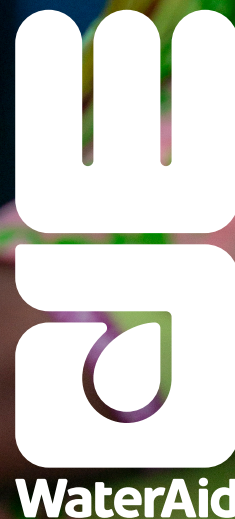


# Seven ways that water, sanitation and hygiene enhances women's economic empowerment

WaterAid/Farzana Hossen

A Policy Brief  
from WaterAid





## **This paper is based on a study conducted for WaterAid by:**

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● Cover photo: In February, 2019 WaterAid installed a Reverse Osmosis Water Plant for communities living in Kadakathi, Bangladesh, an area suffering from large levels of saline intrusion in the ground water. The plant is entirely run and managed by the Golap Mohila Dol (Golap Women's Team), a team of ten women from the village. The plant not only provides safe drinking water for hundreds of families but also serves as a means of income for the women working at the plant. The plant has empowered the members of the team with one of them, Gita Roy making it to the Union Council. Her role as the President of the team earned her a reputation as a respected community leader.

"My name is Gita Roy. I hail from the Tengrakhali village of Kadakathi Union. Currently I am working as the President of Moricchap Reverse Osmosis Water Plant. Before the plant was established, we had to drink water from nearby water sources including ponds and rivers with high salinity levels or with other forms of contamination. This often resulted in outbreaks of diarrhoea and dysentery. It also caused prolonged health problems in adults and children. All the natural water sources in our village either contain high levels of salinity or iron. Arsenic contamination is also prevalent in water from the tube wells. The reverse osmosis plant is the only source of safe drinking water in our community. Throughout the year, people collect water from our plant for everyday use.

The plant has brought immense changes in our community. The money the women in the team earn from the plant is of great use to them. Nobody really knew about the reverse osmosis process [before] and we never imagined that we, a few women ourselves, could run this entire plant on our own."

### **Acronyms**

IUCN	International Union for Conservation of Nature
LDCs	Least Developed Countries
OECD	The Organization for Economic Cooperation and Development
SDG	Sustainable Development Goals
Sida	Swedish International Development Cooperation Agency
WASH	Water, Sanitation and Hygiene
WEE	Women's Economic Empowerment
WHO	World Health Organization

# Introduction

Significant evidence and decades of experience have shown that women and girls are disproportionately affected when communities lack access to **clean water, decent toilets, and good hygiene (WASH)**, and climate change is exacerbating these challenges further. Lack of WASH is associated with increased health risks for women and greater exposure to different forms of violence. Moreover, women and girls bear the brunt of inadequate water and sanitation services, and women's unpaid work bridges the gaps in services and systems at household, workplace, school, and health centre levels.<sup>1</sup>

Recent analyses by the Organisation for Economic Co-operation and Development (OECD) on women's economic empowerment (WEE) also concluded that economic growth is associated with a reduction in unpaid care work by women. In particular, a reduction in physically demanding and time-intensive tasks such as collecting water or fuel leaves women with more time for paid work and studies as well as leisure and personal care.<sup>2</sup>

Just as **responsibilities are highly gendered, so are water, sanitation, and hygiene needs.**<sup>3</sup> Clean water, proper sanitation, and good hygiene are critical components of safe maternity care and childbirth, and women and girls have specific

WASH needs in relation to menstruation. Safe sanitation spaces for women are also necessary to reduce the risk of sexual harassment and violence. Despite the disproportionate consequences of inadequate WASH for women and girls, they remain largely absent in the design, management, and implementation of services, institutions, and infrastructure.<sup>4</sup>

WaterAid has long worked to highlight the connection between water, sanitation, hygiene, and gender equality. In 2023, **WaterAid commissioned a desk study to research the links between WASH and women's economic empowerment.** The study was conducted by the independent consultants Piedade Coruche and Naomi Cassirer. They identified potential impact pathways from WASH to WEE and reviewed academic and grey literature in search of existing evidence for all potential impact pathways. By applying their findings to The Swedish International Development Cooperation Agency's (Sida) WEE Framework, the study analysed how inadequate water, sanitation, and hygiene undermine women's economic empowerment and how improved WASH facilities can contribute to fulfilling WEE objectives. This paper is based on said study, with the addition of WaterAid's own experience and resources.



● Sisters Sandra, 14, (depicted) and Novia, 13, live with their parents on a steep mountain in the village of Loidaha in Timor-Leste. In the dry season, they wake up at 3am to walk down the mountain to the river in order to collect water before school. The trip takes 2–3 hours each way, and the water is not from a safe source.

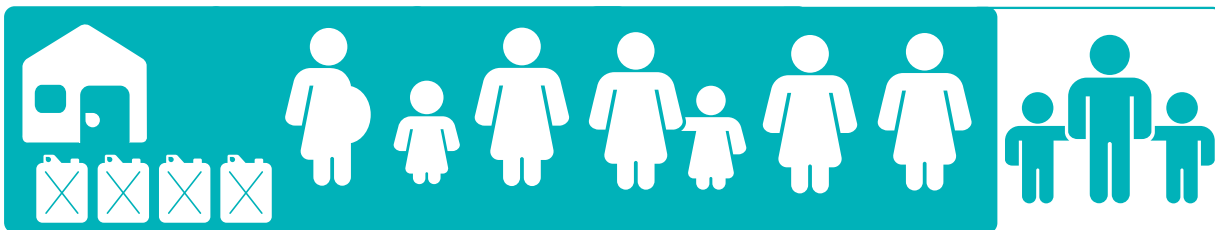
 **703**

million people in the world – almost one in ten – do not have clean water close to home.

 **1.5**

billion people in the world – almost one in five – do not have a decent toilet of their own.

Women and girls are responsible for collecting water in seven out of ten households without water on the premises.



More than half of health-care facilities in the least developed countries in the world do not have clean water inside the facility.



In sub-Saharan Africa, over half of schools don't even have a basic sanitation service.



WaterAid Rwanda

● In Rwanda, villages often have a public water station, which is run and shared by the villagers. In Gaharwa, Mediatrice manages the water station. In 2022 WaterAid, with support from Sida, installed the water tap which is now used by on average 200 people every day. The people in the village are already healthier and the children are not as malnourished as before. For Mediatrice personally, a paying job has been a positive change. She now has meaningful employment that allows her to buy food for her children and afford health insurance.

# Links between Water, Sanitation, and Hygiene and Women's Economic Empowerment

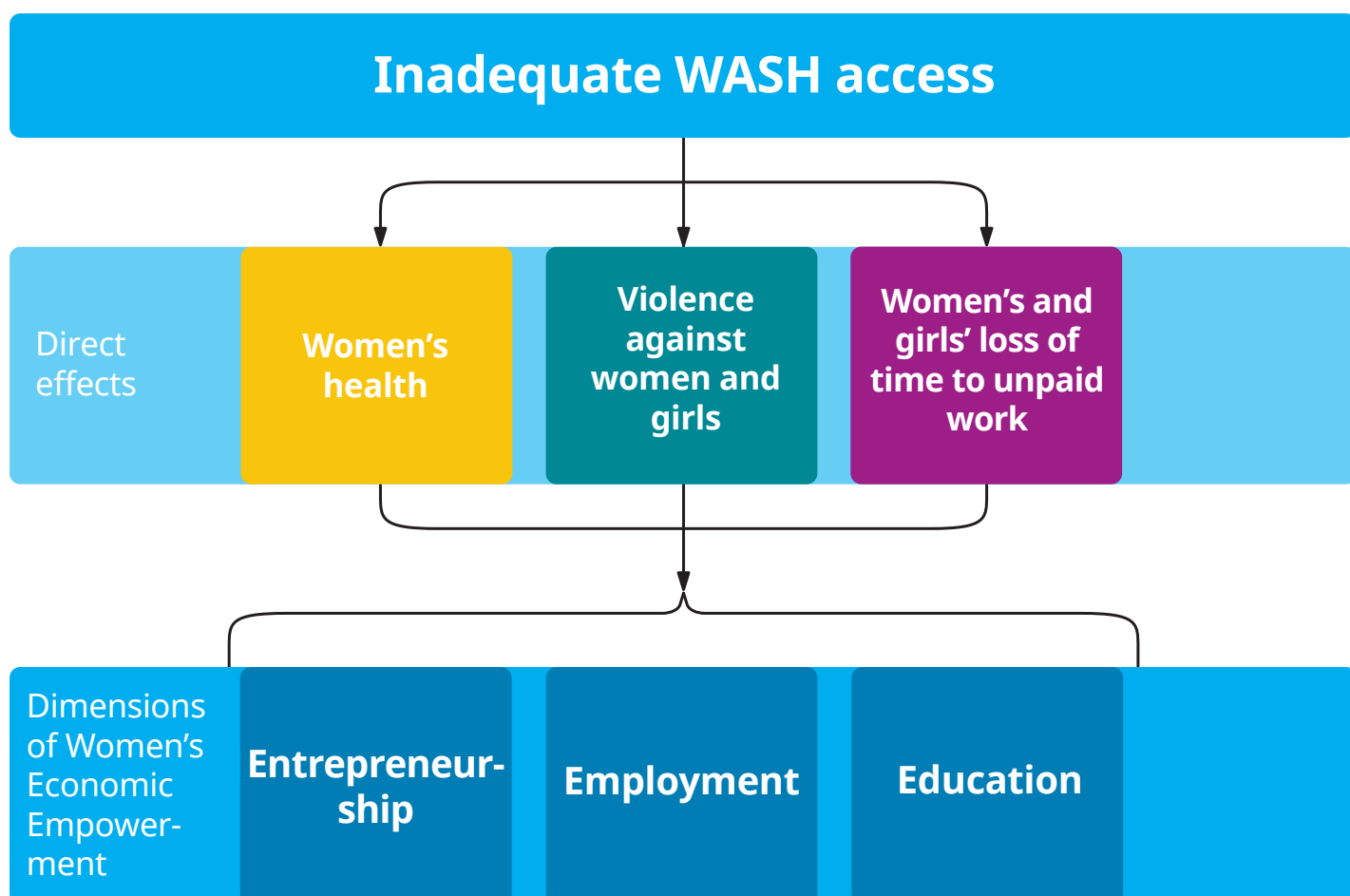
Women's economic empowerment is a cornerstone of human rights, social justice, poverty reduction, and sustainable development. Women's economic empowerment enables women to participate equally in existing markets, to access and control productive resources, to control their own time, lives, and bodies, and to meaningfully participate as decision-makers, from the household level to international institutions.<sup>5</sup>

Sida has defined women's economic empowerment as:

*"the process which increases women's real power over economic decisions that influence their lives and priorities in society. Women's economic empowerment can be achieved through equal*

*access to and control over critical economic resources and opportunities, and the elimination of structural gender inequalities in the labour market, including a better sharing of unpaid care work."*<sup>6</sup>

The direct effects of inadequate water, sanitation, and hygiene on **women's health**, **unpaid work**, and **violence against women** have follow-on consequences for women's economic empowerment. Of the seven dimensions Sida identifies in their Framework for Women's Economic Empowerment, **entrepreneurship**, **employment**, and **education** are particularly closely associated with the direct effects of inadequate water, sanitation, and hygiene:





# Water, Sanitation, Hygiene → Improved Women's Health → Women's Economic Empowerment

## Direct Effects on Women's Health

Inadequate access to water, sanitation, and hygiene is the cause of as much as 10% of the global disease burden, contributing to 1.6 million preventable deaths each year, including 60% of all diarrhoeal deaths.<sup>7</sup> **Global estimates indicate that the responsibility for fetching water falls on women in 70% of households that lack direct access to water.**<sup>8</sup> Taking care of sick family members,<sup>9</sup> cleaning sanitary facilities, changing diapers, and managing human waste – often without sufficient protection or hygiene – increase their exposure to disease even further.<sup>10</sup>

A review of nearly 200,000 Demographic and Health Surveys in 26 countries found that a 15-minute decrease each way in the walk to a safe water source is associated with a 41% average reduction in diarrhoea prevalence, improved child nutritional status, and an 11% reduction in under-five child mortality.<sup>11</sup> Carrying water also comes with elevated risks of musculoskeletal disorders, spinal pain, neck pain, fractures, dislocations, and falls.<sup>12</sup>

A lack of sanitation facilities can also mean that women avoid drinking sufficient water to minimise the number of times they must urinate.<sup>13</sup>

According to the World Health Organization (WHO), an estimated 30,000 women and 400,000 babies worldwide die every year from infections such as puerperal sepsis, often caused by a lack of water and sanitation as well as poor hand-washing practices.<sup>14</sup> **In the least developed countries (LDCs), not even half of all healthcare facilities have clean water on-site** and just one third have basic hygiene services.<sup>15</sup> Poor sanitation, a lack of menstrual hygiene products, and not being able to wash hands also increase the risk of reproductive and urogenital infections, contribute to the spread of hepatitis B and thrush, and exacerbate the negative impacts of genital cutting.<sup>16</sup>

## Impact on Women's Economic Empowerment

Inadequate access to water, sanitation, and hygiene as well as its **health consequences undermine education**, especially for girls. Studies on sixth-to-eighth graders in Nepal show that

students are more likely to get ill and were ill more often at schools with unimproved water, sanitation, and hygiene facilities compared to their peers at schools with better WASH facilities. The findings indicate that these effects were more severe for girls than boys.<sup>17</sup> Urinary tract infections as a result of poor menstrual hygiene result in increased school absences and an overall reduced education.<sup>18</sup>

Supporting girls' education has a profound impact on communities, nations, and the global landscape. When girls are educated, they are less likely to marry young and are more likely to live healthy and productive lives. They earn higher incomes, actively engage in decision-making processes, and contribute to creating improved futures for both themselves and their families.<sup>19</sup>

**A shorter distance to a water source is associated with a lower incidence of diarrhoea, child mortality, fevers, and coughs, as well as better height- and weight-for-age scores (stunting).**<sup>20</sup>

**The health toll of unimproved water, sanitation, and hygiene also carries costs for women's economic activity and empowerment.** The illnesses, physical effort, injuries, fatigue, and other health consequences of unimproved water and sanitation limit entrepreneurial efforts,<sup>21</sup> productivity, and access to economic opportunities.<sup>22</sup>

**A 2017 study of foreign aid effectiveness found that foreign aid investments have a positive impact on water and sanitation access in sub-Saharan Africa.** This involves significant gender equality implications by reducing the time spent by women caring for sick family members, which in turn enables women's participation in productive activities and reduces gender gaps in education.<sup>23</sup>

# Water, Sanitation, Hygiene → Lower Risk of Violence → Women's Economic Empowerment

## Direct Effects on Gender-based Violence

The relationship between limited access to water, sanitation, and hygiene on the one hand, and violence on the other, is well documented. **Women and girls bear the brunt of WASH-related violence.** Fetching and managing water increase the risk of verbal harassment, sexual assault, and rape.<sup>24</sup> They are also blamed at home when bringing back inadequate amounts of water and in case of water-related financial stress.<sup>25</sup> Unreliability of water can result in walking farther to find or fetch water at very late, very early, or irregular hours, all of which increase the risk of assault and violence.<sup>26</sup> Utility staff reading water meters, plumbers, and other water gatekeepers can engage in sextortion as a condition for connecting, providing, or not cutting off water, as well as for assigning women jobs in the sector – a practice that is common knowledge according to a study carried out in Bogotá and Johannesburg.<sup>27</sup> Fear of interpersonal violence can shape water distribution within the household to favour men's use over women's<sup>28</sup> and is thus likely to be associated with water scarcity.

**Not having a toilet at home also raises the risk of violence.**<sup>29</sup> Walking to shared facilities or to find a place to defecate or manage hygiene needs, including menstruation, raises the risks of being watched/spied upon, verbal harassment, physical abuse, and rape.<sup>30</sup> This lack of safe facilities is also a problem in schools, particularly when girls start menstruating. In places where school toilets are unsafe and unmonitored, girls experience harassment and assault, and they identify toilets as places of fear and anxiety.<sup>31</sup>

**A study in East Africa reports cases of rape and sexual assault of women travelling to water sources and waiting at water points, demands for transactional sex by water vendors, and intimate partner violence due to insufficient water in the household.**<sup>32</sup>

A multi-country study explored the relationship between non-partner violence and sanitation, water, and urbanisation in sub-Saharan Africa. The study concluded that a lack of access to water and sanitation were associated with a risk of non-partner violence in several countries in the region, particularly in urban settings.<sup>33</sup>

## Impact on Women's Economic Empowerment

**Gender-based violence is linked to poorer educational outcomes.** A review of research studies from 21 countries reported that, for a child, experiencing violence of any type led to a 13% predicted probability of dropping out of school.<sup>34</sup> Girls who experienced sexual violence ran three times the risk of being absent from school compared to their peers.<sup>35</sup>

**Gender-based violence also impairs women's productivity and participation in entrepreneurial activities.** In 2016, gender-based violence cost 2% of the global gross domestic product.<sup>36</sup> It also reduces women's economic activity<sup>37</sup> and leads to lower labour supply, fewer hours worked, and a lower productivity while working.<sup>38</sup>



● Jamila Begum, 35, is a daily essential shop and tea stall owner in Gorahati village, Khulna Division, Bangladesh. She was called names because she sometimes relieves herself at the river. Since she is a woman, her community sees it as a disgrace. Jamila is aware of personal hygiene and good sanitation facilities, but she cannot afford any of those as she is running a family of five all by herself.

# Water, Sanitation, Hygiene → Less Unpaid Work → Women's Economic Empowerment

## Direct Effects on Women's Time

All over the world, **the responsibility for fetching water falls on women and girls due to gender norms.**<sup>39</sup> This, together with household hygiene responsibilities, demands substantial time and effort and makes up a significant component of the vast unpaid workload largely defined as women's chores.<sup>40</sup> Every day, women across the globe spend a cumulative 200 million hours fetching water.<sup>41</sup> A lack of basic water and sanitation services requires households to spend on average 1–2 hours per day collecting water, which displaces time spent in employment or education.<sup>42</sup> Women and girls lose time both walking to water sources and queuing for water at shared facilities.<sup>43</sup> Climate change – resulting in, for example, environmental degradation – is increasing the distance and time that women and girls must travel to collect water.<sup>44</sup>

**Women spend 267% more time fetching water in South Africa compared to men, and 300% more in Madagascar.**<sup>45</sup>

Women are generally the primary caregivers in households and when family members fall sick due to waterborne illnesses it increases women's time burden even more.<sup>46</sup> Globally, women spend twice as much time on unpaid work as men, including labour without remuneration, such as household chores, and caring for children and sick family members.<sup>47</sup>

**Basic water services could save women the equivalent of 77 million working days per year, which they currently spend collecting water.**<sup>48</sup>

## Impacts on Women's Economic Empowerment

**Time poverty constrains women's entrepreneurship** and limits the growth and success of their businesses.<sup>49</sup> A study of the biases, burdens, and barriers women entrepreneurs face in Myanmar found that they spend 24 hours more doing household chores every month than men. This was found to be a significant barrier to the women's businesses.<sup>50</sup>



WaterAid/Ernest Randrimamalala

● Landiniaina, 29, lives with her two daughters and grandmother in the village of Manjakandriana in Madagascar. “Before water arrived in my village, my oldest daughter started fetching water when she was around five or six. She used to fetch water with a plastic bottle. Now she is eight and we no longer go down there collecting water as we have a tap now at home. We also have more time. With my grandmother, I can now focus more on our livelihood, expanding little by little our small coffee and mofogasy [small Malagasy donuts] shop.”



**Time spent accessing water and sanitation also undermines girls' education.** Valuable time in school is lost to household chores such as finding and collecting water. When schools don't have clean, gender-segregated toilets and clean water for washing, girls often miss school during menstruation.<sup>51</sup> In Bangladesh, the establishment of appropriate sanitation facilities in schools increased girls' attendance by 11%.<sup>52</sup>

Using data from several regions worldwide,<sup>53</sup> the OECD finds that inequality in **unpaid care work is the missing link in the analysis of gender gaps in labour outcomes**, across measures such as labour force participation, wages, and job quality.<sup>54</sup> These results show that releasing women from unpaid work associated with water collection may not be sufficient to improve their labour outcomes, but it is certainly a necessary condition to improve their economic opportunities. It's also important to remember that without addressing wider gender norms, roles and power relations, WASH programmes can place additional burdens on women by reinforcing gender assigned roles.

**By working to change values, mindsets, and behaviours on shared responsibility within the household**, water and sanitation actors can contribute to the rise of new gender norms. A project by WaterAid in Timor-Leste facilitated

the redistribution of household work as part of a water and sanitation project. Results included women and men reporting a change in WASH-related roles and an increased willingness to share household tasks. Men also reported a new understanding of the work that women did in the home.<sup>55</sup>

**In rural Yemen, Morocco, and Pakistan, each one-hour reduction in time fetching water per household was associated with increases in girls' school enrolment of 9%, 12%, and 17% respectively.**<sup>56</sup>

**Investments in water, sanitation, and hygiene have shown positive results in terms of time savings on collecting water, accessing sanitation, and caring for sick household members.** Findings from time-use surveys in Asia and the Pacific show that an improved water supply has significant impacts on reducing the time women spend doing burdensome unpaid work. The study noted that time saved for women and girls can be used for economic and productive purposes, increasing productivity and "time returns", and for studying or participating in political and social activities that empower women and girls.<sup>57</sup>



WaterAid/DRIK/Farzana Hossen

● Maida Islam, 15, is a student at the Gosatra Dr. Jalilur Rahman High School in Kaliakair, Gazipur, Bangladesh. In the past, her school only had a few unclean toilets for its 457 female students. There was no running water or soap. Many students suffered from urinary tract infections due to the unsanitary conditions. In 2021–2022 WaterAid, in collaboration with Lindex, installed well-equipped hygienic toilets, hand-washing facilities, and access to safe water. "Now when we have our periods, it's nothing to worry about. We have our own private space where we can change, clean, and rest whenever we need. We also don't have to buy pads anywhere else, we can just get them here by ourselves," Maida says.

# Effects of investments in water, sanitation, and hygiene on women's empowerment

Women's economic empowerment lies beyond reach for those women and girls who lack access to safe, adequate, reliable and affordable water, sanitation and hygiene. Without strategic WEE-sensitive investments in WASH, the consequences in terms of time, health, violence, and lost educational and employment opportunities will continue to stand in the way of progress towards women's economic empowerment.

Low- and middle-income countries face disproportionate challenges to attracting investments in order to scale up water, sanitation, and hygiene services. The World Health Organization estimates that **less than 15% of countries have enough financing to meet their WASH needs.**<sup>58</sup> To achieve the Sustainable Development Goals (SDG) by 2030, investments in WASH services will need to be scaled up significantly.<sup>59</sup>

**According to UN-Water, involving women can increase the effectiveness of water projects six or seven-fold.<sup>60</sup>**

Overall, the benefits of investing in water, sanitation, and hygiene consistently outweigh the costs across all regions. Studies by the World Bank, UNICEF, and others have estimated that the benefits of achieving basic water services

can deliver up to US\$66 billion in value per year. The annual cost of achieving this target is comparatively small, just US\$14 billion per year.

**As primary WASH users, women and girls have deep and experiential knowledge of how services can be improved, managed, and made more sustainable for everyone.** However, too often their knowledge and understanding is not supported or utilised due to the norms and systems that exclude them.<sup>61</sup>

In a study of 28 low- and middle income countries, the World Bank found that women were just 18% of water utilities' workforces on average, and women were entirely absent as engineers in 32% of utilities and as managers in 12% of utilities.<sup>62</sup> Fewer than one-third of countries have high levels of women's participation in rural drinking water planning and management.<sup>63</sup>

**When women are involved in decision-making processes, projects are more effective and sustainable.** For example, a study by Deloitte on women in urban water management found that when women in India were trained and licensed as hand-pump mechanics, this resulted in better maintenance and fewer breakdowns. A study by IUCN concluded that the benefits of women's involvement go beyond water issues, including higher incomes, higher attention to social and environmental issues, and increased empowerment of women participating in other areas, such as local elections.<sup>64</sup>



● Together with the city municipalities of Dhaka in Bangladesh, WaterAid and the H&M Foundation implemented 100 new public toilets in 2013-2018. The new toilets are specially adapted for women's needs and situated in areas of the city that many women frequent, such as markets. Rikita, 30, says: "My business has flourished since the new toilet. Before, I had to close my market stall to go home to use the toilet. Now my business is open all the time. It has affected my business a lot. It also helps me feel clean."



# Conclusions

Access to water, sanitation, and hygiene paves the way for better economic opportunities and women's control over the benefits of those opportunities.

● **Key message 1: Investing in water, sanitation, and hygiene is critical to reduce women's unpaid care work and can unlock employment and income-generating opportunities.**

Access to clean water and proper sanitation reduces the time women spend on finding and collecting water or caring for sick family members – freeing up their time for paid work, education, and/or entrepreneurship.

● **Key message 2: Investing in water, sanitation, and hygiene can improve girls' access to primary and secondary education, which is crucial for their future independence and economic development.**

Increased access to WASH at home give girls time back. Improved WASH at schools increases girls' health and safety. Both investments increase girls time in school.

● **Key message 3: Access to water, sanitation, and hygiene improves women's health and enhances their productivity and participation in the labour force.**

Women's health is disproportionately affected by inadequate access to WASH, since they are the primary household managers of water and sanitation and because of their specific needs relating to childbirth and menstruation.

● **Key message 4: Access to water, sanitation, and hygiene can reduce violence against women and girls.**

Not having to walk long distances from the home to find water or use shared unsafe toilets decreases the risk of being subjected to violence for women and girls.

● **Key message 5: Water, sanitation, and hygiene programmes offer opportunities to challenge gender norms.**

WASH programmes can and should raise awareness of the burden women carry, foster dialogue to increase sharing of responsibilities within the household, and challenge the negative gender norms in society that hold women back in education, business, and employment.

● **Key message 6: Women's participation in water and sanitation governance is critical for women's economic empowerment.**

An assessment of women's roles in a water project in Egypt found that women's participation contributes significantly to improved efficiency and effectiveness in water management outcomes, as well as increasing women's self-confidence.<sup>65</sup>

● **Key message 7: The water and sanitation sectors generate many opportunities for employment and income-generating activities.**

Jobs in the water and sanitation sectors are numerous – from government, regional, and local water-related institutional positions to utility staffing. Labour demand in these sectors is increasing in many developing countries thanks to foreign aid; however, gender norms still impede increased female labour participation.

## Resources

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