



To the attention of the FONDATION EAGLE

REPORT ON THE PROJECT:
IT-EQUIPMENT FOR DIGITAL EDUCATION AT GENTIANA SCHOOLS IN NAIROBI

- a) Donor name: Fondation Eagle
- b) Name of the Charity: Gentiana Schools Nairobi
Name of the Project: IT-equipment for digital education at Gentiana Schools in Nairobi / Upgrade and modernization of IT-equipment



The new IT-lab is located in the Gentiana Technical College GTC

- c) FE Reference: FF 679
- d) Date of Grant accepted: November 1th 2023
- e) Amount granted: CHF 32'573 / Amount of beneficiaries: 5'000 people during the expected ten years of use of the computers; The main beneficiaries are the technical college students, the Junior Secondary School students and students from the community. In addition, also the Primary School pupils and the staff members will also benefit.
- f) Name and exact location of the project: The Gentiana Schools in Nairobi are situated in Kawangware, an informal settlement in the outskirts of Nairobi / Kenya.
- g) Period of Project: Launch of the computer infrastructure 2-3 months after receiving funds.
- h) Conversion rate, date & amount in local currency:
December 21th 2023, 1CHF à 178 KES (exchange rate used by bank)



i) Detailed budgets and actual expenditure comparison:

Items	Budget CHF	Expenditure KES	Expenditure CHF	Comments
50 computers à CHF 412	20'600	3'400'000	19'101	
Multifunctional photocopier	792	135'000	758	
Software : Micro- soft office and operating system software, antivirus	2'810	519'500	2'919	It was difficult to get an inexpensive AutoCARD software; the one we have is the best price we could get for 50 computers.
Solar Power : Ins- tallation of Solar Power to run the ICT Center on Green Energy	4'650	932'170	5'237	Computer solar power was underestimated and during implementation it was corrected to match the need of 50 comput- ers and a photocopier.
Running costs : Contribution for the starting year : Internet : Toner :	900 400	160'200 71'200	900 400	
Overheads (7%) : Contribution to management and administration	2'421	430'938	2'421	
Furniture : Tables, chairs, window grills and curtains are installed by the school	0			
Training cost: In- house training will be conducted by our ICT personnel to equip other staff members	0			
Labour costs: In- stallation of infra- structure will be conducted by our ICT trainer to- gether with the ap- prentices	0			
Bank charges		2314	13	
Total :	32'573	5'651'322	31'749	

j) Underspend: **CHF 824**



Details on Expenditures by the end of January 2024

Gentiana Schools IT equipment for Digital Education.					
Qnty	Project Income	@	KSH	CHF	
1	Exchanged 32573		178	5795680	32573
Project Expenditure					
50	Computers		68000	3400000	
	Total Computers			3400000	19101
1	Multifunctional Photocopier		135000	135000	
	Total Photocopier		135000	135000	758
50	Operating system and Office		6600	330000	
10	Internet security per 5 computers		4450	44500	
1	Autocard		145000	145000	
	Total cost for software			519500	2919
14	Solar Panels		16800	235200	
1	Lithium Valley5.12KWh Battery		260700	260700	
1	Hybrid 8kW Inveter		185000	185000	
1	Solar Metallic fabricated structure		101100	101100	
1	Electricl cables and fitting		98570	98570	
	Labour / external			51600	
	Total Solar power installation			932170	5237
	Total project expenditures by end of January 2024		4986670		28015

k) Details of progress of the project, achievements, challenges, changes, differences etc, including photographs.

The Gentiana Schools in Nairobi were privileged at the end of 2023 thanks to the grant of the Fondation Eagle to upgrade and modernize the IT-equipment both for the Primary and Junior Secondary School and the Gentiana Technical College. This was necessary as a response to a school reform and the growing demand for computer training in order to guarantee quality digital education, which is key for job opportunities in the context of the growing digital economy in Kenya. Thanks to a good planning, the implementation could start immediately after the acceptance of the project in November 2023, which made it possible that the new IT-room was ready for use for the new school term after the holiday break. The following activities were part of the implementation of the project and are documented with pictures on the following pages.

- Installation of a solar power infrastructure so that the IT-lab runs on green energy without interruption of power rationing
- Installation of the IT-room with WIFI networking infrastructure
- Equipment of the IT-room with chairs and computers

The installation of the IT-infrastructure could be conducted by ICT-trainers together with the apprentices of the Gentiana Technical College. Only for some specific work for the installation of the solar panels some external labour had to be hired.



Documentation of the implementation of the project

The picture below shows the empty ICT-center with cables on the tables to be installed for powering the room using solar energy. Once equipped, it will accommodate 50 students.



The solar panels were installed on the concrete rooftop. The solar panels steel structure was fabricated professionally such that the panels are not damaged during installation, well welded to prevent theft and well inclined North-South so that they can absorb as much energy as possible. The monocrystalline type of panels was used.



The above picture shows the underneath of the fabricated solar panels structure. A total of 14 panels each 400W were used.



This is the top view of the panels with a lightning arrester in the middle to safeguard the panels and the whole system in case of an eventuality. The panels have a 25 years warranty.



The solar energy generated by the panels is stored in the battery and / or directly used by the computer laboratory if the battery is fully charged through the inverter.

The lithium Valley 5.12V100Ah LifePO4 battery and the inverter were also protected by a metallic grill after installation to control easy access by people thus preventing damages therefore the ICT center power interruptions during operations are minimized.





Once the solar power installation was completed and tested, the computers were bought as per specification required, delivered to Gentiana Technical College and installed in the computer lab.



Installation of desktop computers taking place. The Computers are Lenovo v530 Coi5 8th generation 512ssd 16GB Ram DVD/rw 2GB ENVIDIA WIFI enabled and 23.1" FHD TFT screen.





The multifunctional photocopier was also part of the items purchased and tested.

When schools opened this year, our students found the ICT center fully installed and their learning experience has since changed since each student is assigned to an independent desktop and learning is now friendlier and better. They are very happy for this opportunity and the Gentiana schools fraternity is grateful to Fondation Eagle for the Solar powered Computer Lab. We shall endeavor to maintain the equipment well in the foreseeable future.

Pictures of Gentiana technical students in the Computer Lab.





A picture of junior secondary students in the computer lab.



For the report:

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Herisau, 12.02.2024