



Projects library of the specialized group for construction

SCHOOLS

Project	Postconflict School Reconstruction		
Project name	Nunavil West GTMS School, Thenmaradchi, Jaffna District, Sri Lanka		
Country	Sri Lanka		
Town/Region	Nunavil DS Div.Thenmaradchi District Jaffna		
Project type	Reconstruction		
Typology	Single story buildings with 2classrooms & SDC built 2 story (ground floor 3 class rooms & 1 st floor multi purpose hall) Primary and secondary school, from Grade 1-9		
Approach	Private sector contracted construction		
Beneficiaries	Affected people in response to the conflict (IDP's, Refugees, Returnees)		
Climate	Tropical, hot and humid		
Special constraint	Political situation (Checkpoints, permits); Material and tools availability; Climate (monsoon)		
Start / End of project	November 2003 – June 2005		
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 Ministry of Education Northeast Province Provincial Education Director Zonal Education Director School Works Branch, Jaffna

Reference data			
GIS data (WGS 84)	N 9.67° E 80.13°	Altitude	1 msl
Land plot	1'315 m ² (The school has two plots)	Number of blocks	2 (2storey classroom block(reconstructed by SDC) & 1storey classroom block.
Classes/rooms per blocks	2/3 (Total 5 classrooms)	Number of units	3 (Classrooms, multi purpose hall, sanitary unit)
Beneficiary /classroom	9.4	Total beneficiaries	47 students
Sanitary facilities	3 toilets (1 teachers, 1 girls, 1 boys) 6 urinals for boys & 6 for Girls	Other infrastructure	1 Principals's room, auditorium with stage, water tank, sanitary block, play ground, boundary wall, (no kitchen)
Ground floor (covered area)	138.62 m ² (only SDC building)	Floor levels	1 / 2 (SDC building)
Total surface	277.24 m ² (only SDC building)	Surface / beneficiary	5.89 m ² / beneficiary



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Volume (outside dim.)	1748.00 m ³ (only SDC building)	Volume / beneficiary	37.19 m ³ / beneficiary
Heated surface	No heating	Electrification	yes
Cost per m ²	100.33 USD (only SDC building)	cost/beneficiary	591.82 USD/beneficiary
Total cost (20.02.2012)	27'815.56 USD	Self help (beneficiaries) No self help	0 USD/beneficiary

Approach to results

Initial Situation	<p>The Nunavil West GTMS School is a small country type single storey primary school, originally built in 1928. Before the intervention of SDC the complex consisted of two parallel single storey building units, which were located perpendicularly to Kandy Road. Block 1, which was loosely divided into 3 classroom areas without internal partitions and open on both sides, measuring approx. 6.0m x 18.3m, represented the only classroom structure for the 70 students attending the school. Attached perpendicularly to the rear of Block A, there was a considerably damaged single storey building, which was once a multipurpose structure of approx. 7.6m x 6.0m. Block B measuring approx. 6.0m x 12.0m accommodates administrative offices. At the very back of the allotment there was a 5-compartment latrine.</p> <p>Prior to the most intensive phases of the conflict in the 90s there were 100 students attending classes at the school. At the height of the war almost the entire population of Thenmaradhchi had fled the Peninsula and the Nunavil and neighbouring school in ruins and the Nunavil West facilities in desolate condition. Since the reopening of the school, the number of students has been steadily on the increase corresponding with the gradual return of the displaced population, which actually is rather complete..</p>
Project concept	<p>New construction and Renovation Works</p> <p>To cater for the ever increasing number of returning students, the project of SDC provided to replace Block A, which was in poor condition, with a new two storey structure, corresponding to the Education Departments proven standard design, completed with the necessary equipment and furniture. To ensure the children safe drinking water, the project envisaged to install a rain water harvesting system (RWH) utilising the collected roof water and collecting it in a below water storage tank.</p> <p>Besides the new Two-storey building, SDC also renovated the existing one-storey building and provided a small playgarden at the entrance.</p>
Project procedure	<p>Following a rather bureaucratic identification, selection and approval procedure that involved the local Government the required technical date 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 one the new two storey block with it's classroom and auditorium was completed within almost 19 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>
Structural concept and finishing design	<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 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> <p>New furniture, including tables, chairs, curtains, black boards and cabinets for 47 students and 9 teachers have been donated by SDC.</p>
Issues/Constraints	<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>



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Lessons learned	<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>
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Legal framework

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

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

Construction in LKR	
Demolition Work	82'000.00
Excavation and Earth Works	10'650.00
Concrete Work	956'500.00
Masonry Work	147'000.00
Concrete Block Work	365'250.00
Roof Work	614'450.00
Tinker and Metal Work	312'200.00
Carpenter and Joiner Work	29'040.00
Plaster Work	349'975.00
Painting and Decoration Work	32'349.00
Miscellaneous Work	112'500.00
Extra Works	327'170.00
Total	3'339'084.00
Less Discount	18'720.00
Construction Total in LKR	3'320'364.00
Total in USD (20.02.2012)	27'815.56

Urban planning

Distance to:	Next village (Madduvil)	4.8 km
	Public transport	public transport available
	A9 Main road	0 m



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For further information

Involved SDC-HA construction group consultants	R Ivan Hauri
Other involved SDC-HA consultants	Miss N Apiramy
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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: www.cfhsrilanka.com

Relevant illustration



1L	School seen from the Main road A9
2R	2 storey school building financed and implemented by SDC



3L	Old one storey building
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4L	Auditorium on 2 nd floor used as classroom
5R	Water Tank



Drawings (without scale)

