

# The *EDUCATION* Millennium Development Goal

What water, sanitation and hygiene can do  
in **India**

## The Millennium Development Goals

In September 2000, the United Nations Millennium Summit agreed a set of time-bound and measurable goals aimed at combating poverty, hunger, illiteracy, environmental degradation and discrimination against women.

The second Millennium Development Goal (MDG) is to achieve universal primary education. The target is to ensure that all boys and girls complete primary education by the year 2015.



## Headline facts

The MDGs are strongly inter-dependent and programme interventions must reflect this. *Water, sanitation and hygiene deliver outcomes across the MDGs.*

## Why is water, sanitation and hygiene so important for education?

- *Children and Health*  
Appropriate water sanitation and hygiene promotion interventions significantly reduce child mortality rates and incidence of sickness and disease in children under five.
- *Access to Quality Education*  
The income generation opportunities flowing from appropriate water, sanitation and hygiene promotion interventions make quality education accessible to poorer communities.
- *School Attendance*  
With appropriate water, sanitation and hygiene promotion interventions school attendance rates go up while absenteeism and drop-out rates go down.
- *Girls Education*  
Appropriate water, sanitation and hygiene promotion interventions significantly increase the number of girl children completing their school education.
- *Performance in School*  
Reducing the incidence of water and sanitation related illness increases childrens' performance at school.



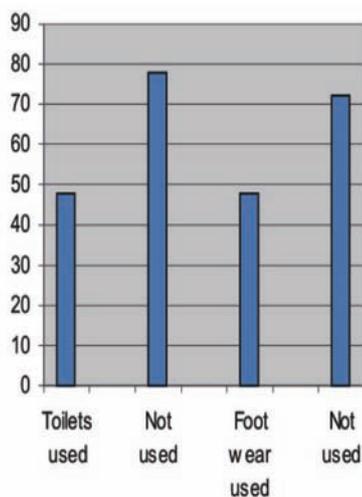
## Children and Health

### The facts

- Lack of safe drinking water and proper sanitation is a public health disaster.
- Children are the first to fall sick and die from dysentery, cholera and other serious infections posed by poor disposal of excreta and poor quality of drinking water.
- Today, one fifth of the world's children under 18 years (400 million) live in India.
- Child mortality in 2003 in India was 21, 800,000.
- In young children, physical and mental development can be affected by malabsorption, blood and protein loss and diarrhoea often caused by the presence of worms in the gut.
- Other diseases related to inadequate water and sanitation services include skin and eye infections (trachoma, preventable by hand and face washing), schistosomiasis (transmitted through infected water), and dengue fever (carried by mosquitoes in unhygienic domestic water vessels). All are prevalent in India.

### Why water, sanitation and hygiene?

Providing safe drinking water, improving sanitary conditions in schools, the community and the home, together with improvements in hygiene behaviour, can drastically reduce the incidence of diarrhoea and helminth infections among children. The absence of ova in stools is associated with the availability of and use of toilets by children at home and in school, the practice of washing hands with soap after defecation and the wearing of footwear by children.



**The percentage of Ova present in stools, in relation to sanitation and hygiene, in Trivandrum district in Kerala.**

Several studies in the last decade have failed to find any health benefits when water quality alone is improved without hygiene education.

- In Trivandrum district in Kerala, two villages Adimalthura in Kottukal Panchayat and Pulluvila in Karamkulam Panchayat inhabited mainly by fishing communities have shown significant impact from a water, sanitation and hygiene promotion (WATSANGENE) project, in the form of lower incidences of waterborne and sanitation related illness. *Source: Social Returns from drinking water, sanitation and hygiene education: a case study by K.Pushpangathan.*

- In 2003, an epidemic of water and sanitation related disease occurred in Kuttanad in Alappuzha district in Kerala. Children in the Kannadi village in Pulinkunnu Panchayat remained unaffected as the community had access to rainwater harvesting and sanitation facilities, supported by UNICEF and SEUF. *Source: SEUFLET Nov.2003.*

## Access to Quality Education

### The facts

- Today education is a costly basic service. Children from poor and marginalized families cannot afford the costly materials that the new education system demands.
- The authorised and unauthorised absence of teachers in many parts of India, due to a lack of water and sanitation facilities poses a serious threat to childrens' right to a quality education.
- Children frequently absent due to illness caused by a lack of water and sanitation facilities, exhibit lower achievement.

### Why water, sanitation and hygiene?

The rise in household income resulting from the economic benefits of water and sanitation enables families to pay school fees, and purchase equipment and uniforms they would not otherwise have done. Access to basic services in schools enhances the retention and presence of teachers, reducing the threat to the right to a quality education. This in turn reduces the social and educational gap between communities in the society.

- The impact of the school sanitation and hygiene education programme is not limited to school children, but affects the wider community as well, because children influence the hygiene behaviour of their families, peers and neighbours. This in turn helps enhance quality of education in that society. A healthy and secure learning environment is necessary for student participation and learning.

## School Attendance

### The facts

- There are about 6,00,000 primary schools in rural India.
- Only ten per cent of schools have adequate toilets and urinals.
- Children frequently miss school due to domestic and water carrying duties.
- Safe water is not available in 50% of the schools.
- Non fatal incidence of common illness such as diarrhoea and intestinal worm infections are related to poor water sanitation and hygiene and are the cause of absence from school.
- Children caring for relatives suffering from water related illness or replacing the role of a deceased parent also miss school.

### Why water, sanitation and hygiene?

By providing water sanitation and hygiene education the children and their relatives at home will become less susceptible to diseases and hence attendance will improve in schools.

- There has been an increase in girl's enrolment - 78% and boy's enrolment -38% in Alwar district in India over 5 years due to school sanitation and hygiene education.



## Girls Education

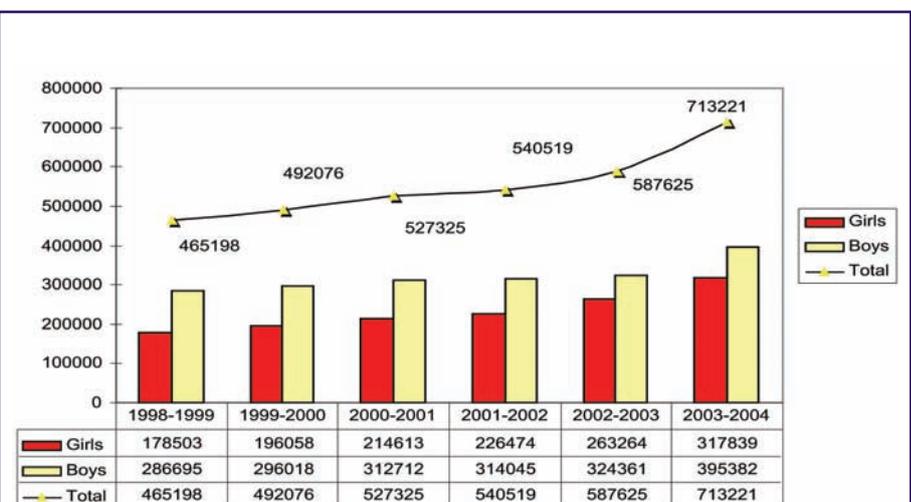
### The facts

- In many cultures, girls and women wait until after dark to defecate if they have no latrine in the household, experiencing discomfort and sometimes serious illness as a result. They are even vulnerable to harassment and assault.
- If schools lack separate facilities for girls and boys, many girls do not use toilets and many do not attend school during menstruation.
- Many children, especially girls failed to attend school because they have to walk long distances in order to fetch water.
- When disease makes the family members sick, girls are often kept at home to help out.
- Household chores including cleaning latrines and garbage disposal also fall to girls when their mothers become sick.

### Why water, sanitation and hygiene?

Providing water closer to homes increases girls' free time and boosts their school attendance. The lower incidence of disease will free the girls from their domestic responsibilities. Availability of water and sanitation facilities at schools will encourage them to attend school.

- School attendance by girls has risen since the introduction of water points in four communities in Arappalipatti and Panjapatti in India with recorded increases in women's literacy levels.  
*Source: Water Aid Newsletter November 2001*
- Where there are working, well maintained and separate sanitation facilities for girls, school enrolment increases.



### Enrolment trends: Alwar District (Class I to VIII)

In 1999 in India when 83% of households had access to safe drinking water, school attendance rates among children between 6 and 14 years reached 79%.

## Performance at School

- Chronic early childhood diarrhoea can result in decreased blood flow to the brain or failure to absorb sufficient nutrients. Repeated episodes may have permanent effects on brain development. This may have an impact on a child's learning achievement and on their health at school age.
- Severe water scarcity during the summer months, when final examinations take place, results in children frequently missing school in order to undertake water carrying duties, thus reducing their performance levels in examinations and posing a serious threat on their future.
- In many studies it has been revealed that girl students are not drinking water at school to avoid using unhygienic sanitation facilities in their schools and that this affects their mental and physical health as well as their performance at school.

### Why water, sanitation and hygiene?

The availability of safe drinking water, proper sanitation at home and schools coupled with hygiene education will reduce the incidence of water borne diseases thereby increasing the performance at school. The amount of time spent collecting water will be reduced affecting performance positively.

### Why is water, sanitation and hygiene important for India?

India is a big country with about 1030 million people. It has an area of 3,287,263 sq kms. India has a federal system with 28 states and 8 centrally administered provinces. The language and culture varies from state to state. Drinking water and sanitation are conspicuous by their inadequacy in schools especially in villages of India. When MDS implemented Sustainable Drinking Water Programme in Panakkachira, in Mundakkayam Panchayat in Kerala the children there showed better performance in their examinations.

Source: *Final Evaluation Report Sustainable Drinking Water Programme*

At Baker Memorial GHS Kottayam, India when SEUF constructed a new Rain Water Harvesting structure, sufficient water supply was available and the girls started drinking water and started using latrines. This improved their mental, physical health and performance in school.

Source: *SEUFLET Nov. 2000*

When an SSHE programme was implemented in Alwar district significant higher learning achievement was observed in project schools.

This Country Note provides evidence for the impact of water supply, sanitation and improved hygiene on education in India.

### Key references

- UNICEF India Website.
- UNICEF 2000 Sanitation for all. Education Global Briefing Note.

Full details of all the material used in support of this Country Note available at [www.Lboro.ac.uk/well](http://www.Lboro.ac.uk/well)

This Country Note is part of a series based upon the six WELL Millennium development goal briefing notes (MBN). The MBNs can be found at: <http://www.lboro.ac.uk/well/resources/Publications/Briefing%20Notes/MDG%20Briefing%20Notes.htm>

Other County Notes in this series can be found at: <http://>

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