

Infopoverity Community of Expertise e-services for development

COMMUNITY FOUNTAIN

The 7th Millennium Development Goal states to halve by 2015 the number of people without access to safe water, considering that at present 1.2 billion people have not access to water resources.



Trying to overcome this gap, OCCAM has partnered with Metropolitana Milanese on the basis of the agreement signed on January 30 2009 for the individuation of suitable high tech low costs solutions in the field of safe water and sanitation.

The project aims at the realization of an integrated system for community fountains to be used in disadvantaged areas in the Africa, Asia and Latin America thanks to the collaboration of different competent partners that will follow the different modules of the project and provide a turn key solution, moving from the creation of a prototype to its industrialization.

The integrated project is made of the following modules:

1. Access to water, either through a well or through access to superficial water

The specific technical solution will be individuated on a case by case analysis, but is a key component of the Integrated Project, with the same importance as all others, as it is essential to provide continuity of the access to water and granting its minimal levels of quality and quantity.

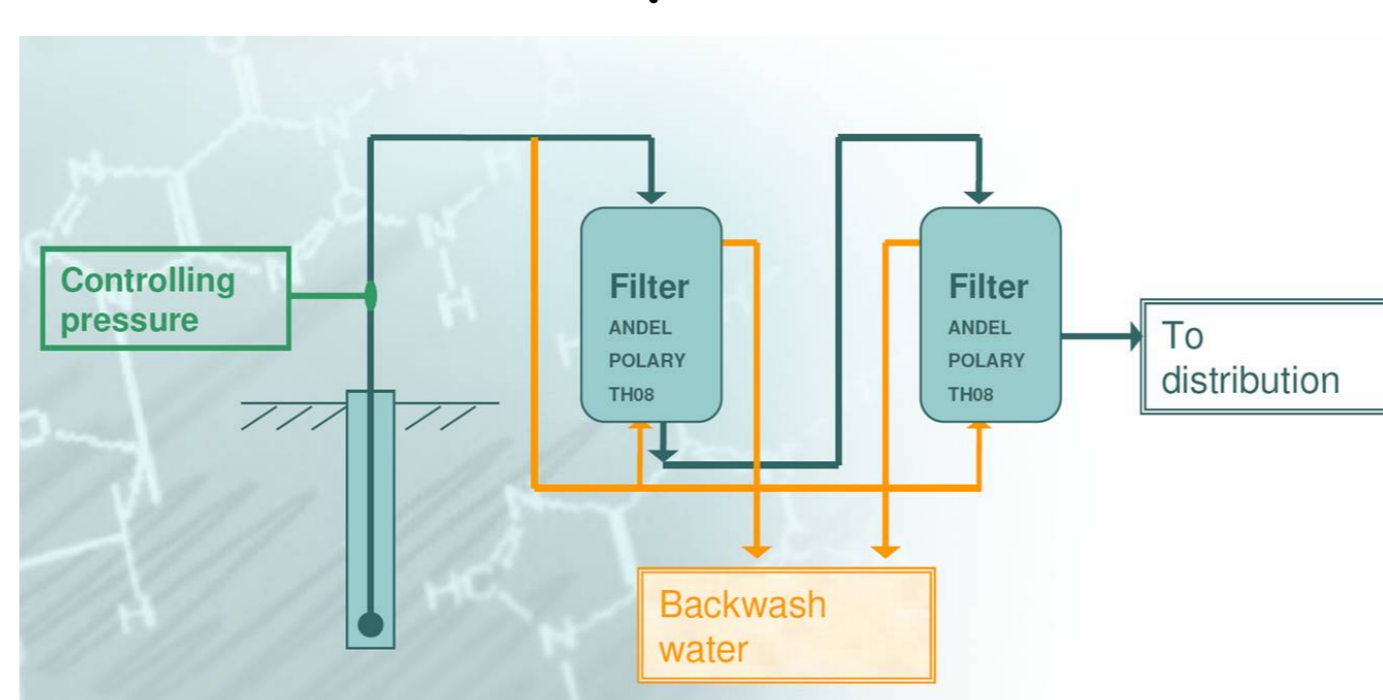
2. Channeling of water to the fountain

The Integrated Project will provide the solution needed to channel water from the well or superficial water to the fountain, so that no individual can divert its flow towards the community.



3. Water Purification

The module that grants purification will be assessed and articulated on the basis of the need to eliminate any impurity and sediments that are present in the water and for the elimination of specific pollutants, granting at the same time adequate levels of flow towards human consumption.



4. Monitoring of performance and distant control

The functioning of the entire integrated system is automatic, thanks to management through PLC, which will be initially done in Italy and subsequently, once trained, by local personnel.

4. Community Fountain

The water supply system will have high standards of hygiene and safety, a good ergonomics, easy to use and flexibility in installation.

The technical solution will then have to be adaptable - in supplied quantity, number of distributors, and adequateness to the environment surroundings - to the specific needs of different Countries and different regions.

Key aspects for the construction of the Community Fountain (and not of a simple water distributor) are:

- where to put the fountain
- its identity, so that it can be recognized and accepted by locals
- surrounding areas, to create that community area that is essential in this project

5. Control of water distribution

Water is a precious resource, mainly for those that do not have easy and permanent access to it, thus it is important to preserve it, closely following how water is supplied:

- keeping tracks of who has had access to water
- how it was transported from the fountain to houses (to keep water clean and safe)
- which was its final use
- who is the end user

A simple technical solution will be individuated, granting management of supply, rules of use, tracking supplied water

6. Power supplies through renewable energy

All modules of the Integrated Project need power supply and this module will be responsible of providing it through well established solutions in the field of renewable energies, so that they can cover all consumptions of the modules of the project. Energy will be produced in different ways, depending on the most appropriate, and also using hybrid solutions, based on a preliminary study.



7. General aspects

Each module will have easy instructions of use and maintenance

Training of personnel on site is part of the project

Each component needs to be made of long lasting materials, hard to be removed and with minimum need of maintenance by end users.