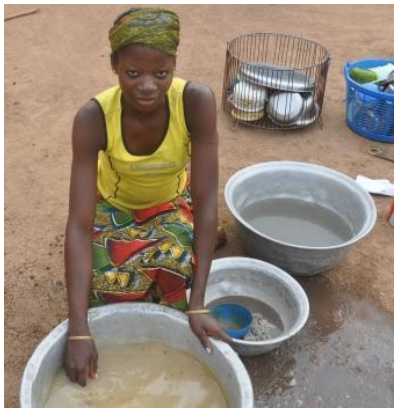
Trailhead:

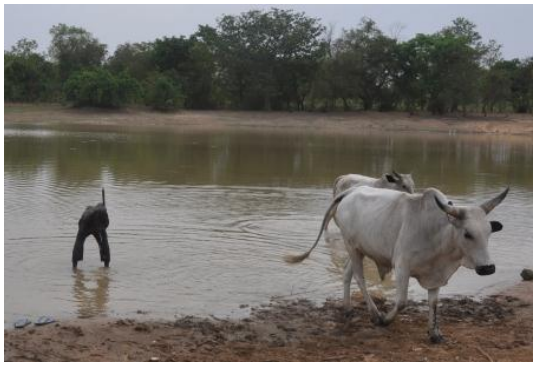
No water,no clean water,no sanitation.



In many villages in Benin, lack of water continues to be one of the main concerns of the population. Women in these villages do not sleep.As their main concern is where can they find water the following day necessary for their daily use .
It is not surprising to see women waking up at three in the morning in order to search for water.They walk many miles everyday,especially in the driest period to bring back home only 25 litres of water.

When water is far away,they accept small traditional wells where water is full of mud and dirt. And as soon as these wells get dry,the women must wait for the arrival of a small quantity of water so that they are able to go home.It is better than going back empty-handed.

Others prefer to drink water from ponds or dams where even the animals also drink.



The result is not difficult to imagine: the diseases due to soiled water are very common and even the number of children who die from diarrhea is large.
We see more and more hand pumps scattered everywhere that relieve the thirst of the population. But we must admit that these pumps are in many cases far from villages. Another problem associated with these pumps that we should not ignore, is that they break down very frequently,remaining unuseful for much of the year. With such a dilemna, fights appear between women and between families due to the lack of water.
Finally, it is not a minor problem when you have to give water to the flock. Whose priority is it? People or animals?

Axes of the Ministry of Energy of Benin from the water. 2008

Axe` 1. ENSURING ACCESS AND SUSTAINABLE WATER SUPPLY AND SANITATION

A.1.1 Give water to the population
Access to safe water is a criterion of social justice, dignity, fairness and peace. It must be guaranteed for all and be sufficient, satisfactory and not discriminatory. Accordingly, it is necessary to improve the drinking water supply of the population. This objective should be the priority sector of

water and sanitation to achieve the MDG, namely: - raise the average water supply in urban populations of 50% in 2005 to 75% in 2015;
- Increase the average water service for the population in rural and semi urban areas by 44% in 2006 to 70% in 2015.

A.1.2 Ensuring drinking water quality
In order to ensure the quality of drinking water, it is necessary to impose on operators of different supply networks to carry out tests on drinking water and to make regular withdrawals so as to meet the standards established by the State concerning the water quality. The ministry of health, especially the departement of food hygiene, must also establish the necessary contol. The following actions are envisaged:
- The upgrading of all facilities and supply of drinking water treatment in both rural and urban areas;
- Consolidate the device control standards of safe drinking water on appropriate administrative levels.
- Preparation and implementation of a harmonized strategy and an effective protection of all catchment areas of groundwater and surface water.

A.1.3 Access to sanitation.
At the same time, the proportions of urban and rural populations with access to adequate sanitation in 2005 are respectively only 40% and 10%.

Priority 2. HOW TO MAKE DIFFERENT TYPES OF ACTORS PLAY THEIR ROLES.

A.2.1 Transfer effectively the skills to localities in terms of water supply and sanitation.
The State must ensure a gradual but rapid transfer of expertise and financial resources to local authorities in the field of water supply and sanitation. This means ,

improving consistently, the level of responsibility of local actors, the pace of implementation of water infrastructure, transparency and speed in decision making, efficiency as well as effectiveness of activities.

A.2.2 Engaging the private sector in the management of hydraulic structures

Engaging the private sector in the management of hydraulic structures is a strategic choice aimed at improving the management of hydraulic structures in terms of technical expertise and dynamic business by private operators.

OUR PROJECT

1. Description

The project involves the construction of deep water recordings in each concerned village.By capturing this water we can bring it to the surface and from there lead it to a water tower with a capacity of 30 m3. Then the water is distributed through a network of pipes to different fountains that are located throughout the village.

The aim is to give at least 10 gallons of good quality water per person per day, to be consumed (drinking water and water for cooking).

Normally one single water uptake is not enough. That is why we propose the construction of two recordings per village.

Each catchment includes drilling, submersible pump and the solar system that feeds it.

Through the water tower and the force of gravity water is piped to various standpipes (with two taps) located in the village.

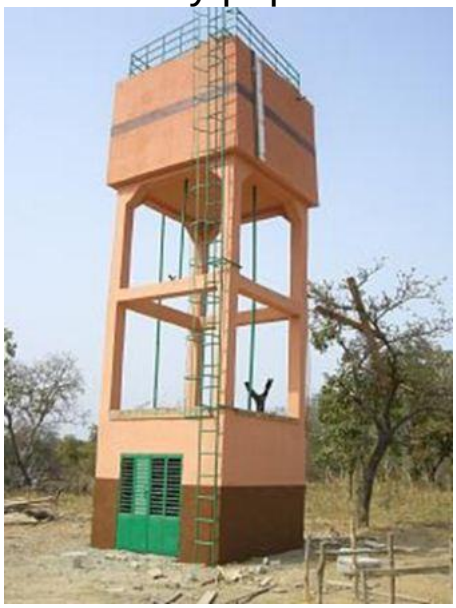
The water management will be determined by elected officials in the village: a) President , b) Officers, men and women from every fountain who maintain the fountain, the water sale and to put the money periodically in the local bank c) Someone responsible of water failures d)

Responsible of the regulation of photovoltaic system based on water consumption.
In economic terms, it seems essential that a guarantee fund will be donated to the local bank that will cope with serious failures in the future.
Finally, the project also calls for the construction of simple toilets also distributed in the village in order to end the ancient custom of going to the bush.
2. Explanation of steps:

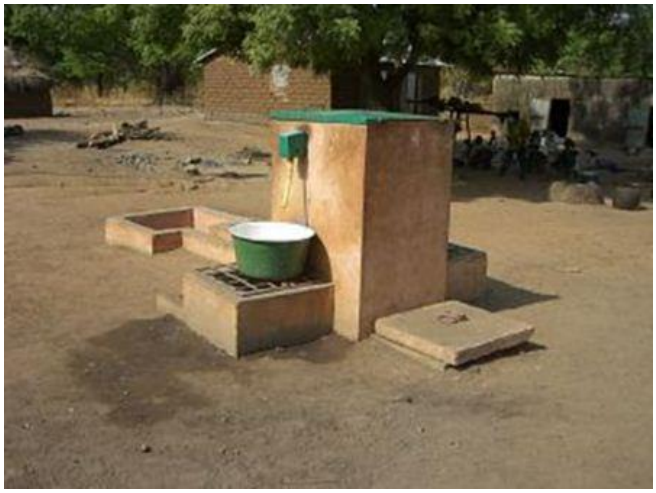
1) Excavation of boreholes to find a large quantity of water. In order determine where water is we use three elements:
- Feedback from villagers about the location of water;
- The search for water by traditional water researchers
- Confirmation of the sites identified by a geophysicist who studies the fracture site and the resistivity of the earth.

The drilling is done between 60 and 80 meters deep. We need at least 3.5 m3 per hour as a debit. If the drilling is negative, then others should be done. Finally, if there are two positive but with a low flow, then we combine to both drilling a single water tower.
After we install the pipes from the drill to the water tower. Normally its about an average of 3 kilometers.

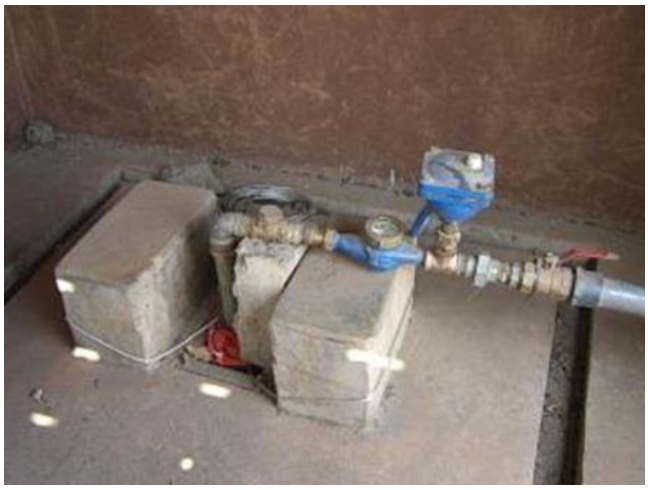
2. Construction of a high water tower.
The water tower of 30 m3 capacity is raised from the earth to 9 meters (the base of the tank). Masons, ironworkers and setters are working with the contribution of the beneficiary population.



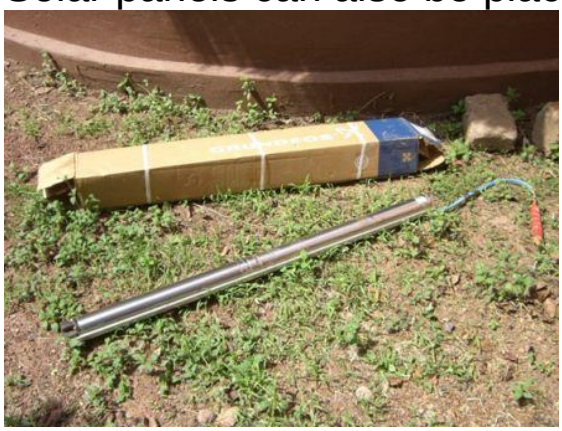
3. Distribution of water from the water tower to the fountains.
In each village we install about a network of 3 kilometers, so that the main fountains are nearby habitats. We can consider the establishment of fountains as well as in clinics / maternity homes and in schools / ECGS.

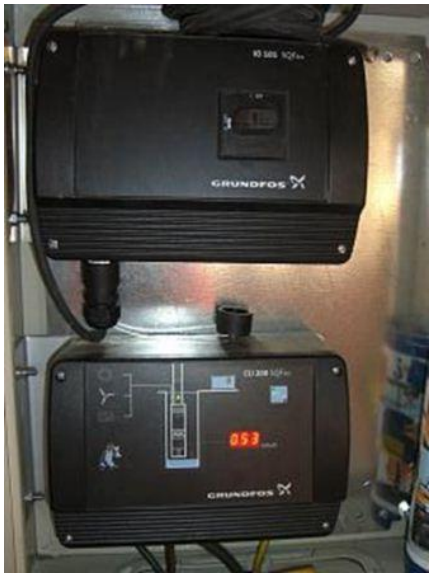


4. We can also build small buildings which can house the head inside the borehole, the water meter and fittings, and regulators of the photovoltaic system. On the roof of these buildings are placed solar panels. It will be a building or two depending on the number of wells that feed the water tower.



5. Installing solar panels and Grundfos submersible pumps. These pumps send the water to the tower from sunlight to sunset. They automatically turn on and they turn out maybe because there is no sun, or because there is no water in the borehole.
Solar panels can also be placed on the water tower.





6. Toilets with a double cabin are also built in the village.