

UNICEF COTE D'IVOIRE CONTRIBUTING TO RURAL WATER SUPPLY SUSTAINABILITY

Issue:

Rural communities in Côte d'Ivoire obtain water from a single protected source: boreholes equipped with hand-pumps. These hand-pumps are produced either in Abidjan or in France. Their prices range between 1 and 1.6 million FCFA (about 2 to 3000 USD) a piece. Although the quality of these pumps is satisfactory, their maintenance has proved to be a real burden for rural communities. Certain spare parts cost up to 300,000 FCFA (more than 600 USD), a fortune in a country impoverished by war. In many areas, spare parts are difficult to obtain and trained hand-pump mechanics are rare.

As a result, once they break down, many hand-pumps remain out of order. Their proportion exceeded 60% in 2006 according to a recent report by the government agency in charge of drinking water: DHH ('Direction de l'Hydraulique Humaine'). War is largely to blame for this situation, since it has negatively affected the mechanisms of solidarity on which hand-pump maintenance is based, the presence of government agencies and the state of rural economy. Moreover, the number of boreholes is insufficient and existing pumps are overused. When no other source is available, villagers collect water from unprotected wells, rivers and streams, which threaten the health of the most vulnerable, in particular young children and pregnant women.

Global Objective:

Contribute to reduce the prevalence of waterborne diseases, in particular among the most vulnerable population (young children and pregnant women).

Specific Objective:

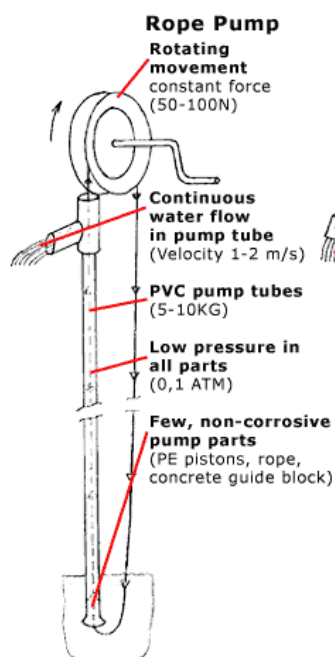
To create protected water points which can be built and maintained at village level in order to obtain continuous access to safe water and ensure that at least one water point is available for every 500 persons in about 100 villages.

Expected results:

- Villagers will no longer need to get water from unprotected water sources.
- As a result, the prevalence of waterborne diseases is reduced.
- Walking distance for villagers to safe water is reduced.

Approach:

The project will carry out the rehabilitation and /or construction of hand-dug wells. They should be lined with bricks or concrete and equipped with concrete apron. Water can be extracted with a windlass or a pump. Rope-pumps are the best possible option. One of the main advantages they present is that they can be produced and maintained at village level.



Source:www.ropepumps.org

The NGO IRC (International Rescue Committee) has introduced them in Cote d'Ivoire (32 wells equipped in 2006). They are relatively cheap (less than 200 USD) and deliver water whose bacteriological quality is similar to 'ordinary pumps'. Mechanics can be trained to produce, install and maintain these pumps. Water committees should be in charge of the maintenance. These systems are meant to complement and not replace the service offered by boreholes. Whilst more vulnerable to a drop of the water table, dug wells are cheaper to construct and maintain and ensure the continuity of safe water supply from an increased number of water points.

Key activities:

- Need assessment
- Rehabilitation / construction of wells
- Installation of rope pumps
- Training of rope pump mechanics
- Training and/or reactivation of water committees,
- Hygiene promotion
- Water quality monitoring

Budget:

Description	Total costs (in US \$)
Construction of 50 new wells	60,000
Rehabilitation of 100 wells	50,000
150 ropepumps	30,000
Training of ropepump mechanics	10,000
Training/reactivation water committees and hygiene promotion	10,000
Supervision, monitoring and evaluation	20,000
Operational costs	20,000
<i>Sub total</i>	<i>200,000</i>
Recovery costs at Headquarters (7%)	14,000
TOTAL	214,000

Cost-effectiveness:

For 4.3 US\$ per beneficiary, some 50,000 people benefit from sustainable access to safe water