

Access to safe water and sanitation are amongst most urgent tasks as was declared by Millennium Development Goals. International co-operation is fundamental to develop and adopt highly efficient innovative technologies to regional needs for people's benefit.

### First in Africa Communal Waterhouse

Both German and RSA governments jointly financed a project to be developed by German, RSA and international companies and institutions. Ikwezi Local Municipality in Eastern Cape Province in South Africa is the beneficiary municipality for the national pilot facility which is first on the continent.

### Demonstration unit

In Jansenville township first pilot and demonstration facility was erected in 2008 and is now fully operational for use of locals. It comprises water recycling and solar energy technologies for laundry, sanitation, room conditioning, and water and room heating, based on proven technologies combined in an user friendly, economical and climate protecting manner adopted to needs of stakeholders. Every activity is realized in close co-operation with Ikwezi LM and the people. Scientific research and balancing all processes is executed together with Universities and research institutions.

### More information and contacts

Interested person and groups, or institutions are kindly invited to visit the plant to get informed on benefits and use options.

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# Communal Waterhouse

Safe and sustainable basic sanitation and solar energy use in rural regions and densely populated areas



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 [www.youtube.com/watch?v=CVQG31ma6\\_U](http://www.youtube.com/watch?v=CVQG31ma6_U)

# The basic layout

## CWH

is a facility constructed for 4-500 people. It includes 10 wash basins, 5 showers and 2 toilets each for male and female. The communal room is usable for functions, education activities, and meetings. Technical room comprises storage tanks, and solar energy supply devices. Containers for grey water treatment are under shelter. Principal construction scheme to be adopted to local needs.

# The technology

## CWH

consists of four long term proven moduls of sustainable technologies, successfully applied worldwide, combined in an innovative manner, including

- fresh water aeration
- water recycling for high quality service water (after EU regulation)
- solar electricity supply
- water heating by solar energy
- solar room heating and conditioning
- modern water saving toilet systems.

# The effects

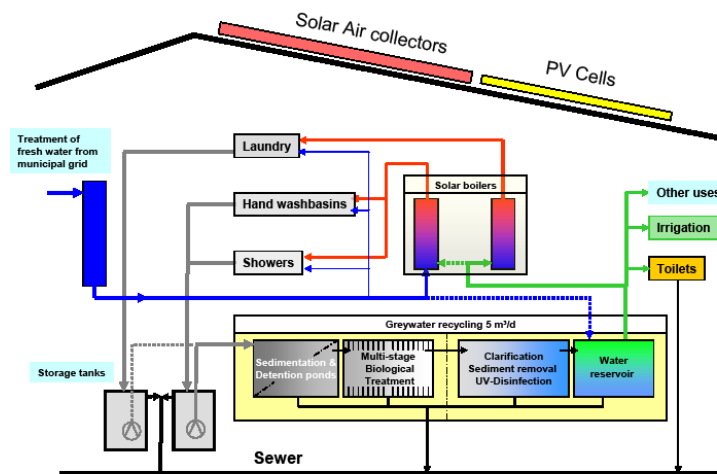
## CWH

results in improved water supply, higher water use efficiency and better sanitary conditions for rural people and provides locally produced renewable energy at good cost/benefit ratio.

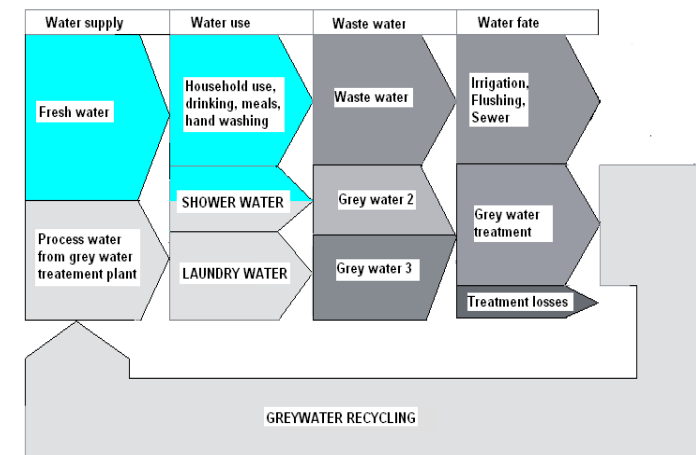
- Water use efficiency is improved up to 2-3 times.
- Energy need is reduced by 100 MWh per year.
- Climate effect is up to 100 ton of CO2 equivalents per unit annually.



CWH general layout of CWH demonstration unit in Jansenville



Principal scheme of CWH technology



Grey water recycling and balance scheme