



Boosting business: why investing in water, sanitation and hygiene pays off

Leather tanneries
in India



Impact report

WASH
4WORK



 WaterAid

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Executive summary

Having safely managed water, sanitation and hygiene (WASH) infrastructure in the workplace is vital to business performance and success. These essential services are foundations for the health and well-being of employees, reducing medical and sick pay costs, and boosting staff motivation and productivity.

WASH considerations should be included in a company's water stewardship strategy and seen as an opportunity to strengthen operational resilience and performance. WASH investment is also a way to build brand perception value and mitigate supply chain and climate risk while addressing a whole host of environmental, social and governance (ESG) criteria.

Boosting business: why investing in water, sanitation and hygiene pays off is a first-of-its kind pilot research project measuring the return on investment (ROI) and other business benefits of improving WASH services and behaviours in the workplace and employees' communities.

In collaboration with Diageo, Gap Inc., HSBC, Twinings and ekaterra (which was part of Unilever when this project started), WaterAid has measured the tangible impact of WASH investment in ten workplaces across four countries. This includes tea supply chains in India and Kenya, apparel and leather supply chains in Bangladesh and India, and agricultural smallholder farmers in Tanzania.

In India, the leather sector has a vested interest in long-term sustainable access to water resources for business resilience. It requires the right quality and quantity of water for its production processes and water for the health and livelihood of its workforce.

With growing populations and the increasing impacts of climate change, this water-intensive sector could threaten essential resources but, by investing in WASH facilities, particularly those that are climate-resilient, the industry can realise its employees' rights, improve health and wellbeing, promote holistic water management across the sector and build business resilience.

Research carried out in three tanneries in Uttar Pradesh state in northern India demonstrates the business case for investing in WASH. Over the course of the study, all business indicators showed benefits. Absenteeism fell by 29%, productivity increased 2% and punctuality increased by 6%. Employee access to drinking water rose by 30% and to handwashing stations by 13%, with 83% of the employees noting their handwashing behaviours had improved. The availability of toilets at home also increased by 10 percentage points (from 70% to 80%).

The project returned a positive ROI across the range of tanneries for the period of the project with \$1.29 return for every \$1 invested in WASH (ranging from \$-0.06 to \$3.96). Assuming a continued investment in WASH over a 10-year period (ie. operating, maintenance, ongoing capital and any top-up costs), the tanneries in India are expected to show an estimated overall ROI of \$2 for every \$1 invested (ranging from -\$2.42 to \$8.32). Some tanneries did generate a negative ROI, likely related to external factors (including COVID-19) and workplace-specific nuances. None of the qualitative evidence suggested that the WASH interventions at the tanneries led to a negative effect on business indicators.

Companies must respect the human rights to water and sanitation and should ensure employees have clean water, decent toilets and handwashing facilities in the workplace. *Boosting business: why investing in water, sanitation and hygiene pays off* shows this should not be seen as an expense, but a sound investment with a ripple effect far beyond the bottom line.

1

Introduction



● A view inside the Superhouse tannery in Unnao, Uttar Pradesh state, India. April 2022.



● A tannery employee processes the raw hides at the Superhouse tannery. Unnao, Uttar Pradesh state, India. April 2022.

The role of water, sanitation and hygiene (WASH) in economic development and resilience is relatively well documented,¹ but its impact on workplace performance through employee health and wellbeing is less well evidenced.

Boosting business: why investing in water, sanitation and hygiene pays off, aims to build a strong case for action and investment in WASH throughout corporate supply chains and communities.

The research measures the return on investment (ROI) and wider business benefits of expanding these essential services at speed and scale – showing companies, brands and suppliers the positive impact they can have on employees and their communities, at the same time as ensuring business productivity and growth.

Everyone, everywhere has a human right to water and sanitation – at home, in their community and at work.

1. Vexler C, Walker O, Mortlock C, et al (2021). *Mission-critical: Invest in water, sanitation and hygiene for a healthy and green economic recovery*. WaterAid and Vivid Economics. UK. Available at: washmatters.wateraid.org/sites/g/files/jkxooof256/files/mission-critical-invest-in-water-sanitation-and-hygiene-for-a-healthy-and-green-economic-recovery_0.pdf (accessed 19 Apr 2022).



● Kalu, a Tannery employee, moves raw hides at the Superhouse tannery, Unnao, Uttar Pradesh state, India. April 2022.

Context

The sector

India is the fifth largest exporter of leather goods and accessories in the world. The country produces 13% of the hides and skins for the world's leather industry from cattle, buffalo, goats and sheep. The country has approximately 3,000 tanneries, most of which are in Uttar Pradesh in northern India and unregulated. The sector provides jobs for more than 4 million people, mostly young, unskilled men under the age of 35.

India has high population density and the demand between businesses and households for the right quality and quantity of water is high. Tanneries require large volumes of water to dissolve and carry chemicals during production and there's a high risk those chemicals could leak out and contaminate the water supplies used by the workforce for drinking and hygiene.



● Nausheen washes her hands at a community handpump retrofitted by WaterAid. Unnao, Uttar Pradesh, India. April 2022.

● Brijendra Singh (centre), Manager, checks the quality of the raw hides at the Superhouse tannery. Unnao, Uttar Pradesh, India. April 2022.



The workplaces

The tanneries selected for this project – Kings International Ltd, Superhouse I and Superhouse II – are in the Unnao district of Uttar Pradesh. The employees of all three tanneries are from villages in the area and have a similar socio-geographic profile.

King's International Ltd has around 365 permanent employees, including both shopfloor and management teams. Compared to the other tanneries in the study, it has a higher proportion of skilled workers – most are men with a smaller percentage of women working in finishing and packaging. The tannery works in end-to-end processes, turning raw hides into finished goods.

Superhouse is a leather export house supplying goods to most of South Asia. The company has tanneries in Unnao, Agra and Noida in Uttar Pradesh. Its end-product is leather, rather than finished goods. In Unnao, it controls around 50% of the market through 16 tanneries, two of which were selected for the project.

India



Uttar Pradesh

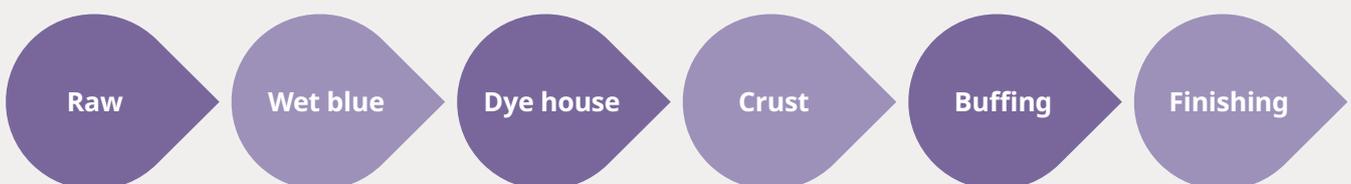


Tanneries Superhouse I and II each have a 500–550-strong workforce. There are permanent and contractual staff in both, though most employees are permanent. Tannery I only employs men, while tannery II employs a mix of men and women – with women only working the day shifts finishing and packaging.

Figure 1: Location of the three tanneries

The three tanneries are similar in profile, activities and processes, with teams assigned to each part of the production line and some working across them.

Figure 2: Leather tannery supply chain



2. Leather International (2016). *The principle of the matter – sustainability in India*. Available at: leathermag.com/features/featurethe-principle-of-the-matter-sustainability-in-india-4918602 (accessed 19 Apr 2022).
3. Invest India (no date). *Sector – Leather*. Available at: investindia.gov.in/sector/leather (accessed 19 Apr 2022).

WASH baseline

The baseline (pre-intervention) status of the three tanneries differed in terms of the WASH services and behaviours in place. Kings International Ltd started from a higher baseline, while Superhouse I and II had similar lower baseline WASH.

Table 1: Overview of WASH baseline conditions aligned with JMP service levelsⁱ

Kings International Ltd	Superhouse I and II
<p>Water</p> <ul style="list-style-type: none"> ● Drinking water provided from overhead tank but not processed before consumption. ● Rainwater harvesting for groundwater recharge. 	<p>Water</p> <ul style="list-style-type: none"> ● Drinking water available at two points but not potable (unhygienic and unclear). ● Groundwater used for tanning processes also used for drinking (possibly contaminated with chemicals).
<p>Sanitation</p> <ul style="list-style-type: none"> ● Facilities clean and maintained with handwashing stations. ● Limited female-friendly facilities. 	<p>Sanitation</p> <ul style="list-style-type: none"> ● Facilities unclean and not maintained. ● Limited female-friendly facilities.
<p>Hygiene</p> <ul style="list-style-type: none"> ● Separate dining areas. ● Poor hygiene practices and low awareness of menstrual health and hygiene (MHH) practices. ● Solid and liquid waste issues. 	<p>Hygiene</p> <ul style="list-style-type: none"> ● No separate dining areas, therefore potential food contamination from chemicals. ● Poor hygiene practices and low awareness of MHH practices. ● Solid and liquid waste issues.

At baseline, 87% of the employees at the three tanneries lived in the rural cluster of Unnao, so their WASH situation at home and in the community was similar. Households had access to water, which they believed to be safe to drink, however, few households followed good practices around storage and purification. There was a lack of access to toilets and handwashing facilities, inadequate handwashing practices and open defecation was common.

● Employees at Superhouse tannery wear protective gear near the handwashing facility inside the factory. Unnao, Uttar Pradesh, India. April 2022.

i. The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) reports on country, regional and global estimates of progress on WASH. The JMP service ladders are used to benchmark and compare service levels across countries. See: washdata.org/monitoring.



2

Methodology



● Reshma Devi joined Kings International Ltd as part of its first batch of women employees in their newly inaugurated bags division. Unnao, Uttar Pradesh state, India. April 2022.

Objectives

- Improve WASH services and hygiene behaviours for tannery employees at work and in their communities.
- Build a business case for WASH investment in leather tanneries and employee communities, by calculating the return on investment and benefit from business indicators.
- Influence the leather industry by building the evidence base for providing people with a safe and hygienic work environment.

Indicators

The following indicators were used to measure the impact of the intervention:

- WASH improvements, and the effects of these on employees' health and wellbeing.
- The financial value to the businesses, by calculating the ROI based upon quantitative business benefits.
- Quantitative and qualitative business benefits, which contributed towards the ROI calculation. These were absenteeism, attrition, medical costs, punctuality, productivity, job satisfaction and morale. Benefits to employees and family members focused on health, time saved and personal income.

Measuring impact on employees' health and wellbeing

The project used a before and after comparison to show the WASH improvements and the impact of the intervention on employees and their households.

A mix of data collection methods were adopted using a quantitative survey, which was carried out among factory employees at the start of the project in October 2020 and at the end in August 2021. The factories were closed due to COVID-19 when the first survey took place, so this took place over the phone.

A sample of 253 employees and their households took part in the baseline survey, from a total population of 325 permanent staff (proportionate to the total number of employees at each tannery), with a 95% confidence interval and 5% margin of error. Purposive sampling was used to choose the respondents – for example, the permanent employees who lived in the same clusters were given a preference for selection so that the impact of community interventions could also be seen. At the endline, there had been an attrition rate of 27% (our original assumption was 30%), so we surveyed 70 more employees who were randomly sampled to compensate. The same sample that was selected for the baseline was also selected for the endline, except for these 70 respondents. All the survey results presented are statistically significant, which were tested using t-test at 95% confidence interval.

15 employees and three factory managers were interviewed at the end of the project, and three focus group discussions were held in the community as part of the qualitative data collection.

We collected monthly management data from the three tanneries at three points in the project – during the first year before the intervention, the 12 months into the intervention, and the six months after the intervention. This enabled us to gather the necessary data to calculate the ROI and assess business benefits and trends.

For additional detail and specific information on the methodology, particularly on detailed ROI calculations, please refer to the *Technical note*.ⁱⁱ

Table 2: Data collection timeline

Study period	Timeline
Baseline	October 2020
Project period	June 2020 – June 2021
Endline	August 2021

ii. For a more detailed methodology, see: [wateraid.org/boosting-business](https://www.wateraid.org/boosting-business).

Measuring financial value to the businesses

To understand and measure the ROI and business benefits derived from improving WASH in the workplace and employees' communities, we defined an outcome and impact pathway for the project. Please start reading the diagram from stage '1. Investment/inputs'. This pathway lists all indicators studied as part of this project. The indicators in white were tracked and either qualitative or quantitative data was gathered to help build the picture of benefits and impact for people and the business. The indicators in black were not tracked for this project.

Outcome and impact pathway



Outcomes

Workspace level

Employees have:

- Access to improved WASH facilities
- Improved knowledge of hygiene
- Improved hygiene behaviour

Community level

Employees and family have:

- Access to improved WASH facilities
- Improved knowledge of hygiene
- Improved hygiene behaviour



Impacts

Benefit to people

- Improved health of employees and family members
- Increased job satisfaction
- Improved safety and dignity
- Improved employee morale and commitment
- Time saved
- Decreased personal medical cost
- Improved personal income

Benefit to supplier

Quantitative:

- Improved quality
- Decreased medical cost
- Decreased absenteeism
- Decreased attrition
- Improved punctuality
- Improved productivity

Qualitative:

- Better reputation



Outputs

- Operating expenditure
- Direct support expenditure
- Staff time



Investment/inputs

- Capital cost
- Operations and maintenance cost
- Training cost
- Opportunity cost



ROI*

Kings International Ltd:

- Project ROI
- Projected ROI

Superhouse I:

- Project ROI
- Projected ROI

Superhouse II:

- Project ROI
- Projected ROI

Overall project ROI and projected ROI

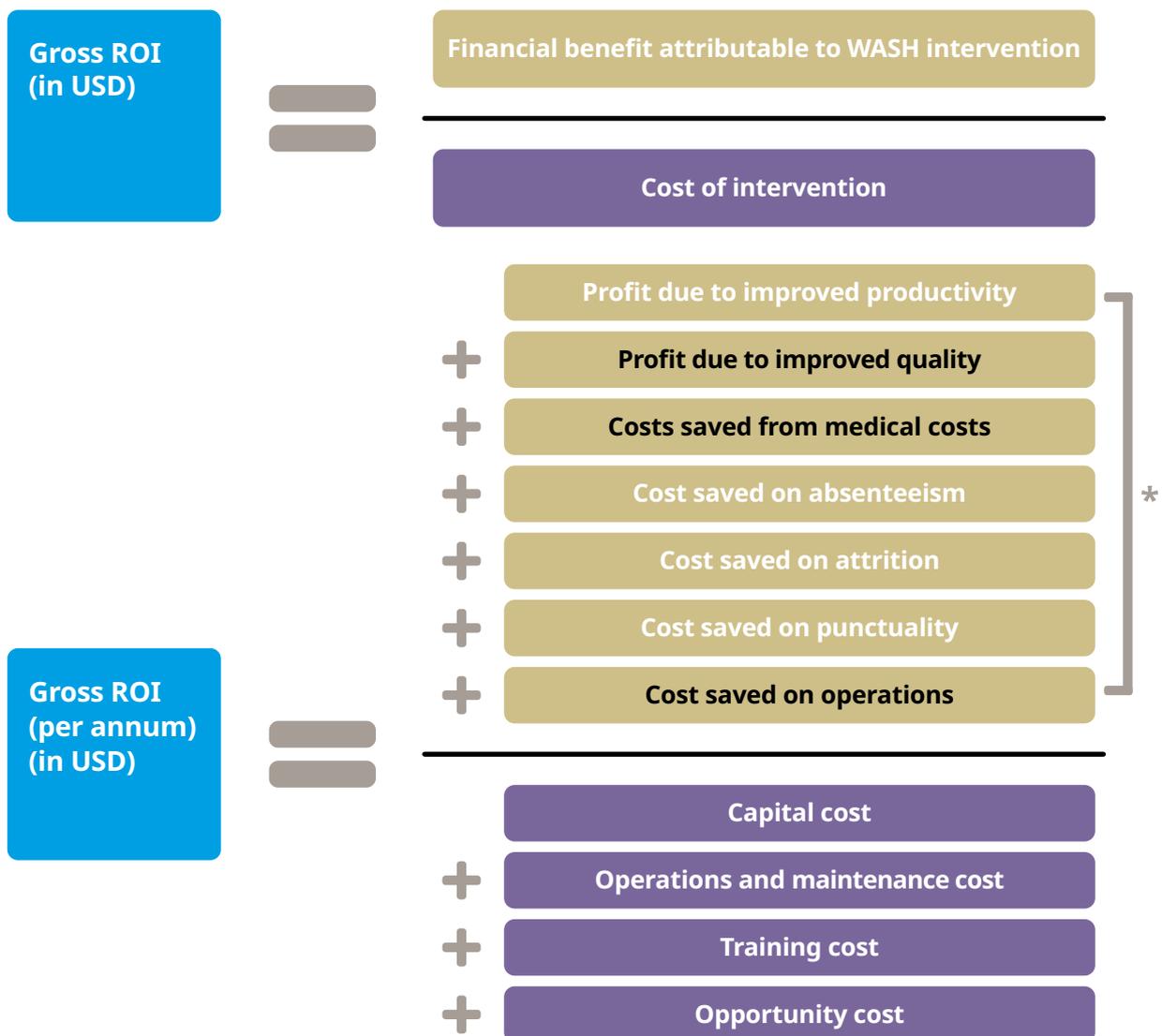
* The ROI is calculated by comparing baseline and endline data for the project period and is called the 'Project ROI'. However, the outcomes are often not visible in the short timeframe of the programme. To understand how the programme affects in the long-term, the ROI is projected for a period of 10 years and is called 'Projected ROI'. We take an average of factory level ROIs to calculate the overall ROI.

ROI formulaⁱⁱⁱ

The ROI aims to calculate the expected financial benefit of WASH. Given the nature of the interventions, not all benefits can be attributed to this. Therefore, the results were assessed alongside evidence from interviews and literature, as well as knowledge based on the context, to ascertain how much could be attributed to WASH. We also undertook sensitivity analysis to understand the effect of attribution percentages on the ROI. Please see the *Technical note*^{iv} for more detail.

The ROI was projected over 10 years, assuming the businesses continue to invest in maintaining the WASH infrastructure and behaviour change interventions. Some costs will also continue in the projected period. For calculating projected ROI, net present value and drop-off rates have been taken into account. For the ROI calculation, the qualitative elements of the 'Benefits to supplier' were not included.

The graphic below indicates the high-level ROI formula and a more generic ROI detailed breakdown of that same formula, highlighting the indicators used for ROI calculations in white, and those not used in black.



* All impacts attributable to WASH intervention.

iii. Costs and benefits are at net present value (NPV).

iv. For a more details, see: wateraid.org/boosting-business

For calculating business ROI: from the total costs (denominator) subtract the leveraged finance (usually community contribution and government funding).

Research limitations (including impact of COVID-19)

This pilot research faced a number of challenges and limitations, not least of all, the spread of COVID-19. Restrictions brought in during the pandemic delayed baseline data gathering by six months which meant the assessment had to be revised in terms of timelines, length, detail, and the inclusion of recall questions. This delay and the revision of timelines meant that the duration between the two-ends of assessment was potentially too short to observe tangible changes.

In the early part of the pandemic there was also widespread fear, stigma and uncertainty, so it was likely that employees and their families under-reported incidences of WASH-related diseases. As a result, the findings on indicators around incidence, sick days and loss of work may have been inaccurate.

The study was not designed to measure causal impacts, so we were unable to establish causality with precision. However, we have made reasonable assumptions on causality based on interviews with the workforce and managers and relevant literature. Changes in people's handwashing habits and attitudes cannot be exclusively linked to the project, as widespread hygiene campaigns in response to COVID-19 also had an impact – however attribution was considered, and results can be deemed important. Rather than accounting all changes to the WASH intervention, we have estimated an attribution of percentages and tried to pinpoint the proportion of change that could have occurred due to WASH.

For Kings International Ltd, attribution percentages used were 75% each for absenteeism, attrition and punctuality, and 10% for productivity. For both Superhouse I and II, attribution percentages used were 50% for absenteeism, 5% for punctuality and 10% for productivity.

Due to logistical constraints, most of the employee interviews were conducted at the factory premises, which resulted in two possible biases: a) the interviewer was not able to observe household settings and the WASH-related infrastructure and practices; and b) since the interviews were conducted in the factory setup, some responses could have been biased and less candid.

Furthermore, the tannery data systems, especially in the Superhouse tanneries, were poor. Most of the data was either maintained in notebooks or registers. Thus, there was a need to manually calculate and measure the value of important indicators, like absenteeism and punctuality, increasing the risk of incorrect information being used for the calculations.

Please refer to the *Technical note* for details on how many of these issues have been mitigated and managed.^v

● Shri Ram works at the Superhouse tannery in the Wet Blue department where they measure and weigh the raw-blue hides. Unnao, Uttar Pradesh, India. April 2022.



v. For a more details, see: wateraid.org/boosting-business



Implementation



● Tannery employees at Superhouse tannery, Unnao, Uttar Pradesh state, India. April 2022.

The project was implemented between June 2020 and June 2021, with the infrastructural interventions being made between July 2020 and March 2021. The four major areas of interventions were drinking water, toilet use, handwashing and menstrual health and hygiene. CapEx, OpEx and maintenance costs are not discussed in this public report.

Table 3: The number of people reached through each intervention

WASH gap identified	Intervention	People reached*
Inadequate WASH infrastructure (tannery)	Drinking water units, handwashing points, restoration of sanitation blocks	931 employees (three tanneries)
Inadequate clean water supply (tannery)	Rainwater harvesting for sanitary use and tannery operational processes	550 employees (two tanneries: Superhouse I and II)
Inadequate hygiene awareness and practice (tannery)	Hygiene behaviour promotion and training (sanitation, MHH, hand hygiene)	137 employees (three tanneries)
Inadequate WASH infrastructure (community)	Handpump restoration, community-managed toilets, household toilets	11,256 people (handpump restoration) 1,599 people (toilets)
Inadequate hygiene awareness and practice (community)	Hygiene behaviour promotion and training (sanitation, MHH, hand hygiene) Specific hygiene sessions on COVID-19 protection and prevention	1,342 people (25 communities)

*Note: The numbers of people reached should not be added together to make a total as some were reached with more than one intervention.

4

WASH outcomes



● Kavita Devi works in the bag making division at Kings International Ltd and is also responsible for ensuring the women's toilets always have available sanitary pads. Unnao, Uttar Pradesh, India. April 2022.

WASH improvements

After WASH intervention, almost all the WASH indicators showed improvement. Access to services improved, usage increased and there was greater awareness among employees and their communities. The best overall results were seen where WASH improvements (including taps, toilets and hygiene interventions), were introduced both in the workplace, and where employees' lived.

WASH-related improvements in the Superhouse tanneries were higher than those in Kings International Ltd because of the higher baseline of WASH provision at Kings International Ltd before the intervention. Kings International Ltd was also a much larger tannery with more advanced business systems and processes in place prior to the intervention, hence productivity across the tannery was already high before the project. This meant the scope for WASH-related improvements at Superhouse tanneries (especially Superhouse I) was greatest due to a lower baseline of WASH provision and less advanced business systems and processes with less efficiency.

In addition to new and refurbished facilities, the intervention resulted in better and more regular cleaning and maintenance, especially at Superhouse I and II where the pre-intervention baseline was lower.

A large, stylized purple '30%' icon.

average increase in access to drinking water for employees across all three tanneries.

95% of employees said they were satisfied with the drinking water facilities available at the end of the project, compared with between 70% and 80% before the intervention.

“Earlier, there were water points in two or three places where dripping water caused a lot of filth, but now it is quite clean, and changes are evident.”

Anonymous tannery employee

A large, stylized purple '13%' icon.

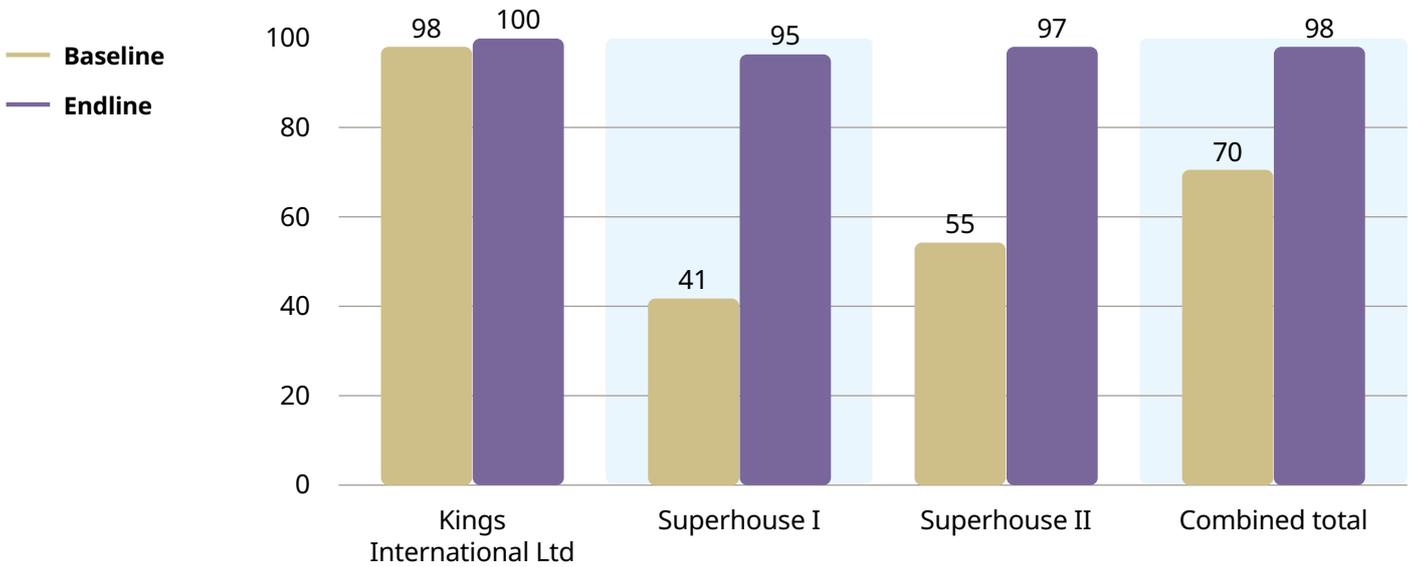
average increase in access to handwashing and sanitation facilities for employees across all three tanneries.

98% of employees said they were satisfied with the handwashing facilities available at the end of the project, compared with 70% before the intervention.

“...we are happy that the cleanliness has increased. Earlier it was difficult to even wait near the restrooms.”

Ramesh, tannery employee at Kings International Ltd

Figure 3: Employee satisfaction with hygiene facilities in the workplace



100% 

of all households in the employees' communities said they washed their hands with soap at critical times after the project, compared with between 24% and 97% pre-intervention.

● Employees at Kings International Ltd can now wash their hands regularly and maintain good hygiene at work. Unnao, Uttar Pradesh, India. April 2022.

89%



of employees across the three tanneries who attended training sessions say these influenced their WASH knowledge and behaviour.

98%



of all sampled employees reported improvements in handwashing facilities within their tanneries. Improved access to soap and water facilitated better hand hygiene practices.

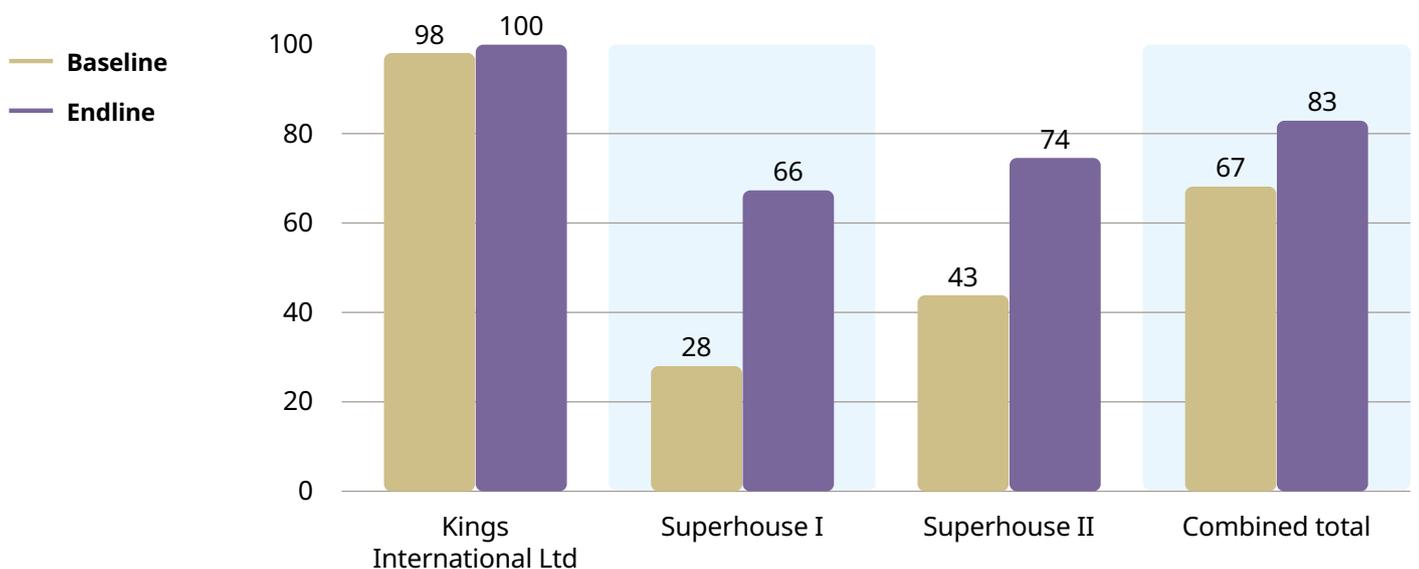
79% said they had changed their sanitation habits for the better and 83% said their handwashing behaviour had improved.

“I have started using a long-handle mug to withdraw drinking water to avoid direct contact, which I learnt was unhygienic during the training.”

Reshma Devi, tannery employee at Kings International Ltd

The availability of household toilets increased by 10 percentage points (from 70% to **80%**) and open defecation decreased by 5 percentage points (from 23% to **18%**). There was a 24 percentage point increase in the number of households purifying water (from 18% to **42%**).

Figure 4: Availability of soap and water at handwashing stations





● Shri Ram works at the Superhouse tannery and says after getting handwashing facilities and drinking water his health has improved. Unnao, Uttar Pradesh, India. April 2022.



Case study – Tannery employee

There was a time when 57-year-old Shri Ram would miss almost half a month of work because of various illnesses. **“Stomach ache, pain in joints, fever, there was always something or the other;”** he said. This frequent absence resulted in a sizeable portion of Shri’s salary being deducted.

Shri is employed in one of Unnao’s oldest tanneries, Superhouse Limited. **“I know my work well, but a bout of illnesses in the past few years had started interfering with it. Either I would be too sick to report for work, or feel exhausted on returning too soon after recovery;”** Shri, who lives with his family of six, said.

Since the WaterAid and HSBC initiative to improve WASH for the tannery employees and their families in Unnao, Shri’s health has gradually improved. **“When I attended those sessions, I realised that I was probably contributing to my own ill health;”** Shri said in retrospect.

“For me, washing my hands with soap after work, before food and after using the toilet – and drinking water from the dedicated space, has improved my health. The stomach ache and pains have reduced and as a result I can attend work and draw my salary accordingly;” Shri smiled, adding that he took the pamphlets back home so his family could read them too.

“There are times when, despite knowing something is unsafe, we have no choice,” he said, **“But the fact that my health is improving and I drew my whole month’s salary last month means that things are changing for me and my family, and that has brought us relief.”**

● Shri Ram’s health has improved since the installation of WASH facilities and the hygiene training sessions at the Superhouse tannery. Unnao, Uttar Pradesh, India. April 2022.

5

Return on investment



● Amir Ausaf, Manager at Kings International Ltd, says industries should invest in the health of their employees. Unnao, Uttar Pradesh, India. April 2022.

Overall, the project returned a positive ROI across the tanneries for the project period, with **\$1.29 return for every \$1 invested in WASH^{vi}** (ranging from \$-0.06 to \$3.96).

The overall 10-year projected ROI for the three tanneries, assuming continued investment in WASH services and behaviours, was **\$2 for every \$1 invested** (ranging from \$-2.42 to \$8.32).

The cumulative projected business benefits 10 years after the end of the project, combining all three tanneries is estimated at **\$3.5 million**.

The above return on investment (ROI) assessment includes all costs, including the money leveraged from the Government, along with monetary contributions from the *Boosting business: why investment in WASH pays off* project. However, a business ROI can also be generated, which only includes the costs we expect businesses to bear for the same intervention without the involvement of WaterAid (and may exclude some costs like community contribution and government leverage, depending on the context).

The business ROI often requires financial contributions from other sources. However, leverage of different funding streams contributes to broader benefits as well as the longer term sustainability of the project. The business ROI is expected to be theoretically higher because, the costs/investment amount, at least for the business, decreases, while the same benefit/return is still captured by the business. The potential to raise finance offers even greater ROI to incentivise stakeholder collaboration. This analysis shows that the overall **business ROI** during the project period increases to **\$2.80** (-0.10 to 8.53). When projected for the 10-year period, it increases to **\$8.45** (-8.73 to 33.89).

Although there was a range in ROI results, the study provided evidence that given the right tannery context, WASH can bring financial benefits in the leather sector. The pilot research also generated some valuable insights on design principles for a WASH project with an ROI objective.

It is important to note that the lower end of the ROI range comes from a single tannery – Kings International Ltd – that had a better state of WASH conditions pre-intervention and the business processes within the tannery were already well established with high employee productivity. Therefore, there was less scope for improvement in business indicators on productivity, which would have translated into a positive ROI for Kings International Ltd. The main area of improvement for King's International Ltd employees was in the community and via hygiene behaviour change. However, as these are long-term in nature, the outcomes were not realised in the short duration of the project.

As is evident, market factors play a very important role in determining the overall ROI. In Superhouse II, the negative ROI was mainly due to negative benefits from increased absenteeism and decreased punctuality. This is likely due to the effect of COVID-19 which impacted all business indicators, especially absenteeism.

vi. \$1.40 includes costs also borne by the community to implementation.

These results indicate that the returns will be higher in workplaces that have less adequate WASH services and behaviours before intervention, and where workplaces have less well-established business processes or systems.

Although the ROI for two of the three tanneries was negative at the end of the project, it was positive and much higher for two of the three tanneries when projected for 10 years after the end of the intervention, assuming continued investment in WASH.

There are two reasons why it is useful to look at projected ROI:

1. The assessment at the end of project period happened after a very short time, whereas the full extent of the impact is expected to take longer.
2. A lot of capital cost has been spent in the project period which is expected to show benefits for many years after the project period has ended. To account for these continued benefits, it is important to look at a period roughly aligned to the expected lifespan of the capital infrastructure.

The impact of COVID-19 pandemic, as well as the different contexts and nuances between the tanneries need to be considered when analysing the results, business benefits and ROI.

The pilot research has generated some valuable insights on design principles for a WASH project with an ROI objective.

Table 4: ROI and payback period per factory

Indicator	Tannery	Result (\$)
Project ROI	Superhouse I	3.96
	Superhouse II	-0.02
	Kings International Ltd	-0.06
Projected ROI (10 years)	Superhouse I	8.32
	Superhouse II	0.13
	Kings International Ltd	-2.42
Payback period begins	Superhouse I	Year 1 within project period
	Superhouse II	After 10 years of projected period
	Kings International Ltd	No break-even point

WaterAid India representative Sangeeta conducts a menstrual health and hygiene training session for villagers whose family members work at the various tanneries across Unnao, Uttar Pradesh, India. April 2022.



Employees on a production line at Kings International Ltd. Unnao, Uttar Pradesh, India. April 2022.



Payback from the first year of the project

Superhouse I showed payback beginning in the first year of the project. While in Superhouse II, the WASH- attributed financial benefits increase at a steady rate (worth \$206,648 during the projected period). These are not enough to cover the ongoing maintenance costs, so the payback period is further into the future.

For Kings International Ltd, the change in productivity during the projected period is approximately 0.7%, the improvement was smaller compared to Superhouse I and II and the ROI was negative. However, there were other business benefits including employee morale and workplace compliance, as well as reduced absenteeism, attrition and improved punctuality.

An employee at Kings International Ltd clocks in their attendance records. Attendance has increased since the installation of WASH facilities. Unnao, Uttar Pradesh, India. April 2022.



Analysis of business benefits

On average across the three tanneries, the following trends in business benefits were identified. It is possible for a tannery to show bigger gains overall but fall behind on one indicator or conversely show large gains on one indicator – but that benefit could be outweighed by potential CapEx costs, ultimately resulting in a negative ROI.



↓ Absenteeism attributed to WASH decreased by **29%**



↑ Productivity attributed to WASH increased by **2%**



↑ Punctuality attributed to WASH increased by **6%**

When analysing the business benefits per tannery, the differences between the tanneries is clearer and comparisons are more complex to draw. Kings International Ltd provides an end-to-end product from hides to finished goods – it is a large tannery with well-established business processes and a higher benchmark of WASH provision. Whereas the Superhouse tanneries are smaller, their finished product is leather, the business processes are less well-established, and the WASH benchmark is much lower.

The Superhouse tanneries showed an overall increase in productivity and punctuality. However, absenteeism and attrition also increased. Possible reasons for this include the cancellation of a payment for unused leave policy, which led to employees taking more time off, and fear of attending work during the height of the COVID-19 pandemic.

Reasons for absenteeism highlighted in the survey were similar at the endline to the baseline, although fewer employees reported family members' health as a reason for absence.

Overall, combined average estimates of leave taken were lower at the endline compared with the baseline, indicating lower employee absenteeism.

“[The intervention] has made the management realise the importance of a clean ambience and how it also affects productivity.”

Brijendra Singh, tannery manager at Superhouse

At Kings International Ltd, absenteeism, attrition and punctuality showed an overall improvement, while productivity decreased. The change in productivity is largely attributed to staff training and the procurement of new machines.

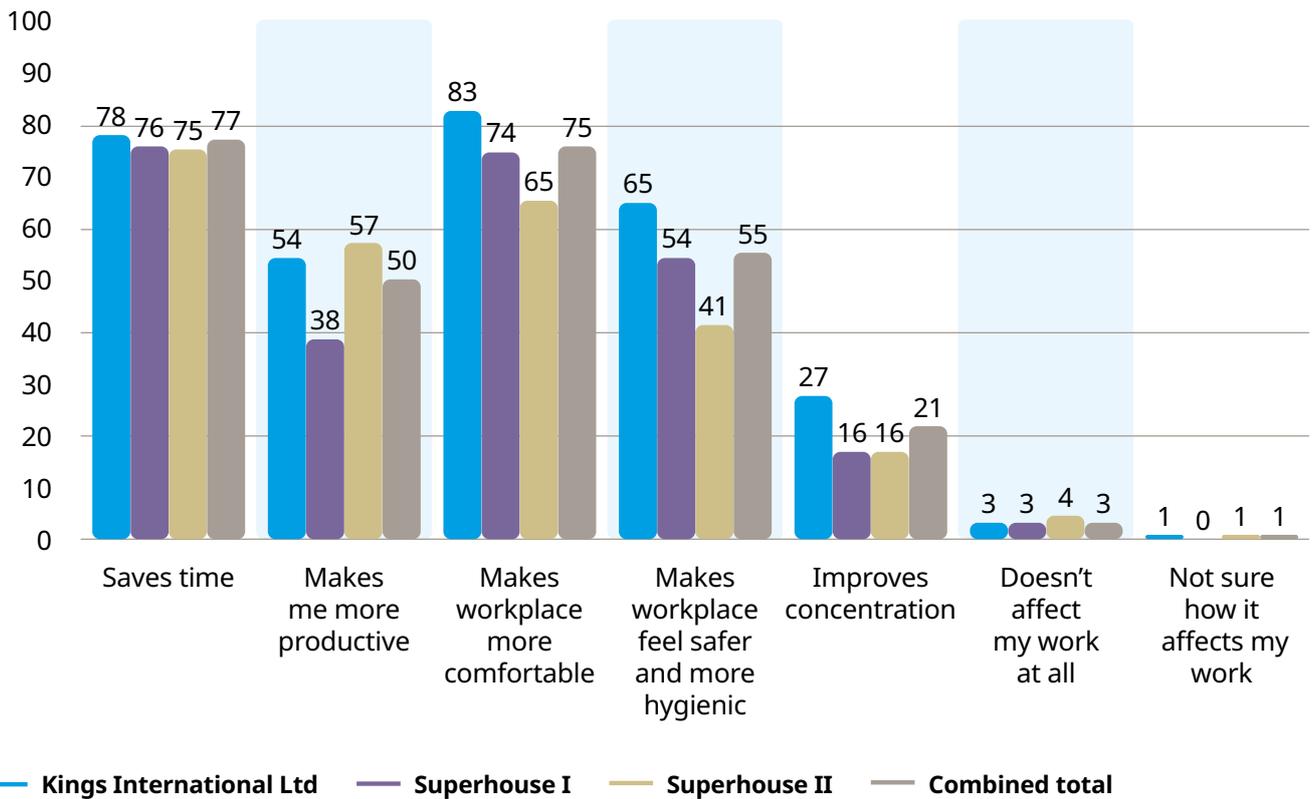
This change could also be related to the fact that wages per person per day decreased during the project (from \$98.60 to \$57.60 in the first year and \$35.20 in the second year), possibly affecting staff motivation. However, as these trainings and machine upgrades are not an outcome of the intervention, only 10% of the change is attributed to the project. See *Technical note*^{vii} for more detail on attribution.

Of the indicators, productivity had the most potential effect on ROI.

A 25% change in productivity could change the ROI by an average of 138% points.

vii. For more detail on attribution, see: wateraid.org/boosting-business.

Figure 5: The reported consequences of WASH improvements



Employee satisfaction

99%



of employees across the three tanneries say they were satisfied with their workplaces at the end of the project.

The top reasons given were improved WASH facilities and overall comfort at work.

“If the factory is clean, women feel safe, and would like to be loyal to the workplace. It is working in this factory that has helped me earn my livelihood.”

Kavita Devi, tannery employee at Kings International Ltd

77%



of employees across the three tanneries say the WASH improvements ‘save time’.

Only 3% of those employees asked said the WASH improvements did not affect their work in any way.

The employees did not report a relationship between functional, clean, safe-to-use WASH services and increased productivity and reduced absenteeism, but they were unanimous in expressing improved workplace satisfaction and loyalty due to WASH. This was especially the case at Kings International Ltd; only 1% of employees surveyed said that the changes hadn't affected their working experience in any way.

Social and sectoral benefits

By improving WASH services, and raising awareness, knowledge and practice in the employees' communities as well as in the workplace, the project reached at least four times the number of people working in the tanneries (NB the average family size in India is 4.5 people).

"I received new information on menstruation and how to use the sanitary pad correctly. Though I have no daughter, I shared these experiences with my neighbour's daughter and also motivated others in my community to use the sanitary pads and [understand] how it impacts the health of women."

Reshma Devi, tannery employee at Kings International Ltd

Improving WASH and demonstrating positive results from this investment at the three tanneries has provided evidence to persuade the wider leather sector to act. By sharing the impacts, lessons learnt and recommendations from the project, we can encourage more companies throughout the supply chain to improve WASH at work.

Benefits observed in the wider community include:

- increased access to personal toilets and decreased open defecation;
- increased knowledge and understanding on hygiene issues;
- increased self-esteem, particularly among women and girls.



● Nausheen demonstrates how to test water using techniques learnt from WaterAid India. She now tests the quality of water for the people in her village. Unnao, Uttar Pradesh, India. April 2022.

Amir Ausaf, Manager at Kings International Ltd, works with tannery staff on the production line. Unnao, Uttar Pradesh, India. April 2022.



Case study – Tannery Manager



Kings International Ltd processes raw hides into finished leather products, which are then exported around the globe. **“We pride ourselves for the finesse of our products and on-time delivery of every consignment,”** the Manager, Amir Ausaf, said. No feat, however, is without its share of challenges. In this case, it was absenteeism among the tannery’s employees. Seasonal changes can have a big impact on this, particularly during monsoons, as diarrhoea and dysentery cases rise caused by the contamination of water sources and poor hygiene. **“Fever, coughs and colds are also very common during this time,”** Amir, 38, said, **“Either employees are ill or their children and family members are. Either way, absenteeism is high.”**

Then, something changed.

In September 2019, WaterAid, with the support of HSBC, approached Kings International Ltd to be a part of its initiative to improve WASH conditions of tannery employees in Unnao. As part of this, Amir said that their toilets, handwashing and drinking water stations were renovated, an audio system with pre-recorded

hygiene message was put in place near the toilets, and a television installed in the common area showed training sessions by the WaterAid team on sanitation and menstrual hygiene.

“The training sessions proved to be very beneficial,” Amir said, **“Little things, like changing one’s slippers before going to the toilet so that one does not bring back germs into the working or living area, started making sense and employees started following it.”**

Amir said that the messages imparted during the hygiene training sessions did not just remain limited to the employees but were also taken home to their families.

As a result, the frequency of illnesses among this tannery’s employees and their families has decreased. **“Now absenteeism during seasonal changes has reduced, which means productivity has gone up,”** Amir said, **“It is simple logic: if our employees are healthy, we stand to gain from it. Industries must invest in the health of their employees.”**



● Amir Ausaf, Manager at Kings International Ltd, has noticed how sickness levels have decreased since the new WASH facilities were installed. Unnao, Uttar Pradesh, India. April 2022.





Sector advocacy



● A tannery employee processing hides at the Superhouse tannery. Unnao, Uttar Pradesh state, India. April 2022.



● A community-managed toilet facility installed in the residential area of Garhi where most tannery employees live. Unnao, Uttar Pradesh, India. April 2022.

Improving WASH and demonstrating positive results through ROI and/or business indicators at the three tanneries provides evidence of the business potential for the leather sector.

With most tanneries in India poorly regulated, many are unlikely to comply with WASH in the workplace standards set out by the International Labour Organization (ILO). Our pilot in the sector has highlighted an opportunity to improve WASH conditions and provision for employees whilst bringing benefits for businesses.

Through the design and implementation of the WASH interventions, opportunities have been sought to engage with the leather sector. The owner of King's International Ltd is the Vice President of Uttar Pradesh Leather Industries Association (UPLIA) and has shown leadership by being the first tannery to provide consent for the pilot intervention. The ROI outcomes and wider findings will be shared with UPLIA to build the case for WASH investment across the sector.

There is further scope to raise standards of WASH provision not only in tanneries but across other sectors. We have been working within the Confederation of Indian Industries (CII) in Uttar Pradesh and serving as the WASH knowledge partner. Evidence and learning from the pilot has already been shared with CII at co-hosted WASH events to promote the importance of WASH investment across all business sectors.

7

Learnings and recommendations

● A man bathes next to a handpump restored by WaterAid India in Garhi, where most of the tannery employees live. Unnao, Uttar Pradesh state, India. April 2022.

Capital Expenditure (CapEx) on a project can be daunting and returns might not be immediate, but companies should aim to implement WASH solutions where there is scope to do so, where suppliers are engaged and supportive, and where improvements can be made at work and in employees' communities.

Solutions do not always require large capital expenditure, with some low-cost solutions providing big results.

Design principles

These elements should be considered by the company and implementing partner when trying to execute a successful WASH programme where there is an objective of business return:

- **Take time** to understand the sector and the business, as well as their objectives, commitments and priorities.
- **Solicit** senior level engagement and ensure that suppliers are engaged and supportive of what needs to be implemented.
- **Identify** the 'low-hanging fruit' where there is scope for making improvements in workplace WASH provision and consider the communities where the employees live.
- **WASH** solutions should be context specific and climate resilient – designed for the business and objectives of the project.
- **Consider** effort vs. reward when identifying WASH solutions for the business, large CapEx isn't always required.
- **Consider** potential of reach, scale and replication across the business.
- **Leverage** funding from government or other stakeholders which both offsets the company costs but also enhances the outcomes and results.

● A bigger need can lead to a bigger ROI

Businesses with poorer baseline WASH services and behaviours will need to make a higher investment, but the potential ROI is also higher. Superhouse I and II had a low WASH baseline and therefore the potential for a bigger ROI.

Recommendation: Consider the potential for ROI and other business benefits when advocating WASH improvements to a business with poorer baseline of WASH services and behaviours. Plan for, and if necessary, seek support with, maintenance and operating costs to maximise the chance of success and sustainability.

These results indicate that the returns will be higher in workplaces that have less than adequate WASH services and behaviours before intervention.

● The impact of indicators on ROI

Giving the same weight to all business indicators can be misleading. Some indicators will have more impact on ROI than others, depending on the sector. In the leather tannery sector, productivity impacts ROI heavily.

Recommendation: For the tannery sector, productivity of workforce directly correlates to financial return. Therefore working conditions should be invested in to promote productivity and to drive greater financial return.

● Attributing benefits to WASH

Attributing ROI and changes to absenteeism, attrition, productivity and punctuality to WASH is difficult.

Recommendation: Share with management evidence of how WASH interventions improve people's health and wellbeing and how this will likely impact absenteeism, attrition, productivity and punctuality.

● The state of the art handwashing facility that was recently installed at the Kings International Ltd. Unnao, Uttar Pradesh, India. April 2022.



● More than ROI

Calculating the ROI of WASH interventions is difficult, especially after a relatively short project. Using ROI alone to evaluate the business benefits of WASH interventions is insufficient, and broader social, reputational and regulatory business opportunities should be considered. Although there was a range in ROI results, the study provided evidence that given the right tannery context, WASH can bring financial benefits as well as positive business trends in the leather sector.

Recommendation: Consider the other business benefits of investing in WASH at work. WASH interventions can help maintain social license to operate, ensuring business continuity by supporting reputational and regulatory benefits – as well as other indirect social benefits that are often difficult to measure. These are bigger and more complex than ROI. As a minimum, companies should have policies and welfare programmes in place to reflect their responsibility to respect the human right to water and sanitation.^{viii} Measure ROI over a longer period to evaluate it more accurately and minimise the impact of shorter-term factors (e.g. COVID-19 or upfront CapEx costs).

● Think bigger than the business

There is a clear value in improving WASH in the wider community where the tannery employees live as well as in the workplace. Improved health and wellbeing at home will affect employees at work.

Recommendation: For better and more sustainable results, include improvements to WASH in the community in plans to improve services and behaviours at work. Businesses can generate profits while doing social good.

● Maintaining benefits

If services are not maintained adequately, ROI can reduce drastically. Clear plans are needed for maintenance to sustain business benefits. In the tannery context, ongoing maintenance of facilities was highlighted as an area of risk, but also an opportunity for a quick win with big business benefits.

Recommendation: When improving WASH services and behaviours at work and in the community, plan who will be responsible for maintaining services and how and when they will do it.

^{viii} Pacific Institute/Shift (2015). *The CEO Water Mandate. Guidance for Companies on Respecting the Human Rights to Water and Sanitation: Bringing a Human Rights Lens to Corporate Water Stewardship*. Available at: ceowatermandate.org/wp-content/uploads/2018/09/Guidance-on-Business-Respect-for-the-HRWS_1.pdf (accessed 8 Jul 2022).

Call to action

Resilient and prosperous communities, industries and economies are built on strong foundations. WASH is vital to the health and safety of everyone, everywhere, critical to business resilience, supports the ambitions of the SDGs, and has the potential to deliver a financial return on investment. It must be considered a core business priority rather than an act of philanthropy or corporate social responsibility.

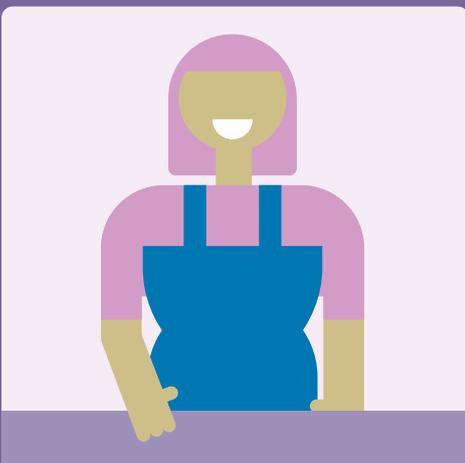
The apparel industry has an important role to play in WASH investment, and in supporting the long-term sustainability of water resources.

By investing in WASH facilities, particularly those that are climate-resilient, the apparel industry will realise its employees' rights, improve health and wellbeing, and promote holistic water management across the sector.

Through business, government and civil society working together, we can achieve 100% access to safe and sustainable WASH in the workplace, supply chains and communities by 2030, and deliver the SDGs.

To build a strong business, take the following actions:

- Invest in WASH in the workplace, supply chains and communities.
- Seek expert advice to learn how and where your organisation can benefit from WASH intervention.
- Understand the private sector's role in managing and mitigating social, economic and environmental risks.
- Become a water steward in your sector and make sustainable WASH a unique selling point of your business.



How could your company benefit from WASH investment?
To find out, visit wateraid.org/boosting-business



● Rambalak, a Tannery employee, rests during his break at the Superhouse tannery. Unnao, Uttar Pradesh state, India. April 2022.

WaterAid is an international not-for-profit, determined to make clean water, decent toilets and good hygiene normal for everyone, everywhere within a generation. Only by tackling these three essentials in ways that last can people change their lives for good.

● Tannery employees process raw hides at the Superhouse tannery. Unnao, Uttar Pradesh state, India. April 2022.

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