



# **GIRLS SECONDARY SCHOOL MACHIPI IFAKARA TANZANIA**

**2011 (234 Students) – 2019 (671 Students)**

**Project status 01.08.2019**

**Photodocumentary**

Print August 2019

## 1. Visiting the school on the 7<sup>th</sup> of July 2011



### The Laboratory:



**All (!) chemicals in the room are freely accessible**

**→ Installation of shelf !**

## Visiting the school on the 19th of April 2012





**The first shelves and doors have been done!**

**Laboratory cleaned up?**



..... with shelves, but  
→ But in the only lockable shelf is... trash



**Meeting:**



**Defect water pump:**

e-mail:

***The water pump costs 10,000,000/= T.Shs (ten million tansania shilling).That ´s for the motor, the pump and switchboard. Today our old waterpump at the school broke and now we don ´t have any water, life is hard. Help us get a new water pump.Thanks a lot.***

***With kind regards.***

***Richard***



**Putting together the tube pump, checking the tube and electricity.**



**Waiting for clean water!**



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Water Treatment  
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**PROFORMA INVOICE**

REF: LK/SA/403  
DATE: 18th OCT, 2012

OUR VAT REG. NO 10-005498-1  
OUR TIN NO: 100-147-785

**YESAYA B.  
P.O BOX  
IFAKARA**

Dear Sirs,

**QUOTATION FOR THE SUPPLY ONLY OF BOREHOLE PUMP**

REFERENCE IS MADE TO YOUR ENQUIRY IN REGARD TO THE ABOVE AND NOW FORWARD OUR QUOTATION, TERMS AND CONDITIONS AS DETAILED.

**1. Requirements:**

supply of borehole and its accessories given the following data  
length of borehole- 80m  
pump position-70m  
SWL- 9.2m  
PWL- 35.55m  
Tested yield-9800l/hr  
Horizontal distance- 450m  
pipe size- 2"  
casing- 6"  
vertical elevation of the tank-25m

**2. equipment**

| Qty | DESCRIPTION   | Unit      | Gross              | Disc. | Nett              |
|-----|---|-----------|--------------------|-------|-------------------|
| 1   | GRUNDFOS SP 8A-25,4KW,3PHASE BOREHOLE PUMP c/w motor  | 8,140,000 | 8,140,000          | 15%   | 6,919,000         |
| 1   | EVOLUTION CONTROL PANEL D 1.1-7.5 KW, 3PHASE          | 1,420,000 | 1,420,000          | 15%   | 1,207,000         |
| 80  | SUBMERSIBLE DROP CABLE 4 CORE*2.5 mm <sup>2</sup> (m) | 7,700     | 616,000            | 15%   | 523,600           |
| 1   | CABLE JOINT (SMALL)                                   | 15,000    | 15,000             | 0%    | 15,000            |
|     |   |           | <b>SUB TOTAL</b>   |       | <b>8,664,600</b>  |
|     |   |           | <b>ADD 18% VAT</b> |       | <b>1,559,628</b>  |
|     |   |           | <b>TOTAL COST</b>  |       | <b>10,224,228</b> |

**AVAILABILITY:** EX STOCK

**VALIDITY:** SUBJECT TO CONFIRMATION AT DATE OF ORDER.

**WARRANTY:** SUBJECT TO OUR STANDARD TERMS OF WARRANTY.

**PAYMENT:** 70% WITH ORDER, 30% ON COLLECTION

WE TRUST THAT THIS IS NOW IN ORDER AND AWAIT YOUR FURTHER INSTRUCTIONS IN DUE COURSE.

YOURS FAITHFULLY  
FOR DAVIS & SHIRTLIFF,

LILIAN KITYEGE  
0787 34 79 92  
[lilian@davisintl.com](mailto:lilian@davisintl.com)

## Visit in Oktober - November 2013

### Laboratory – Chemiesaal:

**Throwing old things away  
and adding new things.  
The new headmistress is helping.**







**Everyone is happy in the end!**

## Sewer Oktober 2013 - water pipe 1





**Sewer under the building  
2014**



## Visit in May 2014



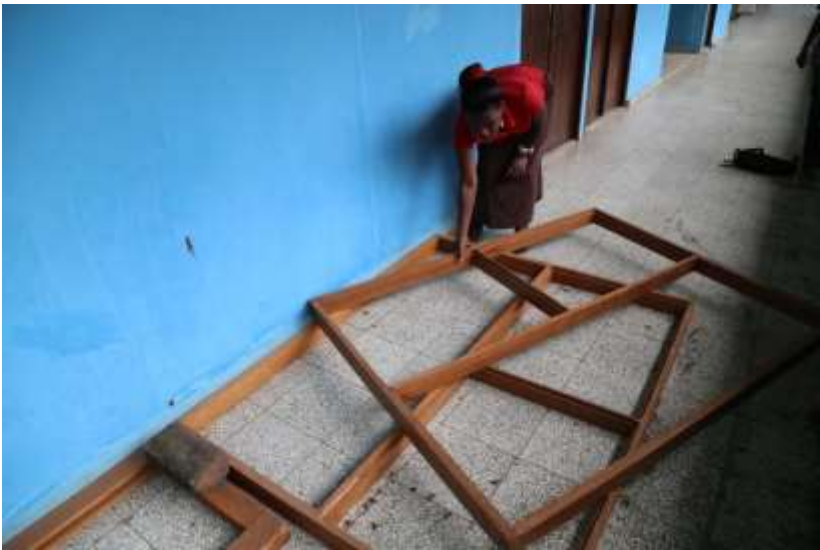
**sewer2014**



May 2014



**A lot of windows were placed in order during December of 2013:**



**They have been installed in October 2014.**



**October 2014**

**Visit in fall 2014  
drainage dig**



**Waterstation with a direct connection ->**

**Due to that we have clean water – no more plastic bottles!**



**sewer:**







**October 2014 agreement: Who pays for what?**

Project \_\_\_\_\_ Datum \_\_\_\_\_  
 Street \_\_\_\_\_ Stan \_\_\_\_\_

**böhler**  
 A 8800 Feldbach, Wundschuh G.  
 Sachbearbeiter: Böhler Horst | horst@boehler.org | Tel +43 (0)522 74188 | Fax +43 (0)522 74188-6

Offer for drainage System  
 and dining System

1. 333.200<sup>Tsh</sup> W.W.  
~~171.500<sup>Tsh</sup> D. System~~

→ 1.000.000,-<sup>Tsh</sup> Hotel + 17

114 → 333.000<sup>Tsh</sup> Mafipia School  
 Hakara Secondary school

→ 171.700<sup>Tsh</sup> Roger

△ 161.300<sup>Tsh</sup> Mfakar Secondary school  
 ↓  
 Roger after finishing

Please send a Photo  
 when the Water dining  
 station is ready

16.10.2014

Bestellung  Kassenanz  Rg Adresse  Lieferadresse  
 Abgabe \_\_\_\_\_  
 Sauber  Kundenstamm  Aktenordn  Artikelstamm  Vollage am \_\_\_\_\_ bei \_\_\_\_\_  
 Fax senden  Kopierprodukt

**water:**

**Plans and site search for a reed bed treatment plant,  
waste water tank/ septic tank**



**Oktober 2014**  
**Osmosis plant for the chemistry lab**



## House of the staff



## School 2014



**Visit in September 2015**  
**1. Meeting**



**Water taps for washing the hands - NEW!**



## **Fight against garbage !**



**September 2015**



**2. Meeting in September 2015**



**Windows that can be opened**



**Headmistress Annette**

**The first garbage can for the school got delivered!**



**September 2015**



**Student meeting**





## **Presentation of the new headmistress**



**Visit May – June 2016**



**digging  
to  
the  
septic tank**



**Laboratory 2016 → now it is perfect !**



**May – June 2016**

**Terrain for the reed sewage treatment plant**



**but: the old system is still in operation**



## Toilets 2016



### **A letter by the headmistress:**

IFAKARA SECONDARY SCHOOL,  
P. O BOX 148,  
IFAKARA.

28. 09. 2016.

BOHLER HORST  
A 6800 Feldkirch Wasserfeld 5  
Tel +43(0) 5522/74188  
Fax +43(0) 5522/74188-8  
E\_mail: [horst@boehler.org](mailto:horst@boehler.org)

Dear;

RE: APPRECIATION FOR AN OUTSTANDING PERFORMANCE

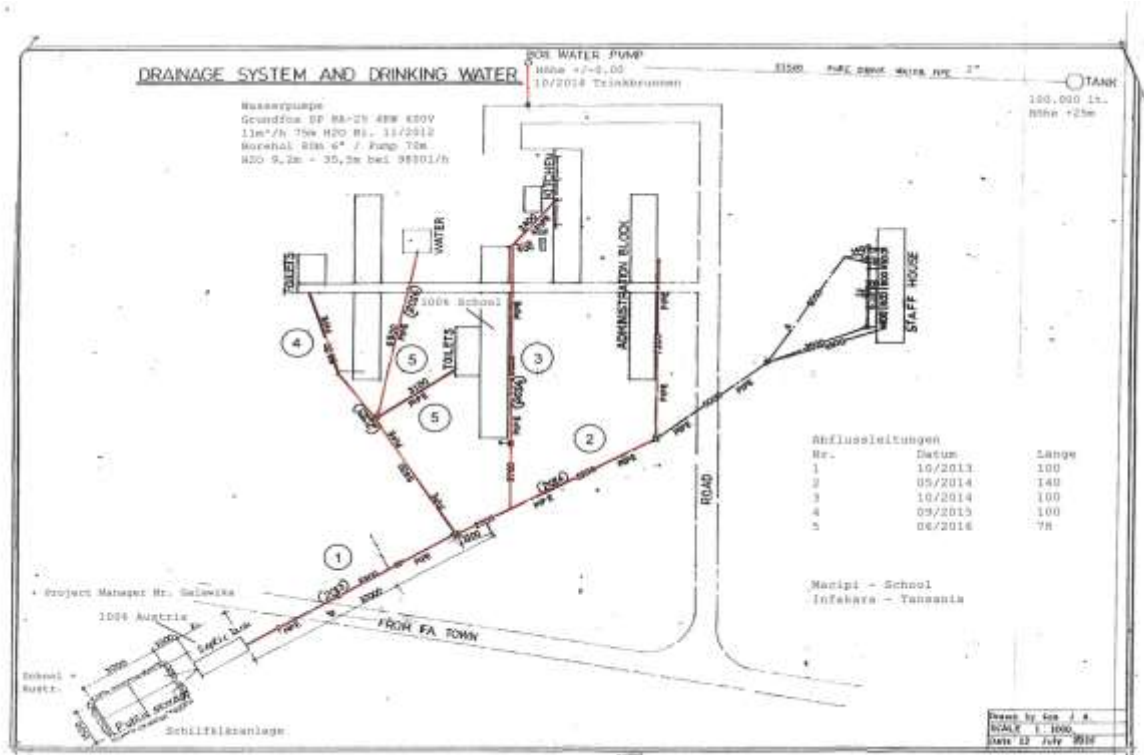
The heading above holds water. On behalf of Ifakara community, Town director, Town District Education Officer, as well as School Board Members. I would like to express my sincere appreciation for your projects activities you have done to our school.

The school specifically does appreciate for your outstanding performance in the way that several projects you have done to our school, have conducted in effective manner and gone correctly. As consequence, the project solved many of problems that our School faced before. Thank you!

Your sincerely

.....  
ROSE MGAYA, HEADMISTRESS

# DRAINAGE SYSTEM AND DRINKING WATER 2016



**2016: Septic Tank for sewage –  
90 000 litres**



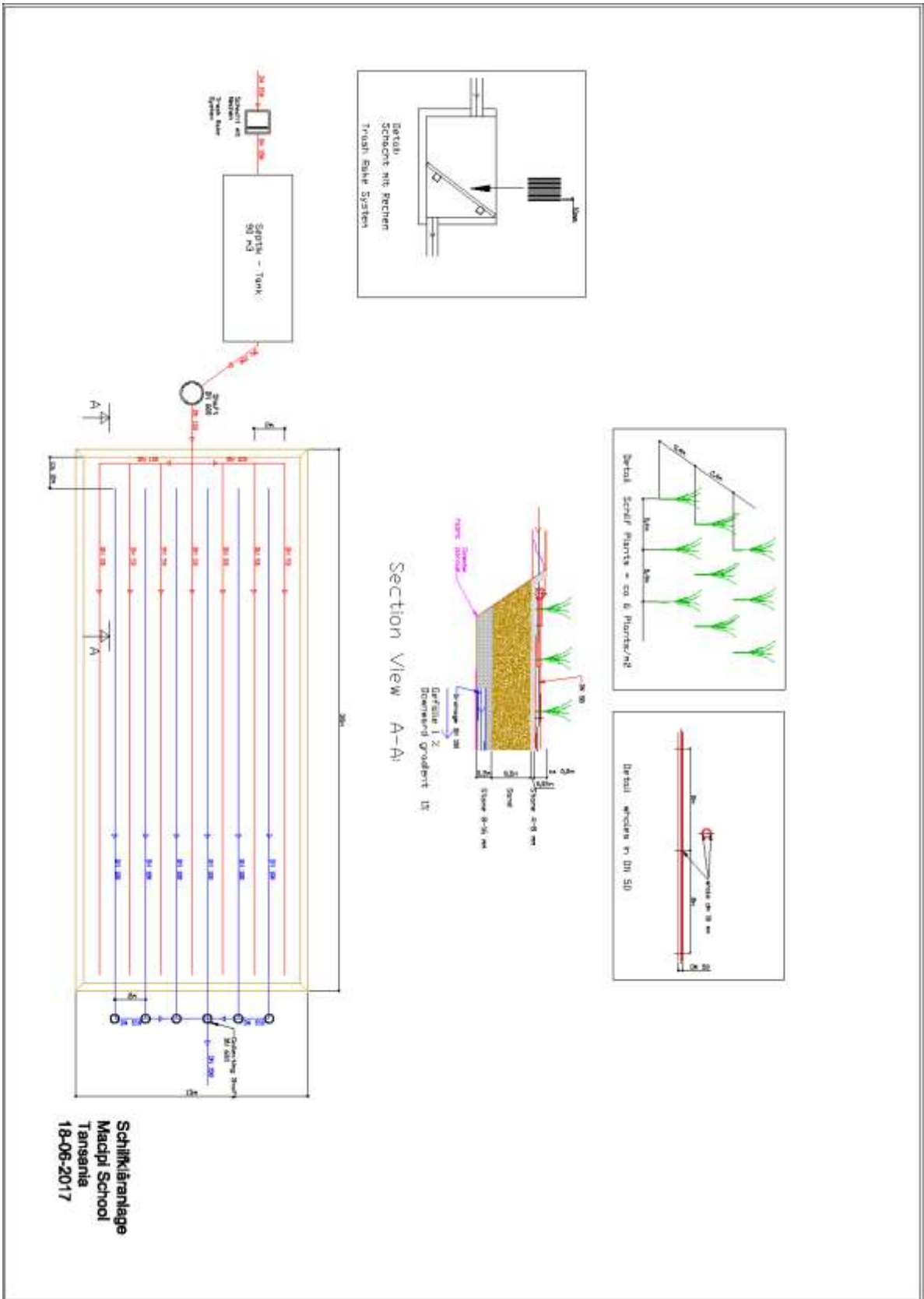
**May 2017**

**Preparations for the final exams**





# Reed sewage treatment plant



## Estimated cost of the reed sewage treatment plant

| CONSTRUCTION OF WASTE WATER FILTER BED AT IFAKARA SECONDARY SCHOOL / MACHIPI |  |          |                       |             |   |
|--|--|----------|-----------------------|-------------|---|
| COST ESTIMATES   |  |          |                       |             |   |
| ITEM   | DESCRIPTION  | ESTIMATE |                       |             |   |
|  |  | UNIT     | QTY                   | RATE        | TOTAL(TSHS)                               |
| 1  | Supply inlet pipes to the filter bed PVC pipe DN 150 PN 6 For  | M        | 55                    | 25,275.00   | 1,390,125.00 ✓                            |
| 2  | Supply feeder pipes to the filter bed PVC DN50 PN6 to be fixed at the top of the filter <i>7 x 33m</i>               | M        | <del>260</del><br>231 | 2,730.00    | <del>709,800.00</del><br>630,630.00 ✓     |
| 3  | supply feeder pipes to the filter bed PVC DN 100 PN6 to be fixed at the top of the filter with reduced T&L and Flows | M        | <del>25</del><br>12   | 14,804.00   | <del>222,060.00</del><br>177,648.00 ✓     |
| 4  | supply T&L reduced PVC DN 100 to DN50 PN6 to be fixed at the top of the filter                                       | PCS      | 6 ✓                   | 11,000.00   | 66,000.00 ✓                               |
| 5  | supply Elbow reduced PVC DN 100 to DN50 PN6 to be fixed at the top of the filter                                     | PCS      | 2 ✓                   | 11,000.00   | 22,000.00 ✓                               |
|  | Supply drainage pipe PVC DN100 PN6 to be fitted from the filter bed to the disposal site                             | M        | <del>100</del><br>50  | 14,804.00   | <del>1,480,400.00</del><br>740,200.00 ✓   |
| 6  | Supply draining pipes PVC DN100 PN6 to be fixed at the bottom of the filter <i>6 x 35</i>                            | M        | 250<br>210            | 14,804.00   | 3,701,000.00<br>3,108,840.00 ✓            |
| 7  | supply T&L equal PVC DN 100 PN6 to be fixed at the bottom of the filter<br><i>Collecting Slant DN</i>                | PCS      | 6                     | ? 11,000.00 | 66,000.00                                 |
| 8  | supply Elbow PVC DN 100 PN6 to be fixed at the bottom of the filter  | PCS      | 2                     | 11,000.00   | 22,000.00 ✓                               |
| 9  | construction of insepction chamber at te inlet of the filter bed 1000mm x 1000mm x 1200mm                            | L/sum    | L/Sum                 | 450,000.00  | 450,000.00 ✓                              |
| 10   | Supply inlet Joint flexible HDPE ND100 with a spring to be fixed at inlet chamber                                    | PCS      | 1                     | 60,000.00   | <del>60,000.00</del>                      |
| 11   | supply vent strainer PVC DN100 to be fixed at the raised end underground pipe for easy unbroking                     | PCS      | 6                     | 11,000.00   | <del>66,000.00</del>                      |
| 12   | Supply plugs DN50 to be fixed at the end of the influent drop pipe   | PCS      | 7                     | 8,000.00    | 56,000.00 ✓                               |
| 13   | Supply elbow bend 45 degrees 14 DN 100 to be fixed on the walls of the filter bed.                                   | PCS      | 12                    | 11,000.00   | <del>132,000.00</del>                     |
| 14   | Supply trip stones of 4 cubic metre each <i>2.5 x 1.5 x 0.2 = 86m³/4</i>   | trips    | <del>58</del><br>22   | 170,000.00  | <del>5,740,000.00</del><br>8,500,000.00 ✓ |
| 15   | Supply coarse aggregates 0.5" of 4 cubic metre each <i>35 x 15 x 0.1 = 53m³/4</i>                                    | trips    | <del>28</del><br>13   | 310,000.00  | <del>3,108,000.00</del><br>4,060,000.00 ✓ |
| 16   | Supply sand <i>33 x 13 x 0.5 = 215m³/4</i>   | Trips    | <del>280</del><br>54  | 60,000.00   | <del>7,800,000.00</del><br>5,700,000.00 ✓ |
| 17   | Geotextile sheet Squire metre 525 ✓  | M        | 100                   | 45,000.00   | 4,500,000.00                              |
| 18   | Connecting the septic tank with the existing sewer from the school   | L/sum    | L/Sum                 | 610,000.00  | 610,000.00 ✓                              |
| Sub total  |  |          |                       |             | 32,953,385.00                             |
| <i>School?</i> labor and supervision cost 20%                                |  |          |                       |             | 6,590,677.00                              |
| Total cost   |  |          |                       |             | 39,544,062.00                             |



**Construction Committee June 2017**



**Dig: Reed sewage treatment plant,  
In the background: Septictank 90 000 l**



**Reference line reed sewage treatment plant**



**Material delivery**

**The school was renovated by the District !**

**- The sanitary facilities by us !**

**October 2017**

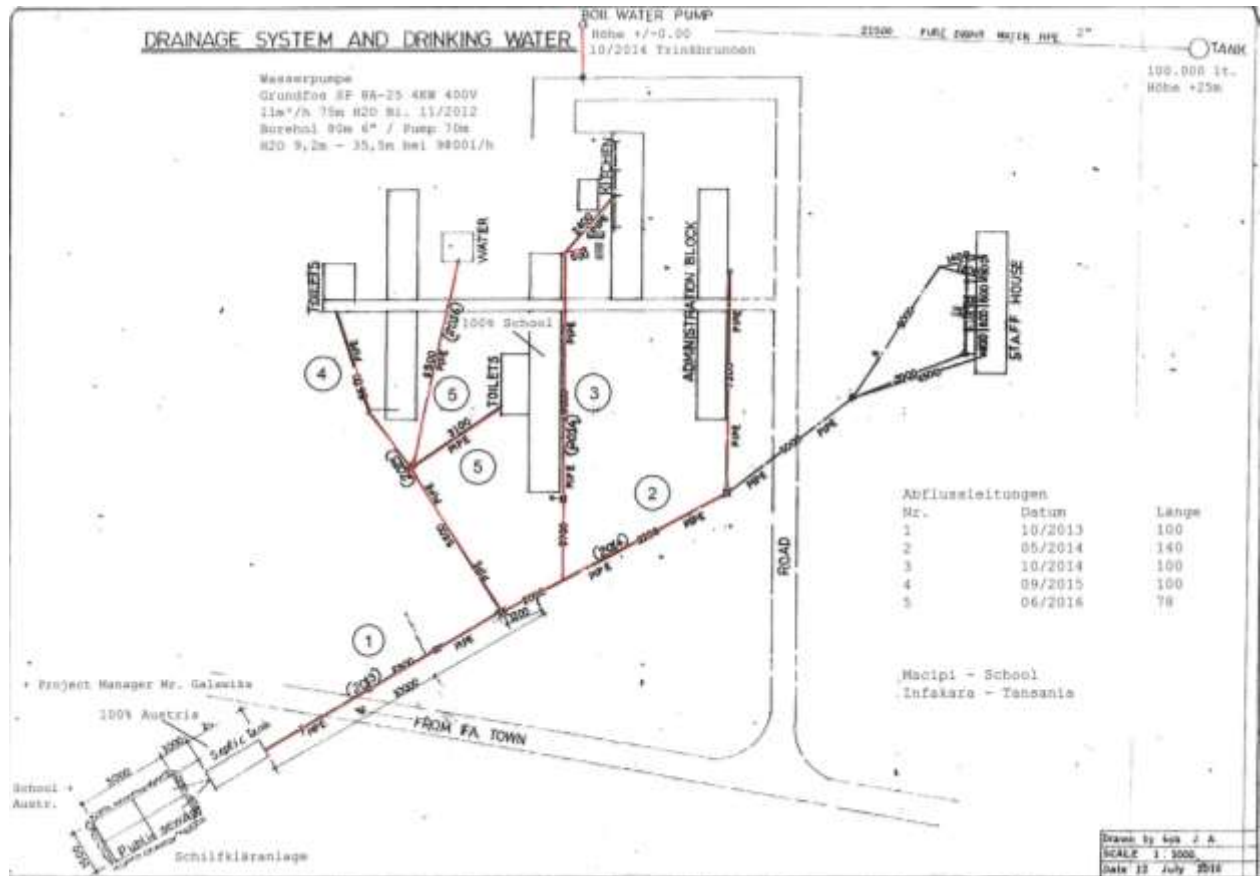






**2018**

**Sewage plan January 2018**



**Visit and inspection in Ifakara  
Girls Secondary School Machipi  
2nd – until 12th of April 2018  
to make sure that everything is working out.**



**August 2018:** Delivery of gravel and pipes for the reed sewage treatment plant. The grains must be right - we are having some problems here!



**Construction start: reed sewage treatment plant  
in September and October 2018**





The first greed has been planted!

**October 2018**



**23. July – 3. August 2019**



**Visiting team with headmistress:  
Jonas, Muriel, Horst, headmistress, Lina, Gerd**

**The septic tank is in operation!**

**But in 2019 there are still 120 metres of pipelines to be done to make a connection to the river!  
The grid is holding everything back that doesn't belong in the water. The tank still needs to be cleaned.**





**The water tap is closed and there is no more garbage laying on the floor.**

**Fire place: How you use heat properly!**



**The new fireplaces were built by the school without the help of others (!)**

**:**



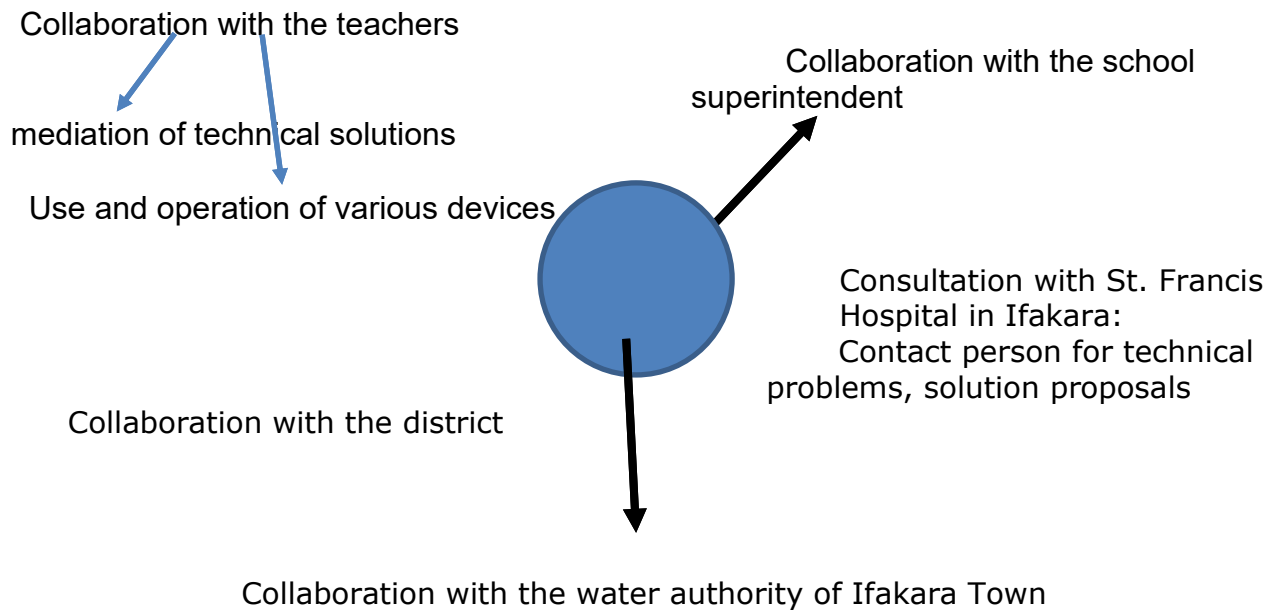
**It guarantees 50% saving of wood**



**To have better control over the water usage a water counter was installed. The results are checked daily. Part of the water is given to the local community.**

## Goals

### Our way to work is creating networks:



The number of students in the all girls school increased drastically: Within just one year the number went from 234 to 671 -> challenge for the district

The only way that girls here in Ifakara are able to escape the traditional image of women (early marriage - a lot of kids - working on fields - poverty) is by visiting a secondary school.

The graduates of the agricultural training - annual 238 young women - are multipliers, who share their skills with their families.

Some of the things the girls have learned during the past 3 years:

- to be organised
- a new attitude
- waste separation
- saving water
- the necessary standards for hygiene
- because of that: less illnesses
- new possibilities even for the poor part of the community

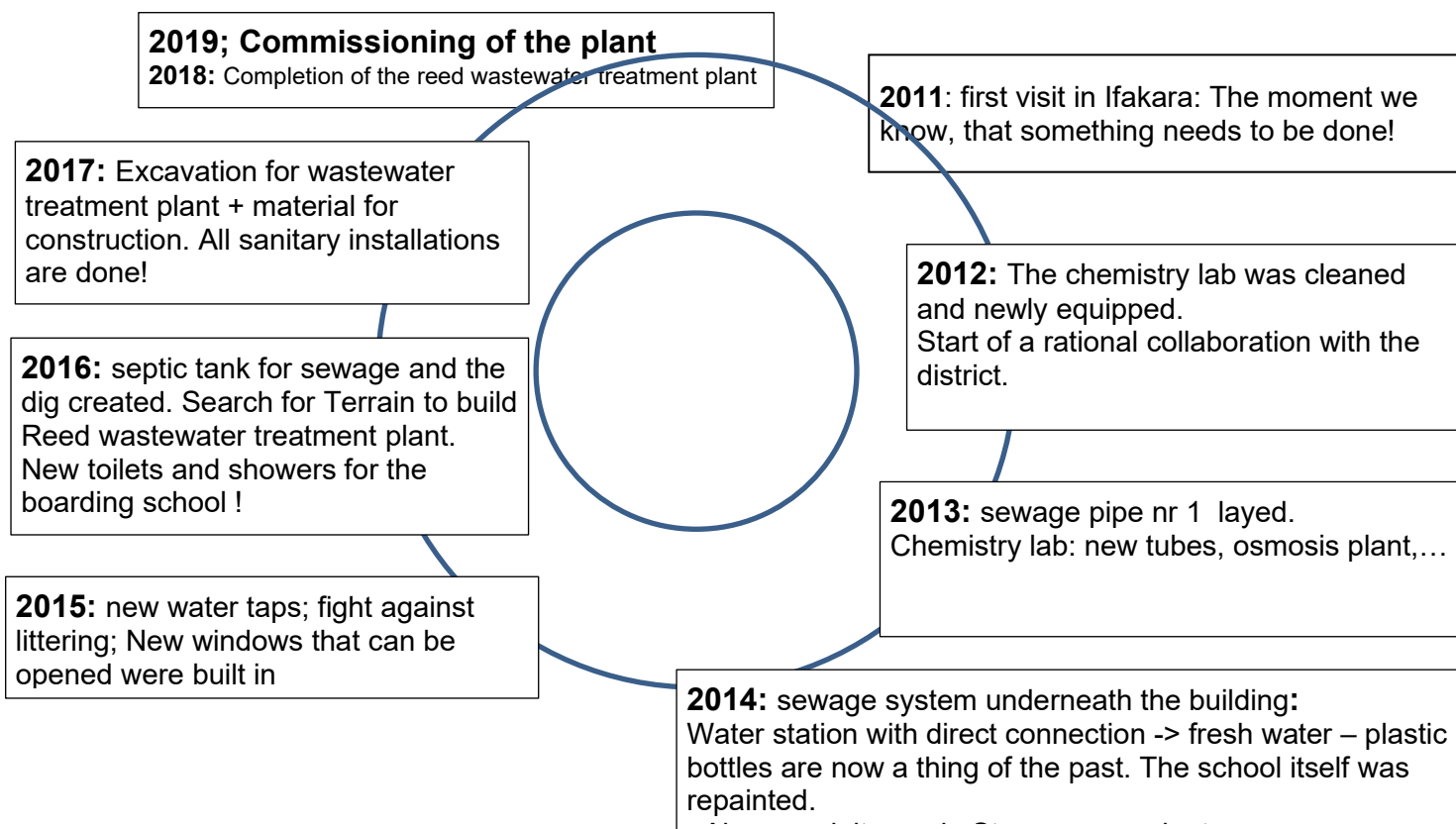


## Manfred & Horst's Projekt in Tansania Ifakara Girls High School Machipi in Tansania, Morogoro

The first time we had a look at the agricultural training school for girls in Machipi in Ifakara it was in a very bad condition:

All the chemical substances which are used in chemistry lessons were scattered everywhere and freely accessible.

- The water supply in the boarding school with 232 students collapsed and for weeks they did not have anything but a little tanker
- The sewage pipes were leaked and the result was a lake containing dirty, with fecal matter contaminated water.
- Part of the sewage was making its way to the little river next to the school.



**2019:** 671 students are now studying at the secondary school and serve as multipliers who share their skills with their friends and family. The only way that girls here in Ifakara are able to escape the traditional image of women (early marriage - a lot of kids - working on fields - poverty) is by visiting a secondary school.

What they learn and live is:

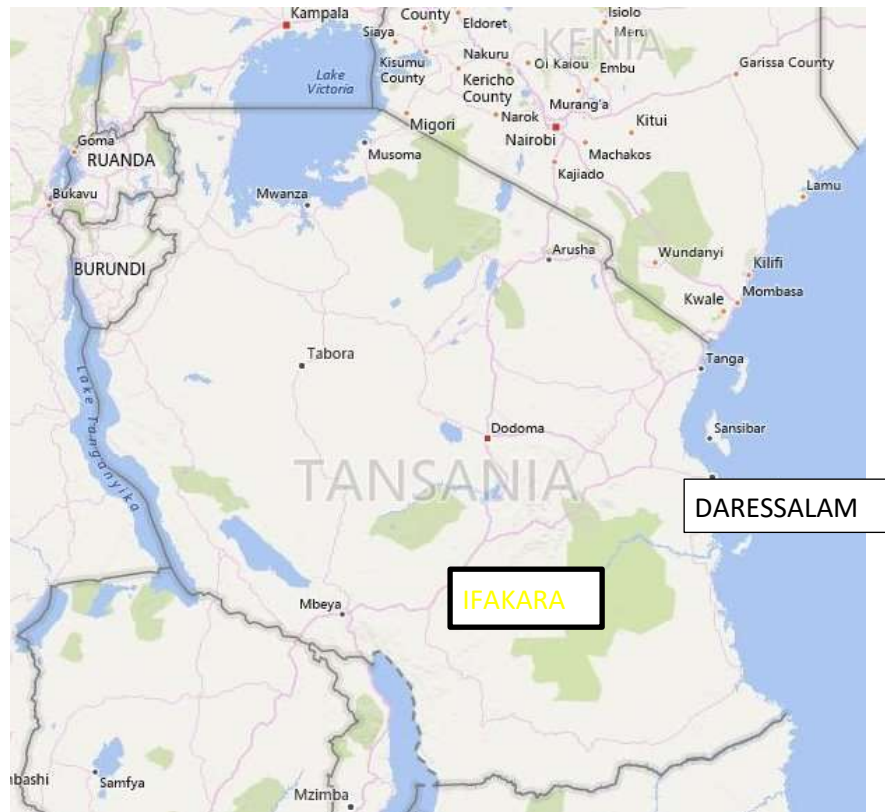
- to be organised
- a new attitude
- waste separation
- saving water
- the necessary standards for hygiene
- because of that: less illnesses

Our team from Feldkirch (Austria) is consisting of:

Mag. Maria Fiel, Gemeindegutstr. 1 a, 6800 Feldkirch  
Ing. Gerd Schachenhofer, Hämmerlestr. 60 a, 6800 Feldkirch  
Horst Böhler, Sandgrubenweg 7 a, 6800 Feldkirch

Our team **GUARANTEES** that donations will **ONLY** be used to support „Girl’s Secondary School Machipi“ in Ifakara/Tansania.





**Donations account: Hilfsprojekt Ifakara**  
**IBAN: AT38 3742 2000 0010 1493**