

Loughborough University Institutional Repository

For her it's the big issue: putting women at the centre of water supply, sanitation and hygiene.

This item was submitted to Loughborough University's Institutional Repository by the/an author.

Citation: FISHER, J., 2006. For her it's the big issue: putting women at the centre of water supply, sanitation and hygiene. Water, Sanitation and Hygiene: Evidence Report.

Additional Information:

- This publication was produced by the Water Supply and Sanitation Collaborative Council (WSSCC) in collaboration with the Water, Engineering and Development Centre (WEDC), with the support of the Norwegian Ministry of Foreign Affairs, the Gender and Water Alliance (GWA) and UNICEF.

Metadata Record: <https://dspace.lboro.ac.uk/2134/9970>

Version: Published

Publisher: Water Supply and Sanitation Collaborative Council (WSSCC)

Please cite the published version.

This item was submitted to Loughborough's Institutional Repository (<https://dspace.lboro.ac.uk/>) by the author and is made available under the following Creative Commons Licence conditions.



CC creative commons
COMMONS DEED

Attribution-NonCommercial-NoDerivs 2.5

You are free:

- to copy, distribute, display, and perform the work

Under the following conditions:

BY: **Attribution.** You must attribute the work in the manner specified by the author or licensor.

Noncommercial. You may not use this work for commercial purposes.

No Derivative Works. You may not alter, transform, or build upon this work.

- For any reuse or distribution, you must make clear to others the license terms of this work.
- Any of these conditions can be waived if you get permission from the copyright holder.

Your fair use and other rights are in no way affected by the above.

This is a human-readable summary of the [Legal Code \(the full license\)](#).

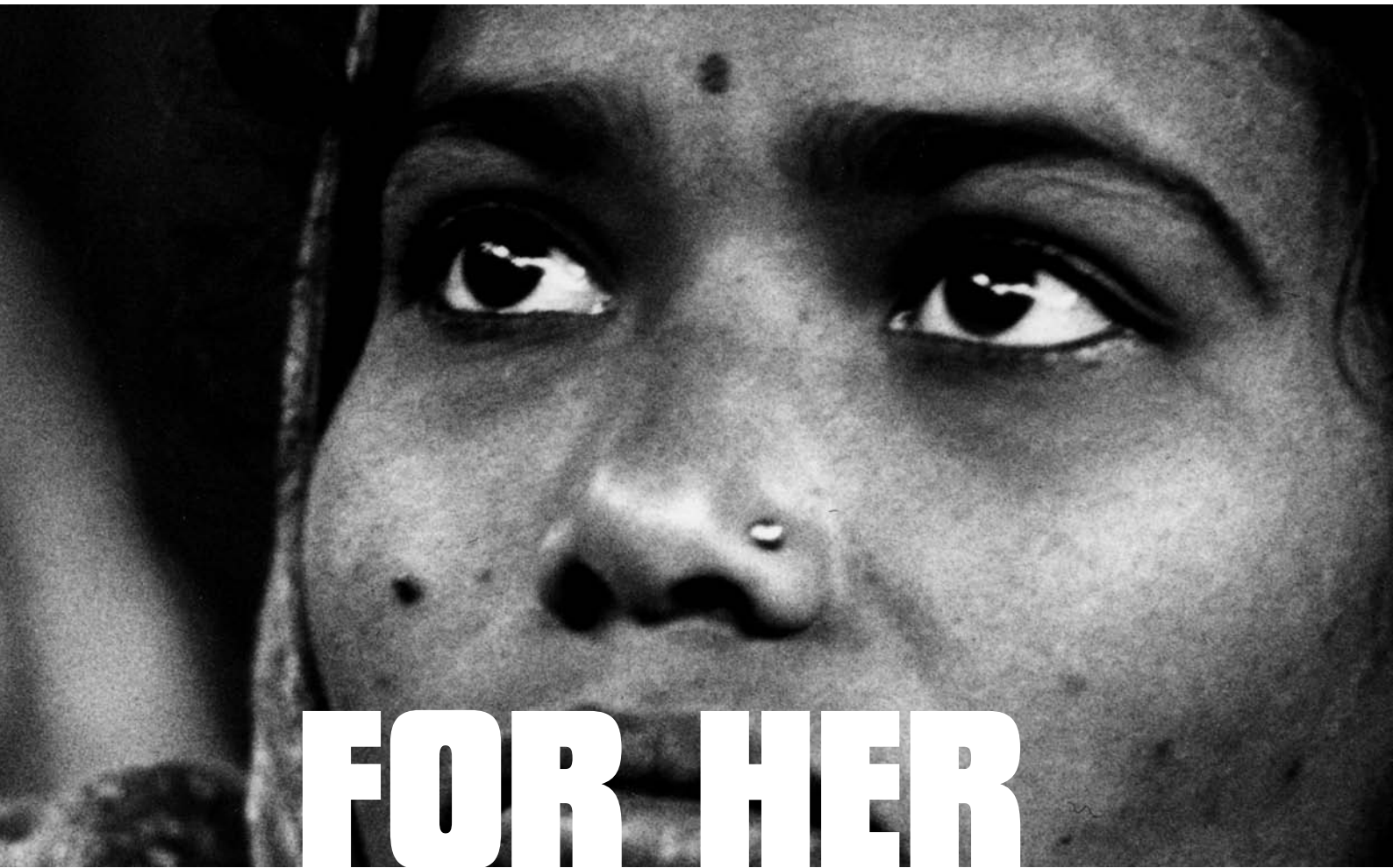
[Disclaimer](#) 

For the full text of this licence, please go to:
<http://creativecommons.org/licenses/by-nc-nd/2.5/>



Water, Sanitation and Hygiene

Evidence Report



FOR HER

IT'S THE BIG ISSUE

Putting women at the centre of water supply,
sanitation and hygiene



Preface

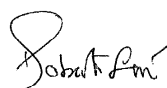
The vital role of women in water, sanitation and hygiene (WASH) interventions is undeniable. But even though women's involvement in the planning, design, management and implementation of such projects and programmes has proved to be fruitful and cost-effective, the substantial benefits of this approach are not properly recognised. One result is that, all too often, women are not as centrally engaged in water and sanitation efforts as they should be.

I therefore welcome this joint undertaking by the Water Supply and Sanitation Collaborative Council (WSSCC) and the Water, Engineering and Development Centre (WEDC) to collect and analyse noteworthy examples that demonstrate the widespread impacts of women's contributions to WASH activities. The report provides further proof that if women play a central role in water, sanitation and hygiene efforts, progress towards achieving all the Millennium Development Goals will be significantly advanced.

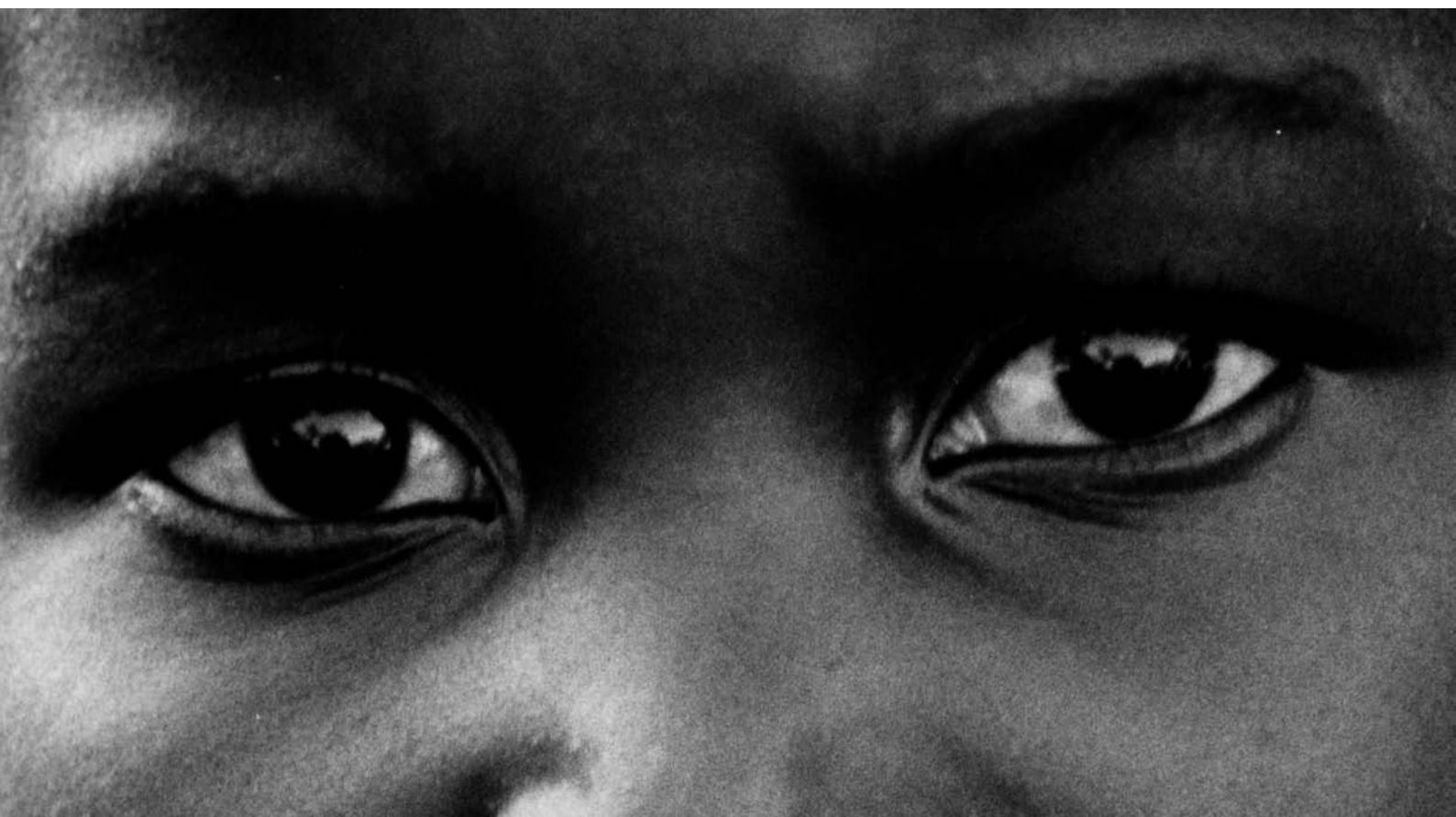
This publication is being released on the occasion of this year's "Sanitation and Hygiene Week" on 15-21 March, immediately prior to World Water Day on 22 March – an event that will be celebrated annually as agreed at the first Global WASH Forum held in Dakar, Senegal in 2004. This year's designated theme for the week is "Putting Women at the Centre of Water, Sanitation and Hygiene Initiatives". This publication will be used extensively in discussions and events throughout the world.

It is my hope that this evidence report will support policy-makers, sector professionals and practitioners to further strengthen their arguments for involving women at all levels in WASH programmes, in order to make them sustainable, successful and beneficial to ALL.

On behalf of the WSSCC, I wish to express our sincere thanks and appreciation to the report writer, Dr. Julie Fisher, and to our partners –the Ministry of Foreign Affairs of Norway, UNICEF and the Gender and Water Alliance (GWA) – for their generous support in the production of this report. I would also like to convey our deep gratitude and thanks to the three co-conveners of the "Women Leaders for WASH" initiative -- Minister Maria Mutagamba of Uganda, former Minister Hilde F. Johnson of Norway, and UNICEF Executive Director Ms. Ann M. Veneman -- for their inspiring work to highlight these issues worldwide.



Roberto L. Lenton
Chair, Water Supply and Sanitation Collaborative Council



Foreword

Lack of basic sanitation and safe water is an acute problem for the women and girls who live in poor and overcrowded urban slums and in the rural areas of the developing world. Many of them have to wait to relieve themselves until dark, sometimes confronting the fear and the reality of harassment and sexual assault. When crises hit and personal safety and security are diminished, even fetching water becomes risky for fear of assault. In many countries, school attendance by girls is lower and drop-out rates are higher in schools that have no access to safe water and no separate toilet facilities for boys and girls. If we do not focus on these challenges, it will negatively affect our chances of delivering on a number of Millennium Development Goals.

There is a growing body of evidence that demonstrates the crucial importance of water, sanitation and hygiene (WASH) not only to human health but also for the economic and social development of communities and nations around the world.

Since 1990, over one billion people have gained access to improved drinking water and sanitation services. However, there are still 2.6 billion people who do not have sanitation facilities, and 1.1 billion people are still using water from unimproved sources. But it is usually the women and girls who suffer most. Poor hygiene, sanitation and water exacerbate poverty by reducing productivity and elevating health costs. Safe water sources near homes reduce the drudgery of fetching water, mostly by women and girls, who disproportionately bear the burden of this time-wasting activity, several hours each day.

Priority attention to WASH issues by countries, communities and individuals could fast-track the achievement of the Millennium Development Goals by 2015 and free women from a cycle of poverty, disease, child mortality and low productivity. This is why we have committed ourselves to the initiative called "*Women Leaders for WASH*", which was announced at the first Global WASH Forum in Dakar, Senegal in 2004 by the Water Supply and Sanitation Collaborative Council (WSSCC). As co-conveners of this initiative, we are urging other leaders, organisations and communities to rally behind this cause and help put women at the centre of water supply, sanitation and hygiene activities.

In the wake of the new "*WASH Partnership*" between UNICEF and the WSSCC, and the celebration of "*Sanitation and Hygiene Week*" from 15-21 March, we are pleased to present this report which documents and analyses the many positive contributions that women can make to the health and sustainable development of nations. Furthermore, it also strengthens the argument that women can be key agents of change if they are empowered and allowed to be involved at all levels of planning, implementation and operation of water supply, sanitation and hygiene projects.



Ann M. Veneman
Executive Director
UNICEF



Hilde F. Johnson
former Minister of
International Development,
Norway



Maria Mutagamba
Minister of State for
Water, Uganda &
President, AMCOW



Contents



Introduction 3

Part 1. How does the community benefit? 4

- 1.1 A Big Issue: Better services for all 4**
 - 1.1.1 The planning stage 4
 - 1.1.2 Funding 6
 - 1.1.3 Operation and maintenance 7
 - 1.1.4 Awareness-raising 7
- 1.2 A Big Issue: Better health for all 8**



Part 2. How do women benefit? 10

- 2.1 A Big Issue: Privacy and dignity 10**
- 2.2 A Big Issue: Women's health and well-being 12**
 - 2.2.1 Pregnancy and childbirth 12
 - 2.2.2 Women's safety 13
 - 2.2.3 Disability and women 13
- 2.3 A Big Issue: Girls' school attendance 15**
- 2.4 A Big Issue: Women's status 16**
 - 2.4.1 Women as positive role models 16
 - 2.4.2 Women as skilled workers 18
- 2.5 A Big Issue: Income-generation 19**
 - 2.5.1 Making an income from water 19
 - 2.5.2 Having more time to earn an income 20



Part 3. Key Messages and Recommendations 22

Any part of this publication may be freely circulated, reproduced, photocopied, electronically transmitted, broadcast, stored in a retrieval system, or communicated as long as the source is acknowledged.



Introduction

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. Over 100 world leaders at the gathering in New York also agreed on the third Millennium *Development Goal (MDG)* - "*to promote gender equality and to empower women*" - which is to be measured against the target of achieving gender parity in primary and secondary education, an MDG that had an initial deadline of 2005, but had been extended to 2015¹.

There is no question that the MDGs and the means of achieving them are strongly interdependent, and that many of them would have an effect on gender equality and women's empowerment if they were to be achieved. For example, MDG-seven is "*to ensure environmental sustainability*" and target 10 is "*to halve the proportion of people without access to safe drinking water and sanitation by 2015.*" The success of achieving this MDG is measured by the proportions of both rural and urban populations who have sustainable access to improved water and sanitation. In addition, the Millennium Project Task Force on Education and Gender Equality has proposed that additional indicators for MDG-three should include the 'hours per day (or year) that women and men spend fetching water and collecting fuel'².

It is estimated that women and girls in low-income countries

spend 40 billion hours every year fetching and carrying water from sources which are often far away and may not, after all, provide clean water.

From this standpoint, it is simple to understand that a woman could be empowered by having a nearby pump that conveniently supplies enough safe water for her family. Easier access to such basic services enables women to identify and grasp new opportunities for themselves, to grow in confidence and attain a greater sense of personal dignity.

This report is a collection of evidence, brief examples highlighting the effect and benefits of placing women at the core of planning, implementation and operations of WASH programmes. The experiences also show how women's empowerment and the improvement of water supply, sanitation facilities and hygiene practice are inextricably linked. One cannot be successfully achieved without the other.

The evidence comes from a variety of sources, some of it from recent literature, project reports and evaluations and some from personal correspondence with those involved, where changes are currently happening but not yet documented. Although the report is organised around selected key themes, the multiple impacts of any single intervention or improvement where known are also indicated.



If women are placed at the centre of decisions about water supply, sanitation and hygiene promotion programmes and activities, how does this benefit the wider community?

There is evidence to show that water and sanitation services are generally more effective if women take an active role in the various stages involved in setting them up, from design and planning, through to the ongoing operations and maintenance procedures required to make any initiative sustainable. As well as dealing with these technical and practical issues, women have an important role in educating their families and the community about hygienic practices. Again, evidence suggests that their involvement makes these ventures more likely to succeed.

The effects of both improved service provision and better knowledge about hygiene are felt throughout the wider community, most obviously through improved general health and quality of life. There are more subtle effects of these measures on the lives of women, such as greater confidence, increased capacity to earn money, and the fact that women are likely to be healthier, happier and have more time to concentrate on making the home a better place in which to live. Again, ultimately, what is good for women is good for the family and the whole community, who share the benefit from all these improvements.

1.1 A Big Issue: Better Services for All

There is sometimes opposition to positioning women at the centre of water resource management initiatives, even when this comes as a response to a directive to include a majority or quota of women in decision-making. This opposition is usually because women are seen to be stepping outside their traditional, non-public roles into public and technical areas for which they are perceived to be unqualified and unsuited. However, women can and do make a contribution to water and sanitation services and do have a right as human beings to participate in issues that affect their lives and those of their families. Women bear the main responsibility for keeping their households supplied with water, caring for the sick, maintaining a hygienic domestic environment and bringing up healthy children. It is they who are most likely to know what is required and where. Getting these important details right means better services and quality of life for all in the community.

A World Bank evaluation of 122 water projects found that the effectiveness of a project was six to seven times higher where women were involved than where they were not. The examples given here demonstrate this in many different locations and in various ways.

1.1.1 The planning stage

The results of involving women in the design and planning stages are multiple, from reducing corruption, increasing management transparency, better financial management and empowering women by example.

In Indonesia and Malawi, women overcame deeply entrenched prejudices about their lack of technical understanding, showing that, as primary users of water, they were the most qualified to comment on an appropriate design for a water system. What is seen to be new territory for women was quickly scaled up in Indonesia and the benefits extended to others:

❑ The women of the Sewukan community in the Magelan district of Java, Indonesia, took part in a consultation on community water systems. In spite of a degree of prejudice about women's lack of technical knowledge, they identified useful technical alterations to existing design errors, which were the basis of modifications to the new water system. Further improvements were made in the form of more equitable distribution of water supply and the addition of a sanitation facility. Prior to taking part in the consultation process, women in the community had not been accustomed to publicly discussing issues other than those relating to social and religious topics. Their input into this project resulted in the establishment of more community

How does the community benefit ?

committees in other neighbourhoods, which participated in project design and in monitoring the quality of construction⁴.



□ The aim of the Urban Water Point project in Malawi, funded by the United Nations Community Development Fund (UNCDF), is to construct a total of 600 water points to serve for 4000 households in 50 urban centres. When this project was first implemented, decisions about where these should be placed were largely made by the men of the community, sidelining the women who were actually the main collectors and users of water. This resulted in the pumps falling into disrepair as men had no real interest in ensuring they were properly maintained. Fifteen years into the project the situation has changed and women now make up the majority of the committee members and take an active role in planning and management processes. For example, Upile Ajibu is a member of the Village Development Committee in Mangochi district, where membership of the water committee is largely constituted of women. This is part of an initiative to ensure at least 30% membership by women on all committees⁵.

In South Africa, women demonstrate skills covering all aspects of project planning and implementation and provide additional value for money.

□ In Kraaipan, in the North Western province of South Africa, Jacobeth Mabeo and her female sanitation committee colleagues have responsibility for implementing the village sanitation project, which covers all aspects of planning, construction, health and hygiene training,

awareness-raising and financial management. The committee has succeeded in extending the project to encompass a greater number of households than were originally proposed. This was achieved by building the toilets more cost-effectively and through the use of an external subsidy⁶.

The extent of women's achievements is demonstrated as they hold their own in a man's world: improving both services and consumption rates; imposing transparent procedural changes and the need to be publicly accountable; and raising the profile and status of women in the community.

□ Following the Marathwada earthquake in 1993, the Indian government appointed Swayam Shikshan Prayog (SSP) to ensure that the affected communities in 300 Latur and Osmanabad of villages were actively involved in the 'Repair and Strengthening Program'. A key element in this process was to establish community-based women's groups and to enable women to assume visible leadership positions. This provided encouragement to other women in the communities to attend informal discussions and to participate in village assemblies related to the programme. Furthermore, they were involved in carrying out water and sanitation needs assessments and engaging with engineers and government officials. The benefits of their involvement were far reaching, and included better service provision, the exposure of corruption at various levels, greater public financial disclosure and transparency concerning the achievement of the anticipated goals. This novel influential role played by women had strong support by the whole community⁷.



□ The Rakin Women's Society in Jordan aims to improve the social, economic, cultural and health conditions of local rural women. As part of this initiative, women in Rakin, the centre of a cluster of villages, have been part of a project using technical assistance provided by the Watershed Management Project supported by the German Development Agency (GTZ), which has installed water cisterns and harvesting measures into households. Repayable grants covering up to 66% of costs have been available to householders. Women's involvement is widely perceived to have directly enhanced the project's effectiveness, resulting in widespread benefits. Households now have sustainable clean water supplies for irrigation, resulting in increased food security; they no longer pay exorbitant prices to purchase water from tankers; their consumption rates have increased; women have been able to make a greater contribution to household resources; and women's capacity for financial management has been developed⁸.

□ In the Kilombero district of Tanzania, a water well which was built by an NGO dried up shortly after it was created. When development workers talked to the local women, they reported that the location of the well had been decided on by a local committee consisting only of men, and that they had made their decision only on the basis of geographical criteria. Women on the other hand, demanded that the soil conditions also be taken into account. Where water is scarce in Tanzania, it is often the task of women to dig for it by hand, and consequently, they know the places which provide the best water yields. Since that incident, women in the Kilombero district have had more involvement in decisions about where to water wells should be dug⁹.

Women in the Ukraine exerted effective pressure on powerful authorities to bring about change to unsafe and unfair practices.

□ The town of Luzanivka in the Ukraine experienced problems caused by an inadequate sewerage system that would result in an overflow of sewage onto the streets. MAMA-86 is an environmental women's organisation that was formed after the Chernobyl disaster. In 2000, it launched a political campaign, filing a law suit against the authority responsible. The result was that the government funded the construction of a sewage pump and closed the oil-tank cleaning facility from which the problems were originating. MAMA-86's other achievements have included water mains repairs, installation of water meters to reduce very high water bills, plus reimbursements to those who had overpaid¹⁰.

1.1.2 Funding

According to the UN Interagency Task Force on Gender and Water, women have been found to be the most effective managers in several UN water projects in Africa, where water has been used for income generation and where women have control over income earned from their small-scale enterprises. Women's cooperatives connected to water points in Mauritania, for example, have become very dynamic and women take a more active and prominent role through capacity building and provision of credit. For example, women in Lesotho have a tradition of saving small amounts of money each month for important purposes. Such traditional sources of investment can be used for water and sanitation facilities if supplemented by seed money from NGOs or other sources.

There are many other instances of women successfully taking responsibility for generating or administering funding for WASH improvements.

□ In Keelakarthisgaipatti, India, a Water Partners International project, the Sustainable Health through Water and Sanitation Program (2004) has brought about significant improvements in the water supply and sanitation facilities. A central role has been played by a Women's Self-Help group, which is in charge of the loan fund within the community. Women involved with this have enjoyed the additional benefits of their new leadership roles, with responsibility for funding the project, construction of facilities and the project's successful completion¹¹.

□ The Kirinyaga district of the Central Province of Kenya is an agricultural community. The river used to provide the major source of water, with the result that diarrhoea was therefore common. In 1997, a water committee 'The Kenera Women's Group' was established, as women in the community were impatient with the slow rate of change. This provided training for them in management skills. A gravity-fed scheme was introduced, with funds raised by the women who also provided some manual labour. 300 members of the group now have household connections and 100 have access to a water supply less than 100 metres away. Hygiene and sanitation promotion activities are available to all, with hospitals and schools also benefiting. The overall results have been better health for women who no longer have to carry water over long distances, higher rates of school attendance for girls, less diarrhoeal disease for the whole community, increased income generation opportunities and greater skills for women¹².

□ In a small village in Pakistan called Banda Golra, Nasim Bibi, one of the village women, established a community-

based women's organization (CBO) in 2002 in order to be eligible for a money lending scheme for CBOs. The CBO identified increased access to water as a priority for action and with the proceeds of the savings and loan scheme, installed seven hand pumps around the village. The community contribution was 20% with the NGO funding the balance. Each household contributed Rs. 1000 (US\$ 16) as well as providing food and accommodation for the labourers. The sanitation and health situation in Banda Golra has been significantly improved, women's decision-making power at the household level has increased for the majority of those involved in the water and credit schemes, and the value of their participation in public activities has been widely recognised¹³.

1.1.3 Operation and maintenance

In many projects women have taken a key role in the smooth running of water supply and sanitation schemes, including an active role in maintenance and ongoing repairs.

❑ The concept of India's first sanitised slum in Tiruchirappalli has been extended to seven other areas. This has been an initiative with the Gramalaya NGO that aims to provide slum communities with safe drinking water through hand pumps and through the construction of community and household and child-friendly toilets. The programme works with CBOs such as women's self help groups, raising awareness of the need to use and maintain toilets properly. The fact that women in the Sanitation and Hygiene Education group are responsible for maintenance and repairs has meant that open defecation has been completely eradicated in the area¹⁴.



❑ As part of the KWAHO (Kenya Water for Health Organisation) supported WaterCan-Watsan project in Kibera, Nairobi, community Vented Improved Pit latrines and water points were provided. Two of the community water points are managed by Daranjani Women's group, which is a

registered CBO, comprising 20 women and five men. All its members are trained in hygiene promotion and in the operation and maintenance of the 10,000 litres water storage tanks that are connected to the main municipal supply¹⁵.



1.1.4 Awareness-raising

A key component of any WASH project is to raise awareness about the importance of carrying out safe hygienic practices. Women play a vital role in awareness-raising about these issues, as they take the main responsibility for domestic duties and for developing safe and hygienic habits in children. Women also cope with the additional burden of caring for household members who become sick as a result of unsafe water and poor sanitation.

❑ The Pro-Poor Water Supply and Sanitation Project in Nepal is implemented specifically in poor communities, which can demonstrate a real demand for improved water and sanitation services. As women have the main responsibility for water, they are encouraged by the project to take a lead role in community decisions about water supply through membership of the Water User Committee and to utilise their knowledge and capabilities to influence its design. In addition, Hygiene and Sanitation Education programmes provide support for female facilitators to inform the community on water borne diseases and their prevention¹⁶.

A striking example of public awareness efforts that encouraged women's participation is the Journalist Orientation Programmes which were organised by the Nepal WASH Group in three regions before launching a media campaign in March 2004 to coincide with National Sanitation Week. The objective was to make the media realise that sanitation was one of the big issues impacting on people's lives. Particularly encouraging was the response from women journalists, a significant achievement considering that the media is dominated by males in Nepal.

Established in 2002, the "WASH Media Award" encourages

journalists in developing countries to provide better coverage of WASH issues to raise public awareness. At the 2004 Global WASH Forum in Senegal, the first recipient of the award was Ms. Nadia El-Awady, an Egyptian science reporter for “Islam Online.” The Nile and its People described the impacts of industrial pollution, sewage and solid waste management on people’s health and dignity along the River Nile and was broadcast as a TV documentary on BBC World.

Summary points

Putting women at the centre of WASH improvements leads to better service provision through:

- ❑ better technical design and planning, based on key stakeholder consultation
- ❑ management accountability and transparency in all aspects
- ❑ sustainable, safe services
- ❑ responsibility for efficient generation and administration of funds
- ❑ value for money schemes
- ❑ scaling-up of benefits to other areas by empowering women and other women’s groups by example to replicate benefits
- ❑ more efficient awareness-raising about hygienic practice
- ❑ better maintaining and repairing of components to ensure the smooth running of schemes.

1.2 A Big Issue: Better Health for All

Following the implementation of water supply projects, the incidence of water-related diseases decreased, according to WaterAid’s studies of water provision in Ethiopia, Ghana, India and Tanzania. Projects in India reduced the incidence of scabies, diarrhoeal episodes and child mortality. Also in Atwedie, Ghana, bilharzia, scabies and yaws have been eradicated from the village¹⁷.

Coupled with improvements in hygiene practice, this leads to better general health for the whole community. For example, households with a 10 per cent increase in water use for cleaning purposes enjoyed a 1.3 % decrease in the occurrence of diarrhoea¹⁸. Having convenient amenities and plenty of water on tap also enables women to maintain more hygienic standards of childcare. It was found that the existence of a yard tap nearly doubled the odds of a mother

washing her hands after cleaning a child’s anus, and doubled the chances of her washing faecally-soiled linen immediately¹⁹.

Women have the best local knowledge about common habits and any problems stemming from them. They are therefore central to educating their families and other community members about the benefits of using safe water, adequate sanitation and practising good hygiene, as the following examples show:

❑ **Winnie Miyando Cheolo and Febby Temb Mwachingwala are members of a women’s group in Mwachingwala village, Zambia, which has actively promoted sanitation and hygiene issues since 1998. During this time, they have been involved in building latrines for every household. Other hygiene initiatives carried out have been the promotion of the use of dish racks, rubbish pits and washing facilities, all of which have impacted to reduce the incidence of disease in the village. Another important improvement is that children are taught about good hygiene practice²⁰.**

❑ **The Clearwater Project is being implemented in the Gualcinse community in Honduras. Gladis Maribel Dias is one of its beneficiaries as she now has piped water and a “pila” (outdoor wash basin). She states that she was motivated to have a water supply in her home because it guarantees her family a better life. Each household is offered a latrine and a bath, which provide residents with the opportunity to enjoy a level of hygiene and personal cleanliness as well as the benefits of basic sanitation²¹.**



Group initiatives with women in the community have proven to be an effective way of transmitting key WASH messages, which bring about radical changes in the health of the community.

❑ **In India, the Village Service Trust (VST) works with poor, low-caste women to improve the health of the poor as well as their social, economic and political status. Preventative health is a major factor in the activities of VSTs, involving**

local women, who are informed about village disease and illnesses, to carry out house visits and to coordinate group discussions. Voluntary health committees are also active in such activities as chlorinating the village water tanks, and these are made up of teachers, elders and women's self-help group members²².



❑ Nagarata Women's Group in Bauchi State, Nigeria, works closely with women to deliver water, sanitation and hygiene education. The hygiene component of their intervention has meant that women are now more aware of basic hygiene practices, living conditions have become healthier, children are better nourished and cared for and mortality rates have fallen. An additional positive associated impact is that women are also able to make a living by making and selling soap²³.

❑ The Drinking Water, Sanitation and Community Organisation Program in the rural areas of Pasoc, Nicaragua, has worked on health and violence issues from a gender perspective. Part of this has been to increase the proportion of women participating in Water Committees to around 45% and the proportion of women committee coordinators to around 50%. All educational materials used have been adapted to include a focus on gender for use in school Health Education Programmes²⁴.

❑ Women of the Whitehorses, Botany Bay and Pamphret Benevolent Society in St. Thomas, Jamaica have been trained as WASH Promoters to investigate the state of sanitation and hygiene in their communities and to mobilise, educate and support community members to address key concerns. Consequently, members are using self-help, small grants and loans to construct toilets. Men are also becoming more active in responding to issues of sanitation and are included amongst participants in behaviour change training.

According to the WHO and UNICEF, HIV/AIDS increases an individual's susceptibility to diseases related to water, sanitation and hygiene. Death and disability from the

disease can have a dramatic impact on a community's capacity to cope with the hardships caused by lack of improved WASH services. In Sub-Saharan Africa, a high proportion of HIV/AIDS victims are women, and when living with HIV/AIDS, their suffering has a double impact on their families' water problems. Not only may they face increased difficulty in fetching or carrying water or fulfil their roles as home carers, but their daughters, who would normally share this burden have instead to tend to their sick parents and dependent grandparents²⁵.

Summary points

Putting women at the centre of WASH improvements leads to better health for all because:

- ❑ women have a good knowledge about local water and sanitation practices and any associated problems, which can direct interventions
- ❑ women's interest in the family's health motivates them to bring about improvements
- ❑ women use group activities to reach other women and disseminate messages about good hygiene
- ❑ women are targeting men for involvement in sanitation and hygiene promotion so that they too take responsibility for this aspect of personal and family living.





If women's needs, interests and perspectives are placed at the centre of decisions about WASH promotion programmes and activities, what benefits does this offer them?

This section discusses the ways in which mainstreaming women's interests in water, sanitation and hygiene has a direct impact on the way women experience life, in the tasks they perform, their potential and opportunities, and the difficulties they face.

2.1 A Big Issue: Privacy and Dignity

Where there are no facilities for defecation, this is a grave problem for everyone, men included, but especially for women and children and young girls in particular.

Women and girls can be forced to wait until nightfall to defecate, if there are no suitable sanitation facilities for them to use in the daytime. Evidence from Nazlet Fargallah in Upper Egypt confirms that this has severe detrimental health impacts²⁶. Restricted toilet opportunities increase the chance



of urinary tract infection and chronic constipation as well as causing psychological stress²⁷. It also makes women vulnerable to violence if they are forced to defecate early in the morning or after nightfall, in secluded areas, sometimes risking rape and sexual and physical assault. With access to appropriate toilets, women and girls can use them at any time, in private, without shame, embarrassment or fear²⁸. Making defecation less of a problem is a liberating development for women, whose lives can be dominated by this basic need.

The symptoms of menstruation, pregnancy and the post-natal period become more problematic if women have nowhere to deal with them adequately. The only way this can be remedied is by designing facilities which meet women's physical and psychological demands and preferences.

A case in which women's needs were ignored shows how easily their privacy and dignity can be compromised.

❑ In South Africa, the Aqua Privy²⁹ requires water to be poured into the toilet bowl after use. In addition, the sludge needs to be emptied periodically. The consequences of this are that:

- it requires water to be fetched – an obvious and humiliating sign that women want to use the toilet;
- the toilets face the street, causing embarrassment and harassment;
- sanitary pads cannot be flushed into the bowl leading to further embarrassment;
- the toilets are too small for pregnant women and women with children to use comfortably;
- a toilet is full when black worms come out of the seat, at which point it is a woman's task to empty it; and
- women who perform this task can be seen to be unmarriageable.

Part 2.

How do women benefit ?

In contrast to this is an example from India.

❑ Utthan is an Indian Implementing Support Agency that aims to improve water and sanitation services, through capacity building and community mobilisation. It is agreed that half of all members of these Pani Samiti committees should be women and women-focused hygiene programmes have been established. Rudiben and Baluben are examples of women who are advocating for the sanitation systems that women really want, that is, those which offer them privacy and safety. Loan schemes have been set up to enable households to buy these. In the village of Chhaya, an integral element of this scheme was to ensure that stand posts be located in places where women preferred them to be, in terms of their convenience and safety⁹⁰.

Ensuring women's privacy leads to their having greater confidence about their bodies and about themselves as women. Four villages were assessed in WaterAid's 'Looking Back' study to see what the impact of water, sanitation and hygiene interventions had been. Mdala Herieti of Berege Tanzania, confirms that having water near women's homes has improved menstrual hygiene and made women feel more confident in front of others.

❑ When the women in the village of Songambe, Tanzania were able to bathe regularly during menstruation, they reported improved personal hygiene and with this, increased confidence. Before this, women who were perceived to have problems maintaining levels of cleanliness suffered intense humiliation by being taken before the elders for advice.

In rural Bangladesh, urinary and vaginal infections are common amongst women who use 'nekra' rags instead of sanitary towels. These are torn from old saris and are washed in unclean water before being dried somewhere hidden and often damp and unsanitary. In Nepal, it is known that laundering underclothes during menstruation requires more water than normal and women from NGO supported projects would put themselves at risk by collecting extra water at night.

❑ Similarly, the Swayamsiddha project in India, which was

implemented in four villages in the Chitrakut district in Uttar Pradesh state, carried out a Community Needs Assessment involving men and women separately. Women in the community follow purdah which requires them to live in some degree of social exclusion and cover their bodies to avoid public gaze. Although there is a 30% reservation for them in Panchayat Raj Institute (village council) elections, they are seen to participate as proxies for men. Open defecation was a common practice prior to the project interventions, which meant that women would wait until nightfall, which presented severe difficulties for them, and even more so when pregnant or menstruating. As a result of the project, 779 women were involved in Self-Help Groups throughout the district, which provided a range of services including savings and credit facilities, health

Summary points

Putting women at the centre of WASH improvements leads to greater privacy and dignity for women because:

- ❑ women's particular needs are taken into consideration
- ❑ symptoms associated with menstruation, pregnancy and child birth can be managed discreetly
- ❑ women can relieve themselves when they need to, rather than waiting until they can have some form of privacy
- ❑ women suffer less harassment and no longer have to endanger their health by delaying defecation and urination.
- ❑ women's exposure to sexual abuse and other forms of violence is reduced
- ❑ personal hygiene is easier to maintain, giving women greater confidence and self-esteem in maintaining their own cleanliness.

awareness, skill building and health training programmes. The groups were able to offer financial assistance for half the cost of toilet building, and initiated community drama activities to spread the message about their benefits. The impact of building these toilets was significant as women's perception of their own bodies changed as defecation, menstruation and pregnancy could now be dealt with discretely. There was also a decrease in diarrhoeal incidence, a reduction in the girls' drop out rate from schools and an increase in women's technical knowledge⁹¹.

2.2 A Big Issue: Women's Health and Well-being

Water, sanitation and hygiene interventions result in widespread health improvements for the whole community, by lowering the incidence of water-borne and communicable diseases. This is advantageous for women, not only with regards to their own health, but as they are the main carers for the sick. Furthermore, there are specific health benefits to women, including those relating to menstruation as discussed above. Other benefits include avoiding the damage inflicted by carrying heavy loads of water over long distances, and having a more comfortable and safe experience of pregnancy and childbirth.

2.2.1 Pregnancy and childbirth

"Improving maternal health" is Millennium Development Goal five and has the target of reducing the number of women dying in childbirth by 75% by 2015. Many of the determinants of maternal and infant health and well-being are multi-sectoral and require programmes that provide improvements beyond the health sector. Gender inequalities, including poor access to and control of resources (including water) for women are linked strongly to maternal morbidity and mortality in sub-Saharan Africa⁹².

Easy access to safe water is known to improve maternal health, simply as pregnant and nursing women no longer have to struggle with heavy loads of water several times a day⁹³. It is known that carrying traditional water pitchers on the hips can cause difficulties during pregnancy⁹⁴. Sickness through water-borne disease is also avoided through use of clean water and better hygiene. Pregnant women face greater risk of hookworm infestations, which has been linked to low birth weight and inhibited child growth. Studies in Haiti show that good hygiene and plentiful clean water reduce these risks⁹⁵. A recent WHO/UNICEF study also highlights the fact that access to adequate supply of good quality water for pregnant women is vitally important to

protect them from serious diseases such as hepatitis⁹⁵. Hygienic childbirth techniques used by skilled birth attendants can avert half of all infection-related deaths.



Puerperal infections are mainly caused by unhygienic practices and poor infection control in labour and delivery⁹⁶ and are the cause of 15% of all maternal deaths. The promotion of hand-washing and hygienic practices during childbirth reduces the chances of such infection.

❑ In Tanzania, an increased availability of water during and after childbirth reduced postnatal infections. The work of traditional birth attendants like Mdala Rhoda in Songambele village, Tanzania was made easier and more effective by being able to replenish her supply of water.

❑ A study of Sri Lanka and Malaysia found that reductions in maternal mortality ratios and communicable disease were linked strongly to general improvements in sanitation. Government human development programmes in Malaysia, aimed at underprivileged groups, were based on a synergy of health care with education, water and sanitation programmes. Women's involvement was important and gender equity was seen to be a priority. As a result, female life expectancy has increased from 58 to 69 years and maternal mortality has decreased by 70%⁹⁷.

Giving birth in health centres with inadequate drinking water and sanitation and poor management of medical waste increases the risk of disease and death for both the mother and her baby. It is therefore essential that new mothers have access to clean water, for there are grave consequences when it is not available.

❑ A woman from Hitosa, Ethiopia and her baby experienced severe effects due to a lack of water which lasted three days following the birth of her child. This meant that she could not be given a special fluid that women drink following childbirth, which has beneficial effects against infection for mothers and their babies, nor was she able to wash herself or the baby.

2.2.2 Women's safety

Years spent carrying water over long distances can inevitably result in physical damage to the back and neck, as the loads are often very heavy.

❑ In the rural areas of Tibet, there is what is known as a 'back happy' tapstand, which is an adaptation of the traditional tapstand, with a waist high shelf and an extra, higher tap added. Water can drain off the sloped shelf to the splash apron at ground level. This allows women to fill and carry 15-20 litre metal jars of water, without bending from the waist. It is also suitable for people who have difficulty bending and those with lower back pain. Women report that this design has improved their quality of life as the task of water carrying is now far less difficult³⁸.

Physical assault and rape are also real risks faced by women collecting water from an isolated place or taking themselves off to a secluded spot at night to relieve themselves. Where water is in short supply, women can be intimidated in the task of collection.

❑ Conversely, a more plentiful supply of water in Tanzania meant that women were not exposed to harassment and abuse from local well owners¹⁷.

Accessing some sources of water can be dangerous in itself.

❑ In Kenya, Nakwetikya, a 60 year old Masai woman, has benefited from a new water source as she no longer has to climb down the very dangerous open wells that are the means to access water. Her sister was crushed to death when a well collapsed, leaving Nakwetikya to bring up her sister's four children. Before the improvements, cholera was an annual occurrence and the incidence of diarrhoea was high, with frequent child deaths. Three of Nakwetikya's children died in this way³⁹.



2.2.3 Disability and women

Disabled women and men benefit directly from innovations relating to their use of water and sanitation. The examples below show that the effects of these changes are that they can wash and attend to their needs without help, they are less restricted and can contribute to the family's livelihood, and there are beneficial health impacts for themselves and the wider family.



❑ Mrs. Rong Ry is a wheel chair user, paralysed below the waist. She is 34 and lives with her husband and children in a rural village in Siem Province, Cambodia. The family has constructed a screened bathing area for Mrs. Rong, made from palm leaves and plastic sheet on a bamboo frame, with a plastic door. This is big enough for a wheelchair to turn in and has a bathing bench and a water storage jar. It allows Mrs Rong to transfer from her wheelchair to the bench for personal washing and for doing laundry. Before these innovations, Mrs Rong stayed upstairs in the raised house, being unable to move about and suffering from pressure sores. At this time she was dependent on her husband for personal care.

❑ Mrs. Annette Bugirwa Nalukwago is blind and lives with her children in the Mubende district of Uganda. The family's



water supply and bathing facilities have been modified to allow her to make use of them independently. Two wooden posts mark the location of the rainwater tank which she can find with her white stick. In addition, a low tap allows a container to be placed on the ground while being filled. Mrs. Nalukwago has her own bathroom with a place for the bucket, basin and towel, which are easy for her to find. The whole family has benefited from Mrs. Nalukwago's new found independence. In the past, someone had to stay with her to ensure that she stayed safe. Mrs Nalukwago can now contribute to the family by cooking while they work in the fields and fetching water for the poultry⁴⁰.

❑ Mrs Pethayee lives in Ponnusangampatti, Tamil Nadu, India. She struggles to walk due to polio. Water Partners International made it possible to install a western-style toilet rather than a traditional squat-style latrine, which has proved to be easier for her to use. The toilet has improved her quality of life and made her home a healthier place⁴¹.

Caring for disabled individuals within the household often falls naturally on the woman. Any measures and interventions which can assist the disabled person in their use of water and sanitation facilities also make the job of the carer easier.

❑ Shathi, aged 9, lives with her parents and three sisters in one room in a slum area of Dhaka, Bangladesh. Due to cerebral palsy she cannot stand or walk but can sit with support. Her mother, Mrs Rasheda, spends a lot of time every day looking after her and had to help her go to the toilet into a drain behind the house, supporting her all the time. Shathi now has a metal commode chair with a plastic inset toilet pan and can now sit on the commode without support and get some privacy. The commode and its parts are durable and easy to clean. For Mrs Rasheda, the toilet chair means she spends less time, energy and effort than before giving basic care to her daughter, Instead, she has time to take Shathi to the therapy centre and can get on with domestic work, including growing vegetables for the family and to sell for extra cash.

Summary points

Putting women at the centre of WASH improvements leads to better women's health and well being because:

- ❑ pregnancies are healthier
- ❑ the experience of childbirth is improved
- ❑ maternal morbidity and mortality are reduced
- ❑ women suffer less physical damage from constant lifting and carrying heavy loads
- ❑ women are exposed to diminished risk of physical and sexual assault
- ❑ women do not have to put themselves in danger getting to the water source
- ❑ the role of carer of the disabled becomes less demanding
- ❑ the disabled experience improvement in their personal hygiene, health and independence.



2.3 A Big Issue: Girls' School Attendance

Water and sanitation related diseases can affect children's physical and mental development. The diseases also prevent them from going to school. In fact, many schools in the developing world contribute to their ill health as they often provide appalling sanitary conditions.

Of the 120 million school-age children not attending school, the majority are girls. Regionally, this means that 41% of primary school-aged girls worldwide who are not enrolled at school live in South Asia, and 35% live in Sub-Saharan Africa. The effect of this lack of schooling is that two thirds of all those who are illiterate in the world are women⁴². This is despite the fact that female illiteracy has fallen worldwide from 32.6% in 1998 to 29.9% in 2002⁴³.

Country classification	Ratio of female to male enrolments in primary and secondary school (%)	
	1990	2000
Low & middle income		
East Asia & Pacific	83	97
Middle East/ N. Africa	79	95
South Asia	68	79
Sub-Saharan Africa	79	82

World Bank, World Development Report 2004

The table above shows the level of inequality between the proportions of boys and girls who go to school. This can be partly attributed to the lack of convenient clean water supply and safe sanitation at community level. Girls, just like their mothers, have prime responsibility for providing the family with enough water to meet their daily needs of drinking, washing and cooking. This takes up time which girls could be spending at school. The equation is simple - when women and girls have easy access to a clean water supply, less school time is lost fetching water²⁸. There is a lot of evidence to confirm this link:

- ❑ School attendance by girls has risen since the introduction of water points in four communities in Arappalipatti and Panjapatti India, which has, in turn, increased women's literacy levels¹⁷.
- ❑ The Rural Water Supply and Sanitation Project of the World Bank aimed to improve girls' school attendance in Morocco, through reducing the traditional burden on them to fetch water. In the six provinces involved, their school

attendance increased by 20% over four years, attributed in part to the lesser time spent on this task. Convenient access to water reduced the time for fetching water by 50%-90%⁴⁴.



- ❑ The Ponnuansangampatti project in Tamil Nadu, India, supported by WaterPartners International, has included latrine-building, installing new handpumps and digging wells. S. Ganhamani took out a loan from the WaterPartners Loan Fund to install a tap connection to her house. This meant that she now has water for her garden and is able to make a good income from growing bananas which adds five weeks wages to her annual income. She has more time for productive work and is able to send her daughter to school⁴⁵.

Female pupils can be deterred from attending school if there are no private and separate sanitation facilities and a clean water supply. This is especially important for pubescent and menstruating young women. It has been found that where these are provided, school enrolment increases and drop out rates decrease⁴⁶.

- ❑ In rural Pakistan, more than 50% of girls drop out of school in grade 2-3 because the schools do not have latrines⁴⁷.
- ❑ An assessment in 20 schools in rural Tajikistan revealed that all girls choose not to attend when they have their periods, as there are no facilities available⁴⁸.
- ❑ In 1999, a borehole, handpump and separate pit latrines for boys and girls were constructed in the Nigerian village of Bashibo. A school Environmental Health Club was also established, promoting hygienic behaviour in the home. By 2001, hand-washing had increased by 95%, with 90% bathing and brushing teeth regularly. School attendance, especially amongst girls, has increased, as has the general health and nutritional status of the community⁴⁹.
- ❑ The Kenera Women's Group in Kenya have raised

funds for water connections and hygiene and sanitation promotion programmes in schools. Girls no longer have to travel long distances to fetch water, resulting in increased school attendance¹².

Finally, the recruitment and retention of female teachers is also affected by lack of services, and a good school to be employed at is often defined by whether or not it has access to toilets. Female teachers are also burdened with the task of water collection which can inhibit their work and with caring for the sick as a result of inadequate water, sanitation and hygiene. WaterAid reports that since their clean water programmes in India, Tanzania and Ghana, teachers are more likely to accept posts in areas which were formerly difficult to recruit for¹⁷.

Summary points

Putting women at the centre of WASH improvements leads to more girls attending school because:

- ❑ they no longer have to travel long distances to collect water for their families therefore giving them time to attend school
- ❑ where schools have clean water supplies and private toilet facilities for girls, they are more likely to attend school
- ❑ menstruating girls are able to deal with this in a discreet way, saving themselves public embarrassment and reducing the number of girls forced to drop out from school
- ❑ female teachers are easier to recruit and retain, if schools have good water and sanitation provision.

2.4 A Big Issue: Women's Status

Women who take up a new role in the planning, design and implementation of water, sanitation and hygiene interventions often find this an empowering experience. Both the women concerned and the wider female community can be seen in a new light, as having skills and potential which were previously denied to them. This general improvement in status within the home and community opens up many kinds of opportunities for women, including different means of income generation, and sometimes, the possibility of going on to occupy other public and influential roles.

Nakwetikya of Ndedo village in Tanzania⁵⁰ describes how

women were viewed before they were active in a water committee:

"Three years ago, before we formed a committee and prepared ourselves as a community for the water source, men just saw women as animals. I think they thought of us as bats flapping around them. They had no respect and no one would allow you to speak or listen to what you had to say. When I stand up now in a group meeting 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.

Oh, when I think back to how we used to feel terrible. I was treated like a donkey only fit to carry baggage all the time. Or a scrap of paper, just rubbish in the wind. I can assure you though, that if you come back in a few years you will see that women will be leaders of this village. That will bring so many benefits to everyone!"

Due to the work of a Participatory Action Research team working in the village of Hoto, Baltistan, in Pakistan, women were eventually allowed to join a meeting to develop strategies aimed at solving the drinking water problem. Although the women followed a strict form of purdah, they were able to make their views known about the most appropriate solution, which was contrary to that suggested by the men of the village. When their suggestions were adopted as the most cost-effective measure, women's status and involvement began to change from being completely passive to becoming active participants in the community. They have since demanded hygiene education for women, and have been collecting money from households for the operation and maintenance of the water system. The most significant effect is judged to be that they are now sending their daughters to school to receive an education⁵¹.

2.4.1 A Women as positive role models

Women actively involved in water resources management can provide a positive role model for other women in the community:

❑ **Woiz Yaleme is married with four children. She is the chairperson and an active member of the Kebele Gender Group (KGG) in Kebele, Ethiopia, which is made up of three women and two men. In the beginning she received a lot of opposition from the community and her relatives for her involvement. With time the opposition decreased and now she is seen as a 'model' rural woman, in terms of her housekeeping and her productive garden, which is the result of a well which she and her husband have dug for irrigation purposes⁵².**



❑ Shanti Bhut is a 21 year old married woman in Baitandi, in the far western region of Nepal, who became the vice chair of a gender and caste-representative Water and Sanitation User Committee and trained as a paid maintenance caretaker. From this, she has progressed to become vice president of a NEWAH promoted gender-sensitive savings and credit steering committee. Her skills and ability to earn an independent income mean that she is a source of pride to her in-laws and she is held up to other women as a positive role model within the community⁶³.

❑ In the Visayas in the Philippines, recognition of women's newly acquired management skills and the training they received for new tasks has given them increased confidence and has won them the respect of the community. They are now consulted about the design of water supply systems and latrines and feel themselves 'partners in progress' rather than simply 'for decorative purposes only'⁶⁴.

Some women who had initial involvement in WASH projects have increased their areas of responsibility and influence, like Shanti above.

❑ Acord, a women's organisation, a Tanzanian women has been working with the local government authority in two wards in the Geita township, to identify water sources and to carry out participatory analysis of water use patterns in the community. At the beginning of the project, the water sources had been decreasing over time, with women competing with water vendors at those sources that did exist. The water committees were dominated by men even though women were responsible for collecting the household water. New water source committees were formed, 40% of which were made up of women. This led to women demanding training in water management, sanitation and hygiene. Their participation was a springboard to other opportunities for them to engage with local development issues relating to education and the

environment at ward, village and street levels. Due to this, women now feel empowered; and the men have recognised the amount of time taken up by water collection and are beginning to share this role⁶⁵.

Intervention programmes have been designed to meet the needs and raise the status of women in purdah.

❑ In Dindima, Bauchi state, Nigeria, the lack of sanitation for tourists meant that due to the geographical layout of the area, excrement was washing into the living quarters of many families during the rains, making their children sick. Due to purdah the women were also not able to access water and sanitation facilities outside of their yards. The women requested that these problems be solved and through a micro-credit scheme and with the support of WaterAid, public latrines were constructed. The unlined hand dug wells within the yards of the families were also improved and rehabilitated to supply safe water. The women received training in soap making, the proceeds from which now support four adult literacy centres in the town for women in seclusion⁶⁶.

There are specifically designed programmes aimed at involving women such as the Waters of Nouadhibou Project in Mauritania which is coordinated by the Women Doctors/Dentists Association in the Sahel region. It offers training programmes for women on water quality, management and water use in agriculture, providing support for trickle and sprinkler irrigation systems. Automatic drinking fountains have been installed in schools, which have helped children learn about the value of water for health. As part of the programme, senior female students are made role models responsible for the quality control of the water and operations and maintenance of the systems.



□ On the island of Hispaniola, in the Dominican Republic, the number of women involved in WASH projects has increased. Problems caused by lack of water have been identified by rural women's groups working with MUDE (Women in Development). These have included the health and well being of their families, lack of schooling for children who need to fetch water, poor personal hygiene, and the cost of medicines to treat waterborne illnesses. Women are more likely to know about these issues than men, through their everyday experience of maintaining a family. Often the interventions take place in small, isolated communities, which government programmes would not reach, using appropriate technologies such as gravity systems, Ariete pumps and solar energy, with a distribution network for a tap in each home. The positive effects on health and well being for the community reduce the demands made on women as carers of the sick, as carriers of water and offer them more opportunity for earning money. Some individuals have even entered local politics or study, while others have gained the confidence required simply to negotiate their own needs⁵⁷.

The lack of adequate sanitation and proper hygiene practices undermine the relative benefits of having safe water supply in the community. Women play a crucial role in influencing the hygiene behaviours of young children, and men can – and should – also serve as role models in the struggle.

2.4.2 Women as skilled workers

There are many examples where women are involved directly in the technical operations and management of water and sanitation services, which requires a certain level of training and expertise. Again, challenging gender specific roles like this helps to change traditional perceptions about women's status, skills and capabilities held by the community, the family and sometimes even by the women themselves.

□ Coordinated by CARE-EI Salvador, the Agua Project started in 1999, focusing on gender and watersheds. It has promoted leadership in women, encouraging them to participate on the Board of Directors of various water systems and training them as Community Producers, Promoters and Managers of small sized companies. Ana Victoria Mejia has played an important role in this project and her work has impacted positively on 24 neighbourhoods. Women have acquired agricultural technological knowledge and skills and are performing tasks that previously were considered to be suitable only for men²⁴.



Adapting women's roles does not always go unchallenged, if it is seen to be contrary to traditional cultural stereotypes:

□ The Australia-East Timor Community Water Supply and Sanitation Program is currently committed to the promotion of women's participation in water and sanitation activities, although this is not widely accepted or promoted by participating NGOs. The local culture does not equate the role of women with decision making or with the acquisition and use of technical skills, as these tasks are traditionally assigned to men. However, a few exceptions exist. In Daralari, women have taken on the roles of adviser, health worker and secretary and all are vocal and active in them. In Aldeia Dilai, Bobonaro district, women have been taking on technical tasks such as building toilets which involve digging deep pits, mixing cement etc. This occurs only because men are not around to do this as it would not normally be tolerated⁶⁸.

There are many instances in which women are trained and successfully work in technical jobs, for example, as handpump caretakers:

□ Handpumps were provided to residents of villages of the Krishnarayapuram Panchayat Union in Tiruchirappalli district, India. Sirumbayi, a 33 year old mother of three, was trained as a handpump caretaker. She is from a lower social caste, previously forbidden to touch water sources. In this case, her status as a woman has increased two fold, firstly by carrying out a technical job, but in addition, despite her caste status, she is now allowed to collect water¹⁷.

□ In Guinea-Bissau, women have been recruited as mechanics for maintaining handpumps and are now favoured over men, as they are less likely to seek income elsewhere⁶⁹. 98 of the 177 pump mechanics are women. 53% of members of water point committees in Guinea-

Bissau are women, with 20% of them having management functions beyond those of their traditional task of cleaning the pump surroundings, despite initial opposition to this⁶⁰.

❑ Although women in India were not well received initially as mechanics for the India Mark II handpump, they have earned the reputation of being effective, skilful and dependable⁶¹.

Technical employment can be the means for women to be self-sufficient when they have no male relative to support them and their children. Janaki Karki, a 34-year old married Nepalese woman, was selected to be trained as a mason on a new drinking water, hygiene education and sanitation project. Her husband had abandoned her after taking his second wife and she was therefore the sole breadwinner for her two children. Although illiterate, Janaki take measurements needed to build a latrine superstructure and foundation, can install pans, and construct slabs and rings. In spite of opposition from male masons who did not want to work alongside women, she is a successful skilled mason. Consequently, she has developed more self confidence, and is able to provide for her children alone⁶².

Summary points

Putting women at the centre of WASH improvements leads to improvement in the status of women because:

- ❑ they are recognised as having skills and knowledge that is outside the scope of their traditional roles
- ❑ they strengthen their voice in their family and community to negotiate their own needs
- ❑ they become confident enough to take up more challenging public leadership roles their relationship with men becomes more equitable they provide a positive role model for other women in the community
- ❑ women have successfully challenged gender-stereotypes, especially leadership and technical roles women are often perceived to be better technical workers than men
- ❑ opportunities are presented for employment, greater autonomy and independence
- ❑ success based on women's involvement can lead to changes in attitudes in both women and men.



2.5 A Big Issue: Income-generation

Time is an important resource. Generally women's time is stretched by the double burden of undertaking both household work and economic effort. In Nepal, over 75% of the women work in agriculture compared to 48% of men. In the home, these women also carry out all the domestic tasks in 99% of households and 94% of them fetch all the water⁶⁴.

Where there is no convenient water source, a great deal of time is spent walking long distances. African and Asian women walk an average of 6km each trip in order to fetch water¹⁷. A 2002 UNICEF study of rural households in 23 Sub-Saharan countries found that a quarter of women spent 30 minutes to an hour each day, collecting and carrying water, and 19% spent an hour or more⁶³. In Mile Gully, Jamaica, women spend on average between two to five hours daily carrying water. Additionally, time is spent going to the river to wash and on average washing takes place three times weekly⁶⁴.

Providing local water sources frees up time for women and leads to both direct and indirect opportunities to engage in activities which provide an income⁶⁵. The direct opportunities are those which allow women to develop particular aspects of income-generation that need a supply of water, such as brewing or washing laundry. Indirect opportunities are those that become open to women as they have more time due to the benefits of a convenient water supply, which reduces the burden of fetching water and makes domestic tasks easier and faster to complete.

2.5.1 Making an income from water

Women around the world have taken matters into their own hands, due to the high prices they often pay for water and have set up their own licensed water vending points. This has happened in low-income neighbourhoods in Honduras, Burkina Faso and Kenya. The results have been a fairer,



fixed price for water, employment for women servicing these water points, and the profits contributing to funding local community projects. There are other examples of women in Mexico, Kenya and Brazil taking steps to organise their own water supply or connection to the municipal network⁶⁶.

Sometimes women are able to earn a living by supporting the improved services in some way. The instances already cited of women handpump caretakers and other technical and management workers are examples of this.

❑ Women's groups work with a UNICEF programme in Nyakitunda, Uganda, which promotes rainwater harvesting and trains women in all associated technical, marketing and management aspects. With UNICEF's help and seed funding for premises and casting yards, the women make and sell the water jars and slabs. For women generally, the rainwater harvesting scheme means that have more time for household work and farming and that their daughters are more likely to attend school⁶⁸.

❑ Since state subsidies have been used in Bangladesh to install deep wells with mechanised pumps, women have become water vendors thereby directly benefiting financially from the new technology⁶⁷.

A good water source can provide additional income-generating opportunities in activities which require plentiful, clean water such as brewing, running teashops and laundering clothes⁶⁴. Such trades can become a reliable and sustainable source of income for women:

❑ In Ghana, women potters had both time and resources to be able to increase their production and trade due to improved water services. Water was also now available for cola nut and palm oil processing and for distilling Akpeteshie, a local alcoholic drink¹⁷.

❑ Women's groups in Senegal benefited through loans raised from selling water from community boreholes, to set up enterprises as fruit, vegetable and groundnut sellers⁶⁸.

❑ The Self-Employed Women's Association (SEWA) made up of 215,000 poor self-employed women, launched a ten-year water campaign in nine districts of Gujarat, India. Watershed Committees were established, with at least seven of the eleven members being women, plus a female chairperson. The results included the construction of 15 farm ponds, and the recharging of 120 tube wells. In addition, 20 village ponds were repaired, three check dams recharged and 15 open wells established. As a result of the more productive land, women have been able to benefit from growing cash crops, tree planting and other forms of green belt employment⁶⁴.

❑ The Grameen Bank and Grameen Krishi Foundation, Bangladesh, deep tube well programme was aimed at linking agricultural efficiency with women's empowerment. Agricultural work provides women with more income than their traditional areas of work. Improved irrigation schemes led to increases in women's income, giving them more confidence and reducing their dependence on men, inspite of some loss of status in contravening purdah norms⁶⁹.

❑ The Compartmentalisation Pilot Project in Tangail, Bangladesh, was implemented under the Flood Action Plan and incorporated women's participation at all stages of project activities, including decision-making, maintenance, construction and other operational work. Those who worked on embankment maintenance for several years were able to buy land and build houses. Rahela Khatun, a divorcee, bought land to build a house. She has the respect of the local people as group leader of the embankment maintenance workers, receiving similar rates of pay to the men and taking advantage of a savings scheme. Rina Gegum in the village of Bhurbhuria needed to earn money as her husband was paralysed, and was trained by an embankment project in water resources management. The benefits for her of the project have been better crop production and all year round water for her pond. She has established a poultry farm and now has a well-furnished house. She claims the project gave her not only a source of income but also mental strength and a willingness to take part in the leadership process which has won her the respect of the community⁷⁰.

The benefits for women to take up employment or self employment are clear, as described above. They are also associated with other benefits such as their increased status, financial security and confidence.

2.5.2 Having more time to earn an income

Serious time savings have a significant effect on the quality of women's lives:

❑ In Ethiopia, community-managed integrated water, sanitation and hygiene projects increased the amount of water available for domestic uses from less than 10 litres a day per person to 18-22 litres. The length of time women spend providing water for the family has reduced from around eight hours to between five and twenty minutes. The women reported that their domestic chores were easier to carry out now that the amount of water used was not so severely restricted¹⁷.

In the examples below, women show great resourcefulness and energy in finding alternative uses for their time. The impacts of these activities range from increased income, greater equality in marriage and the ability to save money:

❑ Mrs. Gamma is 48 years old and has six children. She is a founder member of the WaterAid funded Lifuwu Water Project Committee in Lifuwu village, Kuluunda Area, Salima, Malawi. Previous water facilities were in the form of an unprotected well, which has been replaced by clean water from a handpump, maintained by the community. Women report that less time is now spent caring for sick children, they have more time to work the land, and they have even managed to build a new school. Mrs. Gamma has plans to use the manure from the pit latrines to produce better crops which she can then sell. She feels that her relationship with her husband is more equitable now and she is actively encouraging others to make the same changes⁷¹.

❑ In India, Gujarati women's economic productivity was increased by time saved due to a new water supply system. An additional programme of support for the women to develop handicrafts addressed the usual constraints to taking up new enterprises, which are the lack of funds and access to credit⁷².

❑ Tanzanian women devoted more time to economic activities such as working in shops and tea-rooms, and selling their produce (ground nuts, potatoes, cassava and fruit)¹⁷.



❑ Zeini Batti, an Ethiopian widow, felt huge benefits when a water point was installed, allowing her to spend time basket weaving and making utensils, and in that way, amassing some savings¹⁷.


Clearly, time saved in water carrying does not generally result in women being less productive¹⁷. Only the nature of the tasks change. It seldom translates into increased leisure time for women, based on the above examples. A final case suggests that even so, quality of life may still be improved:

❑ The Netherlands Development Organisation (SNV) in Benin is involved in a programme to construct boreholes funded by the Belgian NGO PROTOS, which provide safe drinking water and therefore reduce the burden of water collection on women. The impact of the boreholes on the lives of men and women was evaluated, and while it was noted that the women saved time, they then increased the time working on the fields with their husbands. Even with this heavy workload, they felt that life had become easier and there was a valuable pay off in that there was better crop production⁷³.

Summary points

Putting women at the centre of WASH improvements leads to greater opportunity for women to earn an income because:

- ❑ A convenient water supply liberate time that was used for fetching water and carrying out arduous domestic tasks - this extra time became available for productive employment
- ❑ women also spend less time suffering from sickness and caring for others who are ill
- ❑ women can develop particular aspects of income-generation that are dependent on a supply of water
- ❑ women can set up their own local supply and earn an income in supporting these services



“The main barrier to 'water, sanitation and hygiene for all' is a lack of willingness to learn from past failures and to listen to those who have pioneered the new approaches”⁷⁴

There is a great deal of evidence telling us about the positive effects that can be seen when women's involvement and interests are central to the planning and implementation of WASH improvements. The examples come from a wide range of sources and locations around the world, but the fundamental impact is always the same, the intervention is often more successful and sustainable and the process of women's empowerment is strengthened, resulting in many and varied improvements to the quality of life of the women affected.

The key messages derived from this body of evidence strongly indicate that the benefits are felt not just by the women and their families but that they also have an impact on the wider community.

KEY MESSAGES

Involving women in WASH interventions have proven beneficial through:

- ❑ **an increase in the success rate of these interventions**, due to the fact that women have a good knowledge of local water and sanitation practices, which, when incorporated into WASH programmes, results in **improved health and quality of life for the community**
- ❑ **improved design, greater transparency and accountability** of projects
- ❑ **more effective hygiene promotion**, when women use established group activities to reach other women to disseminate messages about good hygiene practices
- ❑ promoting **change in traditional gender roles**, thereby contributing to the **empowerment of women** in the communities, leading to their more active roles in other aspects of community decision-making
- ❑ **providing opportunities for women to make a valuable contribution to their families' incomes and livelihoods or to gain financial independence**, as a result of being freed from the constraints caused by a lack of safe water, sanitation and good hygiene practice

Taking women's needs and preferences into account in water supply, sanitation and hygiene promotion has resulted in:

- ❑ **an increase in attendance and a decrease in drop-out rates from school of young women**, due to the provision of separate and adequate sanitation facilities
- ❑ **an increase in girls' level of education and literacy rates** since easier access to water supply and less time spent caring for sick family members allow them to spend more time at school
- ❑ **reductions in child mortality and maternal morbidity and mortality** as a result of appropriate access to water supply, sanitation facilities and improved hygiene during child birth
- ❑ **improved health** for women and girls who no longer have to delay defecation and urination
- ❑ **increased privacy and dignity** for girls and women particularly when symptoms associated with menstruation, pregnancy and childbirth can be managed discreetly
- ❑ **less physical injury** from constant lifting and carrying heavy loads of water
- ❑ **less harassment or risk of sexual assault and increased safety** as women and girls do not have to go to remote and dangerous places to defecate or to fetch water during the hours of darkness

Part 3.

Key Messages and Recommendations

RECOMMENDATIONS

Evidence by itself will not bring about change. Actions are needed at different levels and by different stakeholders in order to make more substantial improvements in the sector and in the lives of millions of women and girls. The messages presented in this report must inform the way forward for those working in and outside the sector, when advocating change and designing activities aimed at achieving the Millennium Development Goals. Knowledge of what has already proven to be effective is an invaluable tool, which, if used wisely, substantially increases the chances of meeting existing targets.

The next steps recommended below indicate that we must make a paradigm shift from the old, top-down practices and attitudes, to a more people-centred and gender-sensitive approach, to ensure that the goal "WASH for all" is achieved.

INCREASED ADVOCACY

- ❑ Support advocacy of key WASH messages about involving women in interventions, targeted at communities, NGOs, international organisations, national governments, donors and other stakeholders.
- ❑ Support public awareness campaigns that emphasise gender equality and promote women's roles in planning, decision-making and implementation of water, sanitation and hygiene programmes.
- ❑ Engage women leaders to serve as role models for other women and girls and to promote efforts to mainstream gender issues at all levels.
- ❑ Compile and disseminate examples of successful programmes, good practice and other appropriate types of evidence to demonstrate the importance of gender and WASH to sustainable development, both locally and globally.

NEW APPROACHES FOR PROGRAMMES AND PROJECTS

- ❑ Strengthen gender and WASH in all aspects of work related to the Millennium Development Goals, finding ways to encourage the genuine involvement of women at the key stages of planning and decision-making, rather than using them as tokens of a politically correct approach.
- ❑ Mainstream awareness of gender issues in WASH through capacity building, training and the use of advocacy materials amongst all levels of sector professionals, senior managers, officials, decision-makers and technical staff within institutions at national and international level. They should promote gender-sensitive, participatory processes that empower women and also create an environment where women and men can work together towards common goals.
- ❑ Implement local action research to identify the core issues for each specific country in support of any future calls for action.
- ❑ Address the practical and strategic needs of women and men for sanitation and hygiene, which differ according to

culture, traditions, location and other relevant factors.

- ❑ Channel efforts for marketing sanitation and providing hygiene education messages through women's organisations, schools and health clinics.
- ❑ Find ways to break the culture of silence and taboo that surrounds and perpetuates the problem of menstrual and pre and post natal hygiene that is responsible for a large proportion of women's reproductive health problems.

WASH IN SCHOOLS

- ❑ Ensure that safe water and clean, separate sanitation facilities with lockable doors for girls and boys are available in primary and secondary schools.
- ❑ Ensure that good health and hygiene practices are taught to both girls and boys as mandatory subjects in schools.
- ❑ Involve all school children in promoting good hygiene behaviour, acting as "agents of change" in their schools, homes and communities.

STRATEGIC FUNDING

- ❑ Allocate funds and other resources, including micro-credit and creative alternative financing mechanisms, to civil society organisations and small-scale providers of water and sanitation services, particularly those that are gender-sensitive and work with women as full and equal partners.
- ❑ Facilitate the availability of credit, particularly to women, in order to expand access to safe drinking water, adequate sanitation and water for productive uses, and assist small-scale entrepreneurs to improve delivery of adequate water and sanitation services and to generate income from this.

ENGAGE THE MEDIA

- ❑ Encourage journalists and media organisations, in both developed and developing countries, to provide more coverage on gender issues and to support efforts aimed at responsible, accurate and gender-sensitive reporting by the mass media.

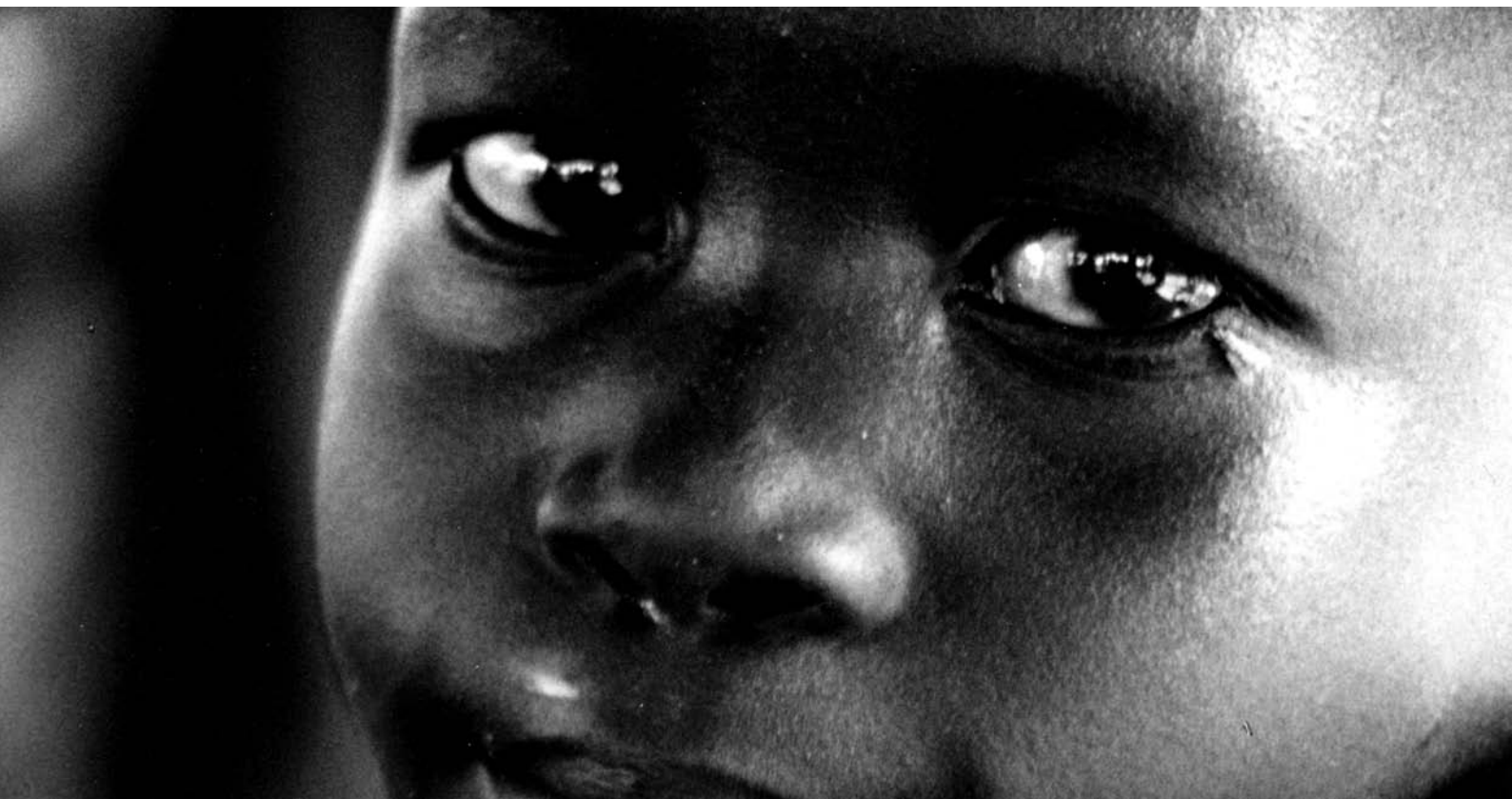


References

- 1 United Nations. (2005), *What are the Millennium Development Goals?* Available from <http://www.un.org/millenniumgoals/>
- 2 UNDP. (2005), *Looking for Equality: A gender review of national MDG Reports*, Bureau of Development Policy-UNDP
- 3 World Bank. (1989), *Operational Issues paper on the Forestry Sector*. World Bank, Washington DC, USA
- 4 Wijk, C. (2001), *The Best of Two Worlds? Methodology for Participatory Assessment of Community Water Services*, IRC Technical Paper Series 38
- 5 Tenthani, R. (2002), Sisters are tapping it for themselves, *New Internationalist* 352, December 2002
- 6 Van der Voorden, C. and Eales, K. (2002), *Mainstreaming gender in South African sanitation programmes: a blind spot or common practice?* Paper prepared for the AfricaSan conference, July 2002, Mvula Trust
- 7 Yonder, A. et al. (2005), *Women's participation in disaster relief and recovery*, The Population Council, New York
- 8 GWA. (2004), *Rural women securing household water in Jordan*, available at <http://www.genderandwater.org/page/752>
- 9 Tissafi, M. (2004), *Gute-Politik fordert die Entwicklung*, Schweiz Global, April 2004
- 10 Prabha Kholsa Consulting. (2002), *MAMA-86 and the Drinking Water Campaign in the Ukraine*, GWA, Toronto, Canada
- 11 Water Partners International. (2005), *Keelakarthigaipatti, India*, available at www.water.org/programs/success/keelakarthigaipatti.htm
- 12 Personal correspondence 11/11/05
- 13 Bokhari, J. (forthcoming), Pakistan: Initiative of One, Relief for All – Women's Leadership in the Banda Golra Water Supply Scheme. In: Office of the Special Adviser on Gender Issues and Advancement of Women, *Gender, water and sanitation case studies on best practices*, New York, United Nations (in press).
- 14 Damodaran, S. (2005), *India's first 100 per cent sanitised slum in Tiruchirappalli - Gramalaya's role*, available at www.urbanicity.org/FullDoc.asp?ID=446
- 15 KWAHO. (2005), *Project description KWAH/WaterCan – Watsan in Kibera*, available at <http://www.kwaho.org/pd-watercan-kibera.html>
- 16 Shrestha, R.B. (2002), *Pro-poor water supply and sanitation project (The RWSS experience from Nepal)* Development Alternatives Nepal (DAN), Kathmandu, Nepal
- 17 Blagborough, V., (Ed.). (2001), *Looking Back: The long-term impacts of water and sanitation projects*, WaterAid, London
- 18 IIED. (2001). *Drawers of Water II*, ed. John Thompson, IIED, UK
- 19 Curtis V., B. Kanki, T. Mertens, E. Traore, I. Diallo, F. Tall & S. Cousens. (1995). Potties, pits and pipes: explaining hygiene behaviour in Burkina Faso. *Social Science and Medicine* 41 (3), 383-393.
- 20 WaterAid. (2005) Mwachingwala village, Zambia. Personal correspondence 16/11/05
- 21 WaterPartners International. (2002), *Clearwater Project Monthly*, August 2002. Personal correspondence.
- 22 Village Service Trust. (2001), *Annual Report 2000/2001. Village Service Trust*, http://www.villageservicetrust.org.uk/pubs/annual_rep00_01.html
- 23 WaterAid Nigeria. (2005), The Women of DASS (Nagarata Women Group). Personal correspondence 17/11/05
- 24 Woodfield, J and Smout, K. (2002), *Synthesis report of two phases of the 'Successes and Failures in Gender Mainstreaming in Integrated Water Resource management (IWRM) electronic conference'*. GWA.
- 25 WHO/UNICEF. (2005), *Water for Life: Making it Happen*, WHO/UNICEF, Geneva
- 26 GWA. Egypt: Empowering Women's Participation in Community and Household Decision-making in Water and Sanitation. GWA

- 27 UNICEF. (2005), *Meeting the MDG drinking water and sanitation target, A mid-term assessment of progress*, available at <http://www.unicef.org/wes/mdgreport/disparities2.php>
- 28 WSSCC. (2004), *Resource Pack on the Water and Sanitation Millennium Development Goals*. <http://www.wsscc.org/home.cfm?CFID=1056840&CFTOKEN=62467993>
- 29 Mjoli-Mncube, N. (1997), The Impact of an Alternative sanitation System on the Lives of Women in South Africa, In *Science, technology and development* 15, p.104. Frank Cass & Co.Ltd., UK
- 30 Utthan. (2005), *Utthan Programme*. Personal correspondence 10/11/05.
- 31 Personal correspondence 22/11/05
- 32 Nhlema Simwaka, B., Theobald, S., Peprah Amekudzi, Y. and R. Tolhurst. (2005), Meeting Millennium Development Goals 3 and 5. *BMJ* 2005. 331; 708-709. 1 October.
- 33 Beach et al. (1999), Assessment of combined ivermectin and albendazole for treatment of intestinal helminth and *Wucheraria bancrofti* infections in Haitian schoolchildren. *American Journal of Tropical Medicine and Hygiene*. 60, 479-486
- 34 Sultana, F. and Crow, B. (2000), Water concerns in rural Bangladesh: a gendered perspective. In Pickford, J. (Ed.), *26th WEDC Conference- Water, Sanitation and Hygiene: Challenges of the Millennium, Dhaka, Bangladesh*, pp. 416-419.
- 35 Gelband et al. (2001), *The evidence base for interventions to reduce maternal and neonatal mortality in low- and middle- income countries*, Commission of Macroeconomics and Health Working Paper no.5. Geneva, WHO, available at http://www.cmhealth.org/docs/wg5_paper5.pdf
- 36 Goodburn, E. and Campbell, O. (2001), Reducing maternal mortality in the developing world: sector-wide approaches may be the key. *BMI* 2001: 322. 917-920.
- 37 Pathmanathan, I et al. (2003), *Investing in maternal health: learning from Malaysia and Sri Lanka*, Health, Nutrition and Population Series, WB Human Development Network., Washington DC available at <http://www1.worldbank.org/publications/pdfs/15362frontmat.pdf>
- 38 Hoy, D. et al. (2003), Low back pain in rural Tibet, *The Lancet*, Vol 361, Issue 9353, pp. 225-226, cited in Jones, H. and B. Reed. 2005. *Water and sanitation for disabled people and other vulnerable groups: Designing services to improve accessibility*. WEDC, Loughborough.
- 39 WaterAid. (2005) *Ndedo village, Tanzania*. Personal communication 16/11/05
- 40 Jones, H. and B. Reed. (2005), *Water and sanitation for disabled people and other vulnerable groups: Designing services to improve accessibility*, WEDC, Loughborough
- 41 Water Partners International. (2005), *Post Card from the Field: Jan 27 2005 – Ponnusangampatti, Tamil Nadu, India*, available at http://www.water.org/postcards/pc_20050127.htm
- 42 UNDP. (2004), *The global challenge: Goals and targets*, available at <http://www.undp.org/mdg/>
- 43 World Bank. (2004), *World Development Report 2004: Making Services Work for Poor People*.
- 44 World Bank. (2003), Implementation Completion report on a Loan in the Amount of US\$ 10 Million Equivalent to the Kingdom of Morocco for a Rural Water Supply and Sanitation Project, Report No. 25917.
- 45 Water Partners International. (2005), *Postcard from the field: water project boosts family income, September 25th, 2005 – India*, available at www.water.org/postcards/pc_20050925.htm
- 46 van Wijk, C.A. (2004), Scaling up community-managed water and sanitation in India. In: C.A. van Wijk & M.P. van Dijk, eds. *The sector reformed: Institutional challenges in the water and sanitation sector in India*, New Delhi, Manohar
- 47 UNICEF. (2003), *Press release: UNICEF says lack of clean water & sanitation robs children of good health and education*, available at <http://www.unicef.org/newsline/2003/03pr13water.htm>
- 48 Mooijman, A. (2002), *Assessment of 1994-2001 UNICEF School Sanitation and Hygiene Project in Khatlon, Tajikistan*, UNICEF CARK, Almaty
- 49 UNICEF. (2004), *Monitoring the situation of children and women*, available at <http://www.childinfo.org/index2.htm>

- 50 WaterAid, (2003), 'Out from the depths', *Oasis, The WaterAid Journal*. Spring/Summer 2003
- 51 GWA. (2003), *Advocacy Manual for Gender and Water Ambassadors*, GWA, The Netherlands.
- 52 RWSEP. (2005), *Wioz. Yaleme Demwoz: a model of rural women*, AGGAR July 2005
- 53 NEWAH. (2003). *Case study of empowerment*, Personal communication 14/11/05
- 54 GWA. (1999), *Mainstreaming gender in water resources management: why and how*. Background paper for the World Vision process
- 55 Acord. (2005), *Women, water, sanitation and hygiene in Geita District, North Western Tanzania*. Personal correspondence 14/11/05
- 56 WaterAid Nigeria, (2005), *Women in purdah*, Personal correspondence 17/11/05
- 57 Williams, A. (2002), *Incorporating a gender perspective in rural water and sanitation projects*, A case study prepared for the Forum 'Water in the Americas in the 21st century'. Mexico City, 8-11 October 2002
- 58 Rowland, C. (2005), *Report of research findings on women's participation in the Australian East Timor Community Water Supply and Sanitation Program*, CWSSP
- 59 World Water Vision. (1999) *Mainstreaming gender in water resources management*
- 60 Visschel, J. T., and Wertt, K. van de. (1995), *Towards Sustainable Water Supply: Eight Years of Experiences from Guinea-Bissau*, IRC International Water and Sanitation Centre, The Hague, The Netherlands, available at www.undp.org/water/genderguide/4_4_technical.html
- 61 UNICEF. (2004), *Real Lives*, available at http://www.unicef.org/infobycountry/nigeria_1468.html
- 62 NEWAH. (2003), *Determined to be self employed after separating with her husband*, Personal communication 14/11/05
- 63 UNICEF. (2005), *Report on the Interagency Task Force on Water and Gender* available at http://www.un.org/esa/sustdev/inter_agency/gender_water/gender_water_rep_23_02_05.pdf
- 64 *Gender Water and Sanitation Project*, sponsored by the Ministry of Water and Housing and Canada Caribbean Gender Equality Programme, November 2005
- 65 Moriarty, P. & J. Butterworth. (2003), *The productive use of domestic water supplies, Thematic Overview Paper*, IRC, The Netherlands
- 66 Edward Bwengye-Kahororo. (2005), *Coping strategy in water-stressed areas: a case study of RWH in Nyakitunda sub-county, Mbarara district*, Personal correspondence 15/11/05
- 67 Koppen, Barbara van (1997), *Gender and water rights, Burkina Faso and Bangladesh*, Department of Irrigation and Soil Conservation, Wageningen, The Netherlands available at www.undp.org/water/genderguide/4_6_rights.html
- 68 Toure. (1998), Boreholes mean business, *Waterlines* 17(1) 26-27
- 69 Jordans, E. and Zwarveen, M. (1997), Gender and poverty alleviation, Bangladesh, in *A Well of One's Own, Gender Analysis of an Irrigation Program in Bangladesh*, International Irrigation Management Institute and Grameen Krishi Foundations, International Water Management Institute, Bangladesh, available at www.undp.org/water/genderguide/4_5_poverty.html
- 70 Nahar, B.S. (2002), *Gender, water and poverty: Experiences from water resource management projects in Bangladesh*, Paper presented in Water and Poverty workshop, Dhaka, Sept 22-26, 2002
- 71 WaterAid. (2005), *Lifuwu Water Project Committee*, Personal communication 16/11/05
- 72 James, A.J. et al. (2002), Transforming time into money using water: a participatory study of economics and gender in rural India, *Natural Resource Forum* 26, pp. 205-217.
- 73 Hoogenvorst, J. (2005), *Benin: borehole has unforeseen effects for women*, available at www.irc.nl/page/7810
- 74 WSSCC. (2004), *Listening: To those working with communities in Africa, Asia, and Latin America to achieve the UN goals for water and sanitation*, WSSCC, Geneva.



Acknowledgements:

Report writer: Julie Fisher

Peer reviewers: Eirah Gorre-Dale
Esther de Jong
Imelda de Leon
Cecilia Martinsen
Linnette Vassell

Production Management: Cecilia Martinsen

Illustrations: Rod Shaw

Photography in order of appearance: WSSCC, WSSCC, WSSCC, WSSCC, WSSCC, M. Sohail, Sue Coates, Sue Coates, Sarah Parry-Jones, Jeremy Parr, Peter Harvey, WSSCC, Paul Deverill, Peter Harvey, Sarah Perry-Jones, Darren Saywell, Hazel Jones, Hazel Jones, Mage Diop, Rebecca Scott, Brian Skinner, Rod Shaw, Rebecca Scott, Sue Coates, Mike Smith, WSSCC, WSSCC, WSSCC.

The photos and illustrations not supplied by WSSCC are courtesy of WEDC

Designed by Details SA , Geneva, Switzerland

Printed in Geneva

This publication was produced by the Water Supply and Sanitation Collaborative Council (WSSCC) in collaboration with the Water, Engineering and Development Centre (WEDC), with the support of the Norwegian Ministry of Foreign Affairs, the Gender and Water Alliance (GWA) and UNICEF.

March 2006.



THE GLOBAL WASH CAMPAIGN

During the International Drinking Water Supply and Sanitation Decade (1981-1990), sanitation was hardly ever mentioned. However, when world leaders gathering at the UN Millennium Summit in 2000 failed to recognise sanitation as a separate goal, the Water Supply and Sanitation Collaborative Council (WSSCC) launched the "Water, Sanitation and Hygiene for all (WASH) campaign in 2001 to mobilise support for sanitation and succeeded in adding it to Millennium Development Goals to be achieved by 2015. With the support of many governments, NGOs and partners, the campaign has grown into a worldwide movement. Over thirty countries are presently carrying out WASH campaign activities and the number is increasing daily. The campaign was also recognized by the UN Commission on Sustainable Development (13th session 2005) as a valuable programme *"to support countries in promoting sanitation and hygiene awareness... (and)...improving the understanding linkages among sanitation, hygiene and health."*

WOMEN LEADERS FOR WASH

As a part of the WASH campaign, the WSSCC initiative "Women Leaders for WASH" is working towards highlighting issues and problems facing women and focusing on gender equality in the decision-making and management of water supply and sanitation systems worldwide. Co convened by leading women - each representing the South, the North and International Organizations - the Hon. Ms. Maria Mutagamba, Ugandan Minister of State for Water and President of the African Ministers Council on Water (AMCOW), former Minister for International Development of Norway, Ms. Hilde F. Johnson and the Executive Director of UNICEF, Ms. Ann M. Veneman, the initiative comprises of women from different sectors dedicated to improving the water supply, sanitation and hygiene situation in the developing world while advancing other Millennium Development Goals such as gender equality, reducing child mortality and the eradication of poverty.

All concerned organizations and individuals are invited to join the global WASH campaign to help make water, sanitation and hygiene a reality for all and a foundation for sustainable development.



Water Supply and Sanitation Collaborative Council

International Environment House, 9 Chemin des Anémones, 1219 Châtelaine, Geneva, Switzerland

Tel: +41 22 917 8657 Fax: +41 22 917 8084

E-mail: wsscc@who.int Website: www.wsscc.org