

# Hygiene promotion in Bhutan: Does it work and at what cost?

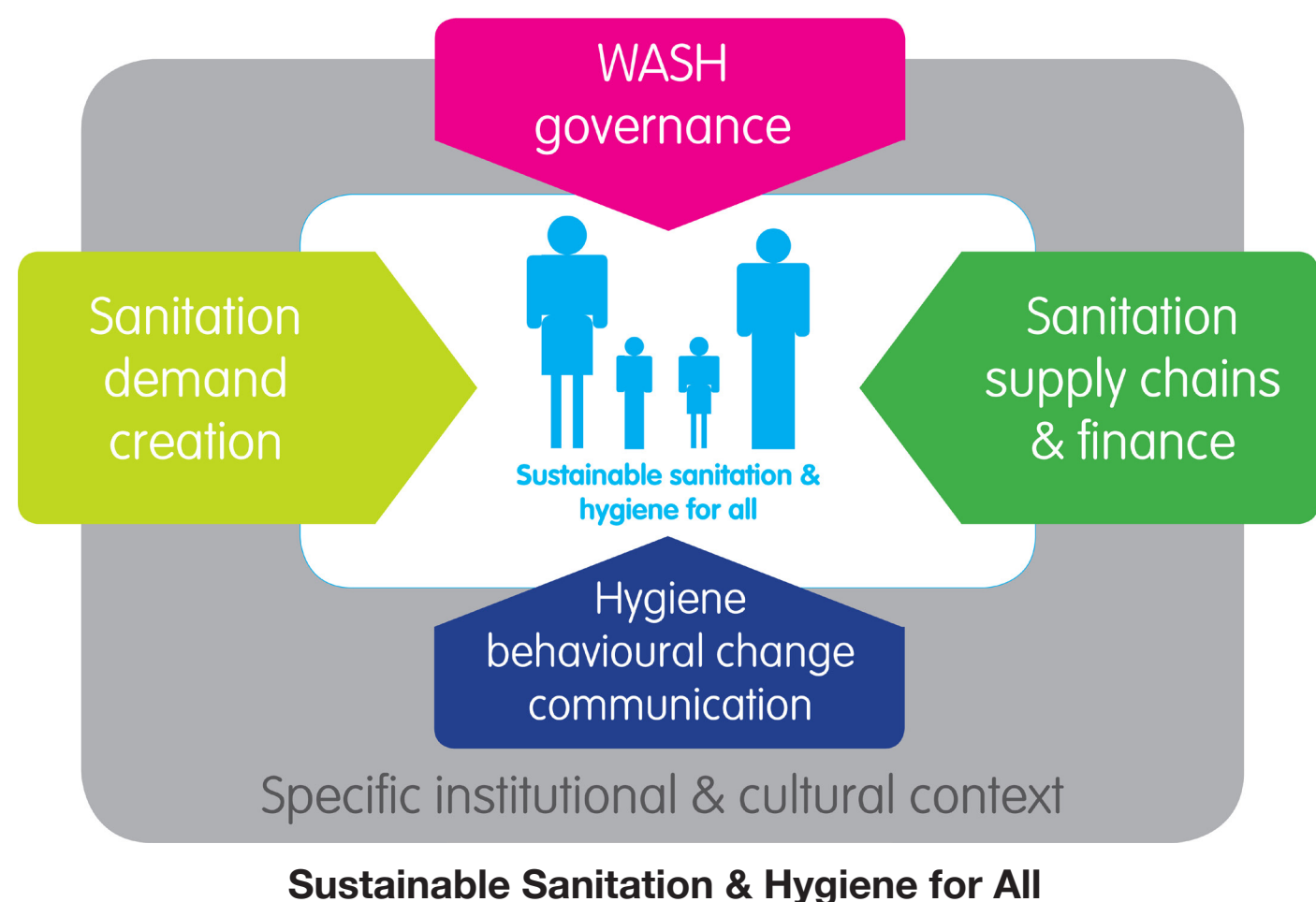


## Overview

- The Hygiene Cost Effectiveness Study aims to analyse and compare the cost and outcomes of hygiene promotion interventions.
- The study is part of SNV Bhutan's Sustainable Sanitation & Hygiene for All Programme.
- The study is based on IRC's WASHCost methodology, designed to help determine the costs and efficacy of WASH-related hygiene promotion interventions.
- Data shown here is collected at two levels: baseline data collection from households and data collection from implementers.

The hygiene cost-effectiveness study includes:

- Capturing behaviour change using the effectiveness ladder;
- Capturing costs of hygiene interventions;
- Comparing costs against behaviour changes.



## Why a Hygiene Cost Effectiveness Study?

We all know that unless improved water and sanitation services are used hygienically, health and socio-economic benefits will not be realised. We have limited knowledge of financial benchmarks for water and sanitation improvement and this is even less for hygiene improvement.

However, planners and policy makers still often face questions on the need for hygiene promotion:

- Why invest in hygiene promotion?
- What works, where, and why?
- How much is enough?
- How do we know if (& to what extent) inputs are achieving outcomes?



## Baseline study

The baseline study in Samtse focused on three key behaviours:

- Handwashing with soap at critical times
- Hygienic usage of a sanitary toilet
- Safe household water management

Before starting the intervention, more than 50% of the households practiced hygiene behaviour that was below the basic level of an effectiveness ladder with four levels:

- Not effective
- Limited
- Basic
- Improved

## How is data collected?

### Baseline data collection: Household

At sampled households:

- Determine hygiene practice levels

- Determine all costs for hardware (facilities) & software (participation)

### Interviews and cross-checks: Implementers

Map actors & hygiene promotion implementers

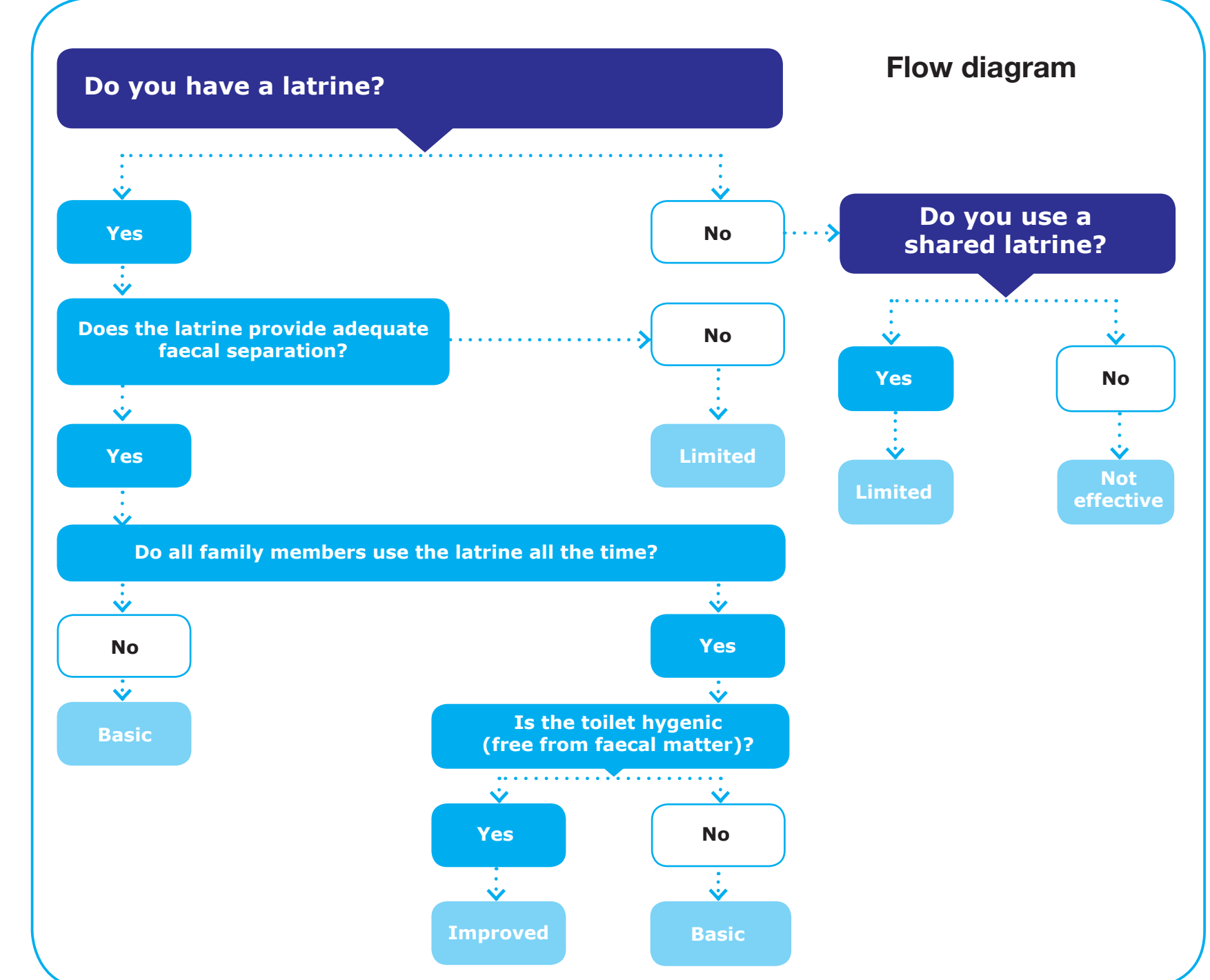
Determine cost for hygiene promotion interventions related to water and sanitation



## Using a hygiene effectiveness ladder & flow diagram

### Hygiene effectiveness ladder

Hygiene practice levels	Latrine & use	Handwashing with soap	Safe drinking water management
<b>Not effective</b>	<ul style="list-style-type: none"> <li>There is no toilet OR</li> <li>There is a toilet or shared toilet BUT it is not used as a toilet</li> </ul>	<ul style="list-style-type: none"> <li>Household members have no specific place to wash their hands within 10 m of toilet OR</li> <li>There is a facility BUT no water available (at present)</li> </ul>	<ul style="list-style-type: none"> <li>Drinking water comes from unimproved source: surface water OR unprotected spring OR dug well</li> </ul>
<b>Limited</b>	<ul style="list-style-type: none"> <li>There is a toilet or shared toilet BUT</li> <li>Toilet is used as toilet AND</li> <li>Water</li> <li>Toilet does not separate users from faecal matter</li> </ul>	<ul style="list-style-type: none"> <li>Handwashing facility within 10 m of toilet AND</li> <li>Water</li> <li>No soap or substitute</li> </ul>	<ul style="list-style-type: none"> <li>Drinking water sometimes comes from an improved source OR from a safe source BUT not collected safely OR collected safely BUT not stored safely OR stored safely BUT not drawn safely</li> </ul>
<b>Basic</b>	<ul style="list-style-type: none"> <li>There is a toilet or shared toilet</li> <li>Toilet is used as toilet</li> <li>Toilet is sanitary, separating users from faecal matter BUT</li> <li>Not all HH members have access</li> </ul>	<ul style="list-style-type: none"> <li>Handwashing facility within 10 m of toilet</li> <li>Water available</li> <li>Soap or substitute available</li> <li>HH members do not know 2 critical times (after defecation and before eating)</li> </ul>	<ul style="list-style-type: none"> <li>Drinking water always comes from an improved source</li> <li>Water is collected safely</li> <li>Water is stored in a safe manner BUT</li> <li>Water is not treated</li> </ul>
<b>Improved</b>	<ul style="list-style-type: none"> <li>Sanitary toilet is used: separates users from faecal matter</li> <li>Toilet is maintained (cleanliness) and all HH members have access to toilet</li> </ul>	<ul style="list-style-type: none"> <li>Household members have no specific place to wash their hands within 10 m of toilet OR</li> <li>There is a facility BUT no water available (at present)</li> </ul>	<ul style="list-style-type: none"> <li>Drinking water comes from unimproved source: surface water OR unprotected spring OR dug well</li> </ul>



Baseline study area

## Results per indicator

For the indicator on sanitary toilet and use, 54% of the households:

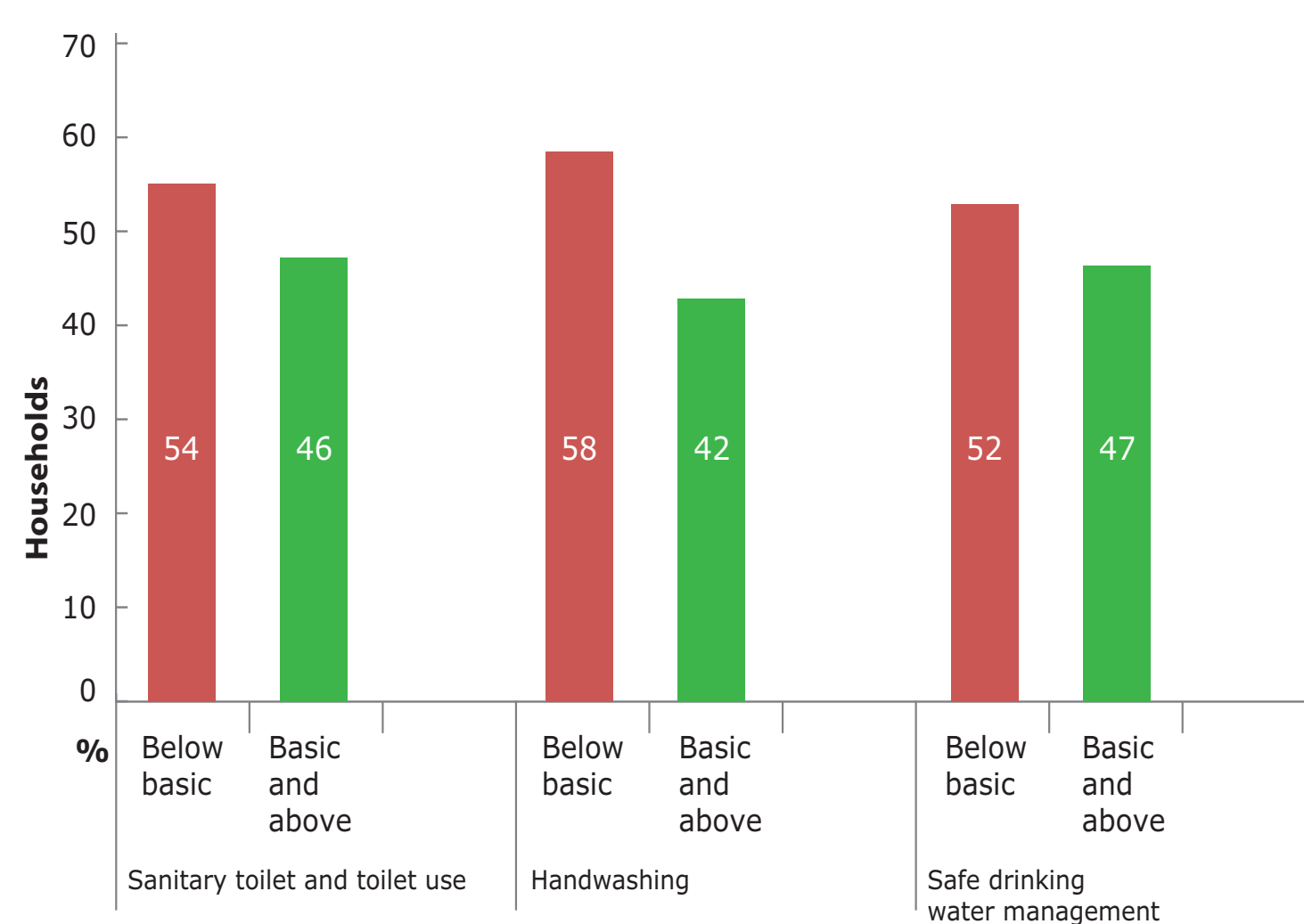
- Either have no toilet or no shared toilet; or
- Households do have a (shared) toilet but it is not used as a toilet; or
- Household members do use their toilet but the toilet is not sanitary; it does not separate users from faecal matter.

For the indicator on handwashing, 58% of the households either:

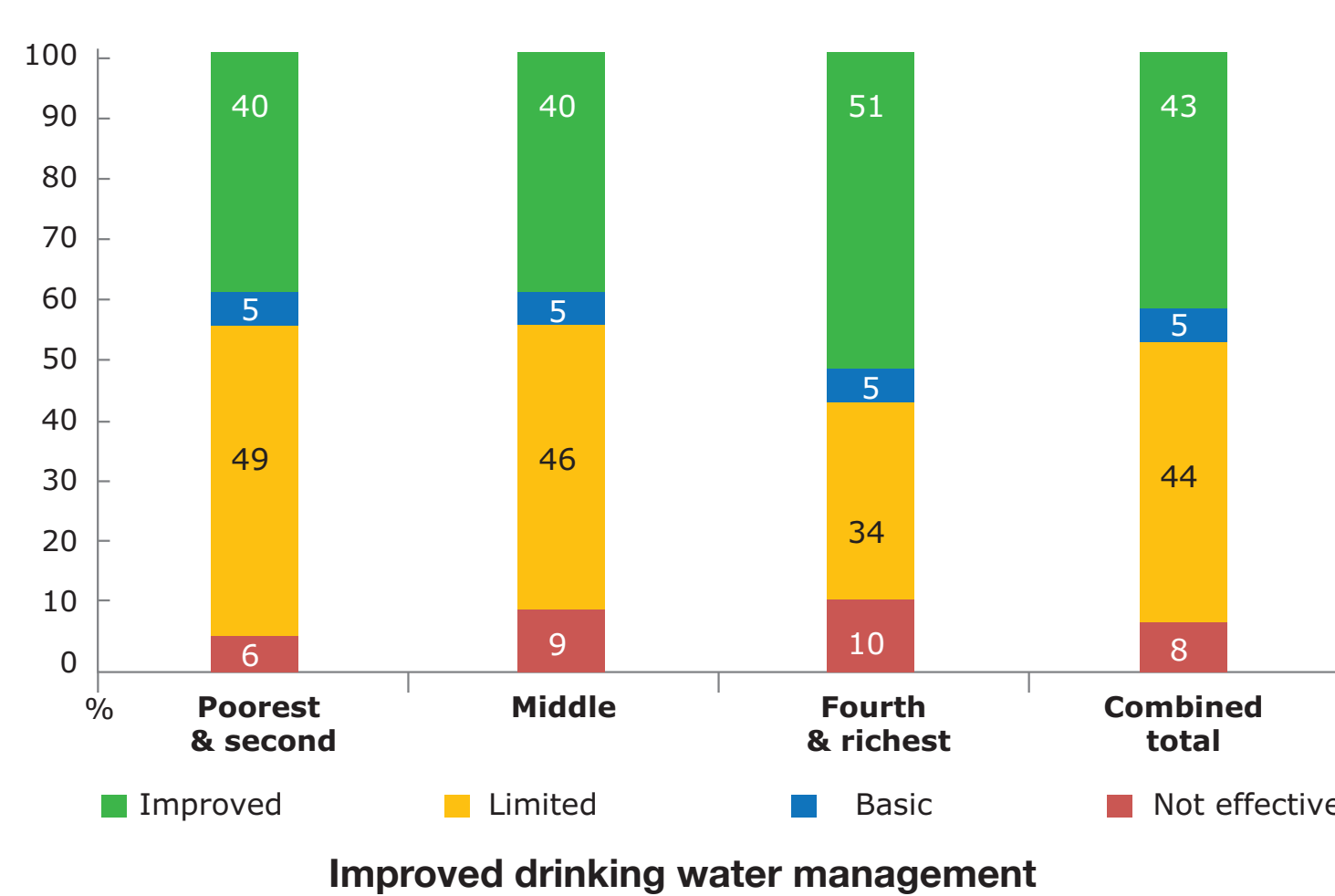
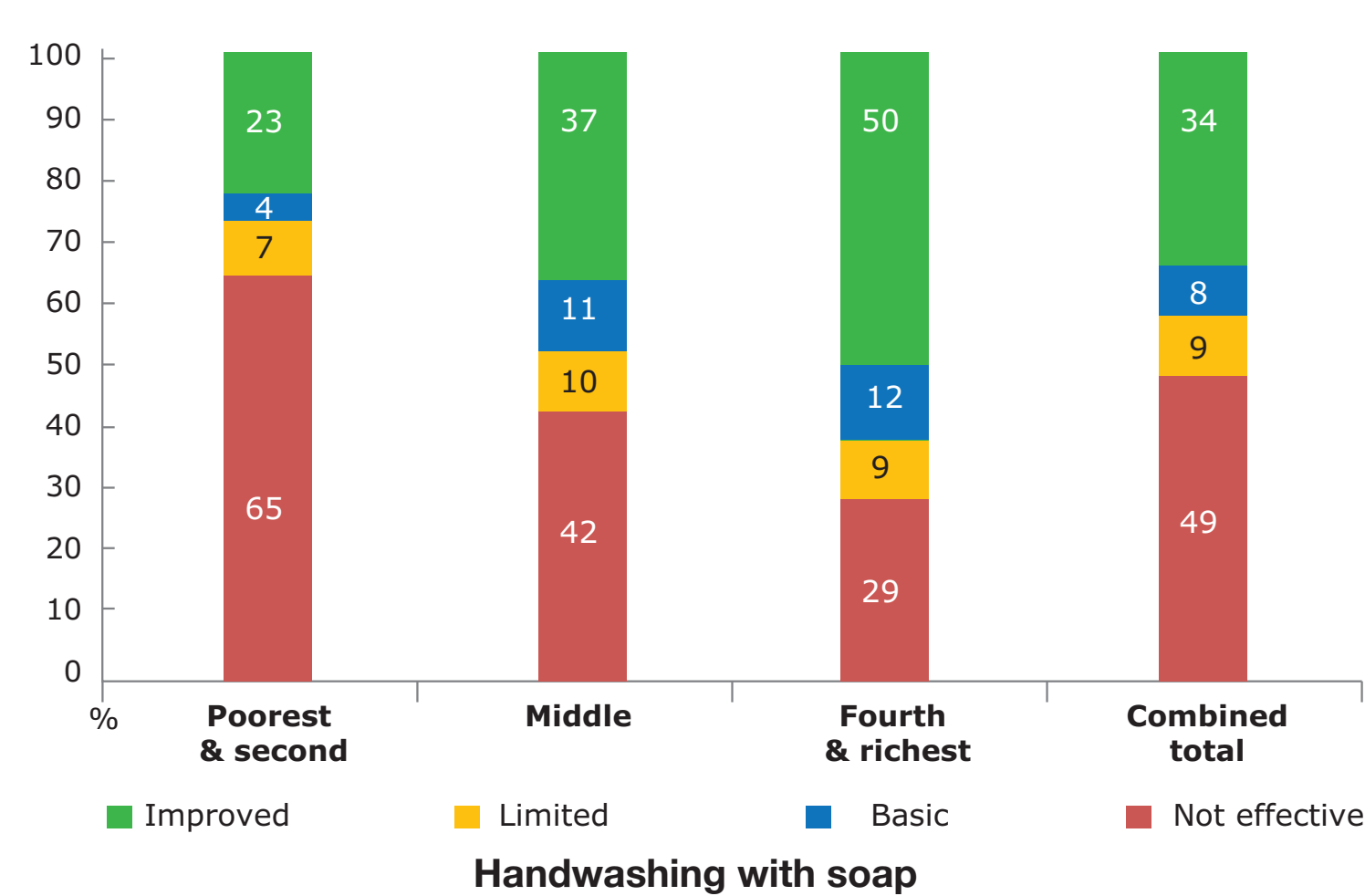
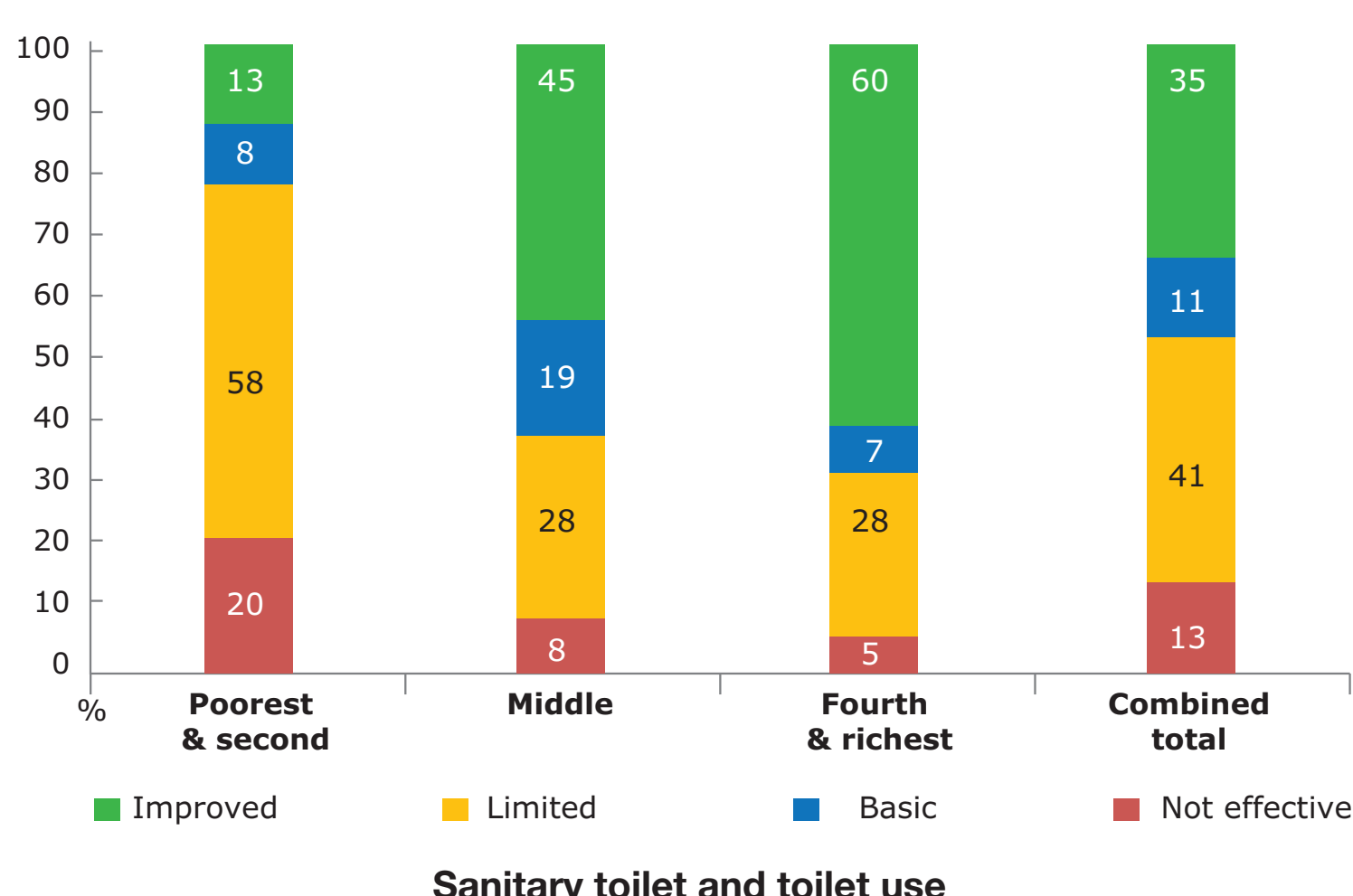
- Have no specific place to wash their hands within 10 m of the toilet; or
- Households have a specific place but no water available (at time of measurement); or
- Households have a specific place but no soap available.

For the indicator on safe drinking water management 52% of the households either:

- Use drinking water that comes from an unimproved source: surface water or unprotected spring or dug well; or
- Their drinking water sometimes comes from an improved source; or
- Drinking water comes from an improved source but the water is not collected safely, or it is collected safely but not stored safely, or it is stored safely but not drawn in a safe manner.



## Findings by wealth quintile



## What costs are captured?

- Households:**
  - Material and labour costs for building a toilet
  - Costs of soap
  - Cost for water installation and use
- Implementers:**
  - Capital expenditure hardware costs: e.g., tapstands for handwashing
  - Capital expenditure software costs: e.g., training of health workers, material development, workshops
  - Operational costs: transport, salaries

## Cost for the three behaviours

- Costs of toilet**  
Average amount households (with a toilet) are spending on:  
\* Toilet materials Nu 10,732 (USD 193)  
\* Labour Nu 7726 (USD 116)
- Cost of handwashing facility**  
Of those households who said they spent money (89 HH) an average of 1,904 Nu (USD 29) was spent on the handwashing facility. Common practice in that district is that government provides tap stand for handwashing.
- Cost of soap**  
\* On average a household spends Nu 17.4 (USD 0.26) each time they buy a piece of soap  
\* On average a household uses 4.5 pieces of soap per month, so on average HH costs for soap per month: 4.5 x 0.26 = USD 1.17
- Cost for water**  
No water rates charged for the rural households, but they have to pay about Nu 100-200 (USD 1.5-3) by each household for the caretaker of the water source. This is reflected in the findings: of the 284 HHs indicating they pay for water, the majority (225) pay up to Nu 50 (USD 0.75) per month.

## Implementers cost data:

The actual cost on Hygiene promotion so far is Nu 3,292,560 (USD 49,142) and the total number of households in (rural) Samtse is 8,662, resulting in programme spending of Nu 380 (USD 6) per household.

The costs include salaries and other costs of SNV advisors, government officials, NGOs and consultants who are involved in the Rural Sanitation and Hygiene Programme.

- Time spent on Planning, Preparation and coordination;
- Travel costs;
- Travel Allowances / Daily Allowances;
- Training of Trainers for Health Assistants before the start of the programme;
- Outreach clinics by Health Assistants every month;
- Global Handwashing Day activities and sanitation fair;
- Executing intensive workshops on health and hygiene for household members;
- Follow up after these workshops.

\* As cost data is still being processed, the data presented here is based on the cost information collected from the implementers to date.

## Lessons Learned:

- Involving relevant stakeholders from the very beginning for the Hygiene Cost Effectiveness Study makes data collection and ensuing discussions easier and more convenient.
- Developing clear flow charts for the indicators helped develop a better understanding of the assumptions and to generate shared understanding from all partners involved.
- There is no fixed blueprint for collecting data on costs from implementers. Even if all parties cooperate and share all available data, it requires ongoing enquiry, asking new questions, interpreting responses and asking questions again.

## Next steps:

- Final round of monitoring & data collection in Samtse district
- Finalise cost data collection from implementers and analyse how much was spent on hygiene
- Compare all costs (from households and implementers) with the hygiene practice levels

## About the authors:

**Gabrielle Halcrow (SNV)**  
Gabrielle is SNV's Programme Coordinator for the Sustainable Sanitation & Hygiene for All (rural) Programme in Asia. She has a technical background in international health, with over 15 years of international development experience working with WASH, community development and public health programmes.

**Thinley Dem (SNV Bhutan)**  
Thinley Dem is currently the Behaviour Change Communications Advisor for SNV Bhutan's WASH team. Thinley has a degree in Health Psychology from Mount Carmel College, Bangalore, India and has been working with SNV for the past four years.

**Ingeborg Krukkert (IRC)**  
Ingeborg is a programme officer leading IRC's Asia and India Country Programme, with a specific focus on sanitation and hygiene. She has a Post-graduate Diploma in Public Health from the London School of Hygiene and Tropical Medicine, an MA in Anthropology, and a BA in Psychology.

**The Public Health Engineering Division** under the Ministry of Health is the lead agency for the Rural sanitation and Hygiene Programme in Bhutan. Their main partners are UNICEF and SNV. The aim of the Public Health Engineering Division is to promote sustainable sanitation and hygiene to bring about improved health and quality of life for Bhutan's rural population through access to sanitary toilet, hygienic use of toilet and adequate facilities for handwashing with soap. For more information visit <http://www.health.gov.bt>.

**SNV** is a not-for-profit international development organisation. Founded in the Netherlands 50 years ago, we have built a long-term, local presence in 39 of the poorest countries in Asia, Africa and Latin America. Our team of over 1,000 local and international advisors work with local partners to equip communities, businesses and organisations with the tools, knowledge and connections they need to increase their incomes and gain access to basic services – empowering them to break the cycle of poverty and guide their own development. Learn more at <http://www.snvworld.org>.

**IRC** is an international think-and-do tank that works with governments, NGOs, entrepreneurs and people around the world to find long-term solutions to the global crisis in water, sanitation and hygiene services. With over 45 years of experience, IRC runs large-scale programmes in seven focus countries in Africa, Asia and Latin America and projects in more than 25 countries. It is supported by a team of around 80 staff across the world. For more information visit <http://www.ircwash.org>.



Authors: Thinley Dem (SNV),  
Gabrielle Halcrow (SNV) & Ingeborg Krukkert (IRC)

Further information:  
[www.snvworld.org](http://www.snvworld.org)  
[www.ircwash.org](http://www.ircwash.org)

