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## Sanitation is an investment with high economic returns

Improved sanitation in developing countries typically yields about **nine dollars worth of benefits for every dollar spent**. Hand-washing and hygienic, private toilets in homes and schools bring economic benefits for households, communities, and nations in several ways:

### By saving time

People without toilets at home spend a great deal of time each day queuing up for public toilets or seeking secluded spots to defecate. In a recent study to calculate the benefits of sanitation investments, the World Health Organization made a conservative estimate of 30 minutes per person per day, amounting to 21 unproductive hours a week for a household of six people. Improved sanitation would give every such household an additional 1,000 hours a year to work, study, care for children, engage in collective efforts, and rest. This time has an estimated annual economic value of well over US\$ 100 billion each year.

### By reducing direct and indirect health costs

Hygiene and sanitation are among the most cost-effective public health interventions. According to the latest studies, hygiene promotion is typically the single most cost-effective health intervention, costing just US\$ 5 per disability life year averted. Basic sanitation costs around US\$ 10–100 per disability life year averted, comparable to the cost-effectiveness of HIV/AIDS interventions.

- The costs of treating diarrhoeal disease drain both national budgets and family finances, and avoiding them frees resources for other development objectives.
- Health sector costs avoided: In sub-Saharan Africa, where, on a typical day, half the hospital beds are occupied by people afflicted with faecal-borne disease, treating preventable infectious diarrhoea consumes 12 percent of the total health budget.
- Deaths avoided: Toilets save lives. Nothing can compensate parents for the loss of a child. But strictly in terms of productive years lost, the reduction in premature death would yield an annual economic value of US\$ 1.7 billion.
- Productivity enhanced: Myriad workdays are lost to diarrhoeal disease – days lost when the worker is ill as well as when she or he is caring for a sick child. When workplaces have no toilets, women may lose workdays during menstruation. Meeting the sanitation MDG target would add more than three billion working days a year worldwide, universal coverage more than four times as many.



→ **By increasing the return on investments in education**

Many developing countries are increasing education spending to meet the MDG targets for school enrolment. That spending will have a greater impact if some of the money goes to providing toilets for students and teachers, with separate facilities for girls.

- The reduction in diarrhoea by meeting the sanitation MDG target would add almost 200 million days of school attendance per year.
- Healthy children learn more than children suffering from worm infections, which sap nutrients and calories and lead to listlessness and trouble concentrating. Up to two-thirds of all schoolchildren in some African countries are infected with parasitic worms.
- Girls are reluctant to attend schools, and parents are disinclined to send them, if there are no safe, private toilets for them to use. This is particularly true once menstruation has begun. But more girls in school means higher rates of female literacy. In a typical developing country, each one-percent increase in female secondary schooling results in a 0.3 percent increase in economic growth.

**By protecting investments in improved water supply**

Poor sanitation can limit the impact of drinking water quality improvements. The risks of water contamination during household storage and handling sharply increase in environments that lack toilets. Contamination of local water resources used to supply drinking water can lead to unnecessary investment in more distant and expensive sources.

**By safeguarding water resources**

Water resources are an important productive asset. Agriculture, fish production, energy production, large-scale industrial processes, small-scale industry, transport, and recreation all suffer economic harm from the increased treatment and other costs due to water pollution by faecal contamination.

**By boosting tourism revenues**

In 2006, tourism generated over US\$ 6,000 billion-worth of economic activity, accounting for 10 percent of global GDP and almost 9 percent of total global employment. Because health, safety, and aesthetic considerations heavily influence people’s choice of a holiday destination, good sanitation is a prerequisite for a thriving tourism sector.

Main sources: Disease Control Priorities Project, UNDP, UNICEF, WHO, WSP/World Bank.

**Sanitation investments pay off at a rate of nine to one**

**\$ 35 billion\***

Total economic benefit estimates for achieving the Sanitation MDG in the »off-track countries«

**\$ 3.8 billion**

Annual cost estimates for achieving the Sanitation MDG for the »off-track countries«

**\$ 9.1**

Return on \$1 investment in improving sanitation in the MDG »off-track countries«

\*The sanitation benefits of \$35 billion are the sum of:

	%
Health sector benefits due do avoided illnes	1.6
Patient expenses due to avoided illnes	0.2
Deaths avoided	5.0
Time savings due to access to improved sanitation	90.0
Productive work days gained of those with avoided illness (at least 15 years old) + Days of school attendance gained of those with avoided illness (5–15 years old) + Baby days gained of those with avoided illness (0–4 years old)	3.1

Source: WHO 2007