

The wider impact

Wider impacts

This page 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.

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

Mothers and children benefit greatly. Having water and better hygiene during pregnancy and childbirth mean that the chances of post natal infections are reduced and, in the long term, women's reproductive health improves. 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 is 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

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 are more likely to want to work in a school with better facilities. Increased education, particularly of girls, is accepted as a key means of breaking the cycle of poverty.

Kitchen gardens, 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 enhance crops by enabling communities to create a renewable source of fertile compost from their latrines.

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. Furthermore, 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 environments are 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, 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.

With a better chance of survival women report having fewer, healthier children after projects compared to before when they would be unsure if their children would survive.



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.

By playing an active role in the projects communities can become empowered and more cohesive. 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 standard 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, confidence and an ability to carry out work on their own. This empowerment often enables the poorest communities in the world to plan for their futures.

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 can spend more time together
- Cleaner living environment
- Better housing
- More family planning
- Ability to plan for the future

Provision of water and sanitation and hygiene reduces mortality caused by diarrhoeal disease by an average of 65% (World Health Organisation)

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. (World Bank)

40 billion working hours are lost each year in Africa to time spent carrying water (Cosgrove and Rijserman)

3.5 million schooldays are lost each year in Madagascar due to ill health related to bad sanitation (WaterAid Madagascar et al)

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 (United Nations Development Programme)