Infrastructure Development Department (IDD)
GOVERNMENT OF KARNATAKA

Institutional Strengthening & Sector Inventory for PPP Mainstreaming in Education

Pre-Feasibility Report

Facility Management in Schools

Bangalore, Chikballapur and Gulbarga districts

July 2012

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Abbreviations and Acronyms

Abbreviation / acronym	Full form
AMC	Annual Maintenance Contracts
BOOT	Build-Own-Operate Transfer
CAGR	Compound Annual Growth Rate
CL	Casual Leave
CSR	Corporate Social Responsibility
DA	Dearness Allowance
DDPI	Deputy Director Public Instruction
DIPP	Department of Industrial Policy and Promotion
EEL	Everonn Education Limited
ESI	Employees' State Insurance
FDI	Foreign Direct Investment
GER	Gross Enrolment Ratio
Govt.	Government
HRD	Human Resource Development
IBEF	India Brand Equity Foundation
ICT	Information and Communication Technology
IDD	Infrastructure Development Department
IIM	Indian Institute of Management
IT	Information Technology
ITES	Information Technology Enabled Services
Jr.	Junior
NGO	Non-Governmental Organisation
No.	Number
NUEPA	National University of Educational Planning and Administration
PE	Private Equity
PF	Provident Fund
PG	Post Graduate

Abbreviation / acronym	Full form
PPP	Public-Private Partnership
PWD	Public Works Department
R&D	Research and Development
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RO	Reverse Osmosis
Rs.	Rupees
RTE	Right to Education
SDMC	School Development and Monitoring Committees
SPV	Special Purpose Vehicle
sq. ft.	Square Feet
Sr.	Senior
SSA	Sarva Shiksha Abhiyan
USD	US Dollar
UT	Union Territory

Executive Summary

The Infrastructure Development Department (IDD) of Government of Karnataka has initiated the process of exploring Public – Private – Partnership (PPP) opportunities in Karnataka in several sectors including education. To achieve its objective, it had invited proposals from empanelled consultants for "Institutional Strengthening and Sector Specific Inventory for PPP Mainstreaming". Through a competitive bidding process, ICRA Management Consulting Services (IMaCS) was awarded the project for education. IMaCS has conducted five pre-feasibility studies for exploring PPP opportunities in education in Karnataka. In this report, we are focusing on 'facility management in schools'. We have conducted the study through a combination of primary and secondary research. We held detailed discussions with key stakeholders in education including the Secretary, School Education; headmasters of several Government schools in Bangalore, Chikballapur and Gulbarga districts and private service providers.

Facility management is an integral component of the operation of any institution, and this impacts the quality education delivery to a great extent in schools. Apart from the availability of good teachers, clean, quiet, safe, comfortable and healthy school environments are important components of successful teaching and learning. From our site visits, we have found that typically these services are deficient in schools.

Currently, there are no mechanisms or set guidelines in place to ensure management of facilities in schools. Most of the schools do not have housekeeping staff and have to depend on staff and students to clean the school premises including the toilets in some cases. There are some of the schemes which provide some funding for repair and maintenance of schools. These are run by both the State and the Central Government. The State Government has instituted the School Development and Monitoring Committees (SDMCs) in all the Government schools, which ensure community participation and funding. Some of the funds generated by SDMCs are used for hiring sweepers in the schools and also for minor repair and maintenance. Another Scheme run by the State Government is the *Pancha Soulabhya* Scheme. Under this, the State Government has identified five facilities as most essential for schools. These are drinking water, toilets, playgrounds, compound wall and the school building.

In addition, funds are provided to schools under two Central Government Schemes. The scheme under which funding is available for primary schools is the 'Sarva Shikhsa Abhiyan' (SSA) and the scheme targeted at secondary schools is the 'Rashtriya Madhyamik Shikhsha Abhiyan' (RMSA). Under the two schemes, schools are given grants for 'repair and maintenance' among other things. However, in

most of the schools we visited, the grants received under these schemes and also the funds generated by SDMCs were inadequate to ensure quality upkeep of the facilities in the schools.

In the report, we have proposed that the management of facilities in Government schools be conducted in the PPP mode for efficient and quality delivery of services. Based on our research, we have found that facility management in schools has not been experimented in India in PPP before. In India, facility management industry in itself is in a nascent stage. Some of the schools and colleges in India where facility management services are currently managed by the private players are IIM Ahemdabad, G.D. Somani Memorial School, Vivero International, VIBGYOR High and Whistling Woods.

For facility management in Government schools in Karnataka, we have proposed to include both soft and hard services. Soft services include housekeeping and pest control, ground maintenance gardening and security services. Hard services on the other hand include minor civil works, minor electrical and plumbing works and water supply maintenance. In addition, equipment maintenance, white washing and painting services have also been proposed.

Given the nature of the services, the proposed PPP model is called the model of 'Management Contracts'. It is also called as 'outsourcing'. A management contract is one of the simplest forms of PPP. It is typically a contractual agreement for the management of a part (or whole) of a public enterprise by the private sector. Management contracts allow private sector skills to be brought into service design and delivery. However, the public sector retains the ownership of facility and equipment.

Under the contract, the private service provider will be responsible for managing the facilities in the designated schools, while the control of all the services and ownership of property will remain with the Government. It is proposed that the facilities of the schools will be managed on PPP for a period of 5 years, following which it can be extended to another 5 years depending upon the mutually agreed terms. The facility management service contract will be of different size and stature depending upon the size and condition of the schools for which the Government decides to give out contracts to the private service providers.

As per our estimates, the total project cost for managing facilities in one school will take about Rs 9 lakh[1] per annum. If the Government decides to contract facility management for all Department of Education, Karnataka owned schools in Bangalore, Chikballapur and Gulbarga districts (5,296 schools), to private service providers, the total project cost will work out to Rs. 477 crore. If the services delivered by the private service providers are not satisfactory, a penalty could also be imposed on them. There will also be control measures to ensure that the quality of services is up to mark and required levels.

Once implemented, the success of the project can be measured in terms of the improvement in the quality of the services in schools. Once successful, the model can also be scaled up to cover all Government schools in all districts of Karnataka, thereby improving the quality of facilities in all Government schools in the State.

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[1] For a school of size of 1 acre and a built up area of 50%, i.e. 0.5 acre, remaining being grounds and gardens.

1. Introduction

1.1 Project Idea

1.1.1 School Education in India

The Indian education system is one of the largest in the world. Education in India is provided both by the public as well as private sector. It falls under the control of both the Central Government and the State Governments.

With the goal of nation building, the 'Right of Children to Free and Compulsory Education Act, 2009' received the assent of the President of India in August 2009 and came into effect on April 1, 2010. The Act is aimed at providing for free and compulsory education to all children of the age six to fourteen years. It's a Government of India flagship programme for achievement of universalization of elementary education in a time bound manner. Sarva Shiksha Abhiyan (SSA), which is run along with Right to Education (RTE) is being implemented in partnership with State Governments to cover the entire country and address the needs of 192 million children in 1.1 million habitations.

Since RTE Act came into force, 50,672 new schools, 4.98 lakh additional classrooms, 6.31 lakh teachers have been sanctioned to States and Union Territories (UTs) under SSA. Most of the States and UTs have notified State RTE rules, except for the States of Karnataka, Gujarat, West Bengal and Goa[2].

The Government has also launched 'Rashtriya Madhyamik Shiksha Abhiyan (RMSA)' to universalize secondary education. Simultaneously, steps are being undertaken to expand higher and technical education in the country.

In addition to above, some of the key Government schemes for elementary and secondary education include:

1. National Programme for Education of Girls at Elementary Level (NPEGEL)
2. National Programme of Mid-Day Meals in Schools
3. Model Schools Scheme
4. Inclusive Education for the Disabled at Secondary Stage (IEDSS)
5. Saakshar Bharat (SB)/Adult Education, etc.

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[2] As per Ministry of Human Resource Development (MHRD) 'Minutes of the Conference of State Education Secretaries held on 4th -6th Jan, 2012'.

As of 2009-10, India had about 14.5 lakh schools, comprising of 61.5 per cent primary schools, 25.4 per cent middle schools, 8.5 per cent high schools and 4.6 per cent higher secondary schools. These schools had a student enrolment of 24.3 crore students. While 53 per cent of the students were boys, only 47 per cent students were girls, showing an uneven student enrolment. Over 80 per cent of the student enrolment was in classes I to VIII, about 13 per cent in classes IX and X and the remaining seven per cent in classes XI and XII.

Of the total schools in India, 45.7 per cent schools are Government owned, 36 per cent are privately owned, 17.9 per cent are private aided and remaining are owned by local bodies.

Table 1: Number of school education institutions in India

Sl. No.	State	Board of Intermediate/ Secondary Education	Pre-Degree/ Junior Colleges/ Higher Sec. Schools	High/Post Basic Schools	Middle / Sr Basic Schools	Primary / Jr Basic Schools	Pre-Primary/ Pre Basic Schools
1	Andhra Pradesh	3	4,364	18,163	15,381	65,932	-
2	Arunachal Pradesh	-	117	190	871	1,841	1,688
3	Assam	3	855	5,562	14,133	31,202	-
4	Bihar	3	1,837	2,399	20,696	43,445	1
5	Chhattisgarh	4	2,544	2,104	15,147	35,344	1,346
6	Goa	1	82	376	444	1,252	-
7	Gujarat	1	3,508	5,791	24,366	17,779	-
8	Haryana	1	3,278	3,493	3,439	13,073	17
9	Himachal Pradesh	1	1,674	1,413	4,921	11,301	14
10	Jammu & Kashmir	1	889	2,216	8,877	15,446	-
11	Jharkhand	1	225	1,429	9,996	19,818	95
12	Karnataka	2	3,644	12,453	32,041	26,254	-
13	Kerala	2	2,380	3,388	3,062	6,796	-
14	Madhya Pradesh	2	5,161	6,352	39,227	97,800	-
15	Maharashtra	1	967	19,711	27,271	49,101	56,145
16	Manipur	2	120	704	792	2,579	1
17	Meghalaya	1	124	676	2,259	6,618	711
18	Mizoram	1	95	521	1,313	1,782	-
19	Nagaland	1	69	337	465	1,662	-
20	Odisha	2	1,144	7,799	22,209	52,972	-
21	Punjab	1	2,380	2,741	9,110	16,954	-
22	Rajasthan	3	6,675	12,460	38,889	49,538	8
23	Sikkim	-	59	126	244	749	1,170

Sl. No.	State	Board of Intermediate/ Secondary Education	Pre-Degree/ Junior Colleges/ Higher Sec. Schools	High/Post Basic Schools	Middle / Sr Basic Schools	Primary / Jr Basic Schools	Pre-Primary/ Pre Basic Schools
24	Tamil Nadu	1	3,518	3,030	9,966	27,037	5,959
25	Tripura	1	316	454	1,139	2,379	-
26	Uttar Pradesh	1	8,547	7,889	51,948	132,403	-
27	Uttarakhand	1	1,352	1,087	4,296	15,644	-
28	West Bengal	4	9,391	65	4,296	73,100	-
29	A&N Islands	-	53	45	67	207	27
30	Chandigarh	-	61	64	18	25	1
31	D&N Haveli	-	9	25	127	170	-
32	Daman & Diu	-	9	19	24	50	25
33	Delhi	3	1,350	474	583	2,586	50
34	Lakshadweep	-	12	3	10	23	18
35	Puducherry	-	108	167	118	300	546
	INDIA	**48**	**66,917**	**123,726**	**367,745**	**823,162**	**67,822**

Source: Statistics of Education 2009-10, Ministry of Human Resource Development

Table 2: Pattern of school ownership in India, percentage shares

Type	Government	Private	Private aided	Local bodies
Higher Secondary	45.7	36.0	17.9	0.4
High	31.7	36.1	23.9	8.3
Middle	57.3	16.2	10.7	15.8
Primary	62.9	7.6	6.6	23.0
Pre-Primary	48.5	21.4	3.9	26.2

Source: Statistics of Education 2009-10, Ministry of Human Resource Development

As of 2009-10, the total number of teachers in the schools was 6.7 lakh. The ratio of trained teachers is at about 88 per cent. The ratio is least at the pre-primary and primary level at 86 per cent and highest at high school level at 90 per cent. Quality of education among other things is suffering due to high pupil-teacher ratios. These ratios are as high as 80:1 for primary schools in the State of Bihar. There is dearth of qualified and trained teachers. A study conducted by National University of Educational Planning and Administration (NUEPA) found that about 47 lakh elementary teachers in India have not studied beyond the higher secondary level.

Table 3: Teacher statistics for schools in India

Type	Number of teachers	% of trained teachers	Pupil-Teacher Ratio
Higher Secondary	1,028,723	89	39
High	1,310,349	90	30
Middle	1,912,585	88	34
Primary and Pre-Primary	2,480,414	86	42

Source: Statistics of Education 2009-10, Ministry of Human Resource Development

The Gross Enrolment Ratio (GER) for classes I to VIII was 102.5, while it was lower for classes IX and X at 62.7 per cent and even lower for classes XI and XII at just 35.9 per cent. The drop-out rates for classes I to VIII was high at 42.4 per cent. This was higher for girls as compared to boys at 44.4 per cent over 40.6 per cent respectively.

Table 4: Gross Enrolment Ratio (GER) in schools in India

Class	Boys	Girls	Total
Classes I-VIII (6-13 yrs)	103.8	101.1	102.5
Classes IX-X (14-15 yrs)	66.7	58.5	62.7
Classes XI-XII (16-17 yrs)	38.3	33.3	35.9

Source: Statistics of Education 2009-10, Ministry of Human Resource Development

Education being a social sector, it is mainly delivered by the Government agencies. However, private sector participation has begun to emerge. Indian education space is viewed by the private players and investors with a lot of interest. According to India Brand Equity Foundation (IBEF), India education industry has a market size of USD 50 billion per annum and has investment requirement of about USD 100 billion by 2014 to meet the growing demands of the sector.

The private equity (PE) and venture capital investors have pumped USD 93 million into 10 education companies by July 2011. PE investments in the education sector increased from USD 129 million in 2009 to USD 183 million in 2010. The other large deals in the country include PremjiInvest's USD 43 million investments in Manipal Education and India Equity Partner's USD 37 million investments in IL&FS Education and Technology Services.

The Government is also taking steps to improve private investment in education sector. It has allowed 100 per cent FDI in the education sector. FDI inflows in the education sector during April 2000 to March 2012 stood at Rs 2,406 crore, according to Department of Industrial Policy and Promotion (DIPP). This, however, is only 0.30 per cent of the total FDI inflows that came into India during this period.

1.1.2 Why PPP in Education

The Public-Private Partnership (PPP) models have already succeeded in infrastructure sector with the development of highways, power plants, airports, etc. It is envisaged that Central and State Governments can now pursue the PPP model in sectors like education also in order to bridge the gap existing between equity and accessibility in India's education sector. PPPs are becoming a common tool to bring together the strengths of both the Government and the private sectors. The main benefits of PPP will be improvement in quality of education through new practices and higher standards. This will improve the student's experience and at the same time open the business opportunities for different private players to contribute to education through Government collaboration.

To explore PPP opportunities in Karnataka, the Infrastructure Development Department (IDD) of Government of Karnataka, had invited proposals from empanelled consultants for "Institutional Strengthening and Sector Specific Inventory for PPP Mainstreaming" in key infrastructure sectors including Agriculture, Education, Energy, Healthcare, Industrial Infrastructure, Irrigation, Public Market, Tourism, Transportation and Logistics, Urban and Municipal Administration, and Rural development.

IMaCS through a competitive bidding process was awarded the project for the Healthcare, Education and Urban and Municipal Administration sectors. The following are the pre-feasibility studies being conducted by IMaCS in the education sector:

1. Facility Management in Colleges
2. Facility Management in Schools
3. Establishment of Knowledge City
4. PPP in Sports Development
5. PPP in Vocational Training

1.1.3 PPP in Facility Management in Schools

In this report, we are focusing on 'facility management in schools'. Facility management is an integral component of the operation of any institution, and this impacts the quality education delivery to a great extent in schools. Apart from the availability of good teachers, clean, quiet, safe, comfortable and healthy school environments are important components of successful teaching and learning.

The Sarva Shiksha Abhiyan (SSA) data shows deficiencies in the facilities available in schools in Karnataka. Among key facilities, about 32% of high schools don't have separate toilets for girls; 27% schools don't even have access to electricity and about 14% schools don't have access to drinking

water. Of the total class rooms, over 34% are in need of major or minor repairs. Situation is only marginally better in primary schools.

A range of non-educational services are required in schools including sanitation (manpower and material), security, repair and maintenance (electrical, plumbing, building, furniture, laboratories etc.), gardening and landscaping, whitewashing, power back-up etc.

Typically, these services are often deficient and tend to be often provided by different service providers without adequately defining standards and monitoring. The objective of this exercise is to:

a) Evaluate the extent of gaps prevailing in some of these service areas in schools,

b) Engage with various stakeholders including Department of School Education, Management of some schools, and Service Providers and

c) Evaluate if there is a case for procuring these services in a standardised and integrated manner across a cluster of schools and to explore if reputed and quality private service providers can be involved in provision of these services.

The project will also enable sharper identification of facilities management gaps in the system. Improvement of which can potentially contribute to improving performance of the education system with respect to aspects like enrolment and reduction in drop out ratio. Given that the State Government plays an active role in primary and secondary education, addressing the facilities management issues can potentially enable better and efficient maintenance of school assets that have been created with significant government funding. In particular we envisage the following benefits:

*   Address the need for improving and developing non-academic services in schools.
*   Enable school management and staff to focus on education delivery alone.
*   Students will get more satisfied in terms of amenities available in the school, clean environment and safety.
*   Once successful, the model can be easily replicated in other schools and scaled up to include other districts as well.

1.2   Approach and Methodology

Approach

We approached this exercise in three distinct phases, as outlined below:

Figure 1: Approach and methodology used for the study

Phase I:
Assessment of current mechanism of facility management in schools

Phase II:
Survey of service providers landscape

Phase III:
Structuring a PPP Model, if found feasible

Phase I - Assessment of current mechanism of facility management in schools: This phase included conducting field surveys in selected Government schools in Karnataka to gauge the current availability of services and to understand how these services are currently managed. We also interacted with the Department of School Education to understand the overall picture for the Government schools in the State.

At the end of this phase, we summarised our findings to obtain the current list of facilities that are available in schools and different agencies who are currently managing them. We also understood the current funding pattern for the same.

Phase II – Survey of service providers' landscape: In this phase, we met selected service providers who are in the facility management space in Karnataka. The meetings were aimed at understanding the current landscape of services provided by these service providers and also gauging their interest for entering the facility management space in Government schools. We also conducted secondary research to find information on facility management sector in India, key players in the market, range of services offered and charges levied.

Phase III – Based on the results obtained from the first two phases, we built a case for facility management in schools with private participation. During this phase, we also worked out the operating framework and project financials. We also consolidated information on statutory and legal framework and indicative environment and social impacts.

Methodology

IMaCS conducted the analysis through a combination of primary and secondary research. The primary research involved:

1. Study of select Government schools and analysis of the facilities therein
2. Talking to different vendors providing facility management services
3. Engaging in discussions with Department of School Education

As a part of the secondary research, we relied on information available in the public domain that we considered reliable to validate the findings of the primary survey. We also researched for information on implementation of similar projects in different States / countries.

1.3 Study of earlier reports in this sector in the relevant area

Internationally, PPP has addressed both physical infrastructure and quality of education services. While evidence suggests that PPP programmes have favourable impact on education, the experience is relatively new. Presently, in India, most partnerships involve volunteers or corporate philanthropy, as a part of Corporate Social Responsibility (CSR) initiatives. Challenges have been faced in building financially sustainable and bankable PPP models rather than a not-for-profit model.

Based on our research, facility management in Government schools in PPP has not been experimented in India so far. PPP in education in India is in a very nascent stage and very few projects have been implemented or are under implementation. Some of the key PPP projects in education in India are given below.

1.3.1 Educomp and the Government of Punjab's Adarsh Scheme

Educomp has entered into an agreement with the Government of Punjab in establishing and running five Senior Secondary schools in Punjab under PPP model. While a school at Kalewal Village, Mohali District of Punjab is already functional the other four schools are at different stages of development of infrastructure and are going to be started in 2012. As a part of the Scheme, the Punjab Government has provided free land to Educomp on a 99 year lease. Capital expenditures incurred in infrastructure and recurring operating expenditure are shared between Punjab Government and Educomp. Management is the responsibility of Educomp. The Punjab Education Development Board will periodically review the performance.

1.3.2 EEL and partnership in ICT education

Everonn Education Limited (EEL) offers ICT-enabled computer education in government schools through turnkey projects on a BOOT model. The ICT division in EEL acts as an education service provider for computer education, computer literacy, computer-aided learning and teachers' training projects. While Everonn makes the initial investment, the same is reimbursed by government departments in periodical instalments spread over the years. The Company is currently operating in 6628 schools across sixteen 16 states.

1.3.3 Government aided schools

The most common form of PPP in education in India is the Private aided schools system in the country. As of 2009-10, 3.9 per cent of the pre-primary schools, 6.6 per cent of primary schools, 10.7 per cent of middle schools, 23.9 per cent of high schools and 17.9 per cent of higher secondary schools in India were Private aided schools. These are the schools which are run by private institutions with substantial financial assistance from the State Governments.

1.3.4 Residential schools in Andhra Pradesh

The Andhra Pradesh Government has announced a Scheme to set up one residential school in each assembly constituency, mostly in the rural and semi-urban areas in partnership with private players like NGOs, educational trusts and foundations set up by corporate sector. Under the scheme, land is provided free of cost by the State Government on a long term lease. The private partner would bear the entire non-recurring cost of construction and the school buildings and the school facilities. 75% of the seats in the school would be reserved for students to be sponsored by the State governments for which the State would pay the recurring cost. The remaining 25% of the strength will be filled up with the management quota seats.

1.3.5 Schools in Rajasthan

The State government of Rajasthan is availing of assistance in respect of this scheme under India Infrastructure Project Development Fund to set up five schools in each of the 33 districts under PPP. These schools will be set up in the rural areas at the block level. The private partner will bear the entire capital cost upfront. The state government would provide a capital incentive in instalments. The State government would also reimburse a part of the recurring cost for the sponsored students through vouchers. 50% of each school would be reserved for students sponsored by the State Government.

1.3.6 Model Schools

Government of India has proposed to set up 6,000 model schools at the rate of one school per block. These schools will be centres of excellence and would have infrastructure and facilities at least of the standard of Kendriya Vidyalayas with stipulation for pupil-teacher ratio, educational environment, appropriate curriculum, ICT enablement and emphasis on output and outcome. About 3,500 of the blocks in the country which are classified as educationally backward would have model schools that would be set up in the government sector by State governments with a major portion of assistance coming from Government of India. The remaining 2500 blocks would have model schools to be set up under PPP to be managed by the private partner with full autonomy and management control.

2. Sector profile

2.1 Sector overview

Karnataka is also known as the 'Knowledge Hub of India'. The Education Secretariat in Karnataka has Principal Secretary, Higher Education who oversees the Department of Higher Education and the Secretary, Education Department (Primary and Secondary Education) who oversees the primary, secondary, pre-university, vocational, adult education, public libraries, printing stationery and publications.

In this section, our focus is mainly on Government schools (owned by Department of Education) as this is where we are envisaging PPP in facility management. As of 2010-11, there were 72,875 schools in Karnataka, of which 45 per cent were higher primary schools, 36 per cent were lower primary schools and the remaining at 18 per cent were secondary / high schools. Schools in Karnataka are run by 17 types of management. Some of the prominent types are:

- Department of Education
- Department of Social Welfare
- Local Self-Government Institutions
- Private Aided
- Private Un-Aided
- Others (Jawahar Navodaya, Central, Sainik, NRI, Madarasas, Arabic etc.)

Table 5: School education statistics in Karnataka – by management, as of 2010-11

Sl. No.	Details	Education Deptt.	Social Welfare + Local Body	Aided	Un-Aided	Central + Others	Total
				Number of Schools			
1	Lower Primary	23,109	184	239	2,761	9	**26,302**
2	Higher Primary	22,568	539	2,418	7,491	110	**33,126**
3	Total Primary	45,677	723	2,657	10,252	119	**59,428**
4	High	4,278	448	3,367	5,259	95	**13,447**
5	**Total Schools**	**49,955**	**1,171**	**6,024**	**15,511**	**214**	**72,875**
				Gross Enrolment Ratio (GER)			
6	Class 1st to 7th	43.92	0.63	6.95	22.36	0.39	**74.25**
7	Class 8th to 10th	10.62	0.50	8.34	6.40	0.18	**26.04**
8	**Total (Class 1st to 10th)**	**54.54**	**1.13**	**15.29**	**28.76**	**0.57**	100.29
				Teachers			
9	Elementary schools	189,451	3,765	17,229	82,787	1,830	**295,062**
10	Secondary schools	37,752	2,941	28,348	51,738	1,622	**122,401**

Source: DISE 2010-11

As of 2010-11, of the total schools in Karnataka, maximum at 8.5 per cent were concentrated in Bangalore Urban district alone. This was followed by Hassan district at 4.8 per cent. The lowest percentage of schools was in Kodagu district at one per cent. For district wise school distribution, refer to Annexure 1 and Annexure 2 in the appendix.

The total student enrolment in Karnataka was over 1 crore. About 13 per cent of enrolment was in Bangalore Urban district alone. For district wise, school enrolment in Karnataka, refer to Annexure 5. The number of teachers was 4.17 lakh. Most of these at 12 per cent were concentrated in Bangalore Urban district alone, followed by five per cent in Gulbarga district. For district wise distribution of teachers in Karnataka, refer to Annexure 3 and Annexure 4 in the appendix.

Table 6: Availability of infrastructure facility in Education Department schools in Karnataka, as of 2010-11

Sl. No	District	Schools	Common Toilet	%	Girls Toilet	%	Boys Toilet	%	Electricity	%	Play Ground	%	Ramps	%	Comp-ound	%	Water	%	Library	%	Computer	%
1	Bagalkot	1,461	1,342	92	813	56	755	52	1,280	88	917	63	1,132	77	916	63	1,395	95	1,307	89	232	16
2	Bangalore rural	1,197	1,151	96	865	72	782	65	1,152	96	476	40	712	59	860	72	1,143	95	1,178	98	213	18
3	Bangalore u north	568	564	99	545	96	545	96	554	98	313	55	321	57	450	79	568	100	543	96	252	44
4	Bangalore u south	983	938	95	953	97	839	85	949	97	453	46	684	70	717	73	982	100	976	99	451	46
5	Belgaum	1,550	1,340	86	842	54	801	52	1,237	80	942	61	1,032	67	979	63	1,417	91	1,409	91	318	21
6	Belgaum chikkodi	2,004	1,610	80	1,232	61	1,151	57	1,333	67	1,322	66	1,394	70	1,139	57	1,641	82	1,638	82	262	13
7	Bellary	1,538	1,255	82	919	60	728	47	1,219	79	698	45	1,216	79	805	52	1,394	91	1,364	89	319	21
8	Bidar	1,439	1,271	88	738	51	456	32	948	66	733	51	1,222	85	510	35	1,045	73	1,021	71	245	17
9	Bijapur	2,007	1,833	91	1,148	57	1,034	52	1,928	96	1,425	71	1,911	95	917	46	1,626	81	1,992	99	308	15
10	Chamarajanagara	864	764	88	437	51	318	37	752	87	389	45	490	57	632	73	803	93	820	95	155	18
11	Chikkaballapura	1,685	1,322	78	1,178	70	837	50	1,591	94	678	40	712	42	1,046	62	1,579	94	1,606	95	218	13
12	Chikkamangalore	1,628	1,593	98	1,191	73	932	57	1,558	96	1,043	64	611	38	1,250	77	1,591	98	1,567	96	359	22
13	Chitradurga	1,817	1,784	98	1,779	98	1,448	80	1,713	94	889	49	1,611	89	1,120	62	1,816	100	1,715	94	262	14
14	Dakshina kannada	1,093	904	83	1,055	97	805	74	1,070	98	940	86	984	90	572	52	1,082	99	1,084	99	300	27
15	Davanagere	1,529	1,462	96	961	63	637	42	1,411	92	834	55	1,092	71	1,182	77	1,502	98	1,461	96	316	21
16	Dharwad	862	815	95	726	84	744	86	821	95	581	67	775	90	590	68	850	99	821	95	190	22
17	Gadag	701	642	92	437	62	405	58	637	91	503	72	575	82	564	80	690	98	674	96	192	27
18	Gulbarga	2,060	1,588	77	1,241	60	574	28	1,921	93	1,033	50	1,913	93	962	47	1,916	93	1,473	72	414	20
19	Hassan	2,838	2,551	90	1,561	55	1,298	46	2,498	88	1,343	47	1,352	48	1,835	65	2,692	95	2,709	95	358	13
20	Haveri	1,297	1,268	98	1,254	97	883	68	1,297	100	833	64	827	64	876	68	1,297	100	1,157	89	236	18
21	Kodagu	453	428	94	411	91	348	77	437	96	356	79	382	84	374	83	453	100	444	98	100	22
22	Kolar	2,001	1,964	98	1,953	98	1,933	97	1,996	100	1,879	94	1,852	93	1,580	79	1,995	100	1,846	92	280	14
23	Koppal	1,092	923	85	867	79	427	39	969	89	638	58	853	78	770	71	990	91	945	87	219	20
24	Mandya	2,027	1,832	90	2,018	100	1,070	53	1,953	96	1,013	50	1,547	76	1,539	76	1,906	94	1,962	97	365	18
25	Mysore	2,175	1,978	91	1,700	78	1,507	69	1,958	90	1,033	47	1,487	68	1,914	88	2,054	94	2,054	94	480	22
26	Raichur	1,659	1,244	75	1,092	66	935	56	1,158	70	910	55	938	57	1,060	64	1,280	77	1,408	85	306	18
27	Ramanagara	1,507	1,403	93	1,113	74	1,001	66	1,402	93	493	33	752	50	942	63	1,419	94	1,480	98	283	19
28	Shimoga	2,076	2,041	98	2,044	98	1,428	69	1,919	92	1,255	60	1,007	49	1,612	78	1,957	94	1,892	91	297	14
29	Tumkur	2,385	2,298	96	1,715	72	1,627	68	2,264	95	973	41	1,056	44	1,755	74	2,295	96	2,302	97	244	10
30	Tumkur madhugiri	1,408	1,361	97	1,358	96	1,259	89	1,300	92	686	49	647	46	1,065	76	1,377	98	1,366	97	185	13
31	Udupi	724	686	95	602	83	549	76	693	96	536	74	609	84	357	49	705	97	645	89	245	34
32	Uttara kannada	1,040	1,015	98	735	71	333	32	1,021	98	721	69	904	87	776	75	1,040	100	1,021	98	181	17
33	Uttara kannada sirsi	1,236	1,186	96	907	73	620	50	1,183	96	736	60	739	60	836	68	1,200	97	1,227	99	266	22
34	Yadagiri	1,051	623	59	441	42	391	37	995	95	479	46	1,051	100	411	39	763	73	828	79	138	13
	Total	49955	44979	90	36831	74	29400	59	45117	90	28053	56	34390	69	32913	66	46463	93	45935	92	9189	18

Source: DISE 2010-11

All schools should have a minimum level of basic facilities available for its students. These include common toilets, girls' toilets, electricity, play-ground, ramps, library, compound wall and drinking water. As of 2010-11, 93 per cent of Government schools in Karnataka (primary and secondary combined) had access to water. However, facilities such as computers, play-grounds, boys' toilets and compound were available in less than 60 to 70 per cent of schools. On an average, availability of facilities in primary schools was better than facilities available in secondary schools. District wise availability of facilities is given in Table 6 above.

Figure 2: Availability of facilities in Government schools in Karnataka, in %, as of 2010-11
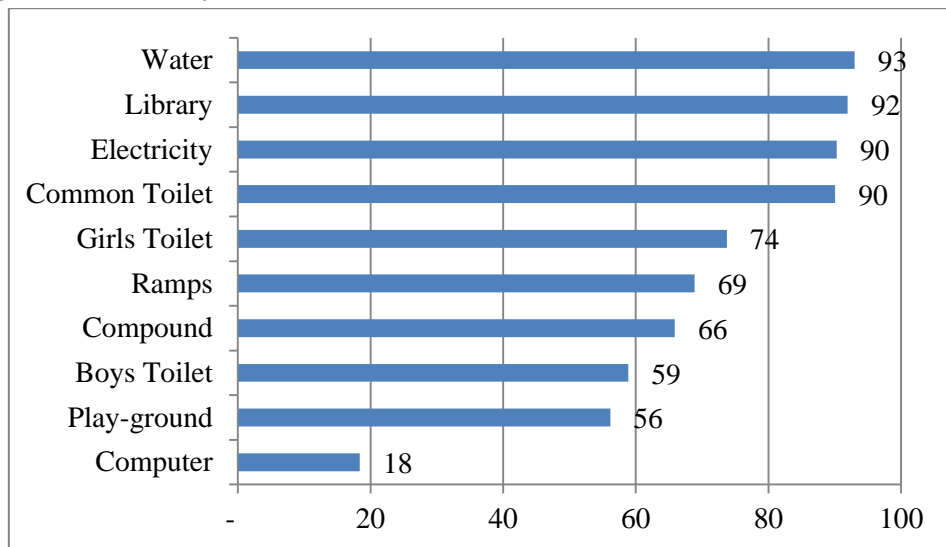
Source: DISE 2010-11

2.2   Key Issues

PPP is tested and utilised more frequently in the hard infrastructure sectors such as roads, ports, power, telecom etc., as compared to social infrastructure like education. An attempt to introduce PPP models in social infrastructure is fraught with risks as social sectors are significantly different from hard infrastructure sectors.

Some of the key issues that can occur in course of implementing PPP in facility management in schools are as follows:

- Education and related services are perceived as the prerogative of the Government. Private participation in delivering services in Government schools could be viewed with scepticism.
- The concept of facility management in PPP is new in India and could face the initial hiccups.

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- Education is part of social sector and private players do not usually enter into a partnership out of development motives. They are focused on profits, which are hard to generate in social sectors.

- There might not be any direct streams of revenues for the private players, as the idea of levying charges on students for better services will not be socially acceptable. It will also be difficult to collect any fee directly from the schools, as most of them are already crunched for cash.

- Government education sector is not profit-making, and is traditionally subject to strict Government regulations. The private sector might be discouraged by strict Governmental procedures.

- In order to ensure community ownership and community participation in school education, the Government has evolved the system of having School Development and Monitoring Committees (SDMC) for each Government school. The SDMCs are also responsible for ensuring good facilities in the schools. The private player might have to work with them to manage designated facilities in the schools.

- Finding and choosing the right private agency for the right services is believed to be the key link. Their credibility, past records, experience and systems process needs to be assessed.

- Another issue is monitoring and evaluating the performance of private players in order to ensure the quality of services delivered is up to the desired levels.

- The payment mechanism will need to focus on monitoring the desired outcomes and allowing payment deductions and / or penalties if key performance indicators are not met. Given the complex service delivery structures in education, lack of baseline data on performance indicators may be a major barrier to structuring effective performance based PPP contracts.

- PPP models need strong political commitment and enabling legislation, clear policy and legal framework, strong oversight and dispute resolution mechanism, careful contract design and defining acceptable rate of return for the private sector. Some of the partnerships deals with simple contracts while others are more complex involving many stakeholders.

- Presently, there is no standardisation of PPP model in facility management in school education.

3. Market / Need Assessment

To understand why PPP is required in facility management in schools, IMaCS made field visits to a few schools in the three proposed districts, namely Bangalore, Chikballapur and Gulbarga. The objective of the visits was to conduct first hand examination of the quality of services which are currently present and also to understand the constraints faced by the school administrations in implementing quality services.

Given below are the key observations from the field visits:

- Most of the Government schools we visited lacked basic facilities such as electricity, clean drinking water, clean toilets, and hygienic school premises and in some schools even the basic desks and benches were missing.

- Most of the schools did not have sweepers and the school premises and especially the toilets were extremely dirty and foul-smelling. Cleanliness activities are periodically being undertaken by either the school teachers or the students themselves.

- The school management lacks resources to maintain the facilities in the schools. In some of the schools surveyed, some of the repair and maintenance work has been pending for months. In one of the schools, painting has not been done for years, due to lack of funding.

- The schools in rural areas had modest facilities only and the students had to sit on the floors as the benches could not be bought due to want of funding. In some of the schools, classes for more than one standard were held in the same classroom.

- Some of the schools surveyed lacked adequate number of rooms for students and even for school administration. In one of the schools, the head master was housed in the same room where classes were held for students.

- Even though the schools in rural areas lacked basic infrastructure, they appeared to be cleaner and toilets more hygiene. This was due to the community involvement and enthusiasm to maintain the school well and also because the school area is smaller and thus easy to maintain.

- In some of the schools, SDMCs take keen interest and work for school betterment, while in some schools, role played by SDMCs is completely passive.

Facilities in Government Schools which have scope for improvement

Note: Pictures taken in (1) Government Model Primary School, Hosahalli, Vijayanagr, Bangalore; (2)Government High School, Sarakki, J.P. Nagar, Bangalore; (3) Government Model Primary School, Byatarayanapura, Bangalore; (4) Government High School, B.B. Road, Chikballapur

Good status of facilities available in some of the Government Schools

Note: Pictures taken in (1) Government High School, Bimalli, Gulbarga; (2) Government Higher Primary School, Hadagil Haruti, Gulbarga; (3) Government Higher Primary School, Kuppahalli, Chikballapur; (4) Government Higher Primary School, Ajjawara, Chikballapur

Current process for facility management in schools

As mentioned earlier, most of the schools do not have even one number of housekeeping staff and had to depend on students and staff to clean the school premises. There is no separate funding from any source for direct deployment of good facilities in the schools. However, there are schemes which work towards providing some funding for facilities in the schools. The State Government has instituted the SDMCs in all the Government schools, which ensure community participation and funding. SDMCs in the schools accept donations from volunteers and use the same for the schools. In addition, the State Government has started the *Pancha Soulabhya* Scheme. Under this, the State Government has identified five facilities as most essential for schools. These are drinking water, toilets, playgrounds, compound wall and the school building.

Additionally,, funds are provided to schools under two Central Government Schemes – targeting primary and secondary schools respectively. The Scheme under which funding is available for primary schools is 'Sarva Shikhsa Abhiyan' (SSA) and the Scheme targeted at secondary schools is the 'Rashtriya Madhyamik Shikhsha Abhiyan' (RMSA). Under the two Schemes, schools are given grants for 'repair and maintenance' among other things. However, in most of the schools we visited,

the grants received under these Schemes and the funds generated by SDMCs were inadequate to ensure quality upkeep of the facilities in the schools.

4. Project

4.1 Description of the Project

Facility management is an integral component of the operation of any institution, and this impacts the quality education delivery to a great extent in schools. Apart from the availability of good teachers, clean, quiet, safe, comfortable and healthy school environments are important components of successful teaching and learning.

The objective of the project is to deliver all non-academic services of the schools in a more comprehensive and efficient manner and ensure wider coverage and quality in delivery. The services could include sanitation (manpower and material), security, repair and maintenance (electrical, plumbing, building, furniture, laboratories etc.), gardening and landscaping, whitewashing, etc.
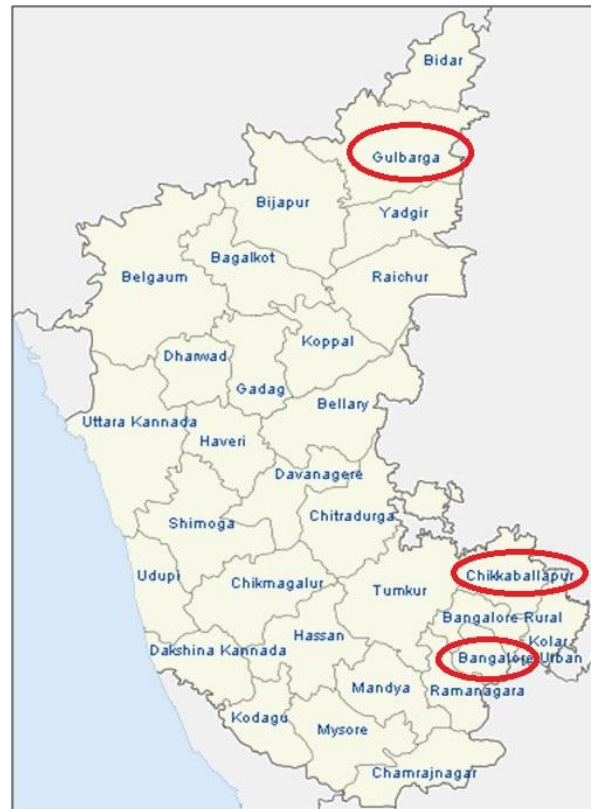
4.2 Components of the Project

Components of the project are mainly the facilities which are to be managed in PPP. The facilities can be divided into those requiring soft services and hard services. Detailed descriptions along with responsibilities for the private partner are given below.

A. **SOFT SERVICES**
1. **Housekeeping service and pest control**
    - It is crucial in maintaining a hygienic and safe environment. Use most up-to-date ergonomically designed, environmentally friendly and cost-effective cleaning equipment and materials.
    - Cleaning and mopping of floor areas and toilets.

- Disinfectants and chemicals should be used invariably every time for cleaning of the toilets. Cleaning of toilets and maintenance in a sanitized condition is extremely important.

- Dusting/cleaning of doors, windows, electric fixtures, furniture, filing cabinets, unobstructed work areas and telephones.

- Remove smudges around door jambs, push plates, light switches, counters and unobstructed work areas.

- Removal of cobwebs and dusting of lamps and ceiling fans.

- Washing windows and sweeping doormats.

- Collection and disposal of rubbish / dump.

- Pest control activities in the schools to be performed.

- Maintain adequate stocks of consumables for the above, such as brooms, dust pans, dusters, mops, disinfectants and chemicals, disposal bags for collection of litter, buckets, toilet brushes etc.

2. **Ground maintenance and landscaping**

- Grounds maintenance and landscaping is essential for maintaining a pleasant outdoor environment by ensuring that grounds and parks are attractive, orderly and healthy.

- Mowing and trimming lawns, trees and shrub maintenance and leaf removal.

- Tree and plant healthcare

- Weed abatement

- Maintenance and repair of side-walks, school signage, roof drains and gutters.

- Sports ground maintenance

- Arranging for the equipment and materials required for ground maintenance and landscaping

3. **Security services**

- Manned guarding in the night-time to prevent theft of property in the schools

- Security personnel to take initiatives in disaster management and safety management of the schools in coordination with other staff

B. HARD SERVICES

1. **Civil works, electrical and plumbing works, and water supply maintenance**

- Maintenance of the minor civil works

- Repair and maintenance of electrical works including electrical systems, switch boards, loose and hanging electrical wires / cables, earthing system etc.
- Repair and maintenance of plumbing works including pipes, drainage / sewage system, and plumbing fixtures.
- Maintenance of water-filters for drinking water / or maintenance of RO plant, if applicable
- Arranging for material and equipment for the above works.

2. **Equipment maintenance**
   - Replacement of light bulbs and tubes
   - Repairing and replacement of cracked windows
   - Repair and maintenance of furniture
   - Maintenance of power back-up systems such as generators and invertors. Manage the Annual Maintenance Contracts (AMCs) for the same
   - Maintenance of AMCs with other equipment supplies such as computers, Xerox machines, laboratory equipment, etc.
   - Maintenance of black-boards, white-boards, green-boards and digital boards

3. **White-washing and painting**
   - Annual whit-washing and painting of the entire school building (during summer holidays)
   - Annual painting and polishing of furniture

4.3   Description of the Site

The project is planned to be taken up in three districts, namely Bangalore, Chikballapur and Gulbarga districts on a pilot basis. The Department of School Education will take a decision on bundling together a few schools in each of the three districts and partnering with private players for facility management in the same. As a part of our pre-feasibility study, we have made site visits to a few schools in each of the three districts to understand the status quo of the current facilities and gaps therein. The description of each of the three districts, along with some basic details of the schools surveyed is given in this section.

4.3.1 Brief profile of three districts

IMaCS visited a few Government schools in three districts namely Bangalore Urban, Chikballapur and Gulbarga. Bangalore Urban district is home to the State capital and is the primary economic hub of Karnataka. Chikballapur district is a neighbouring district of Bangalore and has attracted industrial activity due to its proximity to Bangalore and also due to easy access to the international airport. Gulbarga on the other hand is a district in North of Karnataka and is one of the most developed in the northern region of the State.

The three districts combined have a total population of over 1.3 crore people, which is close to 22 per cent of the total population of Karnataka. As of 2011 Census, the literacy rate amongst the three is highest in Bangalore district at 88 per cent, which is followed by Chikballapur district at 70 per cent and Gulbarga district at 66 per cent. The State average is 75.60 per cent.

Of the total number of schools in Karnataka, the three districts have 14 per cent share in primary schools and 22 per cent share in secondary schools. Majority of these are in Bangalore district alone. The three districts also have 20 per cent of total student enrolments in the State. Share in number of teachers in primary schools is 19 per cent and 27 per cent for teachers in secondary schools.

Table 7: Brief profile of three districts – Bangalore, Chikballapur and Gulbarga

Indicators	Bangalore	Chikballapur	Gulbarga
Area, sq.km.	2,190	4,254	16,224
No. of sub-districts	4	6	11
Population, No., 2011	95,88,910	12,54,377	25,64,892
Population density, per sq. km., 2011	4,378	298	233
Literacy rate, %, 2011	88.48	70.08	65.65
No. of primary schools[1]	4,129	1,880	2,466
No. of secondary schools[1]	2,031	264	619
No. of students enrolled[1]	12,83,217	1,94,364	5,00,911
No. of primary school teachers[1]	36,193	7,112	13,757
No. of secondary school teachers[1]	26,121	2,368	4,842
Pupil-teacher ratio	20.6	20.5	26.9

1: Data for year 2010-11. Schools include schools under all types of management.
Source: Census 2001, Census 2011, Department of School Education, Karnataka

Table 8: Availability of facilities in Government primary schools in Bangalore, Chikballapur and Gulbarga districts, as of 2010-11, % of total Govt. schools

District	Common Toilet	Girls Toilet	Boys Toilet	Elect-ricity	Play Ground	Ramp	Compound	Water	Library	Computer
Bangalore	97	97	90	97	47	68	75	100	98	41
Chikballapur	80	70	49	96	38	44	63	94	95	9
Gulbarga	80	60	27	97	47	100	47	94	70	13

Source: DISE Report 2010-11

Table 9: Availability of facilities in Government secondary schools in Bangalore, Chikballapur and Gulbarga districts, as of 2010-11, % of total Govt. schools

District	Common Toilet	Girls Toilet	Boys Toilet	Elect-ricity	Play Ground	Ramps	Compound	Water	Library	Computer
Bangalore	92	95	84	92	80	27	83	100	94	95
Chikballapur	62	69	53	73	77	17	56	92	97	78
Gulbarga	60	59	32	68	70	42	44	86	79	72

Source: DISE Report 2010-11

We have also compared the three districts on the availability of facilities such as common toilet, girls toilet, boys toilet, electricity, play-ground, ramp, compound, water, library and computers. Of the three districts, Bangalore ranks first amongst all the facilities that we compared. Detailed comparison of facilities for the three districts is given in Tables 8 and 9.

4.3.2 Information on schools surveyed

As a part of the pre-feasibility study, IMaCS visited the following schools in the three districts:

1. Government Model Primary Schools, Byatarayanapura, Bangalore

2. Government High School, Sarakki, J.P. Nagar, Bangalore

3. Government Model Primary School, Hosahalli, Vijayanagar, Bangalore

4. Government Higher Primary School, Kuppahalli, Chikballapur

5. Government Higher Primary School, Veerapura, Sidlaghatta, Chikballapur

6. Government Higher Primary School, Ajjawara, Chikballapur

7. Government High School, B.B. Road, Chikballapur

8. Government Higher Primary School, Hadagil Haruti, Gulbarga

9. Government High School, Bimalli, Gulbarga

Fact-sheet of all the schools surveyed is given below.

Table 10: Government Model Primary Schools, Byatarayanapura, Bangalore

Name of the School	Government Model Primary Schools, Byatarayanapura, Bangalore
Name of the Headmaster	M. Gowramma
Year of establishment	1944
Status of school building	Own
No. of classrooms	14
No. of students enrolled	467
Availability of play-ground	Yes
No. of books in the library	4,050
Availability of science lab	No
Availability of compound	Yes
Availability of separate toilets for girls	Yes
No. of sweepers	None
No. of security guards	None
Availability of garden	None
Status of school painting	Bad / done five years back

Source: IMaCS Primary Survey

Table 11: Government High School, Sarakki, J.P. Nagar, Bangalore

Name of the School	Government High School, Sarakki, J.P. Nagar, Bangalore
Name of the Headmaster	Ramesh K.C.
Year of establishment	1984
Status of school building	Own
No. of classrooms	16
No. of students enrolled	649
Availability of play-ground	Yes
No. of books in the library	3,000
Availability of science lab	Yes
Availability of compound	Yes
Availability of separate toilets for girls	Yes
No. of sweepers	One (salary paid from SDMC)
No. of security guards	None (sweeper works part time as security guard)
Availability of garden	Yes
Status of school painting	n/a

Source: IMaCS Primary Survey

Table 12: Government Model Primary School, Hosahalli, Vijayanagar, Bangalore

Name of the School	Government Model Primary School, Hosahalli, Vijayanagar, Bangalore
Name of the Headmaster	K. Kempanna
Year of establishment	1953 (new building constructed in 1963)
Status of school building	Own
No. of classrooms	10
No. of students enrolled	210
Availability of play-ground	Yes
No. of books in the library	4,653
Availability of science lab	Yes
Availability of compound	Yes
Availability of separate toilets for girls	Yes
No. of sweepers	None (cleaning done by students)
No. of security guards	None
Availability of garden	No
Status of school painting	Last done in 2006

Source: IMaCS Primary Survey

Table 13: Government Higher Primary School, Kuppahalli, Chikballapur

Name of the School	Government Higher Primary School, Kuppahalli, Chikballapur
Name of the In charge	Vijaya K. N.
Year of establishment	1929
Status of school building	Own
No. of classrooms	8
No. of students enrolled	154
Availability of play-ground	Yes (at the back side of the school)
No. of books in the library	2,912
Availability of science lab	No
Availability of compound	Yes (stone compound in bad shape)
Availability of separate toilets for girls	Yes
No. of sweepers	None (cleaning done by mid-day mean worker)
No. of security guards	None
Availability of garden	No
Status of school painting	2010-11

Source: IMaCS Primary Survey

Table 14: Government Higher Primary School, Veerapura, Sidlaghatta, Chikballapur

Name of the School	Government Higher Primary School, Veerapura, Sidlaghatta, Chikballapur
Name of the Headmaster	Jayashree T. S.
Year of establishment	1948
Status of school building	Own
No. of classrooms	4
No. of students enrolled	48
Availability of play-ground	No
No. of books in the library	979
Availability of science lab	No
Availability of compound	Yes (to be demolished soon due to by-pass construction on the road passing ahead of school)
Availability of separate toilets for girls	Yes
No. of sweepers	None (cleaning done by local scavenger)
No. of security guards	None
Availability of garden	No
Status of school painting	2011-12

Source: IMaCS Primary Survey

Table 15: Government Higher Primary School, Ajjawara, Chikballapur

Name of the School	Government Higher Primary School, Ajjawara, Chikballapur
Name of the Headmaster	M. Hanumanthappa
Year of establishment	1930-31 (new building constructed 4 yrs back)
Status of school building	Own
No. of classrooms	8
No. of students enrolled	151
Availability of play-ground	Yes
No. of books in the library	1,500
Availability of science lab	No
Availability of compound	Yes
Availability of separate toilets for girls	Yes
No. of sweepers	None (cleaning done by mid-day meal workers)
No. of security guards	None
Availability of garden	None
Status of school painting	2010-11

Source: IMaCS Primary Survey

Table 16: Government High School, B.B. Road, Chikballapur

Name of the School	Government High School, B.B. Road, Chikballapur
Name of the Headmaster	M. Channamallikarjuniah
Year of establishment	1890 (new building constructed in 1970s)
Status of school building	Own
No. of classrooms	28
No. of students enrolled	1,148
Availability of play-ground	Yes
No. of books in the library	4,000
Availability of science lab	Yes
Availability of compound	Yes
Availability of separate toilets for girls	Yes
No. of sweepers	Four (However, not sufficient given the school size)
No. of security guards	None
Availability of garden	None
Status of school painting	2011

Source: IMaCS Primary Survey

Table 17: Government Higher Primary School, Hadagil Haruti, Gulbarga

Name of the School	Government Higher Primary School, Hadagil Haruti, Gulbarga
Name of the Headmaster	Badshah Aldi
Year of establishment	2004-05
Status of school building	Own
No. of classrooms	6
No. of students enrolled	158
Availability of play-ground	No
No. of books in the library	1,000
Availability of science lab	None
Availability of compound	None
Availability of separate toilets for girls	Yes
No. of sweepers	None (cleaning done by staff and students)
No. of security guards	None
Availability of garden	None
Status of school painting	2011

Source: IMaCS Primary Survey

Table 18: Government High School, Bimalli, Gulbarga

Name of the School	Government High School, Bimalli, Gulbarga
Name of the Headmaster	H.Veerabhadrana
Year of establishment	2006-07
Status of school building	Own

Name of the School	Government High School, Bimalli, Gulbarga
No. of classrooms	3
No. of students enrolled	127
Availability of play-ground	Yes
No. of books in the library	5,000
Availability of science lab	Yes
Availability of compound	No
Availability of separate toilets for girls	Yes
No. of sweepers	None
No. of security guards	None
Availability of garden	Yes
Status of school painting	2011

Source: IMaCS Primary Survey

Interaction with Stakeholders

For primary information, IMaCS visited a few schools in Bangalore, Chikballapur and Gulbarga districts. We interacted with the headmasters of the schools about the facilities available, current management of the facilities, facilities which are lacking / pending / under construction, issues faced by the school management in facility management and their willingness to work in PPP. We also met a few service providers in the facility management space to get a perspective on the facility management space and also to gauge their interest in entering into partnerships with Government in the education sector. The key discussion points are given below:

4.3.3 Interactions with school headmasters

- Most of the headmaster complained of shortage of funds. Many facilities are in urgent need of repair and maintenance, but it is not being done due to lack of availability of the money for the same. SDMC is not able to collect any funds from the students as majority of the students are from poor backgrounds.

- In some schools, SDMC members take keen interest in school development, but in some schools, not much involvement is there.

- Most of the school toilets are in urgent want of repair and maintenance. There was a case where there are plans to demolish the existing toilets to construct modern toilets. However, the entire process of demolition to construction will take a few months and during that period, students will have no toilet facility to use in the school vicinity. While separate girls' toilets were available in all the schools we visited, boys toilets were not available in some of the schools. In such cases, boys use wastelands around the schools.

- While some schools had playgrounds for the students, some did not have any such land available. Even in cases where playgrounds were available, they were in want of repair and upkeep.

- Schools also face shortage of faculty and Group D members. In some cases, same teachers are holding for two to three standards together as there are no other teachers. Also, since Group D employees are in shortage, headmasters and teachers have to undertake admin and clerical tasks as well.

- All schools invariable face problem in housekeeping as mostly there are no sweepers. The students have to work with teachers to keep the school premises clean.

- Some schools also face water shortage and require bore wells. Many schools do not even have taps in the toilets.

- Other than focusing on academics, the headmaster also has to spend time on non-academic activities such as searching for electrician, plumber, builder etc.

- In some of the schools, gardens are maintained by the school eco-clubs.

- In some of the schools, funds are also available from Zilla Panchayat under 'Panch Saulabhya Scheme'. It is given to priority schools and also depends on availability of grants.

- Many schools also face shortage of classrooms, science labs and lab equipment sports equipment.

- Broken flooring is an additional problem in some of the schools. In certain cases, during rainfall, water comes into the classrooms.

- In some schools where major repair work is required, applications have been sent to DDPI and also to the Education Department and have been pending for six months to up to a year.

- A few schools even complained of theft as there was no watchman.

- School headmasters are receptive to the idea of private players managing the school facilities, if better quality services are guaranteed.

4.3.4 Interactions with Facility Management Companies

- Most of the facility management services are done on contractual basis.

- Majority of the clients are private players. Government players currently contribute to less than 5 per cent of the total business.

- The biggest clients of facilities management services are corporates, mainly IT / ITES and financial services companies. Facility management in education is a relatively new area and is limited to housekeeping services as of now.

- There is willingness to undertake Government contracts in PPP, given that the contract size is attractive. Small contracts might not attract a lot of interest.

- Some big facility management companies are also involved in real estate / asset creation. Thus they are capable of handling the entire value chain of first creating the asset and them maintaining it.

- Facility management business in India is growing at a fast pace now. Some companies also undertake vendor management and provide certain value added services also, such as financial accounting, energy management etc.

4.4 Development Needs, Public needs & Planning Considerations

As discussed earlier, the idea of managing facilities in schools on a PPP mode emanated to address the need for improving and developing specifically the non-academic services in Government schools. Better and good quality services will enable school management and staff to focus on education delivery alone. The clean and hygienic school environment will also help improve student satisfaction in terms of amenities in the school. Once successful, the model can easily be replicated in other schools also and can be scaled up to other districts as well.

There are certain planning considerations that need to be emphasised in facility management. The key ones are as follows:

1. **Responsibilities of the manpower**

- **Housekeeping**
    - The housekeeping staff should clean and mop the floor areas and toilets twice a day.
    - Disinfectants and chemicals should be used invariably every time for cleaning of the toilets.
    - Charts with check-list (housekeeping check list) should be maintained in corridors and toilets and should be signed by the housekeeping staff twice a day to report that the designated areas have been cleaned. Time of duty should also be reported.
    - Dusting/cleaning of doors, windows, electric fixtures, furniture, filing cabinets, unobstructed work areas and telephones should be done on a daily basis. Dusting should be one of the items in the housekeeping check list.
    - Any stains / smudges found in school premises should also be cleaned once in the day.
    - Removal of cob-webs and dusting of lamps and ceiling fans should be done once in a week. A weekly check-list should be maintained for the same.

o Windows and door mats should be washed once in a week and should be reported in the check-list.

o All the debris collected from the school premises (including toilets) should be disposed off every day.

o Pest control activities should be performed in the school once in a month and a check-list should be maintained for the same. Mosquito sprays should be sprayed once in a week.

- **Ground maintenance and landscaping**
  o Mowing of grass should be done once in a week in the school lawns.
  o Watering of plants should be done every day.
  o Trimming and manuring of plants, trees and shrubs should be done once in a week.
  o Fallen leaves in the lawns and play-grounds should be cleared on a daily basis. Cleaning of all litter in the grounds should be the responsibility of the personnel taking care of gardening.
  o Weed abatement should be done every week.
  o Dying plants should be replaced and new saplings should be planted once in a month.
  o Repair and maintenance of side-walks, school signage, roof drains and gutters should be performed as and when required.
  o A check-list should be maintained for all of the above activities.

Note: Most of the Government schools have small areas and the size of the gardens and playgrounds is also small. Thus, the same housekeeping staff can be used both for housekeeping and gardening. One time landscaping cost can be incurred, wherever space is available.

- **Security**
  o Nigh time manned guarding should be provided and check-list to be maintained for the same.

- **Civil works, electrical and plumbing works, and water supply maintenance**
  o Repair and maintenance of minor civil works to be done on a need-based basis.
  o Repair and maintenance of electrical works including electrical systems, switch boards, loose and hanging electrical wires / cables, earthing system etc. should be done on a need-based basis. Bulbs and tubes which are out of order should be replaced the same day.

- o Repair and maintenance of plumbing works including pipes, drainage / sewage system, and plumbing fixtures should be done on a need-based basis.
- o Water filters in the schools (wherever available) should be maintained wherever they are available. Cleaning and maintenance should be done on a regular basis.

- **Others**
  - o Broken furniture, windows, glass panes should be replaced the same day or the next day.
  - o Management of all the existing AMCs of the schools to be the responsibility of the facility management service provider.
  - o Schools to be white-washed and painted on an annual basis.
  - o The entire furniture in the schools to be painted and polished on an annual basis.

2. **Maintaining supply of equipment and consumables**

- **Housekeeping and gardening**
  - o Disinfectants and chemicals to be maintained in adequate stocks.
  - o Disposal bags to be used for disposing litter / garbage.
  - o Dusters should be used for daily dusting.
  - o Mops and sweepers should be used for cleaning floors and toilets.
  - o Caddie kit to be maintained for carrying all consumables together.
  - o Brushes should be used for toilet cleaning, window cleaning etc.
  - o Dust pans should be used for litter collection.
  - o Adequate number of buckets to be maintained.
  - o Cob-web remover should be used.
  - o Soap / hand wash should be provided in the toilets.
  - o Napthalene balls should be used in the toilets.
  - o Brooms should be used for cleaning the grounds.
  - o Lawn mower should be used for mowing grass.
  - o Mops and sweepers should be used for cleaning side-walks.
  - o Dusters and brushes should be used for cleaning school signage.

- **Others**
  - o Since civil works, electrical and plumbing works, water supply maintenance and other repair and maintenance are need-based works, equipment and consumables need not be maintained for the same. These should be arranged as and when required.

Rigorous control should be exercised for all of the above. Outcomes of activities like housekeeping and security cannot be quantified. Only visual inspection can be conducted. Thus, control of outcomes should be exercised in term of timely completion of activities by all the manpower. Regular visual inspection should be conducted by the school management and staff. If the services are found unsatisfactory, the same should be reported.

4.5   Best practices and case studies for similar projects in India / World

Best practices and case studies for similar projects in India

Based on our research, we have found that facility management in Government schools has not been experimented in India in PPP before. In India, facility management industry in itself is in a nascent stage. The companies that have ventured into this space also have limited experience with educational institutions. Most of their experience with the educational institutions is more or less limited to providing services to bigger schools and colleges, including some international schools and universities.

Some of the schools and colleges in India where facility management services are currently provided by the private players are IIM Ahemdabad, G.D. Somani Memorial School, Vivero International, VIBGYOR High and Whistling Woods.

Best practices and case studies for similar projects in the World

Internationally, PPPs have been experimented successfully in facility management space in the education sector. Given below are case studies of PPPs in facility management successfully implemented in UK in several schools by Amey, which is a service provider.

4.5.1 The Edinburgh Schools PPP Contract

The Edinburgh Schools PPP contract began in August 2001. Under the contract, Amey provides services to ten primary, five secondary and two special schools. These schools cater to the needs of 15,000 pupils. The services provided include

- Cleaning
- Catering
- Janitorial and security
- Grounds and building maintenance
- Fire and emergency management, and
- Disaster recovery

4.5.2 Northampton Schools PPP

Northampton Schools project is a 32 year contract operated by a Special Purpose Vehicle (SPV) led by Amber Infrastructure Ltd involving construction work by Galliford Try. The contract is for the construction of 11 new and 30 refurbished schools and provision of facility management and lifecycle services by Amey across the estate for the full contract term.

As a part of the contract, Amey provides the following services:

- Janitorial
- Grounds maintenance
- Cleaning
- Building maintenance
- Window cleaning
- Catering
- Security
- Helpdesk
- Winter service
- Environmental management
- Manned guarding
- General recycling, and
- Pest control

4.5.3 The Speke Contract

As a part of the Liverpool City Council's strategy for educational excellence; a suite of key services are delivered to the local community in Speke. These comprise a multi-educational site consisting of pre-school, secondary, adult and community education, alongside social services, housing projects, and sports and leisure facilities, to improve physical health. Amey has been providing facilities management services to this facility since the contract became fully operational in November 2002.

As a part of the contract, Amey provides the following services:

- Janitorial
- Grounds maintenance
- Cleaning
- Building maintenance
- Window cleaning

- Catering

- Security

- Helpdesk

- Waste management

- Pest control

- Manned guarding

- Grounds maintenance

- Reactive maintenance

4.6   Project Design

Education is a social sector service and often seen as the responsibility of the Government to its citizens. Thus, when it comes to designing PPP in education, sensitivities of the people have to be factored in. Based on our discussions with the different stakeholders, we found that the PPP cannot be designed in a way which will levy any charges on the students. Also, most of the schools run on limited budgets and do not have additional capacity to pay to the private player for its services. Hence, there is no direct revenue stream which could be determined for the private service provider for facility management in schools. Thus, given the peculiarities of the sector along with the nature of services that need to be rendered, the model that best fits the situation is the model of 'Management Contracts', also called as 'outsourcing'.

Management Contract

A management contract is one of the simplest forms of PPP. It is typically a contractual agreement for the management of a part (or whole) of a public enterprise by the private sector. Management contracts allow private sector skills to be brought into service design and delivery, operational control, labour management and equipment procurement. However, the public sector retains the ownership of facility and equipment. The private sector is provided specific responsibilities concerning a service and is generally not asked to assume commercial risk. The private contractor is paid a fee to manage and operate services. Normally, the payment of such fees is performance-based. Capital investment is typically not the primary focus in such arrangements. Such contracts of less than three years duration are not included in the definition of PPP in India.

Table 19: Broad Characteristics of Management Contracts in India

Asset ownership during contract	Public
PPP Duration	Short to Medium Term (i.e. 3 to 5 years)
Capital investment	Not the focus
Private partner revenue risk and compensation terms	Low (Pre-determined fee, possibly with performance incentives)
Private partner roles	Management of all aspects of operation and maintenance
Features	This involves contracting to the private sector most or all of the operations and maintenance of a public facility or service. Although the ultimate obligation of service provision remains with the public authority, the day-to-day management control is vested with the private sector. Usually the private sector is not required to make capital investments.

Source: www.pppinindia.com

Management contract for Facility Management in Schools:

For facility management in schools, a range of outsourcing options is available. The starting point could be to outsource one service (such as housekeeping), followed progressively until all services are outsourced by individual contracts. However, the ideal situation would be to group together certain services and place them with one contractor – a concept known as 'bundling'. Once the services are bundled and contracted to one integrated service provider, it will save the school administration from the hassle of dealing with multiple vendors. Managing with just one contact point will free school administration's time from non-academic services and they will be able to focus on education delivery alone. In a 'management contract' PPP, there are different roles and responsibilities which will be assumed by the public and the private partner. We have outlined them below.

Roles and Responsibility of the Service Provider / Private Player

1. **Arranging the manpower for managing the facilities in the schools:** Once the contract has been given to the service provider, it is his responsibility to arrange for the manpower that will be required for servicing of facilities in the schools. It is not necessary for the provider to hire all the manpower on a temporary basis. It can also arrange people on contractual basis.

2. **Regular staff v/s need-based staff**: For services like housekeeping and ground maintenance, and security, full time staff will be required in the schools. While for other services like one time landscaping, repair and maintenance (electrical, plumbing, equipment, furniture etc.),

white-wash / painting etc., manpower requirements will be need-based only. Both regular staff and need-based staff will have to be arranged by the service provider only.

3. **Managing the payrolls of the manpower:** It will be the responsibility of the service provider to provide compensation to the manpower that it arranges / hires for managing the facilities in the schools. The public player will not be liable to making any payments separately to the manpower. The public player will make the entire payment in totality to the service provider only.

4. **Handling any issues which the manpower might have**: Any issues which the manpower might have will be directly handled by the service provider only.

5. **Arranging for the materials and consumables**: All the material and consumables which will be required for managing the facilities in the schools will be managed by the service provider only. The materials and consumables once bought will be the property of the public player. However, it will be the responsibility of the private player to estimate how much supplies will be required and maintaining the stocks accordingly.

Roles and Responsibility of the Schools / Department of Education / Public Player

1. **Providing the necessary infrastructure**: Infrastructure in schools where facilities have to be managed has to be provided by the public player to the service provider.

2. **Providing administrative support where necessary:** The manpower provided by the service provider will have to work at the premises of the public player. The public player will have to provide all the administrative support wherever necessary and ensure smooth coordination.

3. **Monitoring the services and quality of services provided by the service provider:** As discussed earlier, it is difficult to quantify the output of services delivered by the service providers in the schools. The check-list system will help maintain record of how many times the services are being delivered. However, for quality of services, visual inspection will be required. This is where the school management / staff will have to play an active role. Time to time inspections should be made on the quality of services delivered. If the quality is found unsatisfactory, a note should be made on the same and feedback should be provided to the service provider. Following the feedback, corrective measures should be immediately implemented by the service provider. In case, measures are not undertaken in time, the issues should be escalated which could have a bearing on the payment to the service provider.

4. **Auditing for service delivery and expenditure incurred:** The public player will also be responsible for disbursement of fee to the private players. Thus, it will be its responsibility to conduct timely audit of funds and check how and where the funds have been spent. In case, any misappropriation is found, necessary (penalising) actions should be taken for the same.

5. **Making the payments to the service provider in time:** The public player should ensure that it makes timely payments to the private service provider. The private player is responsible for paying wages / salaries to its manpower and is also responsible for ensuring timely supplies of consumables. If the service provider doesn't receive its payments / fees in time, timely and quality delivery of services could be hampered.

Contract Period

It is proposed that the facilities of the schools will be managed on PPP for a period of 5 years, following which it can be extended to another 5 years depending upon the mutually agreed terms.

Cost of Service

The Government shall bear the entire cost of the project, as there is no tariff or revenue stream for the private service provider. Government will be giving out annual fees to the service providers. All the manpower, material and consumables required for running the project will be arranged by the private service provider only. The Government shall revise the service cost every two years as per the prevailing cost of inflation and service delivery. Management fees will be the bid variable during the process for finalising the service provider.

5. Project Financials

The facility management service contract will be of different size and stature depending upon the size and condition of the schools for which the Government decides to give out contracts to the private service providers. While the schools in urban areas are of much bigger size, most of the schools in rural areas are much smaller and thus require lesser expenditure.

As discussed earlier in the report, the services of the facility management will entail the following:
1. Housekeeping service, pest control and gardening
2. One time landscaping wherever garden space is available
3. Security services / watchman
4. Minor civil works, electrical and plumbing works, and water supply maintenance (need-based)
5. Equipment maintenance
6. White-washing and painting

The costs for the above functions will be for the following components:

a) Manpower Costs

b) Material and consumables

c) Repair and maintenance and others

5.1 Manpower cost estimates

Since the names and numbers of schools which will be given out for facility management have not been decided yet, we have given estimates for a school with a total estimated area of one acre. Assumptions for school area are given below:

1. School area: 1 acres / 43,560 sq. ft.
2. Built up area: 50 per cent of total area / 0.5 acres / 21,780 sq. ft.
3. Grounds and gardens: Remaining 50 per cent of total area / 0.5 acres / 21,780 sq. ft.

These assumptions are based on the average size of the schools surveyed by us during the course of the study. For such a school, manpower cost is given in Table 20.

Some of the assumptions used for our calculations are as follows:

1. Four to five persons are required for housekeeping for every acre of area.
2. One security guard / watchman required for night duty only.
3. Remuneration paid to the housekeeping staff and security guards is as per the minimum wages set by the Government of Karnataka. Remuneration components include the following:
   a. Basic
   b. DA
   c. Other Allowances
   d. ESI
   e. P.F.
   f. Bonus
   g. Leave wages (CL, PL), and
   h. Uniform and shoes

The above assumptions are based on our discussions with the various facility management companies currently in operations in Karnataka. Based on our assumptions, our manpower estimates are given in Table 20. The estimates are based on assumptions only. The actual cost of the contract will depend on the size and the number of schools which the Government decides to bid out. Once the project structure is finalised, the actual costs will be worked out by the transaction advisor. The actual costs

can be optimised also if sharing of human resources between schools also takes place. The latter will depend on the number of Government schools which are contracted in clusters.

Table 20: Manpower costs

Sl. No.	Staff	Number	Monthly Remuneration per person (Rs)	Total cost per month (Rs)	Cost per annum (Rs)
1	Housekeeping*	4	8,000	32,000	384,000
2	Security guard / watchman^	1	10,500	10,500	126,000
	Total manpower cost		**18,500**	**42,500**	**510,000**

Since school playgrounds and gardens are not elaborate in nature, the housekeeping staff can clean those as well.
^ Mostly required for night duty only to prevent theft of property in schools.
Source: IMaCS estimates.

5.2   Material and consumables, repair and maintenance and others' cost estimates

In addition to the manpower costs, expenditure will also be incurred on material and consumables which will be used for housekeeping. In addition, repair and maintenance charges will be incurred on grounds / gardening, building maintenance and equipment maintenance. Building maintenance will include minor civil works, minor electrical works, minor plumbing works and white-wash / painting. The costs are given in Table 21.

Assumptions used for these calculations are as follows:

1. Materials and consumables used for housekeeping are as follows:

    a. Phenyl

    b. Soap oil

    c. Acid

    d. Urinal cake

    e. Naphthalene ball

    f. Bombay broom

    g. Coconut broom

    h. Steel wool

    i. Mop stick with refill

    j. Cloth mop

    k. Toilet brush

    l. Dust Cloth

    m. Bucket small

n. Bucket big

o. Harpic toilet cleaner

2. Garden / grounds maintenance cost is at Rs 0.11 per sq. ft. per month.

3. Building maintenance cost is at 1 per cent of the developed cost of the building.

4. For equipment maintenance and contingency, a lump sum amount of Rs 20,000 has been suggested.

5. All the costs are for the school of the size of 1 acre, as described in section 5.1 above.

Table 21: Cost of materials and consumables, repair and maintenance and others

Sl. No.	Material / consumable	Cost per month, Rs	Cost per annum, Rs
1	Materials and consumables for housekeeping	1,500	18,000
2	Garden / grounds maintenance	2,396	28,750
3	Building maintenance*	-	326,700
4	Equipment maintenance and other contingency		20,000
	Total cost	**-**	**393,450**

Source: IMaCS estimates.
* Building maintenance includes minor civil works, minor electrical works, minor plumbing works and white-wash / painting.

5.3   Total cost estimates

The total costs are a combination of manpower costs, costs of materials and consumables and costs of repair and maintenance. The total estimates are given in Table 22.

Table 22: Total cost estimates[3] for facility management of schools of 1 acre size

Sl. No.	Component	Total annual cost, Rs Lakh
1	Manpower costs	5.10
2	Cost of materials and consumables	0.18
3	Repair and maintenance and others*	3.75
	Total Cost	**9.03**

Source: IMaCS estimates.
* Includes garden / grounds maintenance, building maintenance, equipment maintenance and other contingency.

As per our estimates, the total cost for facility management of services in schools of total size 1 acre and a built up area of 0.5 acres will be about Rs 9 lakh. Given that there are about 1,551 Government schools in Bangalore Urban district, 1,685 Government schools in Chikballapur district and 2,060 Government schools in Gulbarga district, the total project cost for all these will be about Rs 477 crore.

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[3] The project costs given above are ball park figures only. The actual cost estimation will be done by the Transaction Advisor for the project.

We have considered only those schools which are owned by the Department of Education in Karnataka.

6. Statutory & Legal Framework

The facility management providers should adhere to the following acts, laws and regulations for managing facilities in the schools:

1. Karnataka Transparency in Public Procurement Act, 1999 and its further amendments
2. Karnataka Financial Code, 1958
3. National Building Code 2005 published by the Bureau of Indian Standards (BIS).
4. Minimum Wages Act, 1948 and the minimum wages fixed by the Government of Karnataka
5. The Contract Labour (Regulation & Abolition) Act, 1970
6. Other labour laws pertaining to gratuity, provident fund, ESI, leave rules, working hours etc.

The status of the compliance shall be verified during the annual audit conducted by the government.

7. Indicative environmental & social impacts

There are no adverse environmental or social impacts on account of facility management services of schools. The project would offer a better support to the schools of Karnataka by providing effective facility management services. This will free up school management's time to focus on education delivery alone. In addition, the improved school facilities and ambience will improve the satisfaction level of students in the Government schools and will make the schools world class. It would also reinforce the commitment of the government towards the welfare of its constituents.

8. Operating framework

8.1 Risks & Mitigation

The project involves a few risks both for the Government and also for the private service provider. These are given as follows:

Risks for the Government

- The private service provider may not be willing to continue the project throughout the contract period.
- The provider might not have the adequate manpower or skill to deliver the services.

- Services provided by the organisation may not match the requirements and quality specified by the Government.
- Lack of continuous monitoring and evaluation of services may lead to deterioration of service quality delivered by the private player.

Risks for the Private Player

- The project cost may turn out to be more than what is agreed in the contract. And once fixed, the project cost will be non-negotiable for a fixed time period.
- Attrition of specially trained employees might be high and the private player might face difficulty in arranging the requisite skilled manpower in time.
- There could be inadequate support from the school staff, as the concept is new and there could be apprehensions about its success.

Mitigation Strategies

- In case, the private service provider discontinues services before the end of contract period, the Government can withhold fees and even consider levying penalty.
- To ensure that the provider has adequate manpower and skill to deliver the services, it is preferred to have an experienced service provider to deliver the facility management services in the schools. Experience with Government / public sector bodies should be an added advantage.
- The service provider shall frame effective human resource policies for the training and retaining manpower at the schools. There shall be defined plans for replacement of trained manpower.
- The service provider shall maintain detailed books of records of consumables – in stock, out of stock, consumption pattern.
- The service provider shall produce a report to the school headmaster on the facilities managed in the school every month. The report shall contain:
  - Staff attendance report
  - Expenditure statement for consumables
  - Documentation of the check-lists which are maintained for all services on a daily basis. These should be compiled every month and submitted to the school headmaster.
- This monthly report upon scrutiny by the school headmaster shall be forwarded to the Department of School Education and the state nodal officer for the project.

- The school shall be subjected to six monthly stock audit, monthly accounts audit and weekly visual inspection cum audit.

- Surprise quality checks shall also be conducted and the service provider shall be penalised in case of violation of policies.

- At the start of the project, a management committee should be formed in each school, which will comprise the school headmaster, a couple of staff and a couple of non-staff members. Induction should be held for these members on what the entire project entails. It will also be the responsibility of this committee to provide requisite support to the private service provider and ensure smooth functioning of the project.

8.2   Indicative Project Structure

Sl. No.	Parameter	Description
1	**PPP Model**	Management Contract
2	**Concession Period**	5 years, extendable to another 5 years based on agreement between the two parties
3	**Concession Component**	Right to manage specified facilities in designated Government schools in Bangalore, Chikballapur and Gulbarga districts
4	**Government Support**	1. Space and building 2. Timely payment to the service provider
5	**Project Benefits**	1. Improvement and development of non-academic services in the schools 2. Increased satisfaction levels of the students in terms of amenities available in the school, clean environment and safety 3. Reduction of the burden of facility management on the school administration so that the delivery of core services (education) can improve
6	**Operation and Maintenance**	1. Manage facilities in schools 6 days a week 2. Operation and maintenance of the material and consumables involved in facility management 3. Need based repair and maintenance of electrical fittings, plumbing, water supply, minor civil works, broken furniture, glass panes, black boards, white boards, green boards, digital boards etc.
7	**User Charges Involved**	There are no user charges involved in this project as this is suggested to be given by the Government as a management contract, wherein the Government will be directly responsible for making payments to the private service provider.
8	**Inventory Management**	1. Private player to procure and manage all consumables and materials required 2. Maintain optimum inventory and ensure nil stock out

9. Way Ahead

Based on the study, we believe that there is a need for proper facility management in the Government schools in Karnataka. The discussions and analysis reveal that the project is feasible and will improve the quality of education delivery. While the school management will be able to focus on core activity which is education delivery, the overall learning experience will improve for the students. They will be able to enjoy a cleaner and safer school environment and will learn more in a hygienic ambience.

Currently, the project plan is to outsource the facility management of services in a few schools in Bangalore, Chikballapur and Bagalkot districts. A cluster of schools in each of the districts could be combined as a bundle and contracted to private service providers for facility management. Once implemented, the success of the project can be measured in terms of the improvement in the quality of the services in schools. Once successful, the model can be replicated in Government schools in other districts as well, thereby improving the quality of facilities in all Government schools in Karnataka.

10. Annexures

Annexure 1: District wise and management wise number of primary schools in Karnataka

Sl. No.	District	Deptt. of Education	Social Welfare	Local Body	Aided	Unaided	Others	Central	Total
1	Bagalkot	1,315	18	-	63	288	-	2	1,686
2	Bangalore rural	1,138	4	-	12	162	1	1	1,318
3	Bangalore u north	516	4	7	202	902	12	6	1,649
4	Bangalore u south	904	7	8	217	1,328	11	5	2,480
5	Belgaum	1,427	13	1	54	248	-	4	1,747
6	Belgaum chikkodi	1,858	26	1	84	449	-	5	2,423
7	Bellary	1,366	28	-	68	427	-	4	1,893
8	Bidar	1,290	17	1	175	399	-	2	1,884
9	Bijapur	1,886	24	-	152	439	1	3	2,505
10	Chamarajanagara	780	30	-	39	112	-	3	964
11	Chikkaballapura	1,579	17	-	34	246	-	4	1,880
12	Chikkamangalore	1,513	32	-	26	185	1	2	1,759
13	Chitradurga	1,708	26	-	76	200	-	1	2,011
14	Dakshina kannada	933	23	-	229	266	-	3	1,454
15	Davanagere	1,377	22	-	137	348	-	2	1,886
16	Dharwad	773	12	5	93	254	-	4	1,141
17	Gadag	618	13	2	36	143	1	2	815
18	Gulbarga	1,806	33	-	156	468	-	3	2,466
19	Hassan	2,597	34	-	43	295	-	2	2,971
20	Haveri	1,166	27	9	47	190	-	3	1,442
21	Kodagu	406	18	3	12	92	1	3	535
22	Kolar	1,886	16	-	39	273	1	2	2,217
23	Koppal	964	20	-	15	217	1	2	1,219
24	Mandya	1,813	25	-	35	294	-	1	2,168
25	Mysore	1,959	45	4	109	477	-	5	2,599
26	Raichur	1,497	28	-	37	341	-	2	1,905
27	Ramanagara	1,401	23	-	31	171	-	-	1,626
28	Shimoga	1,921	21	-	73	311	-	2	2,328
29	Tumkur	2,252	18	-	56	246	-	2	2,574
30	Tumkur madhugiri	1,314	19	-	8	108	-	1	1,450
31	Udupi	618	10	1	225	118	-	1	973
32	Uttara kannada	995	4	-	28	64	2	3	1,096
33	Uttara kannada sirsi	1,166	11	-	16	48	-	2	1,243
34	Yadagiri	935	13	-	30	143	-	-	1,121
	Total	**45,677**	**681**	**42**	**2,657**	**10,252**	**32**	**87**	**59,428**

Source: DISE 2010-11

Annexure 2: District wise and management wise number of secondary schools in Karnataka

Sl. No.	District	Deptt. of Education	Social Welfare	Local Body	Aided	Unaided	Others	Central	Total
1	Bagalkot	146	15	1	104	97	0	2	365
2	Bangalore rural	59	2	0	37	102	0	1	201
3	Bangalore u north	52	2	19	121	685	8	7	894
4	Bangalore u south	79	2	17	151	878	5	5	1,137
5	Belgaum	123	5	0	178	115	0	4	425
6	Belgaum chikkodi	146	20	1	132	161	0	4	464
7	Bellary	172	17	0	81	181	0	5	456
8	Bidar	149	9	0	95	177	0	2	432
9	Bijapur	121	14	0	223	108	0	3	469
10	Chamarajanagara	84	10	0	37	62	1	2	196
11	Chikkaballapura	106	6	0	32	118	0	2	264
12	Chikkamangalore	115	17	0	113	80	0	2	327
13	Chitradurga	109	13	0	191	84	0	1	398
14	Dakshina kannada	160	11	0	107	196	0	3	477
15	Davanagere	152	15	0	172	127	0	1	467
16	Dharwad	89	5	5	129	124	1	4	357
17	Gadag	83	8	2	82	75	1	1	252
18	Gulbarga	254	23	0	94	247	0	1	619
19	Hassan	241	22	0	127	124	0	2	516
20	Haveri	131	17	5	143	76	0	3	375
21	Kodagu	47	6	0	48	62	1	3	167
22	Kolar	115	11	0	43	138	1	1	309
23	Koppal	128	15	0	26	80	0	1	250
24	Mandya	214	19	0	68	136	0	1	438
25	Mysore	216	19	0	97	281	0	5	618
26	Raichur	162	17	0	32	139	0	2	352
27	Ramanagara	106	17	0	58	102	0	0	283
28	Shimoga	155	12	0	129	126	0	1	423
29	Tumkur	133	13	0	200	114	0	2	462
30	Tumkur madhugiri	94	12	0	98	54	0	0	258
31	Udupi	106	2	1	69	92	0	1	271
32	Uttara kannada	45	3	0	85	40	0	3	176
33	Uttara kannada sirsi	70	6	0	55	34	0	2	167
34	Yadagiri	116	12	0	10	44	0	0	182
	Total	**4,278**	**397**	**51**	**3,367**	**5,259**	**18**	**77**	**13,447**

Source: DISE 2010-11

Annexure 3: District wise and management wise number of teachers in primary schools in Karnataka

Sl. No.	District	Department of Education	Social Welfare	Local Body	Aided	Unaided	Others	Central	Total
1	Bagalkot	6,875	100	0	489	1,791	11	0	9,266
2	Bangalore rural	3,794	19	0	108	1,633	22	11	5,587
3	Bangalore u north	2,624	32	50	1,315	10,835	150	159	15,165
4	Bangalore u south	4,186	20	36	1,369	15,143	149	125	21,028
5	Belgaum	7,644	37	4	367	1,645	68	0	9,765
6	Belgaum chikkodi	8,409	158	4	687	2,672	46	0	11,976
7	Bellary	7,604	208	0	544	3,140	81	0	11,577
8	Bidar	6,324	123	7	1,377	2,741	48	0	10,620
9	Bijapur	8,866	161	0	733	2,483	56	5	12,304
10	Chamarajanagara	3,174	134	0	188	730	26	0	4,252
11	Chikkaballapura	4,761	119	0	247	1,959	26	0	7,112
12	Chikkamangalore	5,250	192	0	169	1,170	35	5	6,821
13	Chitradurga	6,813	132	0	415	1,078	21	0	8,459
14	Dakshina kannada	4,502	41	0	1,307	2,107	30	0	7,987
15	Davanagere	6,488	144	0	891	2,479	19	0	10,021
16	Dharwad	4,974	84	77	837	2,364	94	0	8,430
17	Gadag	3,782	70	40	334	914	19	15	5,174
18	Gulbarga	9,396	185	0	1,234	2,920	22	0	13,757
19	Hassan	7,489	188	0	235	2,046	52	0	10,010
20	Haveri	6,009	143	41	323	1,342	44	0	7,902
21	Kodagu	1,843	75	9	95	849	33	2	2,906
22	Kolar	5,956	87	0	242	2,381	13	11	8,690
23	Koppal	5,305	29	0	135	1,024	29	8	6,530
24	Mandya	5,687	153	0	247	2,155	18	0	8,260
25	Mysore	8,217	159	19	576	3,842	164	0	12,977
26	Raichur	8,072	145	0	345	2,768	34	0	11,364
27	Ramanagara	4,128	119	0	172	1,265	0	0	5,684
28	Shimoga	6,696	115	0	444	1,684	15	0	8,954
29	Tumkur	6,530	17	0	316	1,999	34	0	8,896
30	Tumkur madhugiri	4,233	95	0	51	896	8	0	5,283
31	Udupi	2,627	44	3	972	984	22	0	4,652
32	Uttara kannada	3,472	13	0	200	535	58	14	4,292
33	Uttara kannada sirsi	3,393	43	0	90	315	28	0	3,869
34	Yadagiri	4,328	91	0	175	898	0	0	5,492
	Total	**189,451**	**3,475**	**290**	**17,229**	**82,787**	**1,475**	**355**	**295,062**

Source: DISE 2010-11

Annexure 4: District wise and management wise number of teachers in secondary schools in Karnataka

Sl. No.	District	Department of Education	Social Welfare	Local Body	Aided	Unaided	Others	Central	Total
1	Bagalkot	1,227	98	12	923	768	11	0	3,039
2	Bangalore rural	610	9	0	305	1,162	22	0	2,108
3	Bangalore u north	603	22	123	1,153	9,318	165	121	11,505
4	Bangalore u south	845	10	94	1,390	12,058	149	70	14,616
5	Belgaum	1,038	20	0	1,569	889	29	0	3,545
6	Belgaum chikkodi	1,205	125	12	1,412	1,161	36	0	3,951
7	Bellary	1,513	138	0	699	1,504	88	0	3,942
8	Bidar	1,376	78	0	929	1,396	48	0	3,827
9	Bijapur	1,012	108	0	1,638	856	56	0	3,670
10	Chamarajanagara	758	72	0	270	448	20	8	1,576
11	Chikkaballapura	903	52	0	327	1,068	18	0	2,368
12	Chikkamangalore	1,035	140	0	873	620	35	0	2,703
13	Chitradurga	1,011	85	0	1,441	521	21	0	3,079
14	Dakshina kannada	1,283	39	0	1,036	1,341	28	0	3,727
15	Davanagere	1,422	115	0	1,324	1,114	13	0	3,988
16	Dharwad	761	39	112	1,190	1,566	94	4	3,766
17	Gadag	696	53	40	738	623	15	15	2,180
18	Gulbarga	2,157	149	0	762	1,758	16	0	4,842
19	Hassan	2,000	153	0	973	974	52	0	4,152
20	Haveri	1,123	109	28	1,163	749	44	0	3,216
21	Kodagu	409	46	0	383	545	33	4	1,420
22	Kolar	1,078	65	0	439	1,337	7	11	2,937
23	Koppal	1,144	26	0	210	359	21	0	1,760
24	Mandya	1,792	136	0	534	1,045	18	0	3,525
25	Mysore	1,985	99	0	809	2,485	164	0	5,542
26	Raichur	1,437	112	0	284	1,385	34	0	3,252
27	Ramanagara	842	109	0	462	772	0	0	2,185
28	Shimoga	1,511	87	0	957	814	10	0	3,379
29	Tumkur	1,154	4	0	1,624	1,033	34	0	3,849
30	Tumkur madhugiri	851	75	0	800	464	0	0	2,190
31	Udupi	996	18	3	595	713	22	0	2,347
32	Uttara kannada	405	12	0	652	353	58	0	1,480
33	Uttara kannada sirsi	591	28	0	404	213	28	0	1,264
34	Yadagiri	979	86	0	80	326	0	0	1,471
	Total	**37,752**	**2,517**	**424**	**28,348**	**51,738**	**1,389**	**233**	**122,401**

Source: DISE 2010-11

Annexure 5: District wise student enrolment in schools in Karnataka, of all management types

Sl. No	District	Class 1 to 5	Class 6 to 7	Class 1 to 7	Class 6 to 8	Class 1 to 8	Class 8 to 10	Class 1 to 10
1	Bagalkot	202,167	67,525	269,692	97,729	299,896	82,017	351,709
2	Bangalore rural	71,857	29,749	101,606	44,198	116,055	40,865	142,471
3	Bangalore u north	403,949	144,914	548,863	215,961	619,910	193,196	742,059
4	Bangalore u south	286,820	108,245	395,065	160,795	447,615	146,093	541,158
5	Belgaum	193,130	74,523	267,653	111,332	304,462	101,046	368,699
6	Belgaum chikkodi	249,330	91,615	340,945	136,385	385,715	120,114	461,059
7	Bellary	242,588	80,070	322,658	115,525	358,113	90,893	413,551
8	Bidar	230,434	77,197	307,631	108,219	338,653	80,395	388,026
9	Bijapur	283,638	88,828	372,466	125,371	409,009	98,808	471,274
10	Chamarajanagara	72,909	29,185	102,094	43,955	116,864	40,308	142,402
11	Chikkaballapura	99,295	39,781	139,076	59,979	159,274	55,288	194,364
12	Chikkamangalore	83,670	36,500	120,170	55,839	139,509	52,717	172,887
13	Chitradurga	140,102	58,244	198,346	85,819	225,921	76,368	274,714
14	Dakshina kannada	164,781	70,789	235,570	108,774	273,555	104,294	339,864
15	Davanagere	180,030	68,542	248,572	101,318	281,348	88,716	337,288
16	Dharwad	178,716	69,189	247,905	102,368	281,084	89,214	337,119
17	Gadag	100,527	37,631	138,158	55,377	155,904	48,048	186,206
18	Gulbarga	298,943	96,803	395,746	136,109	435,052	105,165	500,911
19	Hassan	125,908	54,202	180,110	82,587	208,495	78,821	258,931
20	Haveri	147,023	56,109	203,132	82,961	229,984	70,363	273,495
21	Kodagu	45,258	19,163	64,421	29,049	74,307	27,287	91,708
22	Kolar	127,588	50,622	178,210	75,944	203,532	69,886	248,096
23	Koppal	153,319	51,614	204,933	73,381	226,700	55,341	260,274
24	Mandya	127,883	52,397	180,280	79,868	207,751	78,311	258,591
25	Mysore	232,904	96,517	329,421	144,424	377,328	132,866	462,287
26	Raichur	214,183	64,283	278,466	89,161	303,344	65,284	343,750
27	Ramanagara	77,426	31,966	109,392	48,103	125,529	46,163	155,555
28	Shimoga	148,232	60,675	208,907	92,106	240,338	84,480	293,387
29	Tumkur	122,428	53,470	175,898	81,392	203,820	80,933	256,831
30	Tumkur madhugiri	76,050	31,726	107,776	48,443	124,493	47,986	155,762
31	Udupi	80,721	35,268	115,989	54,074	134,795	54,092	170,081
32	Uttara kannada	60,859	25,381	86,240	37,478	98,337	31,332	117,572
33	Uttara kannada sirsi	53,979	22,970	76,949	35,435	89,414	34,017	110,966
34	Yadagiri	137,927	34,856	172,783	47,985	185,912	33,539	206,322
	Total	5,414,574	2,010,549	7,425,123	2,967,444	8,382,018	2,604,246	10,029,369

Source: DISE 2010-11

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