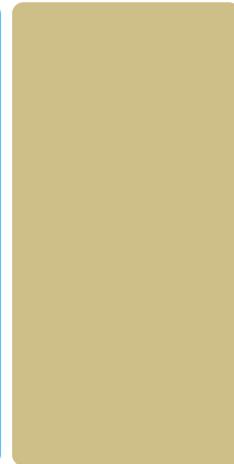




# Boosting business: why investing in water, sanitation and hygiene pays off

Tea estate in Kenya



Impact report

WASH  
4WORK

 ekaterra

 Unilever

 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 Kenya, the tea industry has a vested interest in long-term sustainable access to water. It requires the right quality and quantity of water for plant growth as well as water for the health and livelihood of its workforce.

With the increasing impacts of climate change and growing populations, 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 at a tea estate in Limuru, Kiambu County, 35km west of Kenya's capital Nairobi, demonstrates the business case for investing in WASH. Over the course of the study, WASH intervention led to absenteeism decreasing by 21%, the number of business medical incidents decreasing by 22% and productivity increasing by 1%. There was a 37% increase in the proportion of tea pickers washing their hands at work, and the frequency they did so increased too – nearly doubling from 2.8 times a day to 5.3 times a day at the end of the project.

These results contributed to a positive ROI for the period of the project with \$5.11 return for every \$1 invested in WASH. Assuming continued investment in WASH over a 10-year period, the tea estate in Kenya showed an estimated ROI of \$15.59 for every \$1 invested.

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

● Esther Opanda, Welfare Team Leader, in the fields at the ekaterra tea estate in Kenya. June 2022.





● Landscape of a tea field at the ekaterra tea estate in Kenya. June 2022.

The role of water, sanitation and hygiene (WASH) in economic development and resilience is relatively well documented,<sup>1</sup> 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](https://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 2 Aug 2022).



● Antony Mungai, a hygiene session facilitator, at the ekaterra tea estate in Kenya. June 2022.

# Context

## The sector

Kenya is the third largest producer of tea in the world. It's the country's most valuable agricultural export and a labour-intensive product to grow. Water stress is a huge concern across the sector and for many households.

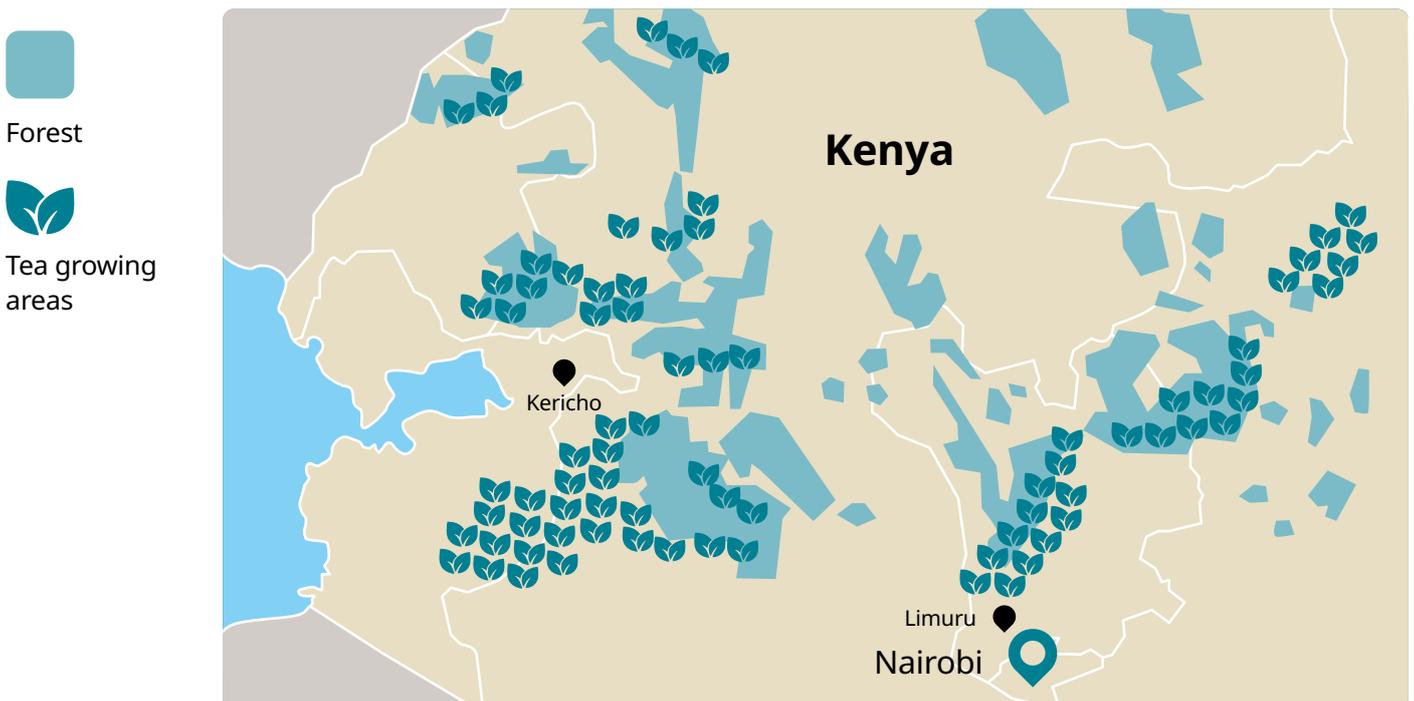
60% of Kenya's tea is produced by small-scale farmers, coordinated by the Kenya Government through the Kenya Tea Development Agency (KTDA). The remaining 40% is produced on large privately-owned tea estates managed by multinationals like ekaterra (formally part of Unilever). Many operate their own tea factory on-site, where green leaves are processed to make tea for consumption. They employ 'pluckers' to pick leaves, fertilise, weed and prune the plants.

ekaterra currently has tea estates in Kericho and Limuru, with the latter being the focus for this project.



● Antony Mungai, a hygiene session facilitator, uses the handwashing facilities at the ekaterra tea estate in Kenya. June 2022.

Figure 1: Location of the tea estates



## The workplaces

ekaterra's Limuru Tea Estate in Kiambu County, is 35km west of Kenya's capital Nairobi.

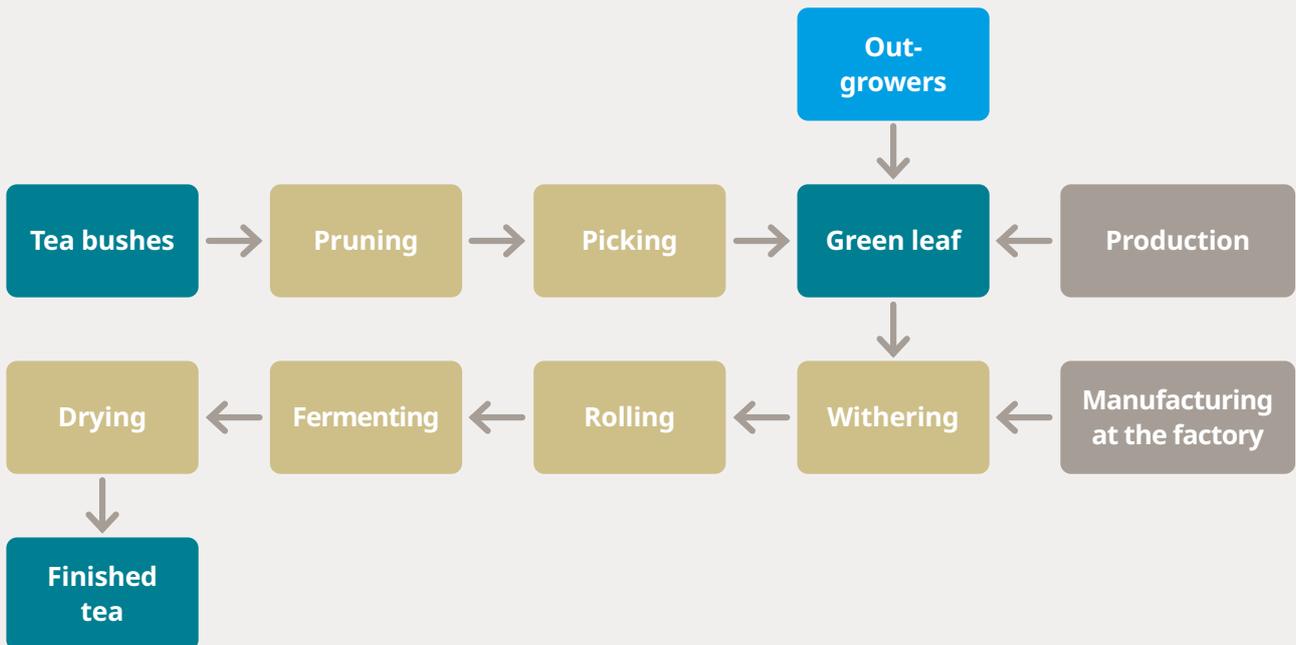
The estate spans 282 hectares and sits 2,259m above sea level in a region with a tropical climate and overcast wet seasons. It comprises one factory processing black tea and two main tea estate areas.

Tea leaves are picked manually by farm workers, who are either permanently employed (approximately 75%) or casual labourers (approximately 25%). In addition, small producers, 'out-growers', contribute green tea leaf into the commercial supply chain. There is a 60:40 ratio of men to women on the estate staff and a 30:70 ratio in the factory.



Antony Mungai engages employees in a session on hygiene at the ekaterra tea estate in Kenya. June 2022.

Figure 2: The tea supply chain



## WASH baseline

Baseline (pre-intervention) data was collected in June 2019, focusing on hand hygiene practices.

Data collected over a five-year period from the tea estate clinic showed upper respiratory tract infections were the most common medical complaint, followed by hypertension, arthritis, diarrhoea, skin conditions, eye conditions, muscular and skeletal conditions, urinary tract infections, diabetes and asthma.

The on-site nurse indicated that these cases were linked to climatic conditions, high-altitude working and poor hand hygiene.

Many tea pickers knew about the link between disease prevention and hand hygiene but very few put good handwashing behaviours into practise.

Pre-intervention, people lacked motivation to wash their hands with soap because of:

- Lack of awareness on the importance of handwashing with soap.
- Lack of knowledge on how to properly wash hands with soap.
- Soap not being kept in a specific place or near handwashing facilities.
- Soap being seen as too expensive in some cases.
- Desire for more handwashing facilities.

● Medrin Langat, Health Worker, uses the handwashing facilities at the ekaterra tea estate in Kenya. June 2022.



**Table 1: Overview of hygiene baseline conditions, aligned with JMP service level<sup>i</sup>**

### Tea estate

#### Hygiene

- Mobile water stations for handwashing. Soap is provided but water is very cold due to altitude, which is a deterrent and mobile water stations often run out (one of the tea pickers is normally assigned to manage and refill the unit).
- Limited handwashing at critical times, such as before lunch, and very limited use of soap.

### Households

#### Hygiene

- Handwashing at home after tea picking more likely because of visible dirt and possibility of warm water.
- Limited to basic facilities – handwashing with soap at critical times is infrequent and not always with soap.

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](https://washdata.org/monitoring) (accessed 16 Jun 2022).



## Methodology



● Medrin Langat is a Healthcare Worker at the ekaterra tea estate in Kenya. June 2022.

## Objectives

- Improve WASH services and hygiene behaviours for tea estate employees at work and in the communities where they live.
- Build a business case for WASH investment on tea estates and in employee communities, by calculating the return on investment and broader benefit from business indicators.
- Influence the tea industry more broadly 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

- Hygiene behaviour change and WASH improvements, and the effects of these on employee health and wellbeing.
- The financial value to the business, by calculating the return on investment.
- Other business benefits, using medical costs, absenteeism and productivity as indicators.<sup>ii</sup>

**Table 2: Data collection timeline**

Study period	Timeline
Baseline	June 2019
Project	March 2020 – June 2021
Hygiene behaviour change implementation	June – December 2020 (6 months)
Endline	February 2021

## Measuring impact on employees' health and wellbeing

The project used a before-and-after comparison of both primary and secondary data to show the change in the hygiene behaviours of the tea pickers. The baseline survey was carried out in June 2019 and the endline data was collected in February 2021. The endline survey had to be conducted via phone interview due to COVID-19 restrictions.

The tea estate management selected 20 households from seven different plantation clusters for the baseline and endline surveys. 140 tea pickers (excluding factory employees), were questioned from a total population of 4,796 (796 tea pickers and 4,000 family members). The sample size provided a balanced representation of pickers across the estate.

Qualitative data was collected via three focus group discussions (five to eight people per group) and seven key informant interviews with general managers, school workers and the on-site nurse.

At the beginning of the project, structured observations were carried out in key locations like waterpoints and handwashing stations to determine the knowledge, attitudes and practices (KAP) of employees at work and home. No observations could be conducted on the tea estate at endline due to COVID-19 restrictions. The drop-out rate was minimal because all employees live on-site and there is limited turn-over of tea pickers.

Secondary data from management was gathered monthly from the tea estate between March 2019 and June 2021. This enabled us to gather the data needed to calculate ROI as well track 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*.<sup>iii</sup>

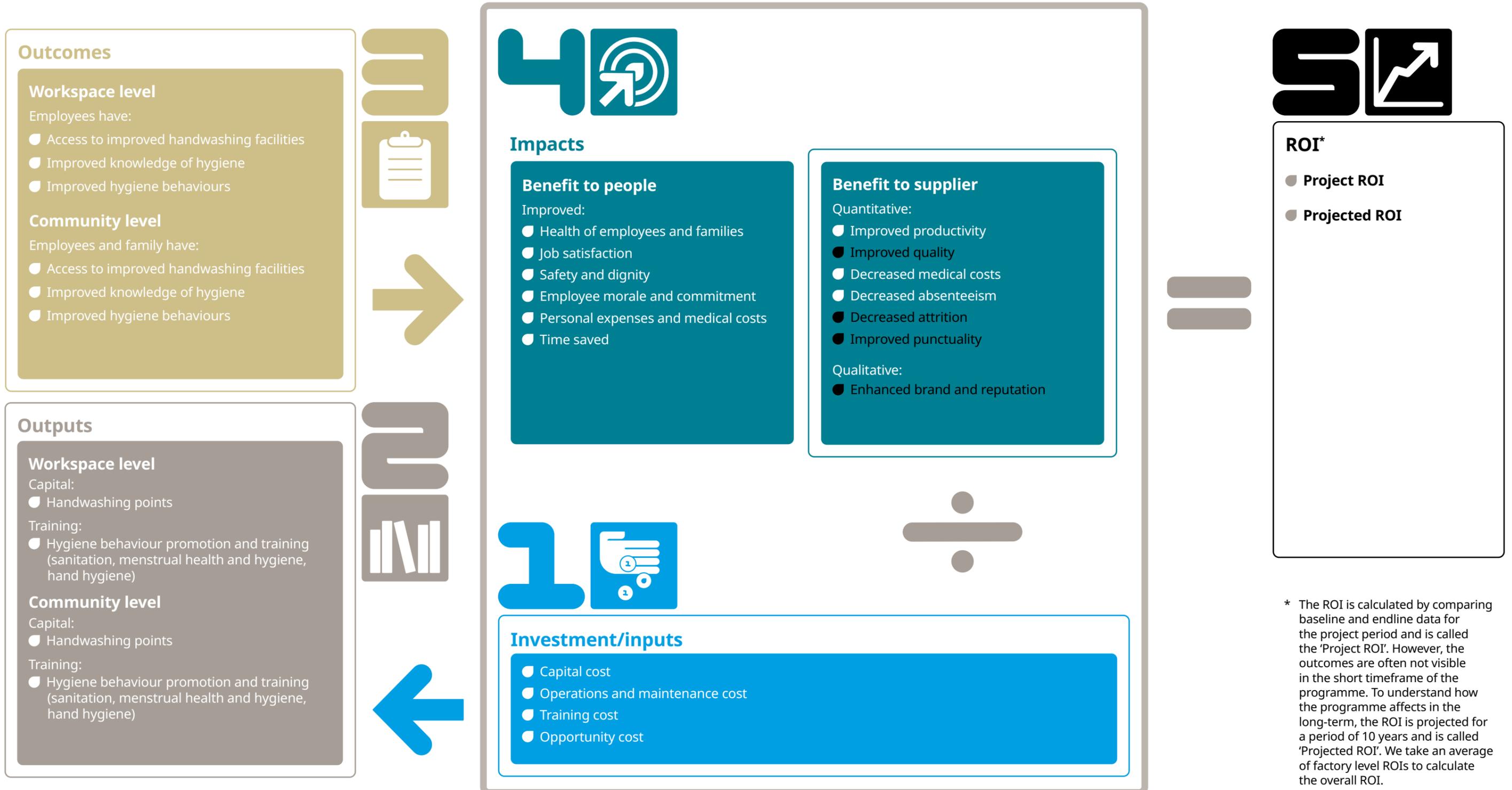
ii. While changes in attrition, punctuality and quality in relation to WASH are important indicators, they were not included because data was not available, and management reported that incidences of these were insignificant.

iii. 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



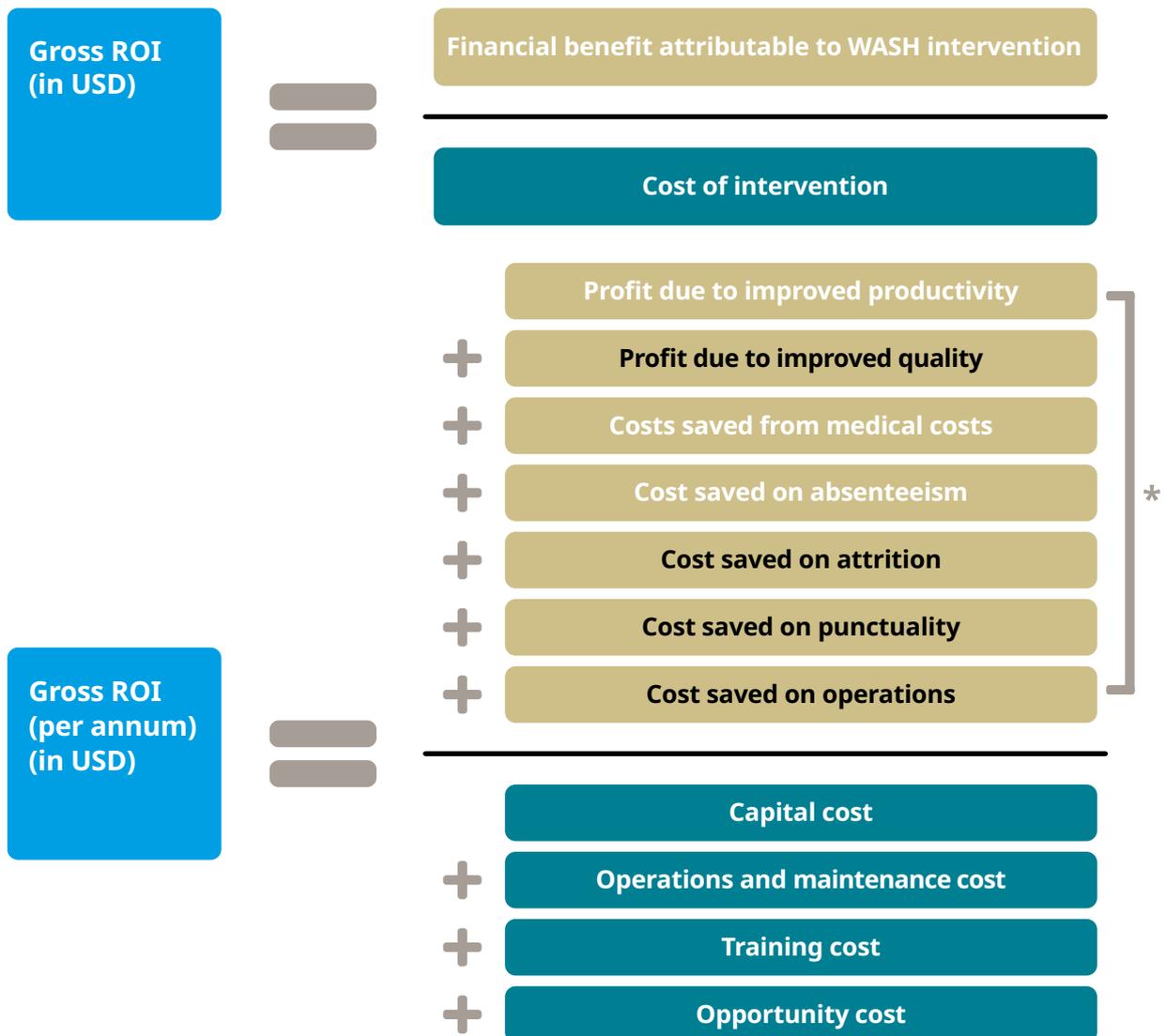
\* The ROI is calculated by comparing baseline and endline data for the project period and is called the 'Project ROI'. However, the outcomes are often not visible in the short timeframe of the programme. To understand how the programme affects in the long-term, the ROI is projected for a period of 10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

## ROI formula<sup>iv</sup>

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<sup>v</sup>* 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 accounted for. 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.

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

v. For a more details, see: [wateraid.org/boosting-business](http://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, the spread of COVID-19.

The pandemic affected business productivity, data collection and the reporting of WASH-related diseases. The natural flux of workforce migration was also accentuated, but estate operations did not stop at any point.

There was a delay in starting the project. The baseline survey was completed by July 2019 but the implementation phase did not begin until a year later, with training taking place in March 2020. To mitigate this, the return on investment (ROI) project period is considered from March 2020 onwards.

The baseline survey focused heavily on WASH behaviour indicators and included spot checks and behaviour observations. Due to COVID-19 prevention measures on the tea estate, the endline survey relied on phone surveys as observations and spot checks could not be carried out. Survey respondents were asked to recall information from one year earlier, so a degree of recall bias is possible.

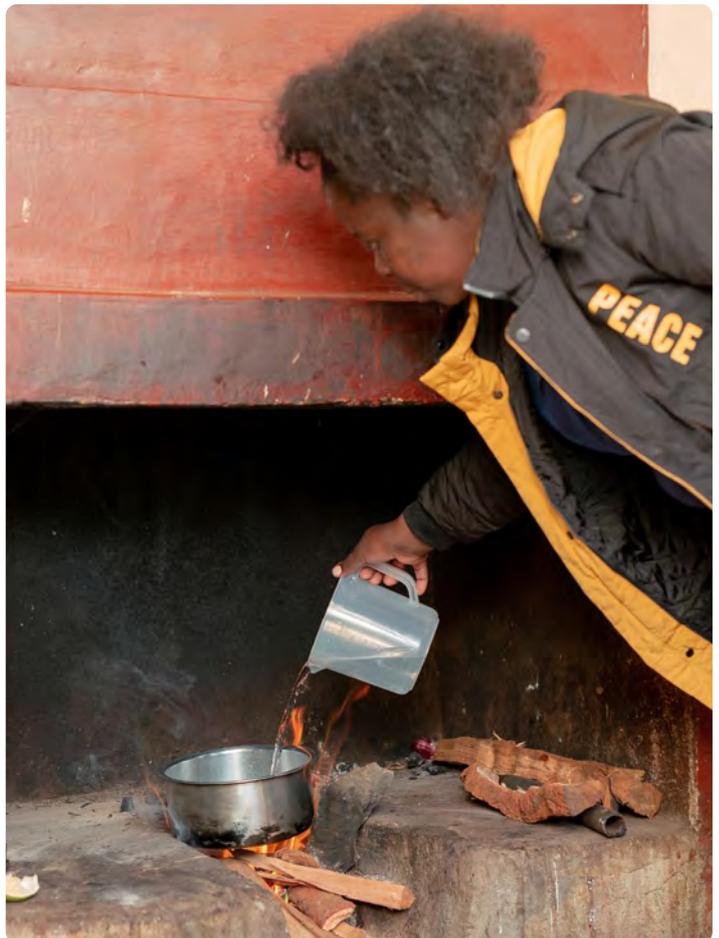
The study was not designed to measure causal impacts, so we were unable to establish causality with precision. However, we have made reasonable assumptions on causality based on interviews with the workforce, managers and relevant literature.

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 attribute 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 the tea estate, we have given attribution percentages – 50% to absenteeism and medical costs and 10% to productivity.

ekaterra, formerly part of Unilever, were asked for COVID-19-related costs so these could be accounted for, and researchers posed specific questions on the intervention to compare and differentiate it from COVID-19 campaigns. The employee survey also included a question on what training sessions people had attended and how many and attributed business indicators to WASH were based on conversations with the estate management. Given the short timeframe, these insights were limited.

**Please refer to the *Technical note*<sup>vi</sup> for more details on how these issues have been mitigated and managed.**

● Esther Opananda, Welfare Team Leader, prepares food at home. Kenya. June 2022.



vi. For a more details, see: [wateraid.org/boosting-business](https://www.wateraid.org/boosting-business)



## Implementation



wash your hands  
with soap

● Esther Opana, Welfare Team Leader, washes her hands from a tap near her house in the ekaterra tea estate in Kenya. June 2022.

Everyone on the Limuru Tea Estate (factory employees, tea pickers and their communities), were reached by WASH intervention, with the focus on tea pickers (primary target) and their families (secondary targets). Handwashing units were installed with soap across the estate, peer educator training was completed in March 2020, and a hygiene behaviour change campaign ran for six months from July to December 2020.

**Table 3: The number of people reached through each intervention**

WASH gap identified	Intervention	People reached
Opportunity to improve access to handwashing facilities with soap and water across the estate	New handwashing units Introduction of soap at handwashing units across estate	Management provided <b>32</b> handwashing units across the estate
Opportunity to improve knowledge of the importance of handwashing at critical times and other hygiene behaviours	<p>Tuko Clean hygiene campaign which included:</p> <ul style="list-style-type: none"> <li>● Promotional hygiene materials (drawings, paintings, images) in key areas – including social halls, toilets, handwashing facilities as well as picking areas and the offload site for out-growers</li> <li>● Hygiene behaviour change training for:               <ol style="list-style-type: none"> <li>1. Team leaders and hygiene champions</li> <li>2. Village leaders</li> <li>3. Schools (Early Childhood Development (ECD) centres)</li> </ol> </li> <li>● Every Monday (Tuko Clean Day) dedicated to discussing handwashing across various sections/units of estate</li> </ul>	<p><b>22</b> hygiene champions trained</p> <p><b>24</b> hygiene focused sessions (1 session weekly for 6 months)</p> <p><b>2,276</b> people reached with at least <b>6</b> exposures of training – <b>1,060</b> employees (pickers and factory employees), <b>1,216</b> dependents</p> <p>Each month for 6 months, an average of <b>871</b> employees (pickers and factory employees) were reached with hygiene behaviour change training via the Tuko Clean campaign</p>

## Hygiene behaviour campaign

The Tuko Clean campaign was launched to promote hygiene messaging to employees and their communities. Hygiene promotion visual aids, paintings and pictures were posted on walls at key areas where people lived, worked and socialised, with a specific focus on providing visual cues at handwashing points.

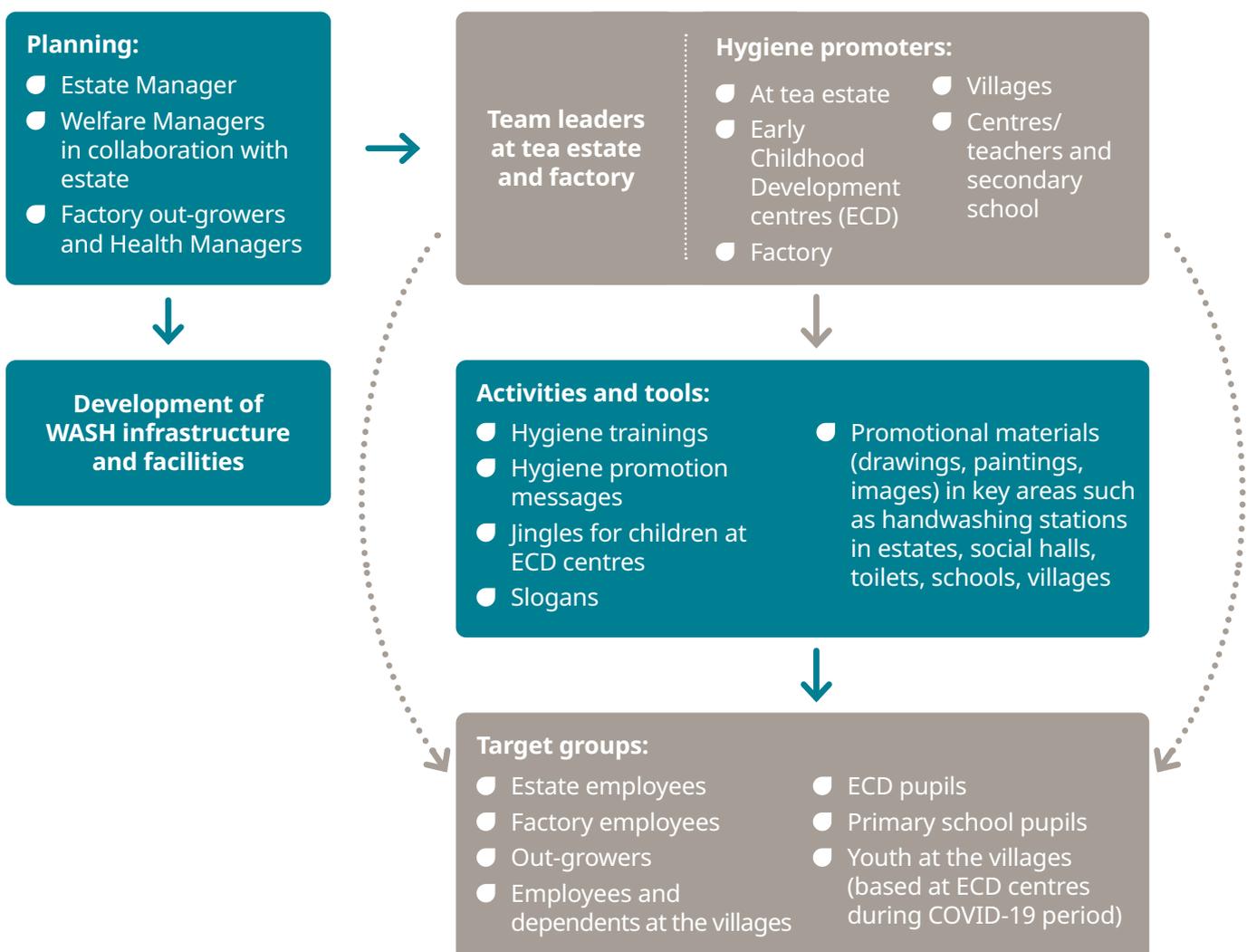
Across the estates, messages were displayed at handwashing stations and around toilets. At the factory, where the green leaf is offloaded, there were handwashing promotional materials and stations to motivate the out-growers to wash their hands.

Hygiene champions were selected at the start of the project to work with team leaders to spread hygiene messages in the workplace and the villages.

Three levels of training were given: team leader level, village level and school (ECD centres and primary school) level.<sup>vii</sup>

The Tuko Clean training was integrated into already scheduled training, so there was no additional time cost to the employees. In total, 2,276 people (1,060 employees and 1,216 family members) were reached with at least six exposures to training and hygiene messages.

**Figure 3: The hygiene promotion process**



vii. When COVID-19 cases were reported in Kenya in early 2020, the planned activities were stalled, and some were implemented in a different way. The training activities started again from June 2020.

Hygiene promotion posters at handwashing stations as part of the Tuko Clean campaign.



# 4

## WASH outcomes

● Medrin Langat, Health Worker, treats a patient at the ekaterra tea estate in Kenya. June 2022.



## WASH improvements

**37% POINT** 

**increase in the proportion of tea pickers washing their hands while at work. At baseline, 50% of tea pickers washed their hands and this increased to 87% following the Tuko Clean campaign and hygiene training.**

**X2** 

**The average number of times tea pickers washed their hands while at work each day nearly doubled, from 2.8 times a day to 5.3 times a day.**

After the intervention, people's reported handwashing knowledge, attitudes and behaviours had all improved. Behaviours around washing hands at critical times, such as after using the toilet, before eating and after cleaning a child also improved. At baseline, 74% reported washing their hands after using the toilet, while at endline this increased to **82%**. Focus group discussions and interviews also showed an increased awareness of the importance of hand hygiene to keep clean, kill germs and prevent disease.

**"With more handwashing stations around the facility, employees maintain hygiene during meal-times, which prevents disease. Tuko Clean has helped to educate the community and children on other hygiene aspects such as proper waste disposal."**

Welfare Team Leader

Data from the tea estate management showed the monthly expenditure on soap increased, from an average of 373 Kenyan Shillings at the start of the project, to 425 Kenyan Shillings by the end, reflecting an increase in good hand hygiene behaviours.

**"Tea pickers are no longer shy talking about hygiene, and their self-esteem has improved."**

Assistant Field Manager

**"... due to the hygiene measures in place, we have seen a reduction... in the number of people visiting the hospital. The reduction is mainly in respiratory tract infections."**

Clinic Nurse

**99%** 

**At the end of the project, 137 of 140 tea pickers understood that soap, liquid soap and sanitiser should be used as handwashing agents.**

# 5

## Return on investment

● Antony Mungai, a hygiene session facilitator, in the tea fields at the ekaterra tea estate in Kenya. June 2022.



The ROI during the project period for the tea estate was **\$5.11 for every \$1 invested in WASH.**

The 10-year projected ROI for the tea estate, assuming continued investment in WASH services and behaviours, was **\$15.59 for every \$1 invested.**

The cumulative business benefit after 10 years is estimated at **\$278,101.**

A positive ROI was achieved during the project period, and with sustained investment in WASH, this is projected to triple in 10 years. These ROI results make a clear case for continued investment in maintaining WASH services and behaviours to ensure sustainable returns long-term.

The project ROI includes all costs, regardless of where the money came from. However, the cost included in the business ROI is only that cost we expect the business to bear in future when making a similar intervention without the involvement of WaterAid (it may also exclude community contribution and money leveraged from government, depending on the context).

In this project, the tea estate is expected to make the entire investment if carrying out a similar project in future. Therefore, project ROI and business ROI are the same.

### Payback from the first year of the project

The tea estate shows payback from Year 1 of the project. This means the project became profitable from the first year of its launch.

**Table 4: ROI and payback period for tea estate**

Indicator	Result (\$)
Project ROI	5.11
Projected ROI (10 years)	15.59
Payback period begins	Year 1, within project period

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

## Analysis of business benefits

### Medical incidences, absenteeism and productivity

On the tea estate, the following trends in business benefits were identified:



↓ Medical incidences attributed to WASH decreased by **22%**



↓ Absenteeism attributed to WASH decreased by **21%**



↑ Productivity attributed to WASH increased by **1%**

When analysing the business benefits, there are nuances to the data and context that needs to be considered.

## Medical incidences

The number of patients in the clinic with WASH-related conditions reduced from a ratio of 13:10 at baseline to 7:10 during the project period. Analysis suggests this was due to the combination of hygiene behaviour training and an increased awareness of the importance of handwashing due to the COVID-19 pandemic.

Throughout seasonal shifts and variations in hotter and colder periods, the overall trend showed a steady decline in the number of patients visiting the clinic over the course of the project (see Figure 4), which contributed to an overall drop in staff absenteeism.

### Box 1: How the intervention supported COVID-19 management

Improved handwashing facilities and behaviours on the estate due to the intervention better prepared employees and their communities to stay safe through the pandemic.

Safe hygiene behaviours were observed in employees' communities following hygiene behaviour messages and training at work. For example, some people put handwashing stations in their homes.

**“If the Tuko Clean campaign was not implemented, the spread of COVID-19 would have been much higher at the factory.”**

Production Assistant

## Absenteeism

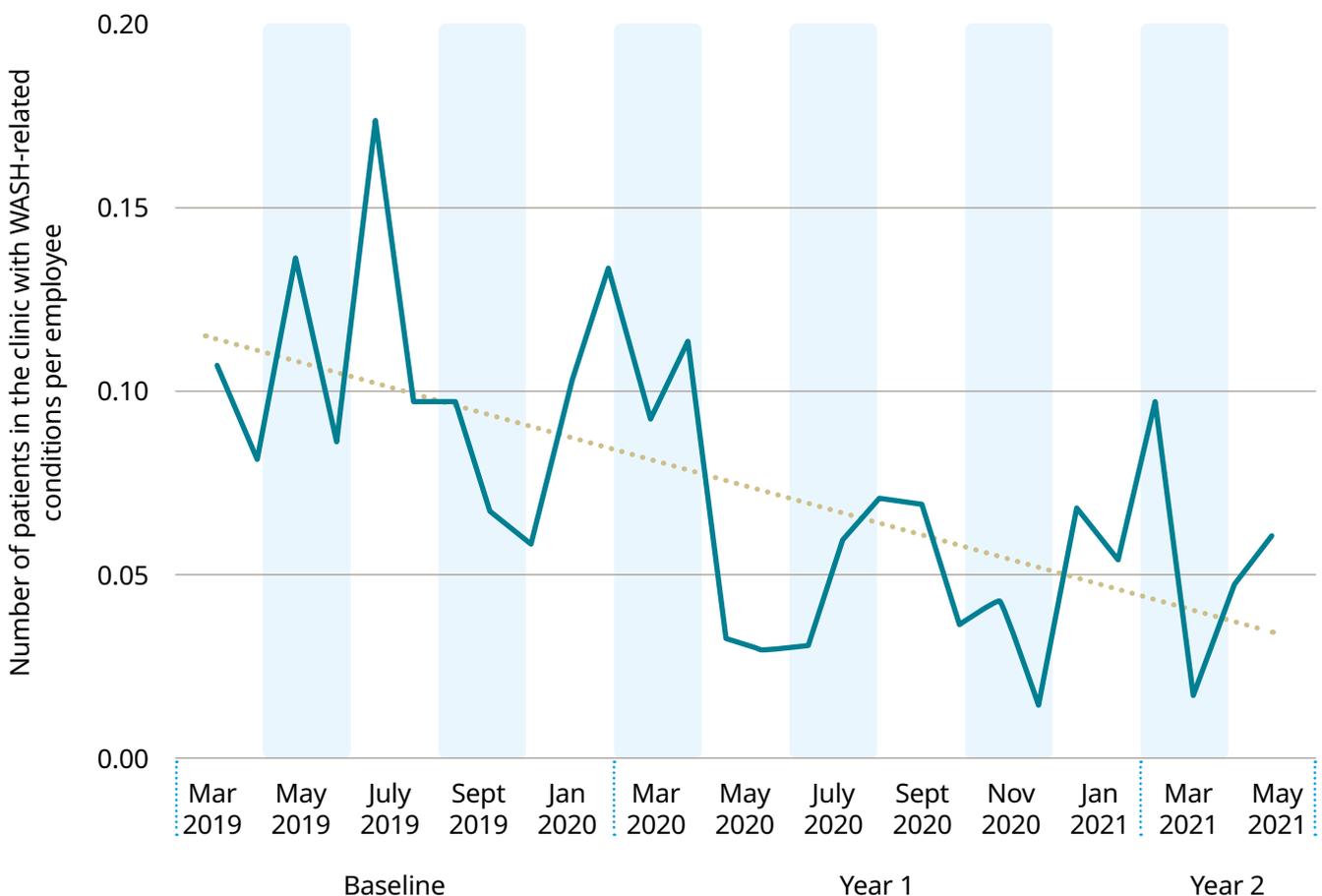
The percentage of WASH-related absenteeism reduced by **21%** after intervention. This was based on the decrease in the number of sick days (due to WASH-related illnesses) taken from the beginning to the end of the project period. Once again, COVID-19 is likely to have played a part, increasing people's awareness of hygiene guidelines to prevent them getting sick.

Seasonality is also thought to have had an impact. June is generally the coldest month, when a peak is noticed in respiratory diseases, infections and other diseases that lead to absence. In December 2019 there were floods, followed by cold weather in January 2020, both unusual for the time of year, which could be related to the increase in respiratory diseases.

**“Absenteeism levels were higher before the project period. Employees generally don’t fall sick now, due to the improvement in hygiene, hence less absenteeism.”**

Welfare Team Leader

**Figure 4: Number of patients visiting the clinic with WASH-related conditions**  
(Source: Management data)



## Productivity

The productivity of the tea estate is measured using two indicators – tea leaves picked and tea made. The total tea made at the end of the project was higher than the target set for 2020 (Year 1). For the ROI calculations, productivity data for tea made was used.

Overall, there was an increase of **1%** in productivity from the beginning to the end of the project, attributable to WASH intervention for the farm.

The reasons behind the increase in productivity include:

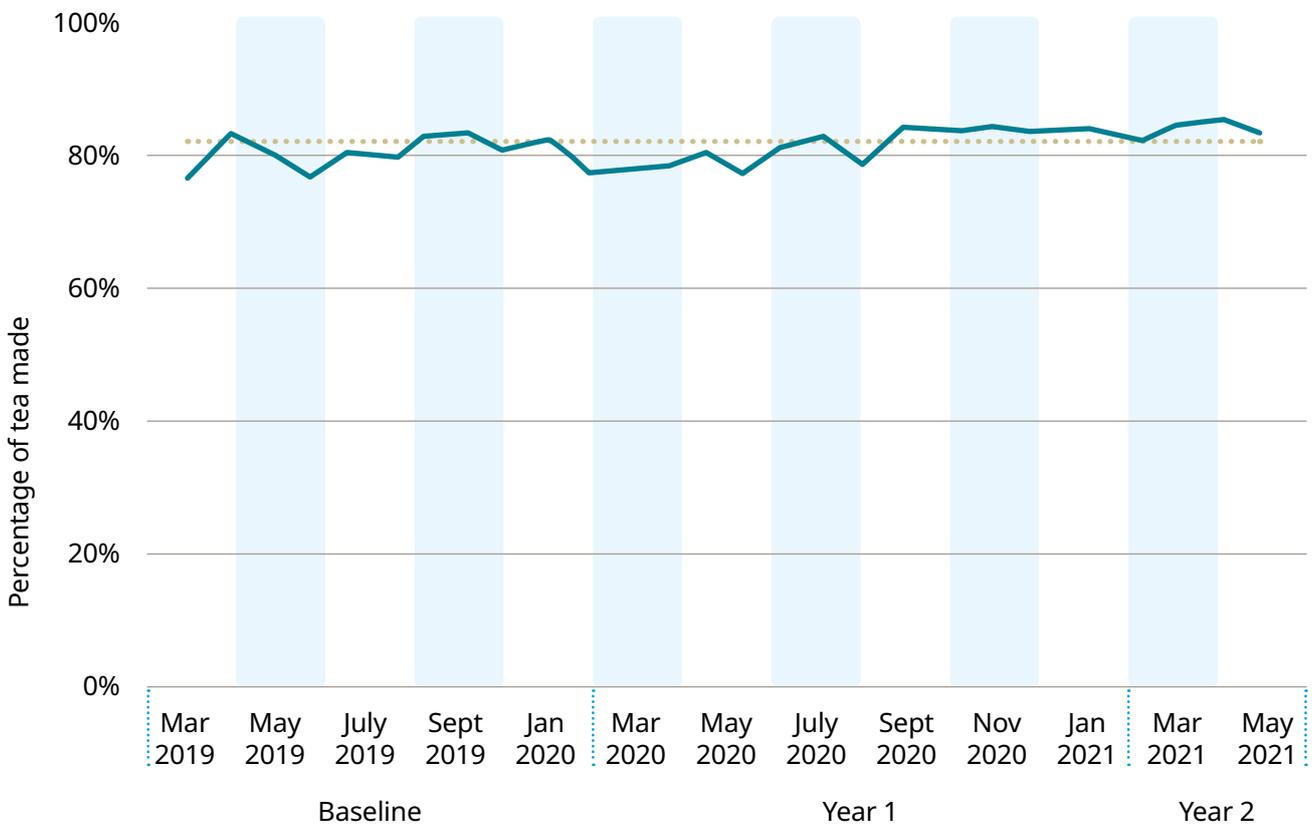
- Increased amount of crops, due to favourable weather conditions, providing more green leaves for factory processing.
- Reduced sickness and absenteeism, meaning teams had more people.

- Improved morale, due to hygiene intervention and COVID-19 protection measures making people feel safer at work.

Again, seasonality had an impact on trends. The peak seasons are from the end of March to early May and from September to December, with the highest yields usually in October and December.

While variations in seasonal and annual weather conditions are responsible for many of the changes in productivity following attribution calculations, WASH is expected to have had an indirect impact due to the reductions in sickness and absenteeism, and increased morale.

**Figure 5: Tea made target and achievement in project period**



●●●● Target percentage of tea made    — Actual percentage of tea made



## Case study – Welfare Team Leader

Esther Opanda is a Welfare Team Leader on the tea estate and has noticed a clear difference since the start of the initiative. **“Before, we didn’t have so many washing stations in the fields. People used to carry their own water and many would forget”** Esther recalls. **“But since the project began, we have given all teams water on a daily basis for handwashing and drinking.”**

Esther also knows that employee welfare is not just about the workplace itself, but also the living conditions of employees. **“For employees to stay here, there are things that motivate them – like water, housing, and those washrooms.”** With more washing stations in the washrooms and homes of employees, it is easier than ever to ensure good hygiene practices continue at home.

Esther reflects on her own experience: **“In terms of my health and the health of my family, because we have embraced this culture of handwashing and the availability of the clean water, diseases like stomach aches, diarrhoea – I can’t remember when we had a case at home.”**

Not only does easy access to clean water have health benefits, but it also impacts overall employee wellbeing. When employees get home from the tea estates, often late in the evening, they now have time to rest, rather than having to go and look for clean water. **“You see water is everything. You have water, you are happy. You have water, you are clean”** Esther explains. **“Having clean and available water boosts my morale.”**

● Esther Opanda, Welfare Team Leader, plays with her children outside their house on the ekaterra tea estate in Kenya. June 2022.

## Relationships between indicators

Levels of productivity, quality and absenteeism are all interlinked. Absenteeism is affected by productivity and the tea growing cycle. On a day when a high yield is expected, pickers are more likely to attend work, even if they are feeling unwell, because they are able to meet their leaf-picking target more easily. At times of low yield, collecting the same volume of leaves takes more effort and sick leave increases.

Quality levels depend on the productivity and attentiveness of the workforce. If leaves do not match the right standard, management might reject them, which results in a smaller crop and increased wastage. In the factory, distracted employees can over-dry the leaves, which results in less tea being produced.

## Employee satisfaction

11% attributed their satisfaction to improved drinking water and sanitation facilities at work (ekaterra, formally part of Unilever, investments) and 9% to improved handwashing facilities. 30% credited management response to the COVID-19 pandemic, which was strengthened by the training provided as part of the hygiene intervention.

**“I feel more satisfaction at the workplace, especially due to the handwashing facilities and improved handwashing behaviour of the other employees.”**

Tea estate employee

## Impact on ROI

Reduced business medical costs (due to a drop in WASH-related conditions), reduced absenteeism (and less sick pay) and an increase in productivity all contribute to a positive ROI.

Productivity in particular, has a very high impact on ROI.

### **A 25% change in productivity would change ROI by 15.5%.**

In the project calculations, productivity was given 10% attribution in the calculation of ROI because of the effect improved WASH had on employee morale and productivity. The very high sales figures ensure that even though the attribution to productivity is low, its contribution to ROI is high.

In comparison, the impact of absenteeism and medical costs on the ROI is less notable. A 25% change in absenteeism and medical cost changes ROI by less than 0.01% each.

# 20%



**of employees at the tea estate credit the improvements in WASH for their increased job satisfaction at the end of the project compared to the start.**

# 97%



**of employees at the tea estate say they were satisfied with their work at the end of the project.**

## Social and sectoral benefits

Improvements to employees' hygiene knowledge and practices had a wider impact on their families, especially children. Local teachers reported that before the campaign, they had an average of seven pupils (out of a class of 35) absent each week, and after the intervention this dropped to zero–three pupils a week. As we saw an improvement in hygiene, we also saw a **45%** increase in the average monthly household income. This could potentially be linked to increased health, therefore decreasing medical expenses, decreased WASH-related medical incidences and improved workforce morale.

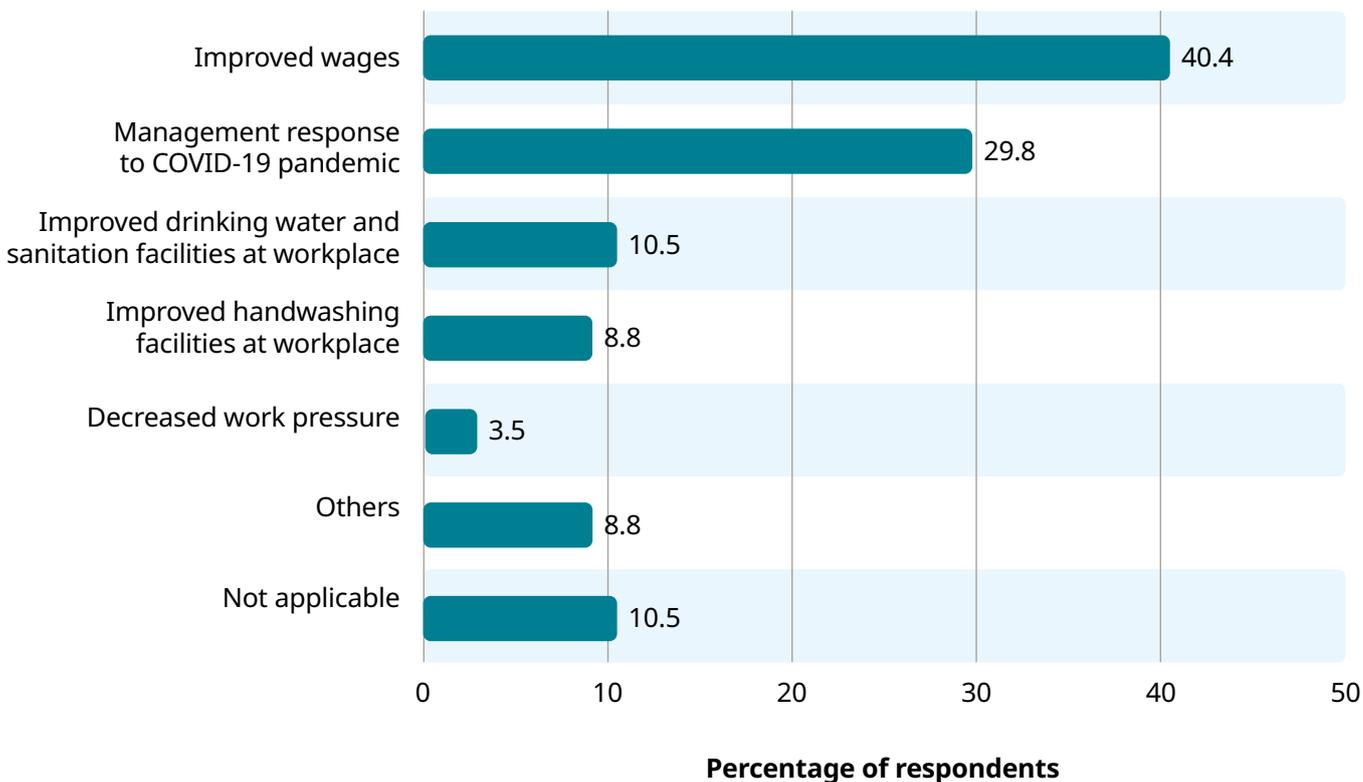
The impact of the Tuko Clean campaign was observed not only within the tea estate but also by those interacting with the estate as part of the supply chain. External tea suppliers

(out-growers) were provided with handwashing facilities at the tea drop-off point. An external stakeholder mentioned in a key informant interview that they appreciated the hygiene protocols in place and were more inclined to want to supply the estate.

**“Tea pickers who work for the out-growers at some point come to work [at the estate] due to seasonality and the situation on the ground. These employees carry the best practices and learnings back to the estates where they go to work.”**

Boniface Kiptrotich, Out-growers Services Officer

**Figure 6: Reasons for increased workplace satisfaction at end of project (% respondents)**  
(Source: survey data N=57)





## Sector advocacy



● Esther Opana, Welfare Team Leader, washes her hands from a tap near her house in the ekaterra tea estate in Kenya. June 2022.



There is the potential for both ekaterra (formally part of Unilever), and the Kenyan tea sector to benefit from the learnings and insights from this project of how hygiene behaviour change can drive increased productivity.

There is also the potential to scale and replicate these types of hygiene behaviour change campaigns in other tea estates, which rely on human tea pickers rather than mechanical methods.

ekaterra's other tea estate in Kericho could benefit from the learnings and the company could also help support the lobbying and advocacy of WASH provision across the Kenyan Tea sector using this evidence base.

☐ Faith Maluki works as a Manager at the ekaterra tea estate in Kenya. June 2022.



## Case study – Tea Estate Manager



Faith Mwambua Maluki has been working at the tea estate since 2016 and is now the estate's Division Manager, responsible for the day-to-day operations in the tea fields. It's her job to ensure the fields are picked on time and to a high enough standard. She also takes responsibility for employee wellbeing – making sure their needs are met both in the workplace and in the villages.

Since the launch of this initiative, Faith has noticed a clear difference in the health of employees. With improved handwashing, they are less prone to a range of illnesses, from stomach problems to the common cold, and absenteeism is down as a result.

**“We find employees come to work on a daily basis and we have less off sick”** she explains. This has important benefits, **“The productivity of employees is improved and they're able to take much more money home since they are actually coming to work and are fit.”**

The benefits to the wider business are also clear to Faith, as decreased absenteeism means a larger area of the estate can be covered. She explains: **“I usually plan the day-to-day operations in the field, so having one or two employees not at work reduces the area of coverage that we have for the day for picking. That means we are not able to meet our picking interval target.”**

**“It seems like something that is menial, however it has such a huge impact”** she says. **“I would actually advise other stakeholders who are interested [in] WASH and see the benefits that come up from working with them in terms of having a productive workforce.”**

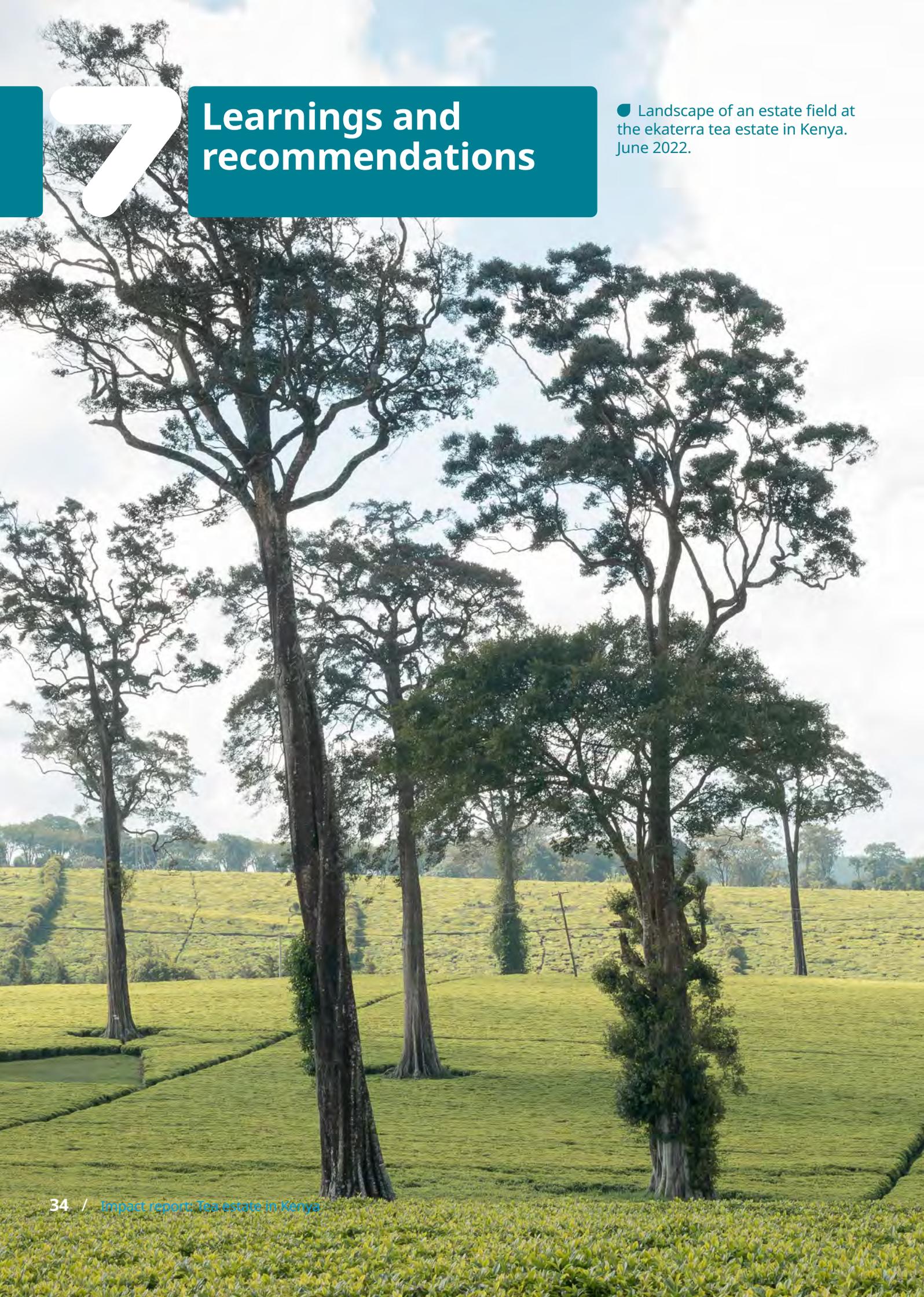
● Faith Maluki, a Manager at the ekaterra tea estate, has seen improvements in employee productivity since the WASH initiative. Kenya. June 2022.



# 7

## Learnings and recommendations

● Landscape of an estate field at the ekaterra tea estate in Kenya. June 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 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.

### ● Don't underestimate hygiene

Hygiene behaviour change is not always considered as important as taps and toilets, but it can be lower cost and potentially more impactful than some water and sanitation improvements. A holistic approach to improving WASH at work that delivers employees' human rights to water and sanitation has the biggest potential for transformational change. The ROI from the project was positive, providing evidence that investing in hand hygiene specifically, can bring financial benefits in the tea sector.

**Recommendation:** Make hygiene an integral part of a holistic WASH intervention in the workplace to achieve the best results. Tailor hygiene improvements to the specific needs of your context and people. Use the financial benefits of investing in hand hygiene, as well as the obligation to meet the human rights of employees, to advocate improvements to WASH at work.

### ● Integrate hygiene into existing training

ekaterra, formally part of Unilever, made hygiene promotion part of routine activities at the tea estate. This makes the improvements to date more likely to be sustained. The WASH intervention does not end with the project – hygiene promotion and training must be ongoing for improvements to be sustainable and the benefits of the initial action to be reaped for decades.

**Recommendation:** To maximise the sustainability of benefits, include hygiene in routine workplace welfare activities, such as health and safety, financial management, and ethics.

Plan for ongoing hygiene promotion and training when making a WASH intervention. Think long term and project the business benefits over 10 years or more.



● Faith Maluki, Manager, speaks to employees before they start their shift at the ekaterra tea estate in Kenya. June 2022.

### ● Big potential for owned and operated sites

The tea estate was owned and operated by ekaterra (formally part of Unilever), with control over both the working environment and living conditions of the tea pickers. This had huge benefits in terms of implementing the Tuko Clean campaign and the influence of the campaign over the tea estate. Management were vocal advocates of the campaign, committed to its success and sustainability.

**Recommendation:** Where a company has control and influence over a site or facility, ensure buy-in from head office, as well as facility management, and use this high-level influence to embed WASH into company/facility processes or procedures to maximise sustainability.

### ● Think outside the workplace to influence the supply chain

The Tuko Clean campaign has enhanced the company brand image outside the estate, as employees have become hygiene ambassadors and champions. The internal changes were noticed by external suppliers and made them more inclined to do business with the tea estate. ekaterra, formally part of Unilever, provided out-growers dropping off deliveries with handwashing facilities, having a wider impact on the health and safety of people in the surrounding area.

**Recommendation:** Consider external stakeholders when planning a WASH intervention in the workplace. Ask what changes could be made to improve the health and wellbeing of people visiting the site or facility? And how could internal changes be communicated externally to improve the organisation's brand? Also consider if employees could play a role as WASH champions.

## 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 Sustainable Development Goals (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 tea 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 tea industry will realise its employees' rights,<sup>2</sup> 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](https://wateraid.org/boosting-business)

2. Pacific Institute/Shift/The CEO Water Mandate (2015). *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](https://ceowatermandate.org/wp-content/uploads/2018/09/Guidance-on-Business-Respect-for-the-HRWS_(1).pdf) (accessed 8 Sep 2022).



● Front cover image: Dorcas Bonareri, tea estate employee, picks tea at the ekaterra tea estate in Kenya. June 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.**

● Medrin Langat, Health Worker, washes her hands before treating a patient at the ekaterra tea estate in Kenya. June 2022.

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