

# Wider impacts

of water, sanitation and hygiene education projects



WaterAid/Jon Spaul

Safe water and sanitation close to people's homes bring far reaching and wide ranging benefits which extend way beyond the expected improvements to health and the reduction in time spent collecting water.

The wider benefits that WaterAid's water, sanitation and hygiene projects have are significant and often unexpected. The benefits extend over all areas of peoples lives – from health and schooling through to work and income generating activities, better family and community relations and improved nutrition.

WaterAid believes that when they are combined water, sanitation and hygiene education form the foundation for all other development and so provide the key to poverty reduction.

## Wider impacts

This sheet looks at the wider impacts that integrated, community-led water, sanitation and hygiene education projects bring to the world's poorest communities.

While these benefits are discussed in themes, all interplay with one another and ultimately demonstrate how access to water, adequate sanitation and improved hygiene can enable communities to make choices about their future development.



WaterAid/Caroline Penn

### Health

A child dies every 15 seconds from diseases caused by unsafe water and sanitation; mainly from diarrhoeal diseases like cholera and dysentery. Yet all are easily prevented through water, sanitation and hygiene projects. The simple act of washing hands with soap and water can reduce diarrhoeal diseases by over 40%.

WaterAid's projects can also prevent diseases caused by worms, and diseases like scabies and trachoma caused by having too little water. Proper drainage and soak pits next to wells reduce the breeding grounds of malaria-carrying mosquitoes, while the use of latrines decreases the risk of nocturnal insects and snake bites. In addition

HIV treatment is more effective where clean water and food are available.

Mothers and children benefit greatly. With water and better hygiene during pregnancy and childbirth the chances of post natal infections are reduced and, in the long term, women's reproductive health improves. Women also report having fewer, healthier children when they know they have a better chance of survival. And with healthier children and reduced concerns about collecting water, women also report less mental stress. Furthermore, without having to wake in the middle of the night to start the long search, or queue for water women have more sleep which improves both their health and productivity.

### More time

With safe water supplies close to home women and children are able to spend less time collecting, or queuing for water. In countries like Zambia this can often mean that five hours each day are saved. This extra time and less fatigue from carrying heavy containers, of around 20kg, over long distances enables children to go to school or play and women to carry out other work, often to earn money.

### Education

Increased education, particularly of girls, is accepted as a key means of breaking the cycle of poverty. But when children spend hours each day helping their mothers collect water there is often no time left for education. This problem is exacerbated by water-related illnesses preventing children from going to school, few funds for schooling (made worse by medical bills) and the lack of toilets in schools – especially for girls. Furthermore, if relatives fall sick girls will often stay at home to care for them and so are even less likely to attend school than boys.

Water, sanitation and hygiene projects can reverse all of these trends and enable children to go to school more often and learn better in a cleaner, healthier environment. Fewer diseases and more water mean that children are properly hydrated and are able to concentrate and study better.

But, it is not only children that benefit. Teachers gain all of the benefits of water and sanitation projects and are more likely to want to work in a school with better facilities.

### Crops and nutrition

Without an adequate water supply, there is often little to

spare for crops, vegetables or livestock. However, with water, and more time, communities can enhance their kitchen gardens, arable fields and livestock farming activities. Often communities will utilise the waste water, run-off, or even their old water sources to meet their farming needs.

Safe and hygienic latrines also impact upon crops. With a reduction in open defecation more land can be made available for food production. Ecological sanitation latrines also enable communities to create a renewable source of fertile compost.

Repeated diarrhoeal episodes affect the body's ability to absorb food. But once these diseases are reduced, this trend is reversed and there is a reduction in malnutrition rates. And, with improved water sources many families report being able to cook better food.

This can ultimately mean families have more food, better nutrition and, if they are able to sell crops at market, more income. Following successful projects, communities in Ethiopia have even reported being more resistant to drought and famine as they are able to spend more time farming and planning for their futures, rather than on the daily search for water.

### Household income

Without clean water and effective sanitation communities can be stuck in a spiral of poverty and disease. Illness prevents the sick and their carers from working and earning money, while money spent on medical bills reduces limited funds even more.

"We had to spend between 1000-1500 taka per month for treatment which was about one third of our monthly income. Nowadays, this is reduced to 100-300 taka per month." *Ms Aouspudi Chakma, Bangladesh.*

Urban communities often have to either walk miles for clean water, drink polluted water or use their limited resources buying water from vendors. The poorest people from Dar es Salaam, Tanzania, spend an average of 10% of their income buying water from vendors at inflated prices. This is more per litre than the better off, who can afford piped connections or their own wells.

### Family life

Following successful projects, families report being able to spend more time together, lower stress levels and an increased ability to observe religious rites and customs.

Women say they can look after their families better; they can cook meals more regularly and eat at regular times.

Having a clean water source enables them to wash themselves, their children and their homes, utensils and clothes more regularly, leading to a healthier, happier living environment. Hygiene education and latrines that enable the safe, hygienic disposal of human waste, mean that their living environment is further enhanced.

As water is vital to brick building, communities are often able to construct better buildings. They report improved status and self-esteem, and with pride in their environment and village and latrines, some report no longer being ashamed to invite relatives and friends to visit.

### Benefits to women

Many benefits of water, sanitation and hygiene projects particularly impact upon women. As the main collectors of water it is often their lives that change the most dramatically. Not only do they have more time and

better health, but by playing an active role within projects they gain a stronger position in the community and ultimately gain more respect.

Women should be involved in all stages of the work from the building through to managing the schemes. This impacts on their roles, relative to men, in village and family structures, including increased involvement in domestic financial decision-making and political decisions.

Women are further spared from the humiliation of going to the toilet in public, and without having to walk to isolated water points or to find private places to go to the toilet are also at less risk from sexual harassment and animal attacks.

### Wider social benefits

All of the benefits described here ultimately lead to significant and sustainable changes in communities' livelihoods through freeing time and resources, and creating the skills necessary to undertake more development.

The involvement of marginalised groups such as the extreme poor can contribute to more positive social status while the better-off recognise that their health and development situation is affected by the living standards of the poorest in the community.

Following WaterAid projects that include training in maintenance, management, hygiene education and accounting skills, many communities report feeling a sense of strength, cohesion, confidence and an ability to carry out work on their own. This enables the poorest communities in the world to plan further for their own futures.

## Factfile:

### Communities have reported the following benefits arising from water, sanitation and hygiene projects:

- Fewer deaths from water-related diseases
- Better health
- Less money spent on medical treatment
- More time
- Less fatigue
- Empowerment of women and marginalised groups
- More schooling
- More teachers accepting positions in schools
- More farming
- Better diet
- Increase in family income
- Less money spent on water from vendors
- Families being able to spend more time together
- Cleaner living environment
- Better housing
- More family planning
- Ability to plan for the future

Provision of water, sanitation and hygiene reduces mortality caused by diarrhoeal disease by an average of 65%

Adding one year to the schooling of all adult females in a country is associated with an increase of around \$700 in GDP per capita

40 billion working hours are lost each year in Africa to time spent carrying water

3.5 million schooldays are lost each year in Madagascar due to ill health related to bad sanitation

73 million working days are lost each year in India to water-borne diseases at a cost of \$600m in terms of medical treatment and lost production



WaterAid/Jeremy Horner

### **An opportunity for growth**

Ikognane, the vice president of a group of kitchen gardeners from Mohairiry in Madagascar describes the differences that the water project has brought to her community.

“Before the well we had no kitchen garden. Before the well was installed there wasn’t anything you could eat on this bit of land there just wasn’t enough rain to make things grow. We still don’t have the rain, but now at least we can water the plants ourselves. Fifteen people work here now.

The great thing is that, now we have a garden we are able to eat a much greater variety of vegetables than before rather than just manioc, which means we are eating a more varied diet. It is much healthier than before – we know our families will be healthier. We also sell some of our vegetables so make some money in that way too.”



### **WaterAid – water for life**

The UK’s only major charity dedicated exclusively to the provision of safe domestic water, sanitation and hygiene education to the world’s poorest people

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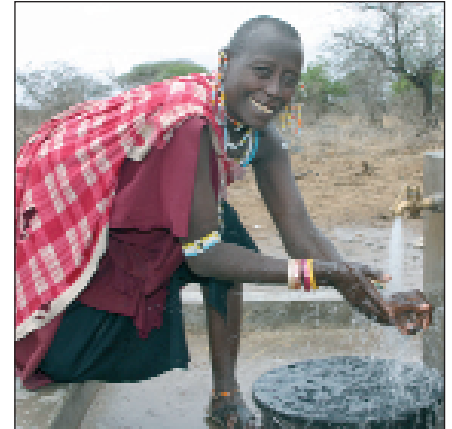
### **Changes in Chipongwe**

The community in Chipongwe village, Zambia, have formed a strong water committee which looks after the handpump and hygiene issues in the village. Christina Pede explains the changes that the new water supply has brought:

“I collect water from here every day. This water is much better and cleaner than the water we used to collect – it is also much closer to my home now, and so this handpump is a great improvement on what we had before. Previously when we used to drink the water from the damn we used to get diarrhoea and really itchy skin when we used it to bathe in it. These health problems have stopped now – we don’t get diarrhoea or itchy skin anymore.

This water has really helped my family. The distance we walk to collect water and carry heavy loads has reduced a lot. My children are now able to go to school, but in the past by the time they had gone down and collected water they couldn’t go to school. Now they can go with no problems at all.

I have even started growing a garden for some food. I am growing tomatoes, rape and other vegetables for my family. Having the water so close means that I can use the water to grow this food too, before we just couldn’t do this.”



WaterAid/Alex Macro

### **Out from the depths**

Before the WaterAid project Nakwetikya from Ndedo, Tanzania, used to have to collect the scarce water available, polluted with animal and human waste, from the bottom of deep and dangerous hand-dug pits. Sickness and deaths were common.

“The situation here used to be bleak,” she explains. “There was no water and we had to dig pits to find some. Can you imagine what it was like? My legs used to shake with fear before climbing down those holes. There was no choice. If I didn’t get water my family couldn’t eat, wash or even have a drink.

When I heard that we were going to get clean water I remember laughing, it was so funny. I can only compare it to someone who is in prison for a long time. When they are set free it’s the most fantastic experience.

Since having the new water source life has changed in so many amazing ways. My status as a woman has been finally recognised. I have the time to look after my family as we have more time and energy. Before we formed a committee and prepared ourselves as a community, men just saw women as animals. I think they thought of us as bats flapping around them. They had no respect for us and no-one would allow you to speak or listen to what you had to say. When I stand up now in a group I am not an animal, I am a woman with a valid opinion. We have been encouraged and trained and the whole community has learnt to understand us.”