

## Starehe Boys' Centre

The Boys' Centre is in the midst of a Nairobi slum; its infrastructure is under strain from 50 years of wear and tear, rising costs and increased local demand from a rapidly expanding city.

### 1. Water

Nairobi water supply is erratic and is not adequate to serve the growing city's population. **With a school community of nearly 1,300 at Starehe Boys' Centre to support (1,000 boys, 100, teaching staff, non-teaching staff and their families), rationing is a frequent occurrence and often disrupts the schools' operations.**

The Centre wishes to secure its water supply by harvesting and storing rain water and replacing two old pumps which take the water from two on-site bore holes (these are old and need frequent and expensive repairs).

Securing Water Supply	Item Breakdown	Qty	Unit Cost KShs	Total Cost KShs	Total Cost &
Replace old water pumps		2	1,234,960	<b>2,469,920</b>	<b>21,394</b>
Harvesting Rainwater	Including gutters, storage tanks, pipes and fitting			<b>2,268,266</b>	<b>19,647</b>
<b>Sub-total</b>			<b>1,755,959</b>	<b>4,738,186</b>	<b>41,041</b>
Contingency at 5%			-	236,909	2,052
<b>Grand Total</b>			<b>1,755,959</b>	<b>4,975,095</b>	<b>43,093</b>

**Note:** Prices based on exchange rate as of January 14th 2009 (£1 = KShs 115.45)

## 2. Power

To become more self sufficient, the Boys' Centre needs to replace its aging generator and install solar panels. **In July 2008 the cost of electricity on the national grid rose by more than 50%, which has meant that funds for other essentials for the students has had to be diverted to for electricity.** In addition to this, frequent power cuts regularly interrupt daily operations at the school.

An investment into renewable energy sources will help to overcome these challenges and will also support a transition towards self-sufficiency and environmental sustainability.

Securing Power Supply	Item Breakdown	Qty	Unit Cost KShs	Total Cost KShs	Total Cost &
<b>Replacement of old generator</b>		2	3,973,000	<b>7,946,000</b>	<b>68,826</b>
<b>Solar panels in dorm houses*</b>				<b>3,574,000</b>	<b>30,957</b>
	115 watts panel	24	65,000	1,560,000	13,512
	100 AH solar battery	24	14,000	336,000	2,910
	Charge controllers	24	13,000	312,000	2,702
	Inverter	12	36,000	432,000	3,742
	Change over switch	12	18,000	216,000	1,871
	1 ft. fitting and tube	96	3,000	288,000	2,495
	Cables and switches	-	-	170,000	1,472
	Labour	-	-	260,000	2,252
<b>Sub-total</b>				<b>11,520,000</b>	<b>99,783</b>
<i>Contingency at 5%</i>				<i>576,000</i>	<i>4,989</i>
<b>Grand Total</b>				<b>12,096,000</b>	<b>104,772</b>

**Notes:** Prices based on exchange rate as of January 14th 2009 (£1 = KShs 115.45)

\*There are 12 dormitories in total, which accounts for the quantities of items shown in multiples of 12.

### 3. Improving Information & Communication Technology (ICT) Needs

**The current ICT infrastructure has been in place for at least 15 years and consists of a number of very old and extremely slow computers with an unreliable internet connection.** This has a critical impact on the boys' education, restricting access to important current research and reference material and information, as well as impacting on the relationships that many of the boys are able to build with sponsors both in Kenya and overseas.

In order to continue to provide a first-class education for students and provide information sharing capacity to support global integration and networking, it is essential to improve the ICT infrastructure at the school.

ICT Infrastructure	Item Breakdown	Qty	Unit Cost KShs	Total Cost KShs	Total Cost &
<b>Network cabling</b>	Whole Unit	1	2,800,000	<b>2,800,000</b>	<b>24,253</b>
<b>Creating an Intranet</b>	Whole Unit	1	300,000	<b>300,000</b>	<b>2,599</b>
<b>Telephony system 8 points</b>	Whole Unit	1	150,000	<b>150,000</b>	<b>1,299</b>
<b>Computers</b>	Junior lab computers	30	60,000	1,800,000	15,591
	Senior lab computers	25	60,000	1,500,000	12,993
	Institute computers	40	60,000	2,400,000	20,788
	Teachers	5	60,000	300,000	2,599
<b>Servers</b>	Whole Unit	2	220,000	440,000	3,811
<b>Sub-total</b>				<b>9,690,000</b>	<b>83,933</b>
<i>Contingency at 5%</i>				484,500	4,196
<b>Grand Total</b>				<b>10,174,500</b>	<b>88,129</b>

**Notes:** Prices based on exchange rate as of January 14th 2009 (£1 = KShs 115.45)

#### 4. **Other** - Library

If you would like information about the library needs please **contact Lisa Robinson** either by telephone on 0207 934 7023 or by email at [lisa.robinson@starehe.org](mailto:lisa.robinson@starehe.org).