cent by 2017 for both the class IX and X and in each subject.

6.1.7 Incentives

Incentive schemes play important role while expanding the secondary education in the state. They help to overcome the non-school fee constraints of demand for schooling. In many instances in India, it has been shown that the implementation of the incentive schemes have improved the enrolment levels especially those of disadvantaged sections.

Of the total popular incentives schemes, distribution of free text books for all the enrolled children, distribution of bicycles for the girl children, hostel facilities and scholarship for the children of socially backward communities particularly SC/ST and OBC are important ones. For the distribution of free text books all the enrolled children at secondary level are considered. For the distribution of bicycles, about 10 per cent of the total projected enrolment is assumed as beneficiaries. In case of hostel facility, about 5 per cent of the projected enrolment especially children of the socially backward communities will be accommodated in hostels and residential schools. Similarly for scholarships about 5 per cent of projected

enrolment especially the children of socially backward communities will be beneficiaries of the scheme.

6.1.8 Disability Provisions

While facilitating the differently abled children to participate in the secondary education following the guiding principle of equality and social justice, there must be access to these children in terms of differently friendly environment in the school premises and classrooms. In this regard, each and every school must have the facilitating ramps and toilet blocks for the physically challenged children. Also, all the secondary schools in the state will be having provisions for the children with learning disabilities.

6.2 Strategies and Interventions

This section summarises the key mechanisms for implementing policy that are identified and interventions listed, along with the forward steps that need to be taken.

To achieve the goal of universalisation of secondary education by 2020 and mid-term targets of achieving GER=85% by 2012 and GER=100% by 2017 in Karnataka, it needs to expand the secondary education in the state. The expansion needs strategies and policy intervention to improve access, quality and equity at secondary level in the state.

6.2.1 To improve Access

First and foremost strategy is to improve the physical access to secondary classes. Physical access will be improved by creating additional classrooms in the existing secondary schools. Also number of schools with secondary classes available will be increased by upgradation of middle schools with availability of additional classrooms for secondary classes. While improving access to secondary schooling, ensuring availability of a secondary school within 5 Kms distance/radius of each habitation is possible for Karnataka given its unique feature of relatively high population density. Opening a new school must be based on school mapping of under-served areas. About 533 model schools are planned for the educationally backward blocks (EBBs) from the Central Government. Opening of new schools in very small villages is not financially a viable option and hence it should be carefully examined before commencing. Also to improve the access, hostel facilities for SC/ST and girl children will be improved and distribution of bicycles for girl children will be continued.

To circumvent the non-viability of ensuring availability of a secondary school within 5 Kms distance/radius of each habitation, improving the transportation facility especially in rural areas could be useful for children living in places beyond walkable and cycling distance from a secondary school. But in Karnataka physical connectivity by road infrastructure seems to be inadequate. Although the State Road Transportation Corporation (SRTC) of Karnataka is operating shuttle bus services to villages, it is very inefficient and inadequate. Private operators ranging from bus to auto rikshaw are the main source of transportation in rural areas for school-going children reaching schools. Travel charges and operation timings of private operators may not be sensitive to educational needs of rural children. Moreover, safety and security of school children using private means of transportation is also a concern. In this context, a policy intervention may need to improve the services SRTC of the state and provide free travel pass for those travelling school children. Also it has to regularise the private operators especially buses with respect to school timings and in safety terms and introduce a scheme of reimbursing travel charges of school children. The Government of Karnataka may have to think upon this matter.

Access is not only availability of school but also availability basic minimum facilities in the school. Therefore, all the secondary schools in the state will be provided with basic minimum facilities such as minimum required furniture, drinking water, toilet blocks, electricity facility, and a play ground.

While expanding secondary education for all the civil works especially in case of strengthening existing secondary schools, upgrading middle schools, and opening new schools feasibility of private-public partnership may be looked into. Also community involvement will be sought for.

To improve the enrolment, another strategy can be tracking eligible students for secondary classes i.e. graduate from class VIII and dropouts of secondary classes. A Social Assessment Survey has to be carried out to examine the possible factors keeping the eligible children out-of-school and they must be pursued to enrol and re-admit in secondary classes.

6.2.2 To improve Quality

Quality schooling is to ensure the relevance of education in practical life. Enrolment and retention at secondary level can be improved with quality education. While improving quality schooling at secondary level first strategy is to follow the common school system and common curriculum throughout the state.

Secondly, a minimum of seven subject-specific teachers for all the six core-subjects of secondary classes in each school will be maintained. All the teachers in place for secondary classes will be qualified and trained. Adequacy of teachers will be ensured for additional enrolment where the pupil teacher ratio will be maintained at 30:1. For the professional development of teachers and innovate techniques in teaching practices, every teacher will undergo in-service training for 5 days per year. SCERTS and DIETs will be strengthened to support secondary school teachers for their professional development. The current practice of number of days a teacher assigned with non-teaching activities in year will considerably reduced to increase the number of days available for teaching activities.

It is not only the availability of teacher but their quality and commitment that matters in quality of schooling. Teachers' attendance rate in schools will be increased and to monitor their attendance both the Village Education Committee (VEC) and School Management and Development Committee (SMDC) will be involved. To improve the commitment of teachers they will be awarded with incentives by their performance measured in terms of learning achievements of children. Also teachers working at remote villages will be provided with residential quarters.

Thirdly, improving the availability of learning resources wherein every school with secondary classes will be having a science laboratory with required equipments, library with sufficient number of books, computer lab with internet connectivity. National Curriculum Framework 2005 will be followed in all schools in the state. It will be ensured the availability of textbooks and other teaching learning material in accordance with NCF (2005).

Although there will not be change in number of instructional days in a academic year, there will be change in instructional time of teacher where gradual reduction of instructional time is planned to increase the students learning opportunity. Change in classroom practices and use of innovative methodologies will be encouraged. An active student's participation will be

ensured. The children will be encouraged to debate, discuss, question on topics and have dialogue with teachers.

Finally, for improving learning achievement a school-level merit scholarship for the outperforming students. The learning outcomes in terms percentage passed out from the secondary level will be improved from 60 per cent to 100 per cent.

6.2.3 To improve Equity

The guiding principle of development process in general in India and educational development in particular is equality and social justice. Accordingly, the expansion of secondary education must ensure equity with respect to different social groups in the process. It needs to ensure, the enrolment of children belonging to socially disadvantaged groups like SC/ST, OBC and Muslim and girl children and differently abled children will be in proportion to their share in the total population. Also it needs to ensure universal performance (in terms of learning achievement) at a predetermined level across all the social groups.

It is to be noted that interventions meant for improving equity at secondary school level will target children of below poverty line (BPL) where most poor to the least poor will be prioritized across social groups for all types of incentive schemes. Thereafter the children of families on the poverty line and above the poverty line where least better-off to the better will be prioritized. It means that both the social and economic disadvantage of the children enrolled in secondary classes will be the priority basis for the expected beneficiaries of incentive schemes.

Enrolment of Girl Children

To improve the enrolment of girls in secondary classes the first strategy is to increase their access to school. In the perspective plan number of school available will be equal for both the girls and boys. It means there will not any special school for girls. However, the girl children access to secondary school will be improved by increasing number of co-education type of school with secondary classes. To ensure the comfort of the girl children in secondary classes, number of female teachers available for the secondary classes will be increased. Secondly, for girls who are living in places beyond a walkable distance to a secondary school, it is by improving transportation facility. A policy intervention herein placed is distribution of free cycles. For those living beyond walkable and cycling distance, residential facilities will be improved at secondary school places.

As mentioned elsewhere in the earlier chapters, access to schooling is beyond the physical access especially for the girl children. There are socio-cultural barriers against the girl children's schooling. One of social custom that still practiced in many places of Karnataka is child marriages. In many instances, girl children at an age of 13 or 14 years do get married. This kind of social practice forecloses the entry of girl child into a school. A policy intervention needed is legal action against child marriages. In a Patriarchical value system embedded society, female education is undervalued. It needs a social campaign against child marriages and low value girl's education. The state machinery will initiate the campaign and involves the number of NGOs working on issue related women and girl children and child schooling.

Finally, it is the safety, security and convenience of adolescent girl children that factor in for their schooling. The safety, security and convenience of girl children enrolled in secondary

classes will be ensured while reaching and returning from the school, in the school premises and in classrooms. The learning environment will be gender sensitive. All the secondary schools in the state will ensure the girl children with availability of a separate toilet blocks.

Enrolment of ST/SC Children

The enrolment of ST children at secondary level is under representing with respect to their share of STs in the total population. In the perspective plan, the representation of ST children in secondary classes will be in proportion to their share in total population. To achieve this equity norm with respect to ST children, the first strategy is to improve the access to secondary school for these children. Most of the ST population live in a small settlement in remote and hill areas. Ensuring the availability of secondary school within 5 Kms distance of each small settlement/habitation of ST communities is costly and hence not a viable option. Physical connectivity of many tribal settlements/habitations is very poor. Under these conditions residential schools specifically for the ST children at a strategic location are the best option. Also provision of hostel facilities in different secondary school places also useful intervention to improve the enrolment of ST children in secondary classes.

Although the enrolment of SC children in secondary classes is proportionally representative to the date, it needs a policy intervention to sustain the progress. In a society embedded with social hierarchy based on the caste system, socio-cultural barriers restrict the socio-economic mobility of dalits. Discrimination practices in secondary schools against dalit children will meet with legal actions. To improve the access to secondary school for those dalit children living in remote areas without road and transportation facility, provision of hostel facility at different secondary school places for these children will improve their enrolment.

To overcome the financial difficulties of the family and hence to increase the enrolment of ST/SC children at secondary level there will be financial incentives in the form of scholarships.

Enrolment of Differently Abled Children

Disabilities are of different types. Most of the secondary schools in the state may not be equipped to accommodate secondary school-age children with different types of disabilities. For the physically challenged children the problem of physical access is faced at two levels: one is while reaching the school and the other is in the school premises (easy mobility). To overcome difficulty in reaching school, the physically challenged children would need tri-cycles and to ease their mobility in the school premises, ramps have to be constructed and toilet block must be suitable for these children. Therefore, a policy intervention needed herein is that the Government of Karnataka will take up the responsibility to provide tri-cycles for the physically challenged children enrolled in secondary classes. All the secondary schools will be ensured with ramps and disabled friendly toilet blocks.

Children with learning disability are another category that needs a policy attention. Teachers are not trained and equipped to identify learning disabilities such as dyslexia, autism, ADHD, ADD, and dysgraphia. For these children with learning disabilities, a block level Disability Redress Centre would be established under RMSA to address the learning difficulties at the secondary level. Experts from various disciplines will be invited to these centres to train special teachers and also offer specific suggestion to practicing teachers on individualistic teaching methods to help out children with multiple learning disabilities.

6.2.4 Institutional Reforms

Expansion of secondary education and implementation of RMSA in the state desperately need institutional reforms. Reform will begin with in educational administration including modernization/e-governance and delegation/decentralisation necessary for the effective, efficient and better programme implementation.

Decentralisation of school education with adequate delegation of powers to local bodies will be ensured where school management committees which are instrumental in implementing the RMSA will be set up. Involvement of Panchayat Raj and Municipal Bodies, Teachers, Parents and the other stakeholders in the management of secondary education through bodies such as School Management Committee and Parent-Teachers Association is planned. They will be involved in planning process, implementation, monitoring and evaluation.

The renewal and formulation of the curriculum in accordance with the guidance of National Curriculum Framework-2005 will be taken up. A reform in the prevailing examination system to reduce the stress on children and also to enhance the quality will be initiated. A rational policy of teacher recruitment, deployment, training, remuneration and career advancement will administered. Provision of necessary professional and academic inputs in the secondary education system at all levels, i.e., from the school level upwards and streamlining financial procedures for speedy flow of funds and their optimal utilization will be ensured

Implementation of RMSA ensures the strengthening of resource institutions at various levels, SCERTs, State Open Schools, SIEMATs, etc., at the State level; and University Departments of Education, Reputed Institutions of Science / Social Science / Humanities Education, and Colleges of Teacher Education (CTEs) / Institutions of Advanced Study in Education (IASEs) funded under the Centrally-sponsored Scheme of Teacher Education.

* * *

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Annexure I

Table 1A: Expanding Secondary Education in Karnataka - Target Grid

Sno	Outcome Indicators	Baseline		Target Value				Data Collection Instruments
		2007-08	2008-09	2009-10	20010-11	2011-12	2017	
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
Objective 1: All secondary schools conform to prescribed norms								
1	Ratio of Upper Primary Schools to Secondary schools	2.6 : 1	2.6 : 1	2.5 : 1	2.3 : 1	2 : 1	2 : 1	DISE& SEMIS
2	All schools have space and facilities according to prescribed norms of minimum quality standards							
a	All school have one classroom for every 30 Pupils	10%	10%	15%	20%	30%	100%	SEMIS
b	All schools have Science Laboratory	10%	10%	20%	50%	70%	100%	SEMIS
c	All Schools have Library	15%	15%	30%	50%	75%	100%	SEMIS
d	All Schools have Disabled Access	20%	20%	30%	40%	60%	100%	SEMIS
e	All Schools have Separate Toilets for Girls and Boys	50%	50%	60%	70%	80%	100%	SEMIS
3	Computer and other ICT facilities available in all secondary schools according to prescribed norms	75%	80%	85%	90%	100%	100%	DISE/SEMIS
Objective 2: Availability of and access to secondary schooling to all Indian adolescent girls and boys up to the age of 16 by 2015.								
4	All habitations with access to a secondary school within a radius of 5km.	80%	80%	90%	95%	100%	100%	AIES
5	Physical Infrastructure required for expansion in place							
a	Model Schools: 74 by 2012	None	None	0	74	0	0	SEMIS
b	Upgradation of Middle Schools in EBBs: 4 Classrooms per school						0	DPI
c	Expanded Capacity for Existing Secondary Schools in EBBS: 2 Additional Classrooms	None	None				0	DPI
d	Girls Hostels in EBBs for Secondary Education	None	None	0	62	52	0	DPI
6	Increase in Enrolment in Secondary Classes of 14 to 16 years Age Population	1.55 M	1.56 M	1.61 M	1.69 M	1.75 M	2.1 M	SEMIS
a	GER increases from 30.2% to 42.4% by 2012; to 64% by 2017	68.5%	69.5%	73%	77%	81%	100%	SEMIS
7	Transition rate between Middle to Secondary Level improves	90%	90%	92%	94%	96%	99%	SEMIS
8	Retention (Survival Rate) at Secondary level will be improved			91%	93%	95%	99%	SEMIS
9	Dropout rate at Secondary Level will be reduced	21.8%	21.8%	20%	15%	10%	2%	SEMIS
10	Percentage of out of school children of secondary school age (14-16) will be reduced (base line 2005-06)	30%	30%	25%	20%	10%	0%	NFHS/NSSO

Sno	Outcome Indicators	Baseline		Target Value				Data Collection Instruments
		2007/08	2008-09	2009-10	20010-11	2011-12	2017	
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
Objective 3: Equity achieved through the removal of regional, gender, socio-economic and disability gaps								
11	Enrolments of Scheduled Castes, Schedule Tribe and Muslim children reflect their shares in 14-16 age group population in Secondary Schools							
a	Share of SC children in Secondary Classes	16.8%	16.8%	17%%	17%	16.5%	16.3%	SEMIS
b	Share of ST children in Secondary Classes	6.8%	6.8%	7%	7%%	7%	6.6%	SEMIS
c	Share of Muslim children in Secondary Classes	11.6%	11.6%	12%	13%	15%	16.5%	SEMIS
12	Enrolment shares of girls in secondary education increased relative to their share in the population	47.9%	47.9%	48.0%	48.5%	49.0%	49.5%	SEMIS
a	Means cum merit scholarships for specific disadvantaged groups taken up according to schedule. (% in total enrolled)	No Data	1%	5%	5%	5%	5%	SEMIS
b	Incentives for girls (especially from disadvantaged groups, SC, ST) to promote their participation in secondary education implemented according to schedule (% in total enrolled)	No Data	1%	5%	5%	5%	5%	SEMIS
Objective 4: Education of Good Quality for all students								
13	Provision of quality inputs to improve learning levels							
a	Pupil Teacher Ratio at Secondary Level	47	47	45	42	40	30	SEMIS
i	Teacher Availability							
a	Additional teachers to be recruited for secondary classes in existing secondary schools	0	0	0	0	0	0	SEMIS
b	Additional Secondary school teachers to be recruited for upgraded Middle Schools	0	0	1000	1000	1000	7000	SEMIS
d	% of secondary schools with PTR > 30			56%	44%	32%	0%	SEMIS
ii	Teacher quality							
a	% Trained teachers in secondary schools will be increased	75%	75%	80.0%	85%	90%	100%	SEMIS
b	Percentage of teachers receiving in-service training against annual targets	10%	10%	20%	40%	70%	100%	SEMIS
c	All teachers receive in-service training in accordance with schedule.	10%	10%	20%	40%	70%	100%	SEMIS

Sno	Outcome Indicators	Baseline	Target Value					Data Collection Instruments
		2007/08	2008-09	2009-10	20010-11	2011-12	2017	
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
d	Model schools serving as pace setting institutions of excellence and also as resource centres for the professional development of secondary school teachers within each block	None	None	None	20%	40%	100%	Survey
	Effectiveness of model schools in academic supervision and improving school performance	None	None	None	20%	50%	100%	Survey
	% of Model schools identified as discharging professional development role	None	None	None	20%	50%	100%	DPI
	Performance against agreed roles & functions	None	None	None	20%	50%	100%	DPI
	* Extent to which tasks are being done.	None	None	20%	50%	100%	100%	DPI
	* Extent of on-site support given to schools / teachers	None	None	None	20%	50%	100%	DPI
	* Content & quantum of training given to model school staff	None	None	None	20%	50%	100%	DPI
	* Perceptions of teachers / stakeholders	No Data	No Data	None	20%	50%	100%	Survey
	DIETs to be strengthened to support secondary school teacher professional development through the model schools/resource centres	None	None	6	6	6	12	DPI
iii	Availability of Textbooks and other Teaching Learning Materials in accordance with NCF 2005							DPI
a	% eligible students receive free text books	All	All	All	All	All	All	DPI
b	More than 96% eligible students received free text books	All	All	All	All	All	All	DPI
c	% teachers receiving TLM grants	None	None	100%	100%	100%	100%	DPI
g	Number of Schools using Materials other than textbooks (e.g. workbooks / worksheets / ABL Cards / Kits / CAL/ Supplementary books etc.)	No Data	No Data	20%	95%	All	All	Survey
h	Number of Schools using teaching/learning materials other than textbooks.	No Data	No Data	30%	80%	All	All	Survey
iv	Classroom Practices in accordance with NCF 2005	All	All	All	All	All	All	Survey
	Change in classroom practices / innovative methodologies in use	No Data	No Data	All	All	All	All	Survey
	Number of schools reporting change in classroom practices / use of innovative methodologies	No Data	No Data	75%	95%	100%	100%	Survey
	* Teachers instructional time	40 Min/p	40 Min/p	35 Min/p	30 Min/p	30 Min/p	30 Min/p	Survey
	* Student learning opportunity time	5Min/p	5Min/p	10Min/p	15Min/p	15 Min/p	15 Min/p	Survey
	* Active student participation (% of Schools)	No Data	No Data	20%	40%	60%	100%	Survey
	* Use of other materials in classrooms (% of Schools)	No Data	No Data	30%	80%	All	All	Survey
	* No. of instructional days/Year	170	170	175	180	185	190	SEMIS
	* No. of days teachers were assigned with non teaching activities/Year	50	50	45	40	35	30	SEMIS

Sno	Outcome Indicators	Baseline	Target Value					Data Collection Instruments
		2007/08	2008-09	2009-10	20010-11	2011-12	2017	
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***
v	Pupil Assessment in schools							
	Pupil Assessment System in place in schools	None	None	20%	50%	All	All	Survey
vi	Attendance Rates							
	Student Attendance	85%	85%	90%	95%	99%	99%	Survey
	Teacher Attendance							
	Teacher Attendance level (in %) in Secondary Schools	90%	90%	92%	94%	95%	99%	Survey
14	Accountability to the community							
	VEC/SMDC/Local bodies role in school supervision as per State mandate	No Data	No Data	All	All	All	All	Survey
15	Student achievement level outcomes							
a	Learning levels for Class IX							
	% in Language I	No Data	No Data			100%	100%	State Board
	% in Language II	No Data	No Data			100%	100%	State Board
	% in Language III	No Data	No Data			100%	100%	State Board
	% in Mathematics	No Data	No Data			100%	100%	State Board
	% in Science	No Data	No Data			100%	100%	State Board
	% in Social Studies	No Data	No Data			100%	100%	State Board
b	Learning levels for Class X							
	% in Language I	91.7%	89.0%	90%	95%	100%	100%	State Board
	% in Language II	88.6%	88.0%	90%	95%	100%	100%	State Board
	% in Language III	95.1%	94.0%	95%	97%	100%	100%	State Board
	% in Mathematics	72.8%	82.2%	85%	90%	95%	100%	State Board
	% in Science	86.4%	88.9%	90%	95%	95%	100%	State Board
	% in Social Studies	89.0%	91.7%	95%	96%	97%	100%	State Board

Note:

Source: Based line data is based on SEMIS, DPI and Census Sources and the Targets are Estimations.

Annexure II: RMSA Norms

Karnataka

<table>
<tr><th></th><th>NATIONAL NORMS</th><th>STATE NORMS</th><th>REMARKS</th></tr>
<tr><td>1.1 PHYSICAL INFRA STRUCTURE-NON-RECUR RING</td><td>Classroom-pupil ratio:1:40
Minimum ratio:1:25
Classroom size as per state norm
1.Atleast two additional classroom should be built in one higher secondary school.
2.Atleast four additional class rooms , two section each for class ix and x.
3.Should involve elements of community contribution.
4.Grants will be available only for those schools which have existing buildings of their own.
5.Cost of construction will include furniture, fixtures, fittings, circulation area (verandah) etc
Class room size :57 sq.metre/613.56297sq.feet

Laboratory/library size:104sq.mt./1119.4833sq.ft.s</td><td>A .Every secondary school should have class room pupil ratio 1:40 and minimum 1:25
B. Every secondary school should have the following:
<table>
<tr><th>code</th><th>particulars</th><th>No of units</th><th>Unit size in sq mts.</th></tr>
<tr><td>2.1</td><td>Classrooms</td><td>4</td><td>57sq</td></tr>
<tr><td>2.2</td><td>Laboratory (integerated)</td><td>1</td><td>104</td></tr>
<tr><td>2.3</td><td>Principal room(attached toilet)</td><td>1</td><td>57</td></tr>
<tr><td>2.4</td><td>Office and staff room</td><td>1</td><td>57</td></tr>
<tr><td>2.5</td><td>Teaching staff room(attached toilet)</td><td>2</td><td>104</td></tr>
<tr><td>2.6</td><td>Computer lab</td><td>1</td><td>104</td></tr>
<tr><td>2.7</td><td>library</td><td>1</td><td>104</td></tr>
<tr><td>2.8</td><td>Art/craft room</td><td>1</td><td>57</td></tr>
<tr><td>2.9</td><td>Girls activity room</td><td>1</td><td>57</td></tr>
<tr><td>2.10</td><td>Toilet –Boys(Friendly to CWSN)</td><td>1</td><td>*</td></tr>
<tr><td>2.11</td><td>Toilets-Girls(Friendly to CWSN)</td><td>1</td><td>*</td></tr>
<tr><td>2.12</td><td>Drinking water facility</td><td></td><td>*</td></tr>
<tr><td>2.13</td><td>Ramp for physically challenged</td><td></td><td>*</td></tr>
</table>
As per RIDF norms
As per state RIDF the cost of construction of classroom (6.95m x 6.40m) excluding furniture is 5.03 lakhs.
SDMC will construct the above dimension classroom with its contribution for Rs. 5.50 Lakhs including furniture.</td><td></td></tr>
</table>

1.2 ADDITIONAL CLASSROOMS FOR EXISTING SCHOOLS	1.Additional class rooms should be built in existing secondary school to maintain the classroom –pupil ratio 1:40	Additional class rooms should be built in existing secondary school to maintain the classroom –pupil ratio 1:40	
	2.Construction of additional classrooms should involve the elements of community contribution if possible	2.Construction of additional classrooms should involve the elements of community contribution .	
	3.Atleast two additional class rooms should be built at time	3.Atleast two additional class rooms should be built at time	
	4.Grants for additional classrooms will be available only for those schools which have existing buildings of their own	4.Grants for additional classrooms will be available only for those schools which have existing buildings of their own	
1.3 SCIENCE LABORATORY	3.1 Every secondary school should have Integrated science lab (for Physics, Chemistry, Biology, Mathematics)	3.1 Every secondary school should have Integrated science lab(for Physics, Chemistry, Biology, Mathematics)	
1.4LAB EQUIPMENTS	4.1 Science lab for secondary schools should have a necessary equipments (for Physics, Chemistry, Biology, Mathematics) to facilitate academic activities	Necessary equipment list enclosed in the Annexure	
1.5 PRINCIPAL ROOM	1.Every secondary school should have one room for principal. 2.Room will also be used for staff meeting. 3. Principal room size should be 57 sq.mt 4.Grants for Principal room will be available only for those schools which have existing building of their own. 5.Grants for principal room will also be available for New schools with their building budget	1.Every secondary school should have one room for principal. 2.Room will also be used for staff meeting. 3. Principal room size should be 57 sq.mt 4.Grants for Principal room will be available only for those schools which have existing building of their own. 5.Grants for principal room will also be available for New schools with their building budget **SDMC will construct at a cost of Rs. 6.10 Lakhs**	
1.6 Office room	1.Every secondary school should have one separate room for office and office staff 2.Office room size should be 57 sq.mt 3. Grants for Office room will be available only for those schools which have existing building of their own.	1.Every secondary school should have one separate room for office and office staff 2.Office room size should be 57 sq.mt 3. Grants for Office room will be available only for those schools which have existing building of their own. 4. Grants for Office room will also be available for New schools	

	4. Grants for Office room will also be available for New schools with their building budget	with their building budget **SDMC will construct at a cost of Rs. 6.10 Lakhs**	
1.7GIRLS ACTIVITY ROOM	1.Every secondary school should have one separate Girls activity room 2.Girls activity room sizes sholud be 57 sq.mt 3.Grants for girls activity room will be available only for those schools which have existing building of their own. 4. . Grants for girls activity room will also be available for New schools with their building budget	1.Every secondary school should have one separate Girls activity room 2.Girls activity room sizes sholud be 57 sq.mt 3.Grants for girls activity room will be available only for those schools which have existing building of their own. 4. . Grants for girls activity room will also be available for New schools with their **SDMC will construct at a cost of Rs. 6.10 Lakhs**	
1.8 COMPUTER ROOM/ LABORATORY	1.Every secondary school should have one room for Computer laboratory. 2.Room will be used exclusively for learning purposes 3.Computer lab room size should be 104 sq.mt 4.Grants for computer lab will be available only for those schools which have existing building of their own. 5..Grants for computer lab will also be available for New schools with their building budget .	1.Every secondary school should have one room for Computer laboratory. 2.Room will be used exclusively for learning purposes 3.Computer lab room size should be 104 sq.mt 4.Grants for computer lab will be available only for those schools which have existing building of their own. 5..Grants for computer lab will also be available for New schools with their building budget . **SDMC will construct at a cost of Rs. 11.00 Lakhs**	
1.9 ART/ CRAFT/ CULTRURAL ROOM	1.Every secondary school should have one room for Art/craft. 2.Room will should be used for art/craft activities 3.Art/craft room size should be 57 sq.mt 4.Grants for art/craft room will be available only for those schools which have existing building of their own. 5.Grants for art/craft will also be available for New schools with their building budget	1.Every secondary school should have one room for Art/craft. 2.Room will should be used for art/craft activities 3.Art/craft room size should be 57 sq.mt 4.Grants for art/craft room will be available only for those schools which have existing building of their own. 5.Grants for art/craft will also be available for New schools with their building budget **SDMC will construct at a cost of Rs. 6.10 Lakhs**	

1.10. LIBRARY	1.Every secondary school should have one room for library. 2.Room should be used for reading and libraray purpose. 3.Library room size should be 104 sq.mt 4.Grants for Library will be available only for those schools which have existing building of their own. 5.Grants for library will also be available for New schools with their building budget	1.Every secondary school should have one room for library. 2.Room should be used for reading and libraray purpose. 3.Library room size should be 104 sq.mt 4.Grants for Library will be available only for those schools which have existing building of their own. 5.Grants for library will also be available for New schools with their building budget **SDMC will construct at a cost of Rs. 11.00 Lakhs**	
1.11 TOILET BLOCK	1.Every secondary schools should have toilet blocks for Boys and Girls separately. They should be suitable for the physically challenged. 2.Separate toilet block available for male and female teachers	1. One toilet cluster for every 100 children .The unit cost of toilet cluster as per RIDF norms is 2.00 lakh	
1.12 DRINKING WATER FACILITY	1.Every school should have drinking water facility adequately. 2.Proper drainage system should be there in every secondary school	1.One Sintex tank with water tap for every 200 children .The unit cost of the water tank with one OHT as per RIDF norms 1.25 lakh	
1.13 FURNITURE AND FIXTURES	1.List of furniture for class room is annexed 2.Existing furniture to be repaired 3.In case of condemnation, or due to deficiency, purchase of furniture for the following ,subject to the celing of Rs.1.00 lakh per school 4.Furniture for Principal room,office room and teacher staff room. 5. Luxury items should not be purchased. 6.Purchases if any, will be done through state owned small scale industries.	1.List of furniture for class room is annexed 2.Existing furniture to be repaired 3.In case of condemnation, or due to deficiency, purchase of furniture for the following ,subject to the celing of Rs.1.00 lakh per school 4.Furniture for Principal room, office room and teacher staff room. 5. Luxury items should not be purchased. 6.Purchases if any, will be done through state owned small scale industries. As per RIDF the rate for furniture are as detailed below: 1. 4 children desk and wooden bench. Cost Rs. 4394/- 2. Teachers table and chair . Cost Rs.5668/-	
1.14 DEVELOPMENT OF PLAY GROUND	1.Cost for development of play ground will not exceed Rs.20,000/- per school	1.Cost for development of play ground will not exceed Rs.20,000/- per school	

	2.Schools not having playground will use play ground in neighborhood schools or the community play ground 3.community PRIs, MP ,MLA development fund can also be mobilized for the development and maintenance.Ministry of youth affairs and sports will also be approached.	2.Schools not having playground will use play ground in neighborhood schools or the community play ground 3.community PRIs, MP ,MLA development fund can also be mobilized for the development and maintenance.Ministry of youth affairs and sports will also be approached.	
1.15 BOUNDARY WALL	1.Boundary wall will be constructed, if not already constructed. 2.community,PRI's,MP's, MLA's development funds can be utilized for maintenance and construction of boundary wall 3.Department of Environment and forests will be approached to develop social forestry in the schools.	1.Boundary wall will be constructed, if not already constructed. 2.community,PRI's,MP's, MLA's development funds can be utilized for maintenance and construction of boundary wall 3.Department of Environment and forests will be approached to develop social forestry in the schools. RIDF norms for conventional compound wall / running meter	
1.16 Repairing and Renovations-Major and Minor	1.Repairing and renovations will primarily be undertaken through community participation. 2.On the basis of approved estimate by the department following grants may be considered under special circumstances: 3.Major repairing:One time total amount of expenditure should not exceed Rs.2.00 lakh per school in case of two sections in school and Rs.4.00lakh per school in case of four sections in school Minor repairing:-Total amount of expenditure should not exceed Rs.50,000 in a year. Following repair works can be undertaken school building, toilets, tanks, play ground, campus, conservancy services, electrical fittings,	1.Repairing and renovations will primarily be undertaken through community participation. 2.On the basis of approved estimate by the department following grants may be considered under special circumstances: 3.Major repairing:One time total amount of expenditure should not exceed Rs.2.00 lakh per school in case of two sections in school and Rs.4.00lakh per school in case of four sections in school Minor repairing:-Total amount of expenditure should not exceed Rs.50,000 in a year. Following repair works can be undertaken school building, toilets, tanks, play ground, campus, conservancy services, electrical fittings, Sanitary and other fittings furniture and fixtures 4.Expenditure on repair and maintenance of building would not be included for calculating civil works.	

	Sanitary and other fittings furniture and fixtures 4.Expenditure on repair and maintenance of building would not be included for calculating civil works. 5.Grants will be available for schools which have existing buildings of their own	5.Grants will be available for schools which have existing buildings of their own	
1.17 Repair/ relacement of laboratory Equipments, purchase of lab consumable article	1.Fund will be available for science lab 2.Replacement and repairing of laboratory equipments. 3.Purchase of consumables, chemicals. 4.Upkeep of laboratories 5. Any other lab activity relating to science and mathematics Annual grant of Rs. 25,000/- per school per annum or as per actual requirements.	1.Fund will be available for science lab 2.Replacement and repairing of laboratory equipments. 3.Purchase of consumables, chemicals. 4.Upkeep of laboratories 5. Any other lab activity relating to science and mathematics Annual grant of Rs. 25,000/- per school per annum or as per actual requirements.	
1.18 Purchase of books, periodicals, news papers etc.	1.Purchase of books with due reference to the lists of books recommended by the Department and SCERT 2.Rs.10,000 per annum or the actual expenditure which ever is less 3.Text books and reference books for teachers should also be included. 4.One time grant for purchase of books is Rs. 1.00 lakh in case of newly upgraded school or those school which do not have library.	1.Purchase of books with due reference to the lists of books recommended by the Department and SCERT 2.Rs.10,000 per annum or the actual expenditure which ever is less 3.Text books and reference books for teachers should also be included. 4.One time grant for purchase of books is Rs. 1.00 lakh in case of newly upgraded school or those school which do not have library.	
1.19 STUDY TOURS/ EXCURSION TRIPS	1.State govt/ community/ parents/ private sector may sponsor or contribute 2.Study tours will be organized by the schools every year. 3.All the willing students will be allowed to participate 4.Adequate measures for safety and security of the students, especially girls will be made.	1.State govt/ community/ parents/ private sector may sponsor or contribute 2.Study tours will be organized by the schools every year. 3.All the willing students will be allowed to participate 4.Adequate measures for safety and security of the students, especially girls will be made. 5.An amount of Rs.5000/- may be allocated for the purpose.	

	5.An amount of Rs.5000/- may be allocated for the purpose.		
1.20 SCHOOL ANNUAL GRANTS RECURRING COST	**1.1 SPORTS**: 1. Sports equipments, uniforms etc., 2.Music/ dance/ cultural activity 3.Painting. Grants of Rs.5000/- will be allocated for the purpose. **1.2.TEACHING AIDS:-** 1.Equipments for teaching geography, elective subjects Drawing equipments and painting materials. 2.Maps, charts, Grants of Rs.2000/- per teacher per annum 3.To meet petty and contingent expenditure for organizing meetings, conveyance, stationeries grants of Rs.5000/- per annum 4.Water, electricity charges, telephone charges, internet charges/ other grant and taxes 5.Grant of Rs.20,000/- per annum or actual expenditure, whichever is less to meet water and electricity charges. 6.petty repairs and maintenance –Grant for Rs.5000/- per annum 7.Other expenditure-Grant of Rs. 5000/- should be given to each school 8.community/PRIs/Private sector may also to contribute	**1.2 SPORTS**: 1. Sports equipments, uniforms etc., 2.Music/ dance/ cultural activity 3.Painting. Grants of Rs.5000/- will be allocated for the purpose. **1.2.TEACHING AIDS:-** 1.Equipments for teaching geography, elective subjects Drawing equipments and painting materials. 2.Maps, charts, Grants of Rs.2000/- per teacher per annum 3.To meet petty and contingent expenditure for organizing meetings, conveyance, stationeries grants of Rs.5000/- per annum 4.Water, electricity charges, telephone charges, internet charges/ other grant and taxes 5.Grant of Rs.20,000/- per annum or actual expenditure, whichever is less to meet water and electricity charges. 6.petty repairs and maintenance –Grant for Rs.5000/- per annum 7.Other expenditure-Grant of Rs. 5000/- should be given to each school 8.community/PRIs/Private sector may also to contribute	
1.21TEACHERS,STAFFS AND LAB ATTENDANTS	**TEACHER** 1.Every school should have atleast one subject teacher for each subject, two language teacher, one each for mathematics, physical	**TEACHER** 1.Every school should have atleast one subject teacher for each subject, two language teacher, one each for mathematics, physical science, biological science, social studies, computer science.	

	science, biological science, social studies, computer science. 2.Every school should have one physical education and music and craft teacher 3.Every secondary school should have a minimum of 7 subject teachers and two special teachers 4.Every teacher appointed should possess minimum graduation and a B.Ed for teaching 5.Every school should maintain PTR of 30:1 or less Teacher will be employed by the society implementing RMSA **LAB ATTENDANT:_** 1.One lab attendant should be employed by the society implementing RMSA **OFFICE ASSISTANT:-** 1.Every secondary school should have one clerk(ASSISTANT GRADE III) and one peon for office works. **WATCHMAN:_** Every secondary school should have one night watchman may be appointed by community/PRI/parent teacher Association.	2.Every school should have one physical education and music and craft teacher 3.Every secondary school should have a minimum of 7 subject teachers and two special teachers 4.Every teacher appointed should possess minimum graduation and a B.Ed for teaching 5.Every school should maintain PTR of 30:1 or less Teacher will be employed by the society implementing RMSA **LAB ATTENDANT:_** 1.One lab attendant should be employed by the society implementing RMSA **OFFICE ASSISTANT:-** 1.Every secondary school should have one clerk(ASSISTANT GRADE III) and one peon for office works. **WATCHMAN:_** Every secondary school should have one night watchman may be appointed by community/PRI/parent teacher Association.	

Annexure III

Curriculum Issues and Implementation: Karnataka

1 Introduction

The NCF, 2005 provides guidelines to fulfill the goals of NPE to make education child-centred and link the knowledge to life outside the school. The systematic review of syllabi and text books based on NCF, 2005 has been undertaken in states and UTs to draw out specific roadmaps for schools reforms. Karnataka reviews/renews its State Curriculum periodically and suggestions are invited across the world and the suggestions received are applied in the textbooks that subsequently get prepared. The earlier curriculum was based on minimum levels of learning. Textbooks incorporated the strategies necessary for making learning a loveable experience. When NCF 2005 was in place, necessary inclusions were done in the textbooks. The State Curriculum Framework, was prepared by the state core group. The Subgroups have reviewed the existing state syllabi and textbooks, from Class I to XII and compared them with NCF 2005, and the SCF report was prepared. The following curricular issues and strategies are related to secondary education

Future citizens of India should be physically strong and sound, mentally/emotionally matured and intelligent, and enriched to be creative, innovative and exploring. Hence Universalisation calls for a paradigm shift on principles that involve re-conceptualization of access itself, socio-cultural ambience of the classroom, notion of knowledge, values and skills and application between what is learnt inside the school and what is available outside. To support education, learning to know, learning to do, learning to live together and learning to be,meaningful activities are to be included in the plan in order to achieve the goals and objectives of the Universalisation of Secondary Education. The following are the various strategies and activities for “RMSA”.

2 New Approaches

The classroom transaction and day to day activities in the Secondary level need to be modified with innovative approaches. Hence the following new approaches suggested by the CABE Committee will be implemented in the state.

2.1 Work and Education

The pedagogic role of productive work was time and again either marginalized or trivialized in the school curriculum by equating it with either ‘work experience’ or Socially Useful Productive work (SUPW). Accordingly, the following two fold strategy for a major curricular reform is recommended:

A set of work-related generic competencies have to be pursued and the evaluation parameters also have to be redesigned as well. Generic competencies will include, among other things, critical thinking, and transfer of work ethic or collaborative functioning and entrepreneurship-cum-social accountability. This will provide a firm foundation for building up a programme of Vocational Education instead of Vocational Education at the Secondary/Higher Secondary Stages.

Vocational Education and Training (VET) have to be conceived as major national programme in the mission mode and the structurally and administratively placed outside the school

system. VET in this new perspective will be built upon the bedrock of 10-12 years of work-centered education in the school system.

Hence in the Secondary Level, various vocational skills will be included in the classroom activities during arts and crafts classes. These skills will be designed in such a manner that they will help children in pursuing future vocational/professional courses.

2.2 Common School System

The Education Commission (1964-66) had recommended a Common School System of Public education as the basis of building up the National System of Education with a view that "bring the different social classes and groups together and thus promote the emergence of an egalitarian and integrated society".

Common School System essentially means a National System of Education which is based on the values and principles of the Constitution of India which provides education as a comparable quality to all children irrespective of their caste, creed, language, economic or cultural background, geographic location or gender. This is the perspective articulated by the National Policy on Education 1986 and further elaborated by the National Curriculum framework-2005.
The Government of Karnataka has taken steps of bring in an Equitable System of Education,

2.3 Instructional Process

Curricular structure and course offerings are the necessary condition for quality secondary education. Instructional processes provide the sufficient condition for quality secondary education. Students lack problem solving ability, higher order thinking and cognition, and creativity. Most importantly, they miss out on 'learning to know' or learning to learn. Secondary Education must set its targets for students to be able to think critically, solve problems individually and collectively, be creative. In order to facilitate children to imbibe the Problem Solving Skill, it has been planned to introduce Project Based Learning in the secondary education level.

2.4 Project Based Learning (PBL)

A growing body of research indicates that intelligence is not a single quantifiable ability, but rather a set of aptitudes developed and valued. The Theory of Multiple Intelligences describes seven different intelligences through which people think learn and process information. Project Based Learning affords students opportunities to develop and apply these intelligences, thus it accommodates a wide variety of learning styles. One immediate benefit of practicing PBL is the unique way that it can motivate students by engaging them in their own learning. PBL provides opportunities for students to pursue their own interests and questions and make decisions about how they will find answers and solve problems.

Project-based learning allows the teacher to incorporate numerous teaching and learning strategies into project planning and implementation. Projects assist students in succeeding within the classroom and will make learning a part of living, not just a preparation for it. Learners apply multiple intelligences in completing a project they can be proud of. Our society values individuals who can solve problems creatively, using multiple strengths. Project based learning leads to the following benefits:

- Offers multiple ways for students to participate and to demonstrate their knowledge.

- Accommodate different kinds of intelligence (e.g., kinesthetic, figural)
- Can be matched to the learning styles of students such as learning alone by reading and reviewing, or learning in a group by reading and discussing.
- Shifts students away from doing only what they typically do. For example, projects provide the means to give followers the experience of being task leaders.
- Prompts students to collaborate while at the same time supporting self directed learning.
- Offers a learning experience that draws on the thinking and shared efforts of several individuals.
- Helps students develop a variety of social skills relating to group work and negotiation.
- Promotes the internalization concepts, values, and modes of thought, especially those related to co-operation and conflict resolution.
- Establishes a supportive and non-competitive climate for students.
- Provides a means for transferring, in whole or in part, the responsibility for learning from teachers to students.
- Allows students to try out new skills and model complex behavior in a non-threatening fashion.
- Calls upon students to explain or defend their position to other in their project groups, so that their learning is more apt to be "owned", that is, personalized and valued.
- Serves as a medium to involve students who don't usually participate.
- Encourages the mastery of technological tools. Projects provide an ideal context for learning to use computer technology and graphic arts tools, thus extending students capabilities and preparing them for the world beyond school.

2.5 Student Assessment and Evaluation

Secondary Education is the turning point for a large majority of students. Along with building dynamism in curricular framework as well as instructional processes, valuation must undergo major changes. Securing percentage of marks in the final examination creates unusual stress in the students. Hence it will be necessary to reconstruct and redesign examination systems with attributes like flexibility where a student can achieve mastery learning in a flexible time frame and accumulate credits; elimination power tests (fixed duration), adopt Continuous and Comprehensive Evaluation.

2.6 NCERT / SCERT on Evaluation

National Council of Educational Research and Training says that Evaluation in schools needs to be profitably exploited for the development of both cognitive and non-cognitive capacities. This warrants adequate emphasis on both the formative and summative forms of evaluation. While formative evaluation is done during the course of instruction with a view to improving students' learning, summative evaluation is done at the end of the academic year to promote students to the next grade. Both these types of evaluation are essential and; therefore, need to be carried out to realize the goal of bringing about qualitative improvement in school education. The main purpose of formative evaluation is to monitor the instructional process in order to determine whether learning is taking place as planned. The result of such evaluation needs to be used for designing and providing remedial measures for slow learners and enrichment programmes for the brighter ones. On the other hand, summative evaluation needs to be used for classification of placement and prediction of future success apart from promotion to the higher class.

Analyses and interpretation of the evidences collected through both the formative and summative evaluation may be viewed in three different ways; first by assessing the student's progress with reference to their own selves (self-referenced), secondly, with reference to the criteria set by their teacher (criterion-referenced), and thirdly, with reference to the progress made by their peer groups (norm-referenced).

Evaluation must facilitate all-round development of students. It will, therefore, desirable to have school-based system of students' evaluation, both formative and summative, from Classes I-XII. However, at the primary level evaluation will be formative of nature and only at the end of Classes X and XII will the final examinations be conducted by the boards as far as the scholastic areas are concerned. The school-based evaluation, which will be in the form of continuous and comprehensive evaluation, will incorporate not only the scholastic areas but also the co-scholastic areas of students' growth.

2.7 Secondary Stage

Evaluation at the secondary stage will be school and Board-based using the continuous and comprehensive evaluation mode with special emphasis on diagnosis and remediation aiming at ensuring the mastery level. Students' achievement in different subject areas will continue to be assessed periodically by employing criterion-referenced tests. Cumulative report cards for individual students will be maintained indicating their performance assessed through various tests, etc. The portfolios of individual students will also contain their self-appraisal and peer evaluation besides their cumulative report cards.

Apart from the evaluation of the various subjects taught in the classroom, children will be assessed on their participation and performance in sports and games, arts and crafts, extra-curricular and co-curricular, clubs and association activities. Each activity may fetch a credit, so that it will add to the overall assessment of the child.

3 Guidance and Counseling

It is extremely important to recognize the role that Guidance and Counseling play for meeting the needs of adolescent students in the Secondary and Higher secondary stages of education. It is also necessary in the context of the rapid changing socio-economic and cultural scenario of the society and the rapid process of institutional change and modernization. Hence necessary institutional arrangements for guidance and counseling are to be made in the Secondary and Higher Secondary level of education.

It is highly relevant in this context that the Government of Karnataka has banned the Corporal Punishment in schools in the state. Hence there is a question in the minds of the teachers what measure to be adopted to maintain discipline in the school.

4 Active Learning Method

Active Learning Method has been introduced in the Standards I to VIII in Karnataka, through the "Sarva Shiksha Abhiyan" Scheme and found to be the most useful method in teaching in the classroom and the most valuable method in making the children learn effectively.

Active learning is an umbrella term that refers to several models of instruction that focus the responsibility of learning on learners. The use of active learning in education was most certainly the quickest and most efficient method of training the young learners. Children are encouraged to ask questions, take initiative, make decisions and be responsible for the results.

Individual learning styles are respected and taped using a multi-sensory curriculum to help children connect body, mind and spirit. Children's points of view and interests are taken seriously, since personal relevancy is imperative to the learning process. **"Active Learning"** activities include:

- A class discussion may be held in peers. Certainly all would agree that these discussions be held between prepared, knowledgeable participants.
- A think-pair-share activity is when learners take a minute to ponder the previous lesson, later to discuss it with one or more of their peers, finally to share it with the class as part of a formal discussion. It is during this formal discussion that the instructor should clarify misconceptions.
- A short written exercise that is often used is the "one minute paper". This is a good way to review materials.

Hence Active Learning Method has proved to be the most efficient method in making in children learns well in the Elementary Level, it is planned to extend the same Method to the Secondary Level also.

5 Skills Development

It is felt that students at the secondary level need to be trained in the development of interpersonal and human relations skills (soft skills) along with problem solving, decision making, judgment and other critical thinking competencies (conceptual skills). There are Hard Skills as well as Soft and Conceptual skills. The acquisition of hard skills is only one part of the leadership development process. The development of soft skills is the second part and the acquisition of conceptual skills is the third part of the leadership development process. The following are some of the various components to be developed under skills development – Soft Skills, Hard Skills, Conceptual Skills, Outdoor Leadership Training, Curriculum Development, Judgment, Decision Making, and Problem Solving.

5.1 Hard Skills

Hard skills are most visible, the most exciting and therefore the most marketable skills in outdoor programs. Hard skills are the methods, processes, procedures, techniques and the use of outdoor equipment to gain competencies in the physiological, environmental, safety, technical and administrative components of outdoor recreation/education. The hard skills are tangible, relatively easy to teach, capable of being measured and therefore evaluated.

In order to compare definitions between hard, soft and conceptual skills, each of these skill areas will be broken down into components to help organize these three types of sills. The hard skills may be broken into five components: physiological, environmental, safety, technical and administrative.

Physiological: The physiological component includes those skills encompassing the maintenance of a sound physiological body and the physical restoration/treatment of an injured participant or leader. The physiological component includes, but is not limited to, maintaining physical fitness, promoting health, and treating blisters and common backcountry ailments. Other examples of the physiological component of hard skills may include administering first or second aid, or bringing a hypothermic victim back to normal body temperature.

Environmental: The environmental component includes those skills relating to the interpretation and protection of the natural surroundings. Training in the environmental components may include such competencies as interpreting weather systems and understanding and promoting an environmental ethic (not only in yourself but in others). Understanding ecological principles and knowing the natural history of an area are also a few examples of the environmental component.

Safety: The safety component includes the skills necessary to render a safe activity, free from injury and secure from danger or loss. Some examples may include practicing the fundamentals of accident prevention and group security, taking necessary precaution, implementing risk management techniques and developing a critical eye for safety.

Technical: Technical hard skills are the most common cornerstones for outdoor leadership training. This component in-corporate the competencies required to teach the group knowledge, skills and attitudes related to the activity, environment and safety.

Administration: The administrative component of hard skills incorporates the "behind the scenes" actions in managing, directing, operating, supervising and evaluating an outdoor program. This component refers to the ability to program plan, to evaluate, understand legal liability and being competent to organize and conduct functional meetings. The administrative component may also include the capability of setting programme goals and developing objectives.

5.2 Soft Skills

Soft skills are the interpersonal and human relations skill in other words "people skills". Soft skills comprise of the following components: social, psychological and communication.

Social: The social component of soft skills incorporates the group interaction and welfare of the outdoor program participants. The special component may include the understanding of group dynamics, the ability to resolve group conflict, develop and provide a supportive climate (reassurance and encouragement), being sensitive to the needs of others and establishing effective group relations.

Psychological: The psychological component combines the skills necessary in relating to the participant's presence of mind and behavior. Some examples of the psychological component include building a climate of trust within a group, understanding what motivation is, and how to stimulate it. Other examples may include promoting values, understanding attitudes of others, team building, developing ethics and responding to a person's risks in a trustworthy manner.

Communication: The communication component combines written, verbal, and non-verbal transmission and exchange of information. Examples of this component range from being able to "think on your feet" and speak clearly in front of a group, to interpreting non-verbal (hunching of the shoulders, furrowed brow, pursed lips). Other examples may include expression directions in written format or listening attentively.

5.3 Conceptual Skills

Conceptual skills are the general analytic skills of leader; the reasoning power and logical cogitative processes. There are two components within conceptual skills: judgment and creativity.

Judgment: Judgment has been shown to be the number one outdoor leadership competency. Judgment is the process of forming an opinion by discerning and comparing using one or more of the following:

Cognitive instinct, logical deduction, foresight, perception and assessment, Judgment is the ability to understand, compare and decide between alternative forces. Some examples of the judgment component may include distinguishing between perceived risk and actual risk, recognizing potential problems in such areas as natural hazards, environmental impact, or group problems.

Creativity: The outer limit of conceptual skill development includes the creativity component. Creative abilities are like the oil well of our mind. We know there is a lot down inside our brain but getting it to the surface and transforming it into something useful is the problem. To exercise creativity within outdoor leadership incorporates generating new ideas such as original teaching methods/techniques or inventing instructional teaching aids. Rigid, inflexible thinking is a great killer or creative ability.

6 Information and Communication Technology (ICT)

National Curriculum Frame work (2005) reconceptualises learning resources such as library and educational Technology for quality schooling. It suggests that providing children with more direct access to multimedia equipment and information and communication technology (ICT) and allowing them to mix and make their own productions and to prevent their own experiences, could provide them with new opportunities to explore their own creative imagination. Such experience of using ICT in a creative way rather than only watching and listening to programmes passively will help utilization of the country's ICT facilities. Interactive, net-enabled computers, rather than only CD based computer usage, would facilitate a meaningful integration of computers and enhance the school curriculum in rural and remote areas by increasing connectivity and enhancing access to ideas and information. It is such two-way interactivity rather than one-way reception that would make technology educational. In tune with the suggestions of NCF 2005 the objectives of ICT in schools are as follows:

- To establish an enabling environment to promote the use of ICT in schools.
- To promote critical thinking and analytical skills by developing self learning.
- To enrich teaching and learning by using ICT tools in an inclusive environment.
- To enable students do different projects collaboratively using online information.
- To enable students to access information on various themes from educational websites in the internet, encyclopedia CDs and other information packaged compact discs.
- To encourage students to learn various applications of computer with special reference to learning.
- To prepare students at the secondary level to choose computer stream at the higher secondary Level.
- To enable mastery of skills needed for seeking entry into professional colleges and IT job market.

Keeping in mind the above objectives, the State Government provided Government High Schools with computers with supporting Educational Software. The ICT needs of Government High Schools are addressed through a comprehensive computer education scheme The Information and Communication Technology – enabled classroom process will enhance the equity and quality of secondary education.

6.1 Computer Literacy

The national system of education in India employs a current framework with a common core and other flexible components. It intends provide access and quality of education to all. The administrative financial control of the system rest jointly, with the union government and the state governments. In 1984, a program of computer literacy started on an experimental basis in government schools. The first computer related policy, emphasizing computer literacy, was established as part of the National Policy on Education in 1986 and modified in 1992. Realizing all of India's intended policy goals regarding the use of computers in education will require facing several major obstacles. This paper makes suggestions for overcoming some of them.

6.2 I T Competencies for Secondary Education

NCERT suggests that Mastery of the following skills would define information technology literacy and competence in the application of technology tools in support of learning, communication, research, problem solving and decision-making.

1. Ability and understanding on fundamental computer operations and concepts.
    - Operate a multimedia computer system.
    - Use proficiently computer keyboard, mouse, scanner, modem, monitor and printer.
    - Connect computers to communication network
    - Identify new and emerging technologies.
    - Understand the basic vocabulary like processor type, processor speed, floppy drive, hard disk drive, RAM, ROM, CD-drive, data transfer rate, etc.
    - Exhibit programming skills and confidence in controlling the computer.
2. Use a variety of programs to accomplish learning tasks Use advanced features of word processing, desktop publishing and graphics programs.
    - Use electronic spreadsheet for dynamic models for if-then analysis, organizing and displaying numeric data.
    - Make integrated applications using work processor, database, spreadsheet and graphics programs.
    - Identify, select and integrate audio, video and digital images or multimedia presentations and off-time and on-line publications.
    - Use drawing tools for illustrations.
3. Exhibit skills in the use of communication networks
    - Use local area network within the school and worldwide network communication systems to share resources and access, analyze and interpret information.
    - Create documents that use hyperlinks.
    - Able to deal with viruses and use anti-virus program to clean them.
4. Exhibit skills in the selection and use of technology together, process and analyze data and preparation of report.
    - Demonstrate cognitive skills acquired through game programs.
    - Exhibit abilities that indicate mastery over the content and the process embodies in computer-aided learning packages.

- Adopt appropriate technology for communicating information directly and/or through a distant mode.
- Respect copyright norms while reporting information.
- Use learning resources like courseware or other computer aided packages and able to a subject using courseware under teacher's supervision.

6.3 Virtual Classrooms

Though the teacher cannot be substituted with anything in the classroom, the present syllabus and the lessons necessitate modern approaches to drive home some of the facts and figures into the minds of the young learners. The present trend is to use virtual classrooms to add to and reinforce what the child has learnt in the classroom.

In order to facilitate this activity, necessary e-learning equipments will be installed in the High and Higher Secondary Schools. A separate platform will be created to access these schools through a separate Band Width for School Education. A separate classroom will be equipped with the e-learning equipments, computer, LCD Projector and sound equipments. Expertise will be outsourced to prepare and telecast the necessary lesions. These arrangements will motivate the children to learn with interest and interaction with the panelists and the children of other schools.

6.4 Net-Based Lesson Planning

All schools will be provided with separate teachers rooms for Ladies and Gents with all basic facilities and Computers with Internet facilities. Teacher will be motivated to browse the Net and prepare their lesion plans with latest information. This kind of net-based lesson planning will enable the teachers to enliven the classroom teaching and make the students understand the lessons better.

7 School Discipline

As far as school education is concerned, students must be trained in good discipline. Secondary Education is a stage in which students need proper guidance of their behavior. It is rightly said that Education is the all round development of personality. Every school have a well defined code of conduct. The school staff council should have a policy on school discipline and also have code of conduct for the school. A school discipline policy should cover:

- Strategies to promote good discipline and effective learning within the school.
- Strategies for dealing with unacceptable behavior. The rights and responsibilities for students and teachers in this regard include:
- Expected standard or behavior in the classroom playground and while traveling to and from school.
- Safety in and around the school and at all school activities.
- Obedience to requests from staff and others in positions of authority.
- Adherence to the schools homework policy.
- Adherence to the standards to dress determined by the school community.
- Prohibition of illegal drugs, alcohol, tobacco and weapons.
- Positive and respectful relationship between all members of the school community.

8 Yoga in Secondary Schools

The Education Departments of various State Governments are analyzing the possibilities of making Yoga compulsory in all the high and higher secondary schools. At present yoga is being taught to students in high and higher secondary classes as a part of physical education in Karnataka. It may further expand as a routine practice at home and school so that the students shall commence their everyday activities after some yoga exercise.

9 Schooling Facility

There is a lot of disparity in schooling facilities in various region of the State. There are disparities among the private schools, among private and government schools in the same place, between schools in central sector also. For providing universal and free access to quality secondary education, it is imperative that specially designed norms are to be developed.

10 Open Learning System

In spite of expansion of education facilities in secondary schooling, all the youth in the concerned age group will not be able to take advantage of formal schooling. Hence it is necessary to design, create and establish alternative educational provisions for such learners. The open school network has to be expanded to ensure state specific open schooling facility through regional languages. The existing open schools depend upon the print material which often varies in quality. Hence it is necessary to enhance quality open schooling through a variety of measures, particularly the counseling and tutorial services. These services can be provided through EDUSAT, by installing Satellite Interactive Technology (SIT) facilities. The DTH delivery of education can also be expedited.

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ANNEXURE IV

Management Structure and Fund Flow

I Management Structure at State Level

There will be a separate State Mission Authority for "Rashtriya Madhyamik Shiksha Abhiyan (RMSA)". All activities in the Secondary education sector should be under State Mission Authority. This will facilitate decision making at the State level. The Mission mode signifies a focused and time bound arrangement for decision-making and the presence of Planning and Finance on these bodies at the State level to facilitate this process.

The State Mission on RMSA has a separate state level management society, "Karnataka Madhyamik Shiksha Abhiyan Samiti".

The Governing Council, headed by the Hon'ble Chief Minister of the States with head of the Resource Institutions and Experts as Member. The Minister in charge of School Education and Chief Secretary of the States will be the Vice-Chairpersons of the Mission. The Secretary, In-charge of Secondary Education will be the Member Secretary. The Society has been constituted as follows:

	Chief Minister of Karnataka	Ex-Officio President
1.	Minister in charge of Secondary Education	Ex-Officio Vice-President
2.	Chief Secretary to Govt of Karnataka	Member
3.	Development Commissioner	Member
4.	Commissioner & Secretary, Finance Department	Member
5.	Secretary, Higher Education Department	Member
6.	Secretary, Primary & Secondary Education Department	Member
7.	Secretary to Govt Planning Department	Member
8.	Secretary to Govt Social Welfare Department	Member
9.	Secretary to Govt Labour Department	Member
10.	Secretary to Govt Women & Child Development Dept	Member
11.	Secretary to Govt Rural Dev & Panchayat Raj Dept	Member
12.	4 Persons drawn from non-Govt. agencies engaged in Elementary education activities of which at least 2 would be women to be nominated by the State Govt.	Member
13.	5 Heads relating to State Level Institutions engaged in technical resource development to be nominated by the State Govt.	Member
14.	Representative of Secondary teachers, to be nominated by State Govt. ➢ 3 Persons, out of which 2 are women to represent Secondary teachers. ➢ 3 Persons, out of whom 2 are women to represent instructors and other functionaries engaged in non-formal education and Adult education. ➢ 3 teachers, out of which 1 is a women known for their commitment to Secondary education system.	Member

	➢ 3 Heads of Secondary Schools known for their initiative and contributions in the field of Secondary education of which 1 is a women.	
15.	Other ex-officio representatives of the State Govt of Karnataka ➢ 2 Districts Deputy Commissioners and 2 Chief Executive Officers of selected districts of the project with 2 persons retiring every year on the basis of seniority. ➢ All the Heads of Departments whose function relate to Secondary education. ➢ 6 Executive Heads of the District Task Forces by rotation with 2 persons retiring every year on the basis of seniority.	Member
16.	Representatives of the Central Government ➢ 1 Representative of the Central Government to be nominated by the MHRD. Department of Elementary Education. GOI ➢ Director, National Council of Educational Research & Training, New Delhi or their nominated Representative ➢ Director, NUEPA or their nominated Representative	Member
17.	2 Persons each form among those who have distinguished themselves in the area of education of SC/STs and phycially handicapped, one person in each category to be nominated by the State Government	Member
18.	2 Women who have distinguished themselves in the areas of Secondary education, non-formal education	Member
19.	Commissioner of Public Instruction	Member
20.	State Project Director [SSA]	Member
21.	Director of Mass Education	Member
22.	Director DSERT	Member
23.	Director of Public Instruction [Secondary Edn] & Ex Officio State Program Director.	Member

There will be an Executive Committee in the State on RMSA headed by the Chief Secretary to Government of Karnataka. The State Mission Director will be the Member Secretary to the Executive Committee.

EXECUTIVE COMMITTEE OF RASTRIYA MADYAMICA SHIKSHA ABHIYANA SAMITHI, KARNATKA

1. The affairs of the Society shall be administered, subject to the Rules and Regulations and Orders of the Society, by an Executive Committee, which shall consist of the following:-

- Secretary to Govt Pry & Sec Education - Chair Person
- Commissioner for Public Instruction - Vice Chair Person
- Secretary Finance Department - Member
- Secretary, Planning Department - Member

- Secretary to Govt, Women & children Welfare Dept- Member
- Secretary to Govt, Labour Dept - Member
- Secretary to Govt, Social Welfare Dept - Member
- State Project Director SSA - Member
- Director, DSERT - Member
- Director, Mass Education - Member
- 3 eminent Educationists to be nominated by the State Govt- - Member
- 2 District Project Coordinators from among the Selected districts by rotation to be nominated by the Chair Person - Member
- 1 District Deputy Commissioner & 1 CEO of ZP from selected districts by rotation to be nominated by the chair person - Member
- 1 Representatives of the Central Government to to be nominated by MHRD, Dept of Educational, GOI - Member
- 1 Director/Representative of State Level Academic & Technical Resources Support Agencies - Member
- 2 Serving teachers to represent Teachers Organizations concerned with Secondary education to be nominated by the State Govt - Member
- 2 Women with experience and interest in women's Development & Education, one each to be nominated by the State Govt and the Central Govt - Member
- 2 Women form Voluntary Agencies who have distinguished themselves for work among SCs and STs one each nominated by State Govt - Member
- Director of Public Instruction [Secondary Education] & Ex Officio State Program Director of the Society - Member Secretary

The State Level Society will be responsible for the preparation of the Annual Work Plans at the State Level and responsible for the sanction of funds to the districts. It will be the monitoring agency for the activities of the project in the districts and upraise of the developments to the Governments of Karnataka and to the agencies at the National Level.

Duties, Responsibilities and Modalities of the various level functionaries will be worked out in due course. Necessary bye-laws have been formulated for the society at the time of registration.

STATE LEVEL EMPOWERING COMMITTEE OF RASTRIYA MADYAMICA SHIKSHA ABHIYANA SAMITHI, KARNATKA

The affairs of the Society shall be administered, subject to the Rules and Regulations and Orders of the Society, by an Empowering Committee, which shall consist of the following:-

- Secretary to Govt Pry & Sec Education - Chair Person
- Commissioner for Public Instruction - Vice Chair Person
- Secretary Finance Department - Member
- Secretary, Planning Department - Member
- Secretary to Govt, Women & children Welfare Dept - Member
- Secretary to Govt, Labour Dept - Member
- Secretary to Govt, Social Welfare Dept - Member
- State Project Director SSA - Member

II Management Structure at District Level

The RMSA project will be implemented at the District Level under the administration of District Education Officer, with the help of supporting officers and staff. He will be District Project Coordinator (Nodal officer) for RMSA in the District. Further necessary office support will be appointed as follows:

	District Project Coordinator	District Education Officer	
	Assistant District Project Coordinator	Principal / lecturer – 1	1
	Accounts Manager	Accounts	1
	Office Assistants	Assistants Grade - 3	3

- The District office has to be equipped with necessary infrastructure, furniture, computers with necessary peripherals and telephone with internet connectivity.
- Day to day activities in the district level will be carried out with the above personnel appointed for the Project.

- Training and other specific purpose programmes will be carried out with experts for the specific purposes from Higher Secondary Schools, Colleges and Universities in the district.

III Management Structure at School Level

3.1 School Development and Monitoring Committee (SDMC)

There will be School Development and Monitoring Committee for Secondary and Higher Secondary Stage. This committee will be responsible for all the activities including, planning, collection of data under SEMIS, implementation, monitoring, evaluation and taking corrective / remedial actions on all the components / interventions of the scheme, infrastructural as well as academic and others, at the school level. The committee will maintain all the relevant records for recurring as well as non-recurring expenditure. These records will be updated on regular basis and placed before the committee in every meeting. These records and progress on each component / interventions of the scheme will also be placed in the meetings of Panchayat / Urban Local Bodies. Composition of School Development and Monitoring Committee (SMDC) as under

School Development and Monitoring Committee (SMDC)		
1	Chairperson	MLA/Parents Representatives
2	Members	One Teacher related to Science
3	Members	One Teacher related to Social Science
4	Members	One Teacher related to Mathematics
5	Members	One Gentleman from parents
6	Members	One Lady from parents
7	Members	Two Person from Panchayat or Local body (Urban)
8	Members	One from SC / ST community
9	Members	One from Educationally Backward Minority Community
10	Members	One from women groups
11	Members	One from Education development committee of village
12	Members	Three Experts from Science, Humanities and Art / Craft / Culture background to be nominated by DPC through due process
13	Members	One Officer from Education Department to be nominated by the District Education Officer
14	Members	One from Audit and Accounts Department

3.2 The School Development and Monitoring Committee will be assisted by two sub committees, School Building Committee and Academic Committee, headed by the Principal and Vice Principal respectively.

3.3 School Building Committee

The School Building Committee will be responsible for all the activities including planning, estimation, management, monitoring, supervision, reporting, maintenance of Accounts, monthly squaring up of accounts, presenting accounts before the School Management Committee, relating to construction, renovation, repairing and maintenance and other related civil works. The Civil Works will be undertaken either on Contract Basis as per rules or by the Community. These works may also be integrated with the appropriate Rural Development Schemes. While the composition of the Sub-Committee is as under,

Composition of School Building Committee		
	Chairperson	Principal
	Members	One Teacher

	Members	One Gentleman from parents
	Members	One Lady from parents
	Members	One Person from Panchayat or Urban Local body
	Members	One from Experts in Civil Works like Civil Engineer / Consultant
	Members	One from Audit and Accounts Department

3.4 School Academic Committee

The Academic Committee will be responsible for all academic activities including planning, management, monitoring, supervision, reporting, and collection of data for SEMIS etc. The Academic Committee will be responsible for ensuring quality improvements, equity, reducing barriers- like socio economic, gender and disability, teachers and students attendance, recommending teachers for training, guidance and counseling, students achievements, co curricular and extra curricular activities and over all academic and personality development of students and teachers. While the composition of the Sub-Committee is as under,

Composition of School Academic Committee		
1	Chairperson	Principal
2	Members	One Teacher related to Science
3	Members	One Teacher related to Social Science
4	Members	One Teacher related to Mathematics
5	Members	One Person from parents
6	Members	One Person from Panchayat or Urban Local body
7	Members	One from Experts in Civil Works like Civil Engineer / Consultant
8	Members	One from Audit and Accounts Department

1. Management Structure at State Level for RMSA

S.No	Name of the post	No.of Posts
1	State Mission Director	1
1	Director for RMSA	1
2	Joint Director for RMSA	1
3	Senior Programme Officer(DDPI Cadre)	2
	• Planning & Management , Research	
	• Special Group, Quality, media, & Documentation	
	• Model School, Girls Hostel,	
4	Programme Officer(EO Cadre)	3
	• Planning & Management , Research -1	
	• Special Group, Quality, media, & Documentation-1	
	• Model School, Girls Hostel -1	
5	Junior Programme Officer(Group B Cadre)	3
7	Computer Programmer	2
9	Chief Accounts Officer	1
10	Accounts Superintendent	1
11	Executive Engineer	1
	Other Office Staff will be recruited as and when required	

2. Management Structure at District Level for RMSA

Staff pattern for District Office

S.No	Name of the post	No.of Posts
1	DDPI(Sec) &ex-Officio District Mission Director	1
2	DyPC for RMSA(EO Cadre)	1
4	Assistant project coordinator	2(Shifting)
5	Computer Programmer	1 (SSA)
7	Accounts Superintendent	1
	Other Office Staff will be recruited as and when required	

Funds flow

National Mission

↓

State Mission

↓

District Level

↓

School Management and Development Committee

Annexure V

Proposal for Model Secondary Schools in Educationally Backward Blocks (EBB's) of Karnataka

5.1. The concept

The proposed model school will have infrastructure and facilities of the same standard as in a Kendriya Vidyalaya and with stipulations on pupil -teacher ratio, ICT usage, holistic educational environment, appropriate curriculum and emphasis on output and outcome. Some of the key features of proposed model school will be:

(i) Education provided in a Model school will be holistic and integral touching upon physical, emotional and aesthetic development in addition to academics.

(ii) As far as possible, the project proposal underlines emphasis on establishing brand new schools as model school, instead of converting existing schools .

(iii) Necessary infrastructure will be provided in such schools not only for satisfying teaching needs, but also for sports and co-curricular activities. There will be sufficient scope for sports, recreation and out door activities. Facilities like play ground, gardens, auditorium etc. will be provided in Model schools.

(iv)The curriculum will cast the local culture and environment and activity based learning.

(v) These schools will have adequate ICT infrastructure, Internet connectivity and full time computer teachers.

(vi) The Teacher Pupil Ratio shall not exceed 1:25 and the classrooms will be spacious enough to accommodate at least 30 students. However, classroom student ratio will not exceed 1:40.

(vii) These schools will be provided with Arts and Music Teachers besides subject specific teachers as per the usual norms. These schools will also create facility for activities emphasizing Indian heritage and art & craft.

(viii) Special emphasis will be given on teaching of Science, Maths and English. If required, bridge-courses may be introduced for weak students.

(ix) The school curricula shall include the material / items that inculcate leadership qualities, team spirit, participation abilities, development of soft skills and ability to deal with real life situations.

(x) Health Education and health check up will be introduced in these schools.

(xi) A good library with books and magazines for students and teachers will be provided.

(xii) Field trips and educational tours will be an integral part of the curriculum.

(xiii) Medium of instruction will be Hindi and English both. However, special emphasis will be given on English teaching & spoken English.

(xiv) In order to have all India level parity these schools shall be affiliated with state Examination Board,

(xv) The selection of students will be through independent selections test.

(xvi) Selection of Principals and Teachers will also be through an independent process to be developed by State government. Principals and Teachers will be appointed as regular employee in the pay scales prescribed for regular employees of School Education Department.

(xvii) Model schools will have appropriate pace setting activities so that schools in the neighborhood can benefit.

5.2 Proposal

Model Schools were proposed to be set-up at Block headquarters. The current proposal includes:-

Land: At most of the sites land for these model schools is available, and necessary instruction were issued to the concerned collectors to make it available, where ever it is not available, on free of cost.

Selection of the schools: About 74 model schools have been proposed to be setup at Block headquarter in 74 Educationally Backward Blocks (EBBs). List of blocks where model schools are proposed to be set-up is enclosed at A**nnexure - 5a.**

Medium of instruction: The medium of instruction is English and Kannada.

Classes: The schools will have classes from VI to XII, each class having two sections.

Admission: The seats will be filled up on the basis of entrance test through the Directorate of Government Examination in collaboration with RMSA state Team. Existing State rules for reservation will apply.

Management: Model schools will be run by a sub-society under RMSA society similar to KVs.

Affiliation: The proposed model schools shall be affiliated with State Board of Secondary Education, Bangalore for the sake of state level uniformity.

Recruitment of Teachers: Selection of Principals and Teachers will also be through an independent process to be developed by Teachers Recruitment Board (TRB). Principals and Teachers will be appointed as regular employees in the pay scales prescribed for regular employees of School Education Department.

The state proposes to set up model schools in all the 74 Educationally Backward districts. Each Backward block in the select District will have one model school to cater to the educational needs of gifted rural students who hail from families living below the poverty line. The state is convinced that gifted poor students should not be deprived of the opportunity to excel because of financial considerations or affordability.

The state's model school will have infrastructure on par with Kendriya Vidhyalayas but the medium of instruction will be only English. There will be one section of classes from VI to XII, with English medium and another Kannada medium section for Grade IX to XII. One will be purely Kannada medium and the other English Medium keeping Kannada as a language subject. All the 74 Model schools will be created in the 11th Five Year Plan period.

The Government has identified the government schools in each backward block which have adequate infrastructure and space for providing additional infrastructure. These model schools will be located in areas where there is a large population and there is a great pressure on the existing schooling facilities. The newly created facilities and the old facilities will be made available to eligible poor children on a shift basis in the school which are created on public private partnership. To ensure social equity ample representation will be given to all the disadvantaged groups.

Table: Model Secondary Schools in Karnataka

1	Total No. of Districts		33
2	Total No. of Blocks		202
3	Total No. of EBB in MDM list		74
4	Total no. of blocks covered under received proposal		74
5	No. of Model Schools to be constructed with proposed Classes	a. Newly Set up	
		i. Class VI-XII Proposed	74
		ii. Class IX-XII Proposed	
		b. To be converted	
		i. Class VI-XII Proposed	0
		ii. Class IX-XII Proposed	0
		c. Total Proposed Schools	0
6	Land Ownership Details	a. No. of blocks identified govt. land	74
		b. No. of blocks identified private land	0
		c. No. of blocks not given Information	0
7	Cost Details (In crore)	a. Total Construction cost (Non recurring cost)	3.02 Crore For Each school
		b. Total Conversion cost (Non recurring cost)	
		c. Recurring cost	0.74 Crore For Each school
		d. Other non recurring cost(Other than construction cost)	As per Guidelines
		e. Total cost	As per Guidelines
		f. State PWD norms @ per new school	As per Guidelines
		g. State PWD norms @ per conversion	As per Guidelines
		h. Whether detail sheet attached (Y/ N)	N
8	Unit cost (In crore)	a. Unit Construction Cost	As per Guidelines
		b. Unit Conversion Cost	As per Guidelines
9	Implementation Schedule	a. About Implementation Schedule	Yes
		b. Copy Enclosed Y/ N	Yes
		c. If no, Mention date of Submission	
10	Recruitment of teachers	a. Recruitment Plan	
		b. Plan enclosed for recruitment of teachers (Y/ N)	
		c. Date of completion of recruitment work	
11	Building construction	a. Construction Plan	
		b. Plan enclosed for completion of construction work *(Y/ N)*	
		c. Date of completion of construction work	
12	Building Details (KV norms to be followed)		
13	Implementing Society	a. About Implementing Society	RMSA
		b. Name of the society	RMSA
		c. Copy enclosed of Functioneries details (Y/ N)	Yes
		d. Copy enclosed of MoA (Y/ N)	Yes
		e. Copy encosed of Bank statement (Y/ N)	No
		f. If no, please mention date of submission	14-08-09
14	State share in the State Budget	a. Provision for State share in State budget,	25% of Share
		b. Central share reflected in State budget (Y/ N)	As per Guidelines
		c. Amount of expenditure above the scheme norms (State government is willing to bear)	As per Norms
		d. %age Share in State budget	25%
		c. Total amount of State share	
15	Treasury account	a. Name of the Bank	SBI Main Branch (waiting for permission)
		b. Account Number	
16	Remarks		

Financial Estimates

Non recurring cost, estimated for setting-up of a model school on KV template with classes VI to XII with two sections in each class as Rs.3.02 crores. The Recurring cost per year has been estimated as around Rs. 0.75 crores per annum.

75% of the capital cost will be borne by the Central Government and the balance 25% will be provided by the State Government. During the 11th Five Year Plan period, recurring cost will be provided by the Central Government on 75:25 sharing basis. The sharing pattern during the 12^{th} Plan period will be 50:50 between Centre and State Government.

Monitoring of the project

At the state level, monitoring of the project will be done through a separate cell to be opened under RMSA.

At the state levels, schools to be set up on Kendriya Vidyalaya template will be monitored by the Societies administering these schools. State Government will also set up District level and State level monitoring Committees. The District level Committee will have representative from PRIs, Rashtriya Madhyamikh Shiksha Abhiyan (RMSA) Mission and civil society. The State level monitoring Committee will have representatives from various Departments of State Government. The Head Master/ Principal of In-charge of Secondary School at School level will present all the documents before the District level monitoring committee/ societies. Besides, the monitoring set up for 'Rashtriya Madhyamik Shiksha Abhiyan' will also be used in monitoring of the scheme. Monitoring will also be done through personnel of Secondary School Management Information System (SEMIS).

Evaluation

There will be a continuing evaluation of the working of the schools by State Government agencies through a regular and well-structured system of field visits. Besides, an independent agency may be assigned the task of monitoring of the scheme, including progress of construction in district.

Research

Besides the above in-built monitoring and evaluation mechanism, the Central Government and the State Governments will conduct an independent research on different activities of the project by engaging independent institutes of repute. The findings of these research studies will be communicated to all the concerned authorities for corrective measures and further strengthening of the implementation of the scheme. The scheme provides for 3% of total cost on Management, Monitoring, Evaluation and Research. This amount will be spent on the above mentioned activities.

Annexure 5a

Block-wise information of Model Secondary Schools in Karnataka

Land area	Built up Area	Location of land	Ownership of Land	No. of Primary and Upper Primary schools near proposed site In 5 Km	Name of the place where temporary site situated	Built in area (in Sqm) of temporary site	Facilities available at temporary site	Additional Facilities required at temporary site	Total Cost(In crore)
5 Acre	As Per KV Norms	Sy.No 90/1A/02 Manihal	Govt	5	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy.No.10-Yallammangudda	Govt	3	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Chikkasangam	Govt	8	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Nagnala	Govt	6	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Kalampur arsi	Govt	4	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Nelagonda	Govt	3	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Kudalasangam	Govt	7	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy.No.265 Kaggod	Govt	9	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy.No.487 Sindhagi	Govt	2	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy.No.10- Almatti Road	Govt	5	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy.No.129/1-Bidarakundi	Govt	7	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy.No.237 halagundi	Govt	6	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	THADAKAl	Govt	8	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Atoonoor	Govt	6	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	AURAD 165	Govt	9	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	KUNCHVARI	Govt	4	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	KATAWAR	Govt	6	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	NAJALLA	Govt	9	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	JANAVADA	Govt	6	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	BHIMANAKHEDA	Govt	5	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	EKALANDA	Govt	4	2010-11 School will be Establish				3.02 crore for Non recurring cost and 0.74 for Recurring cost

5 Acre	As Per KV Norms	Sy.No.203 lingasagur	Govt	3	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy.No.323 Arakere	Govt	7	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy.No.288 NeeramanviArakere	Govt	9	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy.No.13 Bollammanadoodi	Govt	4	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	32 konganhatti	Govt	7	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Itagi	Govt	6	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Chalgera	Govt	5	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy No 254 Navali	Govt	9	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Hosagondaba	Govt	8	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	GAJEDRAGHADA	Govt	6	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	MAVANDI	Govt	7	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy No 112 Alnavar	Govt	4	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Shirahatti	Govt	9	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	MENCHIHATTI	Govt	5	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy no 348Kalgatta	Govt	7	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy.No 421 Ravihal	Govt	9	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy. No 414 genakihal	Govt	5	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy. No364 C.K.Halli	Govt	6	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy No.739 Chawdapura	Govt	9	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	CHIKKA KUNTHI	Govt	5	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	CHALLAKERE	Govt	4	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	Sy No.277 HARAPANAHALLI	Govt	7	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	T.N.BETTA	Govt	9	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	127 Yalladu	Govt	6	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	513 Miittemari	Govt	4	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74

						for Recurring cost
5 Acre	As Per KV Norms	36 Mastenahalli	Govt	7	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	ARAKERA	Govt	8	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	CHIKKA ELESENDRA	Govt	6	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	YELAGONDAHALLI	Govt	5	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	179 Kerekalli	Govt	6	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	AMALA DOADDI	Govt	8	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	SATHANUR	Govt	6	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	JODIGUBBI	Govt	8	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	202 Kuppe	Govt	6	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	ARASUKOOPALU	Govt	7	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	PADAVARAHALLI	Govt	6	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	BEECHANAHALLI	Govt	7	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	MULLAHINAGADHE	Govt	8	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	SOSHELE	Govt	9	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	ALLAHALLI	Govt	7	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	BYDAMAGULU	Govt	7	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	THIMMARAJAPURA	Govt	9	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	KURAHATTI	Govt	5	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	MELKOTE	Govt	8	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	SHIVANASAMUDRA	Govt	9	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	03, MUSALMARI	Govt	5	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	100, MEKAHALLI	Govt	8	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	588 KAKAMARI	Govt	8	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	BIBIHALLI	Govt	6	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV	DHARSHANAPUR	Govt	7	2010-11 School will be Establish	3.02 crore for Non

	Norms					recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	RUKMPUR	Govt	7	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	GOTE	Govt	5	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost
5 Acre	As Per KV Norms	NARIBLOE	Govt	4	2010-11 School will be Establish	3.02 crore for Non recurring cost and 0.74 for Recurring cost