

WASH and Water Scarcity



Pamphlet for Sanitation and Hygiene Week and World Water Day 2007

Water, Sanitation and Hygiene (WASH) are important. All of them. No matter who you are, where you live, what you do. And no matter how scarce your water is.

Why WASH?

For Health

One gram of faeces can contain 10 million viruses, 1 million bacteria, 1 thousand parasite cysts, and a hundred worm eggs. Safe disposal of faeces is the most important of all public health priorities.

For Development

Sustainable development starts with people's health and dignity. Water supply alone does not transform human health. Sanitation is even more important. And hygiene is most important of all.

For livelihoods

At any one time almost half of the developing world's people are suffering from diseases associated with lack of WASH. The strain on families - on earnings, time, energy, and budgets - is enormous.

For Children

The very young are hit hardest by the neglect of the WASH issue. The worst consequence is diarrhoeal disease - which kills six thousand children every day of the year.

For Dignity

Many millions of women have to wait until after dark before going to defecate. They face the fear and sometimes the reality, of harassment and sexual assault, and attacks by snakes and wild animals.

Sanitation and Hygiene where Water is Scarce

In poor rural communities, faecal-oral contamination - **excrement to mouth** - is thought to be the **major cause** of infectious disease transmission. Water, through hand washing and cleaning, serves as a barrier to contamination and infection. Where water is scarce, hygiene and cleaning practices suffer, and the barrier to faecal contamination is low. All the more reason to ensure safe disposal of faeces - all the **more reason for improved sanitation**.

And even where water is scarce, **unsafe storage and disposal** of (waste) water can breed vectors of disease. Mosquitoes use the wastewater puddles and water storage facilities as breeding grounds, continuing the spread of malaria. All the **more reason for home hygiene**.

But what about sparsely populated areas? Arid regions house few people -lots of space for open defecation!

No. Wherever there is **open defecation**, traces of excreta will find their way into the families' compounds, yards, homes, hands and mouths, being carried by flies, dogs, cattle, children, or insects. **Contamination** is a matter of **when, not if**. Not to mention the **degradation** of rivers and soils. The main pollution of soils and water is by faeces, not by industrial waste.

So what to do?

Promote sanitation and hygiene through public education and promotion campaigns. The most successful sanitation programmes are those focused on **raising demand**, for instance through social marketing campaigns, for improved sanitation and water services, and **promoting hygienic behaviour**, such as hand washing, safe water storage, and safe waste disposal.

There is no such thing as the ideal technology, and it is best to let households decide for themselves what kind of latrine to build. These home-built latrines may not directly count as improved sanitation, but they will be a viable first step on what is known as the 'sanitation ladder', i.e. the first intervention which will increase awareness of the benefits of sanitation, and begin to lead to the installation and use of a sanitary latrine.

Sanitation options in water scarce areas

The first purpose of a sanitation facility is to protect the environment from faecal contamination by isolating excreta or safely disposing of it. The easiest way to isolate excreta without using water, is in a **pit latrine**. The most basic form of improved sanitation is a pit latrine with slab. One step up from this is a Ventilated Improved Pit (VIP) toilet, which prevents bad smells and flies.

Another form of sustainable sanitation that also protects the environment, is ecological sanitation, or **ecosan**. Here, the faeces are reused, usually as compost.

Neither of the above systems require water to function. However, they require a basic investment in construction costs, and presuppose that users will stay in one place. Where even basic investment costs cannot be met, or where communities live nomadic lives, sanitation programmes should aim to promote at least hygienic open defecation, where a dedicated area is marked for defecation, and faeces are covered with soil.

Water Supply

People have lived in arid regions for centuries and have devised many ways to preserve water. But many of that knowledge has gone lost, and people currently living in arid regions may not have always done so. Returning to some of the old, tried and tested technologies can make a great difference. For instance, **rainwater harvesting**. Even arid regions generally have a period of increased rainfall, which can be harvested and preserved in reservoirs, so that it can serve the communities during dry seasons.

As much of the water that people in arid regions currently use is not safe to drink, simple household level treatments should also be promoted. For instance, solar disinfection, or the use of basic filters.

Hygiene interventions

Where there are people, there is water. If not, they would not be surviving there. Therefore the often used argument that hand washing with soap cannot be promoted because of lack of water, is flawed. However, people in arid regions generally survive on less than 20 litres per day per person, and have many conflicting priorities for that water. Therefore any hygiene and hand washing promotion needs to be based on **simple technologies** that use a minimum of water, such as tippy taps¹.

¹ The Tippy Tap primarily consists of a can, which releases a small amount of water - just enough for a clean hand wash - each time it is tipped. And when the 'tap' is released, it swings back to its earlier upright position.

Remember:

People have lived and survived in arid regions for centuries. When planning to improve WASH services and practices in an area, look hard at what currently exists, try to understand current practices and plan to build and improve from there.

Sustainable rural water supply and sanitation services are maintained and managed by communities and households. As long as there are sustainable support structures for the communities to fall back on. This requires capacity and appropriate institutions at local government level.

For more information, see for example the Sanitation and Hygiene Promotion - Programming Guidance (2005), the Advocacy Sourcebook (2003), and It's a Big Issue (2003). All publications can be downloaded freely from the WSSCC website.

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