

## **NATIONAL EVALUATION OF CIVIL WORKS**

### **1.0 Introduction**

The first well-known rulers of Maharashtra were the Satavahanas (230BC to 225AD), who were the founders of Maharashtra, and have left a plethora of literary, epigraphic, artistic and archaeological evidence. This epoch marks tremendous development in every field of human endeavour.

Then came the Vakatakas who established a pan-Indian empire Under them Maharashtra witnessed an all-sided development in the fields of learning, arts and religion. Some of the Ajanta Caves and fresco painting reached the high-level mark during their rule. After a brief interlude of the Kalachuri dynasty, the most important rulers were the Chalukyas followed by the Rashtakutas and the Yadavas apart from the Shilaharas on the coast. The Yadavas, with Marathi as their court language, extended their authority over large parts of the Deccan.

While the Bahamani rule brought a degree of the cohesion to the land and its culture, a uniquely homogeneous evolution of Maharashtra as an entity became a reality under the able leadership of Shivaji. A new sense of Swaraj and nationalism was evolved by Shivaji. His noble and glorious power stalled the Mughal advances in this part of India. The Peshwas established the Maratha supremacy from the Deccan Plateau to Attock in Punjab.

Maharashtra was in the forefront in the freedom struggle and it was her that the Indian National Congress was born. A galaxy of leaders from Mumbai and other cities in Maharashtra led the Congress movement under the guidance of Tilak and then Mahatma Gandhi. Maharashtra was the home of Gandhiji's movement, while Sevagram was the capital of nationalistic India during the Gandhian era.

The administrative evolution of the state of Maharashtra is the outcome of the linguistic reorganisation of the States of India, effected on 1 May 1960. The State was formed by bringing together all contiguous Marathi speaking areas, which previously belonged to four different administrative hegemonic-the district between Daman and Goa that formed part of the original British Bombay Province: five districts of the Nizam's dominion of Hyderabad; eight districts in the south of the Central Provinces (Madhya Pradesh) and a sizeable number of petty native ruled state enclaves lying enclosed within the above areas, which later merged with adjoining districts. Located in the north centre of Peninsular India, with a command of the Arabian Sea through its post of the Mumbai, Maharashtra has remarkable physical homogeneity, enforced by its underlying geology. The dominant physical trait of the State is its plateau character. Maharashtra is a plateau of plateaus, its western upturned rims rising to form the Sahyadri Range parallel to the sea-coast and its slopes gently descending towards the east and south-east. Satpuda ranges cover northern part of the State, while Ajanta and Satmala ranges run through central part of the State. Arabian Sea guards the western side. Madhya Pradesh also covers the eastern boundary of the State. Karnataka and Andhra Pradesh are on its southern side. The State receives its rainfall mainly from south-west monsoon. There is heavy rainfall in the coastal region (around 2000mm), scanty rains in rain shadow areas in the central part (about 500 mm) and moderate rains in eastern parts (around 1000 mm) of the State.

## **2.0 Education status in the State**

The Maharashtra State Government right from its formation on 1<sup>st</sup> May, 1960 committed itself to planned development of primary education. The planning process in the country started in the year 1951 with the First Five-Year Plan. Maharashtra joined this process of socio-economic development through planning from the Third Five-Year Plan onwards.

The programme of educational development was envisaged under the Second Five Year Plan. The Third Five Year Plan provided for the essential needs of free, universal and compulsory education in primary stage of standards of I to IV.

The Fourth Five Year Plan provided not only for a quantitative expansion of primary education but also aimed at qualitative improvement in the system, methods and facilities of education.

For the first time in the country Maharashtra State published a Policy Statement of Educational Reconstruction in February, 1970. The Statement announced a programme of long-term perspective planning for educational reconstruction linked with social and national goals. It suggested the transformation of the educational system so as to make it relevant to the needs and aspirations of the people through :

- Appropriate development of all stages of education
- Equality of educational opportunity
- Qualitative development of education
- Co-ordination of educational planning with the planning of other sectors of development
- Reorganization of teacher education, educational administration and the passage of suitable legislation.

Since the Constitutional Directive to Universalize Elementary Education by 1960 could not become a reality, the Fifth Plan envisaged facilities of education to 100% children in the age group of 6-11 and 60% children in the age group of 1-14. During the period of the Fifth Plan, a Sub-Plan for the Educational Development of the Scheduled Castes and Scheduled Tribes was prepared, as 12% of the population in the State belongs to the S.C. and S.T.

The Sixth Five Year Plan, pointed out the critical role of education, the process of economic development and how it was the principal means for creating human capital of trained, competent manpower for implementing the process of

development. Its approach was to ensure essential minimum education to all children upto the age of 14 years within the next ten years, particularly giving attention to school drop-outs and to those groups which were in danger of being left behind because of their special circumstances. During the Sixth Plan Period a primary school was opened in every village in the State having a population of about 200 and above.

The Seventh Five Year Plan's objective was :

- To universalise primary education in the 14 year age group children.
- To reduce dropout rate especially amongst girls.
- To open a new primary school with a population of 200 within the radius of 1.5 K.M.

The new policy of universalisation of primary education was given priority in the Eighth Plan and a sum of Rs. 404.48 crores was spent on Primary education. The enrolment of children belonging to 6-14 age group was 84% by the end of the Plan.

In Maharashtra, primary education in the rural areas in entirely the responsibility of the Zilla Parishads. Based on the recommendations of the Naik Committee, Maharashtra adopted the Panchayati Raj pattern which deviated from the model laid down by the Balwant Rai Mehta Study team by making the district body, the Zilla Parishad, a strong executive body at the district level rather than the block level body.

At the village level, Village Education Committees have been established as bridges between the schools and the society. The objective of establishing these committees was to get the cooperation of influential and educated villagers in the implementation of the various Government schemes for primary education, to raise resources for maintaining schools, to participate in the socio-cultural activities of the school, to supervise the attendance of the students and teachers,

to make available educational material and help the sale of crafts prepared by students, to maintain the school property through repairs and helping the students to gain from their knowledge and experience.

### **Schemes and Programme**

- Primary Education Schemes
- Non-Formal Education
- Construction of School Building
- Schemes for Student belonging to Scheduled castes, Schedule tribes, Nomadic tribes and Vimukta Jatis.
- Book Bank
- Attendance allowance for the Girl Students
- Shaleya Poshan Aahar Yojna ( National Programme of Nutritional Support)
- Scholarships

The Government of Maharashtra decided (1987) that free education to girls be given from standard I to XII throughout the state in approved, aided and un-aided schools.

Maharashtra Prathamik Shikshan Parishad (M.P.S.P), a Govt. of Maharashtra Undertaking, undertakes SSA works in the State.

The status of the various school buildings in the state as per the 7<sup>th</sup> All India School Education Survey is as under:

Nos.

<b>Category of Schools</b>	<b>Primary</b>	<b>Upper Primary</b>	<b>Secondary</b>	<b>Higher Secondary</b>
Rural	54,996	27,324	10,859	2,073
Urban	12,286	9,845	5,726	1,415
Total	67,282	37,169	16,585	3,488

The Civil Works construction of school buildings is a major component in this Scheme. 33% of the programme fund earmarked for providing school infrastructure including basic amenities.

Participation of the community in all civil works activities is mandatory. Thus the civil works except BRC construction are being executed through VEC(Village Education Committee) in Rural areas and through WEC (Ward Education Committee) in Urban areas.

The Civil Works undertaken by the State under the SSA are as under:

- Construction of Primary and Upper Primary School Buildings (PS/UPS)
- Construction of Additional Class Rooms (ACRs)
- Construction of Cluster Resource Centers (CRCs)
- Construction of Block Resource Centers (BRCs)

The status of the SSA works undertaken in the State till September 2006 is as under:

<b>Category of Building</b>	<b>Primary School /Upper Primary School</b>	<b>Additional Class Rooms</b>	<b>Cluster Resource Center</b>	<b>Block Resource Center</b>	<b>Toilet and Drinking Water Facility</b>
Completed	9422	24187	3089	251	3910
In-Progress	818	9078	212	23	58
Total	10240	33265	3301	274	3968

The district-wise breakup of the above works for the State is given in Annexure-1.

### **3.0 Scope of the Study**

Educational Consultants India Ltd. (Ed.CIL) has proposed to undertake the evaluation of the civil works in the State with the following objectives in view :

- To review the Planning process of Civil Works – target setting, priority and phasing, planning of pre-construction activities, funds flow systems, supervision and monitoring strategy etc:
- To look at issues related to site selection and school location, especially in cases where school are located in areas prone to natural hazard. Also to look at land ownership issues, especially in tribal areas, and highlight cases involving resettlement, if any.
- To assess the quality of construction in item of quality of material & ownership, leakage, cracks etc:
- To assess cost effectiveness and efforts towards the same in construction including use of appropriate/local materials and technologies;
- To evaluate Design-functionality in terms of response to pedagogical issues, child-friendliness, lighting and ventilation barrier free features etc; to assess if the physical infrastructure constructed is contributing to the overall teaching learning environment in the school.
- To highlight good practices with respect to energy efficiency, health and hygiene etc.
- To conduct a safety audit of the created asset in items of its location, design and materials used for construction.
- To look into the specific role of the community in management and implementation of civil works.
- To check utilization of the constructed facilities and plans for maintenance of created assets.

The procedure proposed by Ed.CIL for undertaking the study and selection of the sites proposed to be visited in the state was as follows :

- A uniform set of tools is proposed to be used for all the States.
- The evaluation is expected to cover 3-5% (3% in bigger states, 5% in smaller states) of the constructed school buildings / classrooms in the state. However, the total number of sites to be covered in each state would not exceed 75.
- The samples will be chosen through a combination of stratified and random sampling techniques. Each state will be divided into sets of districts those are similar in terms of geographical features and building materials. There would be a maximum of four such sets and one district from each set would be chosen for field visit. Within a district, sample sites will be chosen on a random basis to cover both rural and urban areas, remote and well connected areas, completed and in-progress buildings etc. The list of sample sites will be decided in consultation with the Civil Works Unit, Technical Support Group and not be disclosed in advance to the State / Districts (the sample district would however be intimated to the State in advance for logistical purposes).
- Apart from visit to construction sites, the Evaluating Agency would also interact with State / District officials, villagers, teachers, students and other stakeholder and analyze secondary sources of information.

#### **4.0 Methodology adopted for the Study**

To undertake the above assignment, the following methodology was adopted:

- The preparation of the TOOLS for undertaking the evaluation;
- The identification of the Districts proposed to be visited in the State;
- The breakup of number of sites to be visited under each category of civil works being undertaken under the scheme namely - Primary and Upper Primary School Buildings / Additional Class Rooms / Cluster Resource Centers (CRCs) and Block Resource Centers (BRCs).
- Identification of the sites proposed to be visited in each district under the above categories.

The set of TOOLS was prepared conforming to the objectives as identified in the Scope of Work. These tools were discussed and debated with the Ed. Cil and finalized by the Ministry of Human Resource Development prior to the commencement of the work. A set of these tools is attached at Annexure – 2.

To select the Districts proposed to be undertaken for the study, the following methodology was adopted :

- The location of the district in the state was assessed.
- The topography of the district – plain, plateau or hilly terrain;
- The construction material being used for the civil works in each district was considered as a parameter for its selection.

The consultants proposed to select the districts that were scattered and widely spread over the state; had different topography and used different types of materials for construction.

The 75 numbers of sites proposed to be selected were distributed in the four categories of buildings as follows :

- The civil works; both completed and in progress; undertaken in each category of building were collected for the selected districts proposed to be studied.
- The percentage of works undertaken for each category with respect to the total works undertaken in the selected districts was calculated.
- Based on this, the number of sites under each category of building was calculated in the same ratio as its percentage to the total works.
- The division of the sites proposed to be visited under each district was further calculated based on the percentage of works undertaken in that district with respect to the total works under that category.

Once the number of sites proposed to be visited under each district were finalised, the next step was to select the location of the works proposed to be visited. For this activity, a combination of stratified and random sampling technique was undertaken. The data related to all the sites in the district was collected for the respective district and based on the location of the blocks, 6 to 10 sites were randomly selected one day in advance for the site visit. These selected sites were then communicated to the District Authorities for the site visit, to enable them to make all arrangements related to the travel, availability of officials and records at site. On reaching the site, the assessment of the works was undertaken based on the Tools finalized in consultation with Ed.CIL at New Delhi.

The above parameters were applied for the State of Maharashtra and the following assessment was made :

**TOPOGRAPHIC DETAILS OF THE DISTRICTS**

S. No.	Name of the District	Number of Blocks	Terrain of the District			Construction Material used in Schools				Location of the District			
			Plain	Plateau	Hilly	Bricks	Stone	Blocks	Any Other	North	South	East	West
1	Ahmadnagar	14		√		√					√		
2	Amravati	15		√		√				√			
3	Mumbai City	0				√							√
4	Bid	11		√		√							√
5	Chandrapur	14		√		√						√	
6	Dhule	4		√		√					√		
7	Greater Mumbai	0											
8	Hingoli	5	√			√						√	
9	Jalna	8	√			√						√	

S. No.	Name of the District	Number of Blocks	Terrain of the District			Construction Material used in Schools				Location of the District			
			Plain	Plateau	Hilly	Bricks	Stone	Blocks	Any Other	North	South	East	West
10	Latur	10	√			√					√		
11	Nanded	16		√		√					√		
12	Nashik	15		√		√				√			
13	Pune	13	√			√							√
14	Ratnagiri	9			√	√	√				√		
15	Satara	11		√		√					√		
16	Solapur	11	√			√					√		
17	Wardha	8	√			√				√			
18	Akola	8	√			√				√			
19	Yavatmal	16	√			√						√	
20	Bhandara	7	√			√				√			
21	Buldhana	13		√		√				√			
22	Usmanabad	8	√			√					√		
23	Gadchiroli	12		√		√						√	
24	Gondia	8	√			√				√			
25	Jalgaon	15	√			√				√			
26	Kolhapur	12		√		√					√		
27	Nagpur	14	√			√				√			
28	Nandurbar	6			√	√				√			
29	Parbhani	9	√			√						√	
30	Raigarh	15		√		√							√
31	Sangli	10	√			√					√		
32	Sindhudurg	8			√	√	√				√		
33	Thane	13		√		√							√
34	Washim	6	√			√						√	
35	Aurangabad	9	√			√							√

It is clear from the data collected from the State Government that there is two type of the material being used for construction in the State. Based on the above parameters, the following districts were selected as the representative Districts for the State to undertake the study:

**DETAILS OF SELECTED DISTRICTS FOR THE STUDY**

S. No.	Name of the District	Number of Blocks	Terrain of the District			Construction Material used in Schools				Location of the District			
			Plain	Plateau	Hilly	Bricks	Stone	Blocks	Any Other	North	South	East	West
1	Bid	11	√	-	-	√	-	-	-	-	-	√	-
2	Nasik	15		√		√	-	-	-	-	-	-	√
3	Satara	11		√		√	-	-	-	-	√	-	-
4	Solapur	11	√	-	-	√	-	-	-	-	√	-	-
5	Gondia	8	√	-	-	√	-	-	-	√	-	-	-
6	Nagpur	14	√	-	-	-	-	-	-	√	-	-	-

A map showing the location of the selected districts in the state is as below :



Highlighted districts were the ones selected for the field visit

The distribution of the sites under each category of the building proposed to be visited was as under :

**DISTRIBUTION OF SITES UNDER VARIOUS CATEGORIES OF BUILDINGS**

S. No.	Name of the District	Number of Works being undertaken by SSA							
		PS/UPS		ACR		CRC		BRC	
		Com	IP	Com	IP	Com	IP	Com	IP
1	BID	645	24	746	214	140	0	2	0
2	NASIK	393	27	1144	519	182	2	15	0
3	SATARA	372	18	632	136	95	2	11	0
4	SOLAPUR	587	86	869	275	144	1	11	0
5	GONDIA	214	0	503	56	47	0	8	0
6	NAGPUR	434	0	1309	207	147	0	14	0
7	<b>Total</b>	<b>2645</b>	<b>155</b>	<b>5203</b>	<b>1407</b>	<b>755</b>	<b>5</b>	<b>61</b>	<b>0</b>
8	Total works	<b>10231</b>							
9	Percentage of works with respect to total works	$\frac{(2645 + 155) * 100}{10231} = 27.3\%$		$\frac{(5203 + 1407) * 100}{10231} = 65\%$		$\frac{(755 + 5) * 100}{10231} = 7\%$		$\frac{(61 + 0) * 100}{10231} = .5\%$	
10	Number of sites proposed to be visited	27.3% of 75 = 20		65% of 75 = 48		7% of 75 = 6		.5% of 75 = 1	
11	Percentage of works in each category	$\frac{2645}{2645 + 155} = 94\%$	$\frac{155}{2645 + 155} = 6\%$	$\frac{5203}{5203 + 1407} = 79\%$	$\frac{1407}{5203 + 1407} = 21\%$	$\frac{755}{755 + 5} = 99\%$	$\frac{5}{755 + 5} = 1\%$	$\frac{61}{61 + 0} = 100\%$	$\frac{0}{61 + 0} = .0\%$
11	Division of sites under each category	94% of 20 = 19	6% of 20 = 1	79% of 48 = 37	21% of 48 = 11	99% of 6 = 6	1% of 6 = 0	100% of 1 = 0	0% of 1 = 0

PS/UPS : Primary School / Upper Primary School; ACR : Additional Class Room; CRC : Cluster Resource Centre; BRC : Block Resource Center; Com : Completed; IP : In Progress

Subsequent to the finalization of the number of sites proposed to be visited under each category of buildings, the distribution of sites in each district was undertaken. The distribution was done in the same proportion as the number of works undertaken in each individual category. The tabulation for the same is as under :

**DISTRIBUTION OF SITES IN EACH DISTRICT**

Category of Building	Status	Name of the District					
		BID	NASIK	SATARA	SOLAPUR	GONDIA	NAGPUR
PS/UPS	Com	(645/2645) * 19 = 4	(393/2645) * 19 = 3	(372/2645) * 19 = 3	(587/2645) * 19 = 4	(214/2645) * 19 = 2	(434/2645) * 19 = 3
	IP	(24/155) * 1 = 0	(27/155) * 1 = 0	(18/155) * 1 = 0	(86/155) * 1 = 1	(0/155) * 1 = 0	(0/155) * 1 = 0
ACR	Com	(746/5203) * 37 = 5	(1144/5203) * 37 = 8	(632/5203) * 37 = 4	(869/5203) * 37 = 6	(503/5203) * 37 = 4	(1309/5203) * 37 = 10
	IP	(214 / 1407) * 11 = 2	(519 / 1407) * 11 = 4	(136/ 1407) * 11 = 2	(275 / 1407) * 11 = 2	(56 / 1407) * 11 = 0	(207 / 1407) * 11 = 1
CRC	Com	(140/ 755) * 6 = 1	(182 / 755) * 6 = 1	(95 / 755) * 6 = 1	(144 / 755) * 6 = 1	(47 / 755) * 6 = 1	(147 / 755) * 6 = 1
	IP	(0 / 5) * 0 = 0	(2 / 5) * 0 = 0	(2 / 5) * 0 = 0	(1 / 5) * 0 = 0	(0 / 5) * 0 = 0	(0 / 5) * 0 = 0
BRC	Com	(2 / 58) * 1 = 0	(15 / 58) * 1 = 1	(8 / 58) * 1 = 0	(11 / 58) * 1 = 0	(8 / 58) * 1 = 0	(14 / 58) * 1 = 0
	IP	(0 / 1) * 0 = 0	(0 / 1) * 0 = 0	(1 / 1) * 0 = 0	(0 / 1) * 0 = 0	(0 / 1) * 0 = 0	(0 / 1) * 0 = 0

PS/UPS : Primary School / Upper Primary School; ACR : Additional Class Room; CRC : Cluster Resource Centre; BRC : Block Resource Center; Com : Completed; IP : In Progress

The sites in the Districts were so selected that as far as possible they were in separate Blocks. No two buildings of different category were seen at the same site. The list of the sites visited for the study is attached at Annexure – 3.

**5.0 Evaluation of Civil Works**

To undertake the evaluation of the Civil works in the State, a team comprising of two members of the Consultants visited the state from 30<sup>th</sup> March, 2007 to 12<sup>th</sup> April, 2007. The team comprised of Mr. Harish Nigam, Business Manager and Mr. Umed Singh, Facilitator. Apart from visiting the sites as discussed in the previous paragraphs, the team interacted with the State Project Director's (SPD)

office to understand the working mechanism of the project in the state related to the civil works.

## **5.1 State's Working Mechanism**

To undertake the civil works under the Guidelines of the Sarva Shiksha Abhiyan, the state is undertaking the work through two different channels. One aspect is the release of the funds to the VEC for undertaking the work and the other is the technical support and monitoring of the civil works being undertaken by the VECs.

### **Financial Aspects - Release of funds to the VEC**

Both the Central Government and the State Government release the funds directly to State Project Director, which in turn release funds to the District Head Offices, headed by Chief Executive Officer (CEO) or Commissioner (IAS). The CEO office releases the funds relating to civil works, which are sent directly to VEC through Block Education Officer (BEO).

When the budget allocation for the District is finalized for a particular year, the money as received from the Central Government is released from the SPD office to the respective Chief Executive Officer/Commissioner in the District Head Office. The District head office in turn releases the payments to Block Education Officer and BEO releases the payments directly to the VEC after the agreement for undertaking the said construction is signed.

The release pattern of the funding is similar for the construction of the building.

The pattern is as follows :

#### **FUND RELEASE CHART FOR PS/UPS, ACR, CRC and BRC BUILDING**

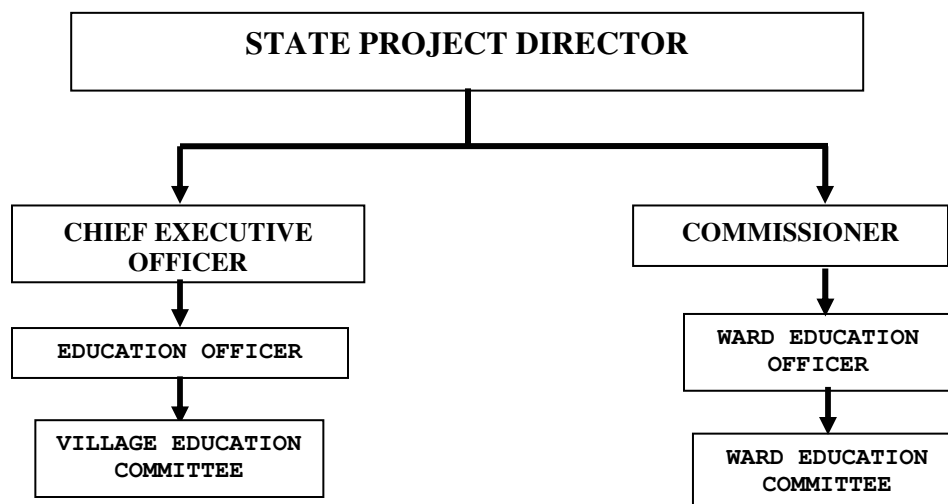
<b>Installment</b>	<b>Amount</b>	<b>Stages</b>
1 <sup>st</sup> Installment	75% of the sanctioned amount	Upon signing of the agreement with VEC and as advance to start the work.
2 <sup>nd</sup> Installment	20% of the sanctioned amount	Upon slab casted (after utilisation of first installment of advance).
3 <sup>rd</sup> Installment	5% of the sanctioned amount	After completion in all respect (after utilisation of second installment of advance).

Thus with this cash flow pattern, it is ensured that no shortfall of funds is experienced by the VEC anytime during the construction phase.

As per the interaction made with the various village representatives at site, it was given to understand that no problem is faced by the VEC in receiving the payments from the Block Education office (BEO) under this scheme.

The fund flow diagram in the State under this project is as under :

### FUND FLOW CHART



#### Technical Aspects

The major technical support for the civil works is to provide the following facilities to the VEC :

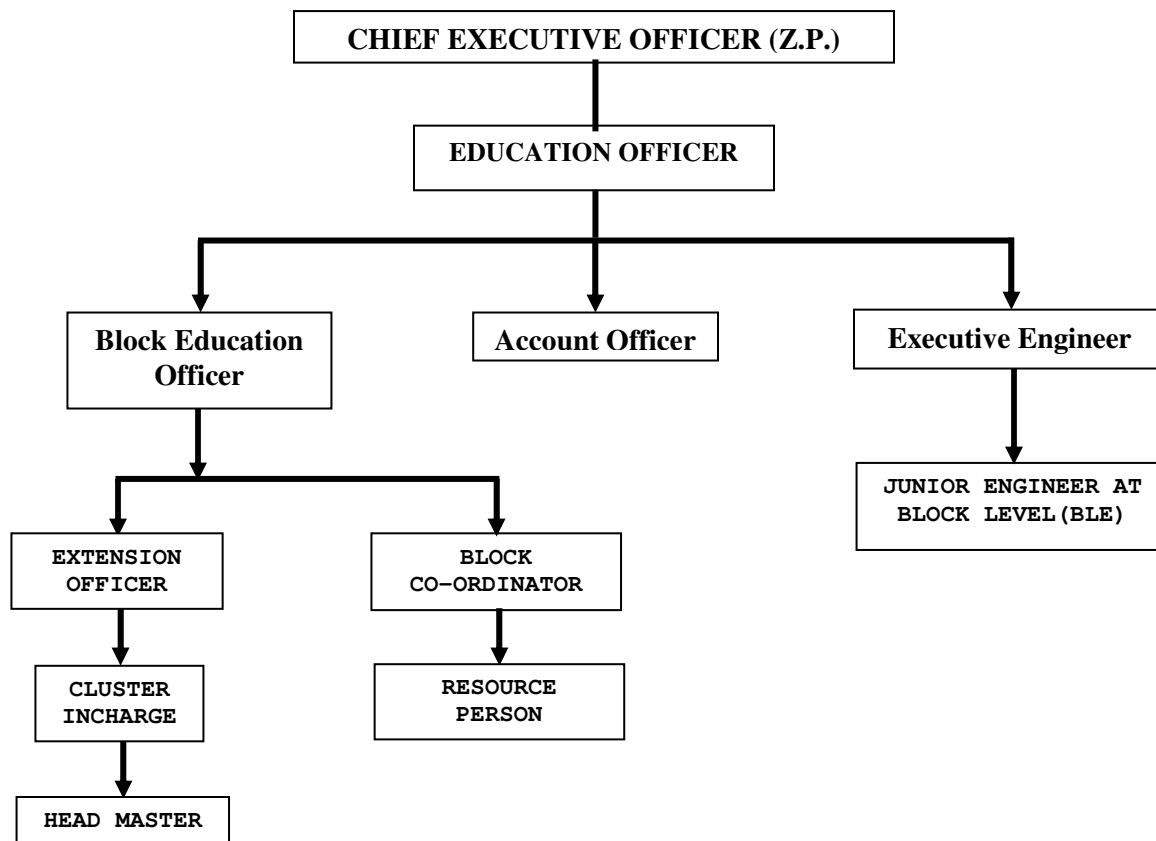
- Provide the VEC with the building plans, specifications and items of work as envisaged in the project objectives.

- Provide training on the various aspects of account keeping and record book maintenance.
- Provide regular guidance as technical support to the VEC during work execution.
- Monitor the work progress and provide technical support to the VEC to complete the work within the time frame as envisaged in the project.

The Technical wing headed by a Chief Engineer, is working in the SPD's office at Mumbai. Two Deputy engineers and two Project Engineers are working in this Civil Wing at the State level. At the District level, the District Project office has an Executive Engineer working in his office to supervise and monitor the civil works in the district. The Executive Engineer is supported by Block level Junior Engineers(BLE). One BLE supervises 1 block in a district and there are 7-12 BLEs in each district. It is the responsibility of the BLE to supervise and monitor day to day activity on the sites and provide technical details time to time and quality aspects where the civil works are being executed. The BLE is also responsible for solving the technical problems and to collect approval from the concerning authority where the building layout, plan or specification have been altered as per site requirement. The Executive Engineer also randomly checks the civil works in the district.

Apart from this setup of civil wing, State has appointed 3<sup>rd</sup> party consultants for quality control & certification of works for each region of the State. The 3<sup>rd</sup> party consultants are responsible to visit the site, suggest the remedial measures to rectify defects if any, carried out various test of materials, workability and strength of concrete, certified for rectification and organize the workshop focused on civil works execution for VEC.

## ORGANISATION SETUP AT DISTRICT LEVEL



*Provision of building plans, specifications and items of work as envisaged in the project objectives:*

The plans and estimates for the buildings are prepared at the SPD office. The basic design and estimates for the PS/UPS, ACR, BRC and CRC are prepared at the SPD office. The designs have been prepared for the following type of school buildings :

- One room for ACR with verandah
- Two rooms and verandah at ground floor for PS
- BRC is a single storey building.

- One room/hall CRC with Amphitheater, Stage & External Chalkboard

The estimated cost of the buildings are as under :

- (a) The unit cost of construction of ACR varies from Rs. 1.55 to Rs.2.05 lacs with extra amount for child friendly elements Rs. 0.20 lacs.
- (b) The unit cost of construction of CRC is Rs. 2.0 lacs.
- (c) The unit cost of the PS building is Rs. 5.0 lacs
- (d) The unit cost of the BRC is Rs. 6.0 lakhs.

*Provide training on the various aspects of account keeping and record book maintenance.*

Once the technical sanction and administrative approval of the site has been accorded, a one / two day training programme of the VEC/Head Master / mason is conducted in which the VEC/Head Master are oriented with the various aspects of construction and monitoring. A number of members of VEC/Head Master (5-6) including one/two masons are invited together at Block Resources Centers or the District Head-quarter for the training programme.

The training programme incorporates the following essentials:

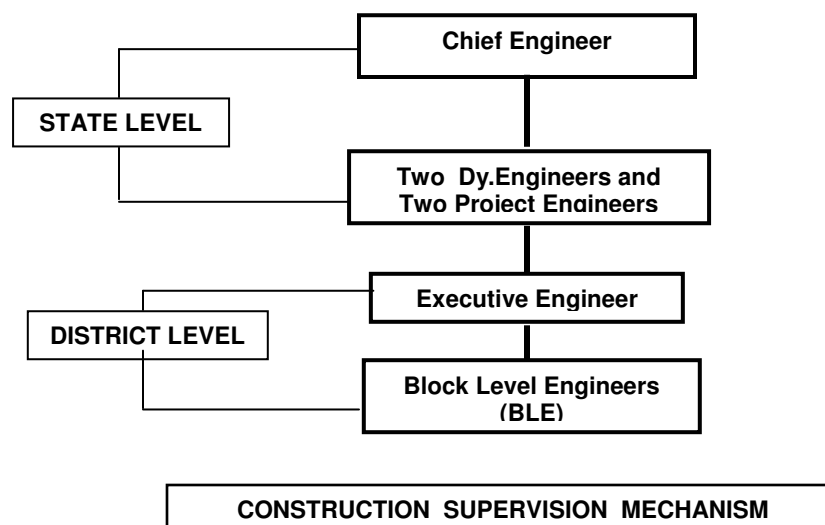
- A clear understanding of the objectives of SSA and the necessity to ensure community participation in the programme.
- Since VEC/Head Master is the construction agency, a detailed discussion on technical matters is undertaken to ensure that the VEC is capable of getting construction done timely and economically without compromising on the quality.
- The design and estimates are explained to them in the local language in detail so that they get the work done as per the estimate. The VECs have to be oriented to know the wage and non-wage components of the estimates so that they can know the items to be procured and amounts earmarked for them.
- For explaining the financial and accounts procedure, an accountant also takes part in the training programme. He explains the formalities of maintaining accounts in a proper manner to the VEC/Head Master.

- A list of quantities of material and labour requirements is to be handed over to the VEC/Head Master along with the design and estimates.
- A brief instruction booklet in local language is given to the VEC which broadly consist of technical items to be taken care of, during supervision.

*Provide regular guidance as technical support to the Village committees during work execution.*

The work of providing day to day supervision and technical support related to the civil works being executed under the SSA programme has been entrusted to the Executive Engineer at District level working for the SSA activities. He is supported by a team of BLEs who are responsible to undertake day to day supervision of the civil works. The BLE of the Department who is in-charge of the civil works in that block is entrusted the task of helping the VEC in getting the building work executed. It is expected that the BLE shall not only give the layout of the proposed building but shall regularly visit the site to see that the work is being executed as desired.

The present working arrangement for the work supervision is as under :



A position of Executive Engineer has been created at the District level by the State Authorities to ensure that all records and works related to the SSA work are kept as desired. The Education Officer (E.O) keeps track of the expenditure and work details and coordinates with the Executive Engineer, the VEC and the Head Master. The E.O. is thus a nodal position between the Technical and the Administrative wing of the District for the SSA works.

*Monitor the work progress to complete the work within the time frame as envisaged in the project.*

The responsibility of monitoring the work rests on the E.O. and the Executive Engineer of each District. They are supported by the team of Block Level Engineers (BLEs) who commute to different sites in the Blocks to ensure that the work is being executed as desired.

## **5.2 Field Visit Assessment**

The Tools that had been developed in consultation with the Ministry of Human Resource Development, Government of India and Ed. Cil covered the following aspects of field assessment :

- Planning Process
- Site Selection Process
- Construction Process – techniques and innovations and quality control
- Cost effectiveness
- Design Innovations
- Additional facilities
- Safety Audit
- Implementation of works
- Operation and Maintenance of buildings
- Community involvement and Response
- Provision for Children with special Needs (CWSN)

*Planning Process*

In all the districts visited by the evaluation team the following observations related to the Planning Process were made :

- The typical plans prepared by the SPD office are distributed to all VEC for work execution. They have neither been consulted earlier during the preparation of these plans nor are consulted after their site is approved for sanction. Thus there is no role of the VEC in the planning process.
- During the work execution, if the layout or orientation of the building is altered, the decision for the same is taken by the VEC and the head master at the site, and information of the alterations are passed on to the Chief Engineer office and Executive Engineer (Z.P) for its approval. The basic reason for the alteration in the layout or the size of the class room is due to the land constraints at that particular site.
- No written record is kept of any problem encountered during the construction period. The SPD office and the E.O. are unaware of any problem related to the planning process.
- The construction period of the buildings is normally kept as 4 months. As per the information gathered from site, only a few buildings have been completed in this time span. The building construction is taken up as per the release of the funds and has no consideration of sowing period, weather and labour considerations.
- The material resources and planning is undertaken by the VEC in consultation with the head master of the school and the mason engaged for the work. The material is procured as per the site requirements from the local market and the lowest available rates.

The typical booklet handed over to the VEC and the Head Master is attached at Annexure - 4.