aqua pura

Annual report 2022

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Review of the year 2022

In addition to the realisation of seven new projects, the Executive Board had a number of tasks to complete. The focus was on the **planning and execution** of projects together with our partner organisations, the further **standardisation of key components** to increase operational safety and **support in the event of problems with** existing installations.

Some new tasks arose during the **planning and realisation of** the projects. Hospitals still have old pipework that is unsuitable for the distribution of clean drinking water. The only possible solution is new pipework for the drinking water pipes. Without plans of the current conditions, this is a challenge for everyone involved.

The **standardisation of key components** has largely been completed. Standard models have been defined for incubators for water analysis, pre-filters and pressure pumps. Thanks to direct imports via a member of the Executive Board, we can now procure the components 30% more cheaply.

Supporting our partner organisations in the operation of the 53 installations to date is often a time-consuming task. The oldest installation has now been in operation for 10 years. Frequent enquiries relate to maintenance and requests for spare parts.

Realised projects 2022

1. "Your UV-C system is installed in our renewable energy institute in Ho, Ghana!!!"

We received this good news at the end of October 2022 from Bernard Béroud, the President of our partner organisation **"IAS"** in Geneva.

The Waterflow system from aqua pura was delivered to Geneva back in 2019. Destination: "Demonstration system and provision of clean drinking water from a rainwater collection tank". Corona was the main reason why the drinking water system could only be installed now. Until the rainwater system was realised, the aqua pura system was installed in the city's water network, which does not supply drinkable water.

We also received this information from Ghana:

"...the purified water is free and is distributed in reusable cups or drinking bottles to those who want it..." When the system was commissioned, four people from the Village Exchange Ghana (VEG) association and a student from Polytech HO were trained in maintenance. A control plan was drawn up and many points were mentioned that need to be taken into account: Colour of the filters, possible leaks, condition of the UV lamp, etc.

The facility has been visited many times since it opened and we have been asked several times for the coordinates of aqua pura. Visitors were allowed to taste the water during the demonstrations. Everyone was impressed by the quality.

The location of the installation (the training centre) and the fact that a solution like aqua pura's was installed showed that such equipment can be trusted if it is well maintained. In addition, it is important for us that women can carry out this maintenance."

2. Ivory Coast, Marcelinkro village, fourth water project with Caboz Action

Only around half of the population in rural Côte d'Ivoire has access to clean drinking water.

At the request of the residents of Marcelinkro, the organisation **"CABOZ Action"** installed two 6000-litre rainwater tanks at the school in May 2022. Solar cells were also installed on the roof to supply the pump and the waterflow system donated by aqua pura with energy.

Water tank for rainwater

Installation of the system in the school building

The pupils and the village population now have clean drinking water. With the support of Fulbert, the project manager in the region, the villagers set up a water committee, which helped install the water system and is now responsible for its maintenance. The committee also collects small fees that the families pay for the drinking water to cover the cost of repairs later on.

3. Herona Hospital in Kisoga, Uganda now has drinking water and an independent water supply

Our partner organisation **"Cheira"** put us in touch with Herona Hospital, about 40 km from Kampala, the capital of Uganda, and with Richard Field, **"IMET2000"** Field Officer in Uganda, our project coordinator on site.

The water situation was described as follows in 2021: "We use bicycles to fetch water, which is used in the operating theatre, during deliveries and for the patients. We use up to 40 jerry cans of water a day and it is very difficult for the midwives to clean the delivery room without water. Previously, in the surgical camp with Cheira, we had no water in the well and we didn't want operations to be carried out. We had to call a water tanker, which had to travel 80 kilometres to the hospital in Herona."

Working on the

boreholeMounting

WaterflowClean drinking water

A partner organisation of aqua pura, the **"Wulf Foundation",** financed the extension of the borehole. This deepened well now pumps water into the two tanks on the roof of the hospital and one above the borehole, which in turn are connected to the various functioning toilets and washing facilities in the building.

By installing an aqua pura Waterflow system, up to 500 litres of drinking water can be treated from the stored water every hour. Clean drinking water now flows from special drinking water taps in the hospital, making the purchase of expensive bottled water superfluous.

Two of the requirements defined by **"Cheira"** for carrying out further surgical missions at Herona Hospital:

- Water management with functioning lavabos and a few places to obtain drinking water
- Pipeline renovation in the house so that water can flow everywhere

were fulfilled by this project. Richard Field: "Herona now runs entirely on solar energy, so the cost of the cleaning system is zero. Thank you very much"

4. In Benin, a second project was realised in the village of Kpassa in cooperation with DEDRAS.

The drinking water system in Kpassa has been in operation since June 2022. The water is pumped from a borehole into a tank stored at a height of 9 metres. This generates enough pressure to operate 6 taps. The disadvantage of this solution is that bacterial contamination spreads after a long period of time in the tank at high temperatures. In this case, the tests carried out on site with the analysis plates supplied by aqua pura showed that the water in the storage tower was contaminated with coli bacteria. The water is now purified by an aqua pura Waterflow 500 and channelled to 3 taps. The taps for the service water continue to be fed directly from the tank as before.

The Waterflow system

The drinking water system is ready!

The plant was installed under the responsibility of project manager Michée Essegnon. Up to 600 litres of clean drinking water can be produced per hour. Aqua pura is delighted to have a competent and very cooperative project manager on site in Michée.

Preparations are already underway for a third water project in Benin, in the municipality of Goro.

5. Bacteria-free water for Kitovu Hospital in Uganda

Kitovu Hospital is located 130 kilometres south-west of Kampala, the capital of Uganda. Florian Kistler from the partner organisation **Tusiima Nawanyago** completed an internship on site as a trainee doctor. However, he was not only interested in medical issues, but also in the quality of the drinking water in the hospital. The analysis plates provided by aqua pura revealed the presence of bacteria. According to his further explanations, water pipes were unsuitable for bacteria-free drinking water.

The solution proposed by aqua pura therefore consisted of continuing to use the existing pipework for service water and installing a new supply system for drinking water. A total of 160 metres of new pipes were laid for the water connections in the surgery, infirmary, maternity clinic and waiting room departments.

Installation 10'000 litre tank

Installation of waterflow system

Laying new pipes

The Waterflow system now supplies 500 litres of bacteria-free water per hour for hospital staff, patients and visitors, a total of 150 to 200 people per day. According to Florian Kistler, you no longer need firewood to boil water and no more money for expensive bottled water.

6. Drinking water system for the Juhudi school in Kenya

The public primary school for around 450 children in Juhudi is located around 100 kilometres north of Mombasa in Kenya. Here, our member Peter Preisig, together with the organisation
"WatSanAid" built a new school building. It was financed partly by WatSanAid and partly by third-party funds. For Peter Preisig as a building services specialist (Preisig AG), the sanitary facilities must meet Swiss standards everywhere, so that beautiful sanitary facilities were created in Juhudi. Aqua pura provided a Waterflow system with accessories for the new school building and contributed to the installation costs. The project and construction manager in Kenya was our member Peter Wieser, who had already built a school building for orphans in Goshene the previous year with the organisation **"WATOTO-GOSHENE".** Peter and his reliable local team also installed the water treatment system for the Juhudi school perfectly. The electricity for the pump and the UVC lamp is generated by solar panels.

ASANTE SANA - thank you very much - say the children of Juhudi School!

Waterflow is

installedWater is

runningSchoolchildren are happy

7. Drinking water for pupils at the "Taiywet" school in Kericho, Western Kenya

In December, our partner organisation **"Kiptere.ch"** installed the fifth water treatment plant for schools in Kenya.

The organisation is responsible for various projects. The aim of the "Health Promotion" project is to reduce diseases associated with contaminated water and provide families with access to clean drinking water and medical care.

Rainwater from the roof of the school building is collected in a 3000 litre tank. The water is then cleaned of small particles in the pre-filter of the aqua pura Waterflow system (blue in the picture) via a plastic pipe. The pump (black) then transports the water through the microfilter on the right. The pores with a diameter of 30 millionths of a millimetre remove bacteria and the UVC lamp in the filter destroys any viruses. This is how the "Taiywet" school turns rainwater into clean, bacteria-free drinking water.

3000 litre tank

Welding the pipework Pre-filter > Pump > Fine filter

The 350 pupils and residents receive an additional twelve health lessons from the association. The water quality is periodically tested using aqua pura analysis plates. The system purifies 800 litres of water per hour.

A big thank you to everyone without whose help the realisation of our projects would not be possible!

We would like to thank our loyal members, donors and partner organisations for their practical and financial support of "aqua pura".

Our special thanks go to our **President Roland Widmer.** After 16 years, Roland will hand over the presidency to Mechthild Wennemer at the Annual General Meeting. He gave the impetus to found the aqua pura association in 2007. The aim was to help people in poorer regions of the world to obtain clean drinking water. He felt it was unacceptable that around a third of the world's population had no access to clean drinking water and that expensive bottled water often had to be bought in hospitals. In the meantime, with the support of our members, patrons and partner organisations, 53 systems have been installed worldwide. A success that we can all be proud of and to which Roland has made a significant contribution.

We would also like to thank our treasurer Pascal Holzer, who managed the accounts professionally. Thanks to the company Comatic for providing the accounting programme.
We would also like to thank Roland Brennwald, who has audited the financial reports since the association was founded.
Many thanks also to the company Adaptory for looking after our website.

The aqua pura association - Useful information

New contact from 01.04.2023:

aqua pura" association
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Documents and information on our projects:
Further information about the organisation and the projects can be found at: www.aqua-pura.ch

Donation account: PostFinance aqua pura
Account 85-328191-1
IBAN: CH85 0900 0000 8532 8191 1

Auditors new from 2023: Renaud Tripet

Board of Directors *(alphabetical order):*
Brigitte Egli, Actuary
Dr Max Egli, Materials Management Yolanda Mussetti, Projects
Dr Kurt Wälti, Biology/Chemistry
Dr Mechthild Wennemer, President
New election: Urs Schnider, Finances

The Board of Directors performs its work on a voluntary basis. President Mechthild Wennemer