




Projects library of the specialized group for construction

PUBLIC BUILDINGS

Project	School Rehabilitation	
Project name	Rehabilitation of schools of the Syrian Ministry of Education	
Country	Syrian –Arab - Republic	School Nr. 1 Al-Dukhaniah, one school out of nine, a total of 14 school buildings were rehabilitated. 
Region/town	Damascus	
GIS data (WGS 84)	33° 30' N / 36° 20' E	
Project type	Repair / Rehabilitation / New construction / DDR	
Typology	School buildings	
Approach	Contracted engineering / contracted construction	
Beneficiaries	Children of Iraqi refugees and Syrian children. Grade 1-6	
Climate	mostly desert; hot, dry, sunny summers (June to August) cold weather with snow or sleet periodically in Damascus	
Special constraint	Earthquake, dust storms, sandstorms	
Start / end of project	Feb. 2008 / Oct. 2008	
Country GNP	4'700.-- USD/cap	

Partners

Organization (donor)	SDC financed by the Federal Office for Migration FOM
IO/NGO partners	
GO partners	MoU with Ministry of Education / Implementation with Planning Directorate MoE and Directorate of Education Damascus Countryside



Context to project

Initial Situation	<p>The congestion of Syrian schools due to a high number of Iraqi students has become a general phenomenon in public schools in areas of high concentration of Iraqi refugees, in particular the governorate of Damascus and its suburbs.</p> <p>The congestion in schools had accelerated the rate of deterioration of buildings and had depleted school equipments thus leading to an increase in maintenance cost. This situation limited the capacity to take more Iraqi students, reduced the level of education and lead to frequent drop-outs.</p>
Goals, Beneficiaries	<p>It was to respond to requirements identified by the Syrian Government to meet the needs in the rehabilitation and extension of existing schools in the governorate of Damascus and its suburbs.</p> <p>In a bilateral agreement between the Syrian Ministry of Education (MoE) and SDC it was agreed to rehabilitate a total of 9 schools hosting 7172 students, 15% of whom are Iraqis.</p> <p>The planned work included normal maintenance / rehabilitation as well as improved elements</p>
Implementations/Results	<p>The normal maintenance/ rehabilitation included</p> <ul style="list-style-type: none">• Fixing and repairing of doors and windows.• Repairing of basic electrical installations (to ensure a safe environment for students).• Repair of blackboards and front stages in classrooms.• Tile work in classrooms, as well as in the corridors and playgrounds.• Painting of interior of building.• The sanitation facilities and sewer / rain drainage systems needed to be rehabilitated and/or removed from clogging.• Leaking roofs and/or expansion joints had to be treated.• Plaster work and/or replacement of broken curbs with basalt stone. <p>The improved elements included</p> <ul style="list-style-type: none">• Pilot project for earthquake resistance.• Adding a third floor with an extra of seven classrooms.• Building of an additional sanitation block Rehabilitation of canteen and janitor rooms.• Turning deserted backyard into usable playground.• Better accessibility for disabled children.• Certain higher standards have been experimented with (doors, desks, color scheme, drinking fountains, tap protection, etc.)



Approach to results

Initial Situation

- The congestion of Syrian schools due to a high number of Iraqi students has become a general phenomenon in public schools in areas of a high concentration of Iraqi refugees, in particular the Governorate of Damascus Countryside. The main objective of the bilateral school rehabilitation project in Syria is to provide better access for Iraq refugees to basic educational services in Syria. A total of 9 schools (14 school buildings) hosting 7172 students, 15% of whom are Iraqis, will be rehabilitated.
- The existing school buildings basically all suffered from lack of maintenance and renovation work. The Syrian Ministry of Education (MOE), which is in charge of rehabilitation as well as maintenance of the buildings, has only a budget of approximately USD 2 million for the maintenance of approx. 1'000 schools. This is by far not enough to conduct even minimal maintenance work. The support from the Swiss Government among other donors helped the Syrian authorities to deal with the increasing influx of Iraq refugees in a more adequate manner.

Approach

- Our Project was sensitive to the opinions and requests of school administrations, since they are the ones benefiting from the improvements
- Improvements focused on practical aspects, more so than on beautification aspects
- Improvements incurred reasonable increase in cost of normal rehabilitation; some improvements did not incur any additional costs
- All materials used were available from the local market, and methods of constructions were customary to the local contractors
- Project focused on quality execution of construction, and followed pre-planned specifications
- An engineering consultant firm was contracted to study and supervise the project. This was done to ensure quality and to enrich the project with innovative improvements and architectural details
- The construction contractor was chosen carefully after looking into bids from several reputable local contractors
- The consultant firm produced complete plans and specifications for the nine schools. These documents were presented to the MOE upon completion of project

Problems and Constraints

Implementation time was very short we had only four month for: preliminary study, selection of engineering company, production of technical documents (BoQ, drawings, costing) selection of contractor and awarding contracts.

Construction time was also very limited. We could only build during the tree months of summer school holidays in June, July and August!

Three major events adversely impacted our initial budget and plans. The first event were significant high rates of inflation 2008 here in Syria. The prices in the construction and Transport Sector went up by 25-30% during the planning phase of the project. The second event was the fact that we were not able to get a tax exemption for this project. We therefore had to enclosure these taxes, which meant that for the equivalent of 7% we had to reduce planned items. Thirdly because of the use of not valid exchange rates from the internet, items had also to be adjusted. All three events forced us to reduce some elements of the initial plans.



Lessons learned

Positive

- When you include local 'school janitors or head of schools', you find out what is really needed. Only then you can make a real change/step forward in the school rehabilitation.
- Involve all parties, from the architect to janitor or consultant and you will find the best durable solutions, by brainstorming together, on the to be solved problems.
- We had a consultant, who had lived in 'both worlds', USA and Syria. This proved to be so helpful. He prevented us from many miss- understandings or miss-communications. That was a big plus for the project also because we needed to spend every minute efficient.
- Keeping all the time the 'beneficiaries' in mind! By taking all parties serious (by listening to them and involving them), we built a great team! We set the example, that is doesn't matter what religious- ethnic- background or social status you have to be successful. Just be open and honest, but mainly work GOAL orientated!

Lessons learned

Negative

- That we couldn't rely on big parts of the government body, specially on school building section of Damascus Governorate, when it came to rehabilitations plans. They were understaffed and just not up to the technical level needed in this project. They were only used to do the Status Quo, which means to do the same things and mistakes over and over again. They had no individual and specified approach for each school. (Unfortunately International donors make to often the mistake of only supporting the Status Quo, what in my eyes is a waste of every penny).
- Sometimes we had too many ideas of what more could be done. Although there was hardly enough time for the 'basic' plan.
- TAX; once more I was confronted with this 'TAX' matter. When we, as a Swiss governmental Agency, do something for the Syrian Government, to help them, why can we not include in our basic agreements, that the project should be set free of TAX- charge? This money goes now to ministry of Finance, instead of going to the (Iraqi-) school children, who deserve a better learning environment.
- Exchange rates; another financial item, which caused a lot of trouble. Not knowing for a long time, what the exact budget would be, loses because of exchange rates taking from Internet and so on. This was taking time, caused confusion.

Evaluation

- SDC was responding to the ministry's expectations, of providing better standards in construction and rehabilitation. Which meant that we not only did "common" rehabilitations work, doing a bit of painting and "cosmetic", like rehabilitation here is usually done. We added therefore, beside the normal Rehabilitation/ and Maintenance work, improved elements. These elements laid in the fields of **Safety**, **Basic human rights**, **Right to play**, **Aesthetics** and **Durability**
- Safety**
We provided safety to protect the children when they move around, against potential sources of hazard:
Enclosed all the diesel tanks in the schools.
Redesigned desks.
Enclosed all electronic switch board panels, placing electrical outlets out of reach of children.
Opened new entrance gates towards streets with less traffic.
- Basic human rights**
We improved the sanitation situation so children can keep their human dignity.
Instead of only do renovations work in the toilet blocks, we provided more space by adding more room and new toilet blocks in order to allowed more children at once to go to the bath rooms during the short breaks.
By rehabilitation of existing and not used backyards we were able to separate children of different ages.
By repairing and expanding of existing outdoor stages we stimulating all kind of activities like dance, music and theatre performances.
By rehabilitating a small garden in school Nr. 7 we provided outdoor learning space were children learn to be friendly with the environment.
By the renovation of some teachers' kitchenettes we improved the quality of teachers work environment. Providing them with a minimum standard of hygiene to prepare their tea and coffee.
In providing help for school Nr. 1 we play an active role in advocacy, since this school lies in a highly unregulated area and it looks that the municipality and the ministry of health will finally provide the long promised school health centre.
- Right to play**
By improving the existing basketball courts we provided a decent play space so children can enjoy their sports classes.
- Aesthetics**
By the maintenance and re-painting of the school boundary walls, entrance gates and facades we want to give the children the feeling that they go into a school and not into a prison. The goal here was to create a more attractive learning environment and atmosphere.
- Durability**
In the request of enhancing the standards, felled the improvement of the durability.
According the motto: Investment in durable design saves money in the long term, we gave the ministry of education a good example by improving the classroom doors. The doors in the school rooms were all of pretty bad quality and had absolutely to be improved. Very little money was used to be spent there and the durability was accordingly very low. Therefore we improved the quality of classroom doors to a reasonable level.

Legal framework

Political attachments	Ministry of Local Administration and Environment, Governarate of Damascus Countryside
Type of ownership	Ministry of Education, Planning Directorate



Construction information: 9 schools (14 school buildings) in the Governarate of Damascus Countryside

Construction	CHF	Syrian Pounds	%
Preliminary study /cost estimation	1'600.00	70'000.00	0.15
Engineer and Architect planning and supervision whole project	77'000.00	3'300'000.00	7.41
Earthquake resistance project engineering and supervision	4'000.00	192'000.00	0.38
General Maintenance and Rehabilitation	263'000.00	11'290'375.00	25.31
All 9 schools 14 buildings			
Replacement of all existing wooden doors and accessories - provision of metal frame for each			
Maintenance of windows including replacement of their accessories - replacement of broken glass - painting and cleaning			
General maintenance of electrical system			
Acrylic-based painting in classrooms, corridors, and metal doors, using different colors			
In total 23 Positions see BoQ			
Water and Sanitation all 9 schools	317'000.00	13'608'552.00	30.51
Installation of a new drinking fountains			
Complete rehab of existing sanitation blocks			
Construction of new sanitation blocks - installation of a new sewer lines			
Maintenance of all sewers and manholes			
Construction of additional 3rd floor in one school	189'000.00	8,113,616.00	18.19
Construction of 3rd floor with complete finish - installation of new doors and Aluminum-framed windows			
Improved elements	131'400.00	5'640'895.00	12.65
Repair of tiles in back playground - removal of separation wall - construction of plant basins			
Provision of exterior plaster for the whole school building after construction of the additional floor			
Shade on top of building, Rehab of teachers toilet, Rehab of janitor room, Disabled toilet seat.			
In total about 13 Position see also BoQ			
Disaster Risk Reduction	56'000.00	2'204'034.00	5.40
Reshaping metal doors at entrance to playground for escape purposes			
Retrofitting the 3-story building for earthquake resistance - Add four shearing walls with foundation & epoxy - excavation - backfilling - restoring original condition			
Total	1'039'000.00	44'603'423.75	100%



Urban planning

Distance to :	villages	The Project lies in the suburbs of Damascus the students live around the schools.
	Public transport	Students either walk or using the organized school bus system.

For further information

Involved SHA construction group consultants	Ueli Salzmann
Other involved SHA consultants	
Author / Contact:	Lorenz Schmid lorenzgo12@hotmail.com
Recommended Institutions:	Ministry of Education/ Planning Directorate Mr. Adul Salam Salameh
Recommended partners:	UNICEF/ PU (Premier Urgence)
Recommended books/reports:	
Annex:	Hard and soft copy's of drawings, incl. details for all 9 schools, booklet Main Improvements of Standards

SDC School Rehabilitation Damascus, Syria 2008





Doors before rehabilitation



Doors after rehabilitation





Old desk damaging the walls



New SDC Desk Design



Old situation in Toilets



New and rehabilitated toilet blocks





Old situation at drinking fountain



New tap protection



New tap protection in action

