



Projects library of the specialized group for construction

SCHOOLS

Project		<b>Postconflict School Reconstruction</b>	
Project name		Chavakachcheri Hindu Primary School, Thenmaradchchi, Jaffna District, Sri Lanka	
Country	Sri Lanka		
Town/Region	Chavakachcheri DS Div.Thenmaradchchi District Jaffna		
Project type	New reconstruction		
Typology	12 classrooms Primary school, from Grade 1-5		
Approach	Private sector contracted construction		
Beneficiaries	Affected people in response to the conflict (IDP's, Refugees, Returnees)		
Climate	Tropical monsoonal with seasonal rhythm of rainfall		
Special constraint	Political situation (Checkpoints, permits); Material and tools availability; Climate (monsoon)		
Start / End of project	2004 – 2006 2008 – 2009		
Country GNP	1'296 USD per capita (Dec 2010)		
Pictures	SDC Jaffna, Maps UN OCHA		

Partners	
Organization (Donor)	SDC-HA
IO/NGO partners	-
Government partners	PTF Presidential Task Force MoU Ministry of Education Northeast Province Provincial Education Director Zonal Education Director School Works Branch, Jaffna

Reference data			
GIS data (WGS 84)	N 9.66° E 80.151°	Altitude	1 msl
Land plot	8'093 m <sup>2</sup> / 2 acres	Number of blocks	2
Classes/rooms per blocks	12 in one block	Number of units	3 (classrooms, special rooms, sanitary unit)
Beneficiary /classroom	47.2	Total beneficiaries	567students
Sanitary facilities	10 toilets (5 girls, 3 boys, 1 teachers & 1 disable) 4 urinals	Other infrastructure	1 Principals's room, office, library, computer room, auditorium with stage, science lab, water tank, watchers house
Ground floor (covered area; U-shaped building)	683.40 m <sup>2</sup>	Floor levels	2
Total surface (covered area; U-shaped building)	1'366.80 m <sup>2</sup>	Surface / beneficiary	2.41 m <sup>2</sup> / beneficiary
Volume (outside dim., U-shaped building )	4946.00 m <sup>3</sup>	Volume / beneficiary	8.72 m <sup>3</sup> / beneficiary
Heated surface	No heating	Electrification	yes
Cost per m <sup>2</sup>	260.96 USD	cost/beneficiary	629.07 USD/beneficiary
Total cost (1US\$=114 LKR)	356'683.56 USD (40'661'925.76 LKR)		



<b>Approach to results</b>	
<b>Initial Situation</b>	<p>The school was founded in 1904 near the market at Chavakachcheri and in 1926 transferred to a place near the actual position of Hindu Primary School. In 1962, the school was taken over by the Government. As the school became too small, due to the dilapidated state of the structure and facilities and the spatially limited capacity of the institution on its site, the school was forced to limit the intake of new students. Therefore in 2004, 40 larchams of land were purchased by the Old boys Association from abroad and donated for the construction of a new school nearby the old school building.</p> <p>In 2006 the foundation stone was laid by SDC for the new building complex but after five months, building work was suspended due to military actions had recommenced again.. At the end of 2008, SDC restarted the construction work and finished the work within 9 months.</p> <p>Chavakachcheri Hindu Primary School is the only primary school in the Sangathanai area of Chavankachcheri. It covers an area of 1.5 km (5 GN Divisions). Chavakachcheri has actually a population of 20'496 families with 70'256 members.</p> <p>The Chavakachcheri Hindu Primary school covers an area where 3'348 families with 11'124 members live. Today 562 students and 22 teachers attend the school.</p> <p>Most of the villagers of Chavakachcheri were displaced in 2000 but resettled in 2002. Today most of the people have returned to their homelands.</p>
<b>Project concept</b>	New construction
<b>Project procedure</b>	<p>Following a rather bureaucratic identification, selection and approval procedure that involved the local Government the required technical data was surveyed and the final design and tender documents were prepared. Based on exact bills of quantities and through public bidding procedures, the lump sum contracts were given to the private sector construction contractors. Through a set of specific criteria in terms of price, quality and performance, capable contractors were identified and the contracts awarded. Contract documents were derived and adapted from international FIDIC standards.</p> <p>The new construction of Chavakachcheri Hindu Primary school with it's 12 classrooms was completed within almost 9 months depending on the contractor's performance, site access and weather conditions. Site supervision was carried out directly by our project site engineers. The finishing standards are of good quality.</p> <p>Legal handing over certificates, as built drawings and maintenance plans were provided upon project completion.</p>
<b>Structural concept and finishing design</b>	<p>After demolition and chipping works in the existing buildings on the plot which the School Branch had chosen for the new construction of the school, the works on the U-shaped two story building was begun. The buildings are done by a concrete skeleton construction while the walls are non-bearing and built with cast concrete block stones. The roof consists of metal trusses as basis for wooden purlins and roof tiles; all rooms have electrification, lighting, ventilators.</p>
<b>Issues/Constraints</b>	<p>Since August 2006, the vital A9 mainroad was closed and the Peninsula was back to a conflict reality. SDC declared to be ready to resume activities when normalcy would return. Since the resumption of the construction work, the biggest challenge was the complex bureaucratic approval procedure to obtain basic construction material like sand and cement.</p> <p>The isolation of Jaffna had its price in time and money and still a positive impact possible.</p>
<b>Lessons learned</b>	<p>Using the national capacity and know-how in the design and carry out direct supervision by project staff and not the consultant was useful.</p> <p>Consistent improvements on the structure and the finishing works of the buildings must be based on the experiences made.</p> <p>High quality of work and timely completion resulted in a good reputation and image of SDC-HA.</p> <p>Regarding the maintenance of the buildings and environments of the school complex, it is extremely important to involve the parents of the pupils and the children themselves actively in the whole school maintenance procedures and tasks. Chavakachcheri Hindu primary school has a very well functioning maintenance system based on the involvement of the parents of the pupils.</p>



## Humanitarian Aid construction group

### Legal framework

<b>Political attachment</b>	Through the bilateral agreement between SDC and the Government of Sri Lanka followed by an MoU between SDC-HA
<b>Type of ownership</b>	District Education Department on behalf of Ministry of Education Northeast Province

### Relevant building construction costs (excl. planning, design and supervision)

<b>Construction</b>	
<b>Preliminaries</b>	169'743.84
<b>Excavation and Earth Works</b>	40'045.15
<b>Plain Cement Concrete Work</b>	1'259'273.15
<b>Reinforced Cement Concrete Works</b>	5'705'788.95
<b>Reinforcement work</b>	5'008'227.80
<b>Masonry Work</b>	184'659.05
<b>Concrete Block Work</b>	2'863'139.58
<b>Tinker and Metal Work</b>	1'358'280.00
<b>Roof Work</b>	7'938'000.00
<b>Carpenter &amp; Joiner Works</b>	5'279'452.75
<b>Plaster Work</b>	3'290'695.01
<b>Painting</b>	1'208'714.75
<b>Floor and Wall finishes</b>	126'237.72
<b>Plumbing and Drainage</b>	176'870.40
<b>Electrical Work</b>	1'222'912.60
<b>Miscellaneous Works</b>	1'368'086.23
<b>Extra Works</b>	3'010'096.78
<b>Materials supplied by SDC</b>	451'702.00
<b>Total in LKR</b>	<b>40'661'925.76</b>
<b>Total in USD</b>	<b>356'683.56</b>

### Urban planning

Distance to:	Next village (Meesalai)	1.5 km
	Public transport	public transport available
	A9 Main road	50 m

### For further information

Involved SDC-HA construction group consultants	N/A
Other involved SDC-HA consultants	Ueli Salzmänn/ Hans Peter Etter/Srikantha Rajaratnam
Author / Contact:	Srikantha Rajaratnam srikantha.rajaratnam@sdc.net
Recommended Institutions:	N / A
Recommended partners:	N / A
Recommended books/reports:	Further information (drawings, contracts...) on construction group website or email above available
Relevant other projects (links):	Project Document of the Cash for School Program, Sri Lanka, containing the reconstruction of Schools. Website: <a href="http://www.cfhsrilanka.com">www.cfhsrilanka.com</a>



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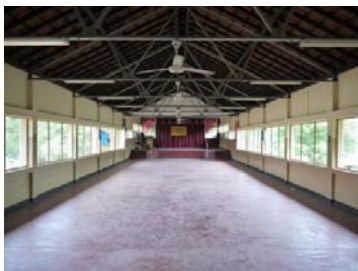
### Relevant illustration



1L	Entrance gate, financed by the parents
2R	Upper pathway



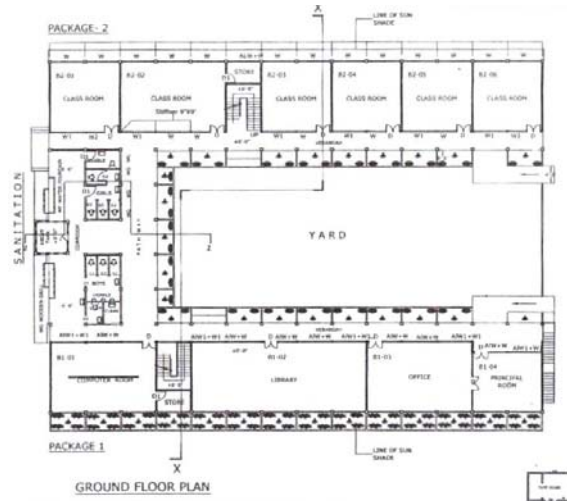
3L	Schoolbuilding with yard
4R	Watchers hut



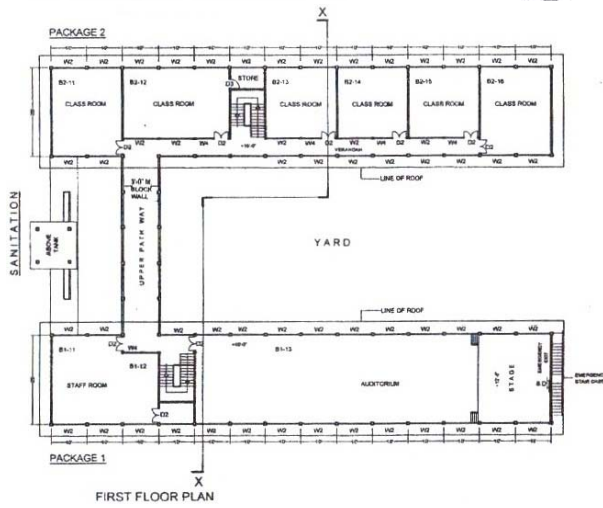
5L	Assembly hall
6R	Library



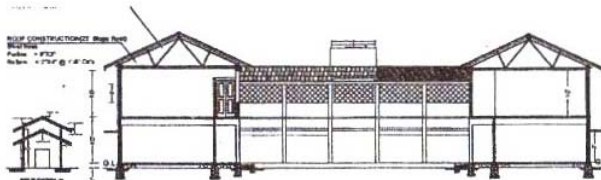
Drawings (without scale)



7L Ground Floor Plan



8L First Floor Plan



9L Section x-x