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Value for Money Study in Global Sanitation Fund Programmes – Synthesis Report

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On behalf of:



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WATER SUPPLY & SANITATION
COLLABORATIVE COUNCIL



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Abbreviations

ADB	Asian Development Bank
ASH	Accelerated Sanitation and Hygiene
BCC	Behaviour change communication
CBA	Cost–benefit analysis
CEA	Cost-effectiveness analysis
CF	PRONASAR Common Fund
CHPs	Community Hygiene Promoters
CLTS	Community-led total sanitation
CPM	Country Programme Monitor
CUA	Cost utility analysis
DALY	Disability adjusted life year
DFID	Department for International Development
EA	Executing Agency
FAA	Fonds d’Appui pour l’Assainissement
GSF	Global Sanitation Fund
INGO	International non-governmental organisation
INR	Indian rupee
JMP	Joint Monitoring Programme
LGA	Local Government Area
LNGO	Local non-governmental organisation
M&E	Monitoring and evaluation
MCDI	Medical Care Development International
MTE	Mid-Term Evaluation
NGOs	Non-government organisations
OPM	Oxford Policy Management
PCM	Programme Coordinating Mechanism
PRONASAR	National Water Supply and Sanitation Programme
QALY	Quality-adjusted life year
SBM	Swachh Bharat Mission
SG	Sub-grantee
SHAWN	Sanitation, Hygiene and Water in Nigeria
SHEWA-B	Sanitation, Hygiene Education and Water Supply in Bangladesh
SNV	Netherlands Development Organisation
UNICEF	UN Children’s Fund
UNOPS	UN Office for Project Services
VFM	Value for money
WASH	Water, sanitation and hygiene
WHO	World Health Organization
WSSCC	Water and Sanitation Supply Collaborative Council
ZHSP	Zambia Hygiene and Sanitation Programme

Executive summary

Background

This report is the final output of the ‘Value for Money Study in Global Sanitation Fund Programmes’, hereafter ‘the VFM-GSF project’, funded by the Water and Sanitation Supply Collaborative Council (WSSCC)/Global Sanitation Fund (GSF).

The stated objectives of the project were threefold:

1. To assess GSF-funded sanitation and hygiene implementation programmes to gauge current levels of **economy**, **efficiency** and **effectiveness** by applying standard VFM analysis procedures and producing current unit costs of outcomes.
2. To recommend a better cost classification structure and aggregation procedure to facilitate future value for money analyses, and standardise this for cross-sector benchmarking.
3. To compare findings from GSF programmes with existing data in the sanitation/hygiene sector so as to benchmark GSF performance.

The VFM indicators generated for GSF country programmes were based on two detailed country studies conducted in Cambodia and Madagascar and four desk-based country analyses in India, Malawi, Nepal, and Senegal. In all cases VFM calculations were calculated entirely on the basis of existing financial and monitoring and evaluation (M&E) data routinely collated by the GSF, Executing Agencies (EAs), and Sub-Grantees (SGs). These data were analysed using a VFM analytical framework which was developed and tested as part of a previous project and slightly adapted to match the data sources and activities relevant to GSF programming. A unique achievement of the study has been to utilise GSF systems at sub-national, national, and global levels to give a complete profile of financial expenditures across the different country programmes. This includes expenditures flowing directly from SG financial records (for example ‘software’ expenditure on community-led total sanitation (CLTS) triggering), as well as those costs directly or indirectly supporting programme activities both at national level and global level (e.g. SG overheads, and management, administration and technical support provided at EA and secretariat levels). All financial data (inputs) were coded by activity and cost was classified using a common typology building upon the structure developed by WASHCost and Trackfin projects.

The GSF-VFM indicators are compared with similar published data emerging from the recently completed ‘VFM-WASH’ study. This study examined the VFM of WASH interventions in six of the UK Department for International Development’s (DFID’s) large country programmes. Four of these country programmes (in Bangladesh, Mozambique, Nigeria, and Zambia) included sanitation and hygiene components. This analysis qualitatively compares the GSF-VFM indicators with those of other programmes as the WASH sector has some common indicators that are used across organisations and contexts. Though these comparisons are far from perfect, as different definitions are used across organisations and contexts, the limitations of these comparisons and this analysis more broadly are noted throughout the report.

Key limitations of this analysis

Comparisons between GSF country programmes

Reliability of secondary data: The findings in this report are wholly based on monitoring generated through country-level systems. Any weaknesses in these source data are therefore reflected in the findings. It is beyond the scope of this study to systematically critique the quality and reliability of

these data. However, the team does note that reporting protocols, indicator definitions, systems of verification, data management systems, and the use of assumptions do vary between countries. This means that there remains a good deal of uncertainty about country-level results, and, as a direct consequence, the VFM indicators reported.

Different data sources for the country studies and desk reviews: GSF-VFM data were analysed using a common analytical framework. There were important differences between the data sources utilised for the desk reviews and detailed country studies. As a consequence, for the desk reviews, fewer details were provided on how funds were spent at SG level and this had to be estimated from EA reports to the GSF secretariat. In the case of the two country studies (Cambodia and Madagascar) these values are based on detailed SG financial reports and can be considered as more robust.

VFM findings for GSF country programmes

Proportional expenditure by cost category

With the exception of India, the direct implementation costs of programme activities – capital expenditure (CapEx) software – were the largest component of total country programme expenditure. However, in general terms, expenditure was well dispersed amongst the three cost categories. Indeed proportional expenditure on CapEx software only exceeded 50% in two countries (Senegal and Madagascar).

Expenditure on directly supporting the delivery of programme activities is, in most cases, the second largest component of programme expenditure. The overall institutional and management costs of the entire GSF programme (indirect programme support) is often the smallest component of overall costs – but is still considerable, at around 25% of overall country-level expenditure.

Looking at the values in detail, proportional expenditure on CapEx software varied from a low of 22% in India to highs of 50% in Senegal and 57% in Madagascar. In part, these variations are driven by differences in programme design (for example, the India programme diverts considerable resources to influencing and advocacy), but they are also likely to be influenced by local socio-economic factors (such as lower labour costs in India). Another key driver is the extent to which the programme utilises other resources: for example, Senegal has notably higher staff costs than all other programmes – this is largely because the community mobilisers are paid a cash incentive for their time. Similar incentives are also paid in the Cambodia, Nepal, and Madagascar country programmes. Conversely, other programmes, such as Malawi, utilise government staff for community triggering.

Comparison of selected VFM economy and efficiency indicators through indexing

Country VFM indicators were indexed against the average (0 = average across all studies) to allow clearer cross-country comparison.

The indexing demonstrated that there is a great deal of cost variation between countries with regard to economy (e.g. cost per triggering session) and cost-efficiency values (cost of achieving open defecation free (ODF) communities), while the indicators for outcomes are more closely clustered around the mean.

Taking the cost-efficiency of achieving an ODF village as an example, the indexing shows that in India, Malawi, and notably Cambodia, the costs of achieving ODF status are high compared to the costs of triggering communities. This is reflective of the lower conversion rates from triggered communities to ODF communities. However, when comparing the cost-efficiency indicator for people living in ODF environments there is considerable more clustering around the mean. The difference in definitions implicit here is the average community size in each country. For Malawi, Nepal,

Cambodia, and Madagascar the costs per person living in an ODF community are higher relative to the mean than the cost of achieving ODF status. This is reflective of the smaller community size for declared ODF communities (as defined by the reporting indicator used).

The above example demonstrates the dangers of focusing on any one economy of efficiency indicator in isolation, without fully appreciating the different drivers of these costs. Dispersion reduces around the mean as one moves further along the results chain. This is partially due to the fact that the definitions behind the monitoring indicators implicitly become more closely aligned. Outcome indicators partially control for the differences in conversion rates (between triggered and ODF communities), and, more importantly, community size.

1 Introduction

This report is the final output of the VFM-GSF project, funded by the WSSCC/GSF.

The stated objectives of the project were threefold:

1. To assess GSF-funded sanitation and hygiene implementation programmes to gauge current levels of **economy**, **efficiency** and **effectiveness**, by applying standard VFM analysis procedures and producing current unit costs of outcomes.
2. To recommend a better cost classification structure and aggregation procedure to facilitate future VFM analyses, and to standardise this for cross-sector benchmarking.
3. To compare findings from GSF programmes with existing data in the sanitation/hygiene sector so as to benchmark GSF performance.

The analysis covers six of the mature GSF country programmes (Cambodia, India, Madagascar, Malawi, Nepal, and Senegal), all of which had been running for between four and five years and had recently undergone a Mid-Term Evaluation (MTE) at the time of the analysis.

A detailed analysis was conducted in Cambodia and Madagascar; these analyses included a comparative analysis of SG performance. The remaining four country analyses (India, Malawi, Nepal, and Senegal) were desk-based and were limited to the country level. In all cases the analysis was based solely on existing financial and M&E data routinely collated by the GSF and EAs. In all cases the analysis covers the period from the commencement of the programme up to January 2015.

1.1 Background to the work of the GSF

The GSF is a pooled global fund established by the WSSCC and funded by its donors to gather and direct finance to help large numbers of people achieve improved sanitation and adopt good hygiene practices. The GSF was established in 2008 with the sole aim of improving sanitation and hygiene. The fund provides funding for community-based, publicly-supported and commercially-operated programmes. The GSF currently operates in 13 countries¹.

Each country has an EA, which is responsible for managing the funds within that country, programme design and for the management of SGs. SGs are responsible for the programme delivery at the local level and are awarded contracts and managed directly by the EA. More than 200 SGs have been contracted since the GSF was established. In each country there is also a Programme Coordinating Mechanism (PCM), which is comprised of sector stakeholders and which has the responsibility of providing strategic advice on programme design and course correction, and acts as a link between the GSF, EAs and the wider sector. In addition, each country has a Country Programme Monitor (CPM), which is responsible for auditing the accounts of the EAs and the SGs. WSSCC's and the GSF's legal host within the UN is the UN Office for Project Services (UNOPS). The administrative structure of the GSF is set out in Figure 1 and Figure 2 in Section 2.

As at December 2015 the fund had made commitments of \$112 million to its country programmes, disbursed \$75.5 million to EAs, which in turn had signed SG agreements worth \$53 million and disbursed \$40.6 million. Over the same timeframe the GSF report that 76,000 communities have been triggered and 47,000 declared ODF, with 10.9 million people now living in ODF environments, 6.6 million people gaining access to an improved latrine, and 15.7 million people gaining access to a hand-washing facility.

¹ Benin, Cambodia, Ethiopia, India, Kenya, Madagascar, Malawi, Nepal, Nigeria, Senegal, Tanzania, Togo, and Uganda.

The six countries included in this analysis are the ‘mature’ GSF countries: that is, those that have been operating since 2010 or 2011. In all of the six countries, as with all GSF countries, the main programme approach used is CLTS. The EAs within the six countries are a mix of international non-governmental organisations (INGOs) (Cambodia, Malawi, and Madagascar), a national NGO (Senegal), a UN agency (Nepal), and a consulting firm (India). At the time of the study these six EAs were working with over 100 SGs. The programme contexts vary widely: in all cases the GSF approach is aligned with national policies, including the definition of ODF where applicable. However, the degree of engagement depends both on the strength of any national programme present and the EA’s programme design. In India the programme operates in the context of a large national subsidy-based sanitation programme (the Swachh Bharat Mission (SBM)).

In Cambodia and Madagascar the GSF programmes both have national reach and a significant degree of national ownership, though they are implemented largely through NGOs. The programme in Malawi works closely with the government programme, which involves working with the government staff undertaking promotion and monitoring activities in programme areas. The same is true in Nepal, where the programme works within the institutional architecture of the National Sanitation and Hygiene Master Plan. The programme in Senegal is less integrated with national systems, largely since at the time of the analysis CLTS was a nascent approach in Senegal and there is no large rural sanitation programme in the country. More detail on the countries included in this study can be found in Annex B.

2 Methodology

This section outlines the background to the VFM approach taken, describes the conceptual framework used, provides a summary of the key methodological steps undertaken in both the desk reviews and country cases studies, and identifies the key data sources used.

2.1 Background to the VFM approach used

The birth of the idea of VFM can be traced back to the New Public Management agenda of the 1980s, and its focus on measurable results and prioritisation of services within a given budget. Since the 2002 International Conference on Aid Effectiveness in Monterrey and the Paris Declaration on Aid Effectiveness of 2005, VFM has increasingly taken centre stage in development and aid discourse².

VFM is generally defined as obtaining the best possible outcome within a given budget and seeks to provide a transparent framework for policy-makers on which to base decisions. DFID defines VFM as ‘maximising the impact of each pound spent to improve poor people’s lives’.³ This is the definition used here.

Whilst the potential utility of understanding VFM issues is not in question, what VFM means and how to measure it has been a source of much debate. Much of this debate focuses around the centrality of economic evaluations in VFM. Some argue that VFM is synonymous with undertaking full economic evaluations⁴, whilst others contend that achieving VFM should be the result of getting the best balance between economy, efficiency, effectiveness and equity concerns⁵. The analysis set out in this report is not a full economic evaluation of the GSF, but rather focuses on capturing economy, efficiency, and effectiveness through VFM indicators.

A key objective of conducting a VFM analysis is to help managers improve programme performance. VFM analysis can give programme managers useful metrics with which to quantify the effects of challenges they observe on the ground and to identify the best interventions to address them, including by the reallocation of resources. Conducting a VFM analysis is not necessarily about saving money and reducing unit costs: it is about maximising actual outcomes and impacts. Broadly, VFM can be assessed either by using a cost–benefit analysis (CBA) or a cost-effectiveness analysis (CEA), though more sector-specific approaches such as cost utility analyses (CUAs) are used in the health sector. The key aspects of these different approaches are outlined in Table 1.

² Eskiocak *et al.* (2011): ‘Value for Money: Current approaches and evolving debates’.

³ DFID (2011): ‘DFID’s approach to value for money (VfM)’.

⁴ Smith (2009): ‘Measuring value for money in healthcare: concepts and tools’.

⁵ Organisation for Economic Co-operation and Development (OECD) (2010): ‘Health care systems: Getting more value for money’.

Table 1 Major VFM approaches used

Approach	Summary
CBA	Expenditure is associated with the stated programme objectives. These are taken to calculate the programme benefit which are monetised and compared to programme costs. For outputs and outcomes these units are usually programme-specific. In the case of impact the units are closer to 'natural units': i.e. they are consistently measurable across programmes and contexts.
CEA	Expenditure is associated with the monetised benefits of the programme, with the results displayed as a ratio.
CUA	Expenditure is associated with utility-related units. CUA is generally only used in health, where the units are quality or disability adjusted life years (QALYs and DALYs). It can be thought of as a form of CEA

The type of analysis used and the way in which it is applied are key determinants of what the results can be used for. In general, economic appraisals should aim to produce results that are comparable across contexts and programmes. In the case of CBA, provided the benefits are systematically and consistently measured and monetised, the results of the analysis are generally comparable across sectors and contexts as the ratio of costs to benefits can be compared. The same is true of CUA, as QALYs and DALYs are a consistent measure of programme effectiveness across contexts.

In the case of CEA, in general, impact-level indicators provide the basis for comparable results; however, VFM indicators that use output or outcome data produce only country-, sector-, or organisation-specific indicators.

The application of VFM techniques to the water, sanitation and hygiene (WASH) sector is a relatively new field of enquiry and only a few large-scale studies have been undertaken in this field. In general, these studies have utilised CEA rather than CBA. However, CBAs are common in evaluating large-scale infrastructure projects in the urban sub-sector – though the results of such analyses are not often published. CBA has also been deployed at the sector and country level under the Economics of Sanitation Initiative.

For the purposes of this report, we refer to *external VFM* analyses, where the results can be compared across contexts and sectors (generally CBA or CUA, but also CEA if using impact-level indicators). We also refer to *internal VFM* analysis, where the results are programme- or context-specific due to the indicators used, and where there is limited validity in comparing across programmes or countries.

Perspective is a key dimension of a VFM analysis: value is a normative concept and the adoption of different perspectives leads to different conclusions. This analysis was explicitly conducted from the perspective of the GSF secretariat as the analysis is limited to considering programme effectiveness in relation to GSF output and outcome indicators. The analysis was conducted solely using existing GSF data, which, as with much of the sector, lack impact-level indicators. The analysis utilised CEA with GSF indicators and, as such, is considered to be an internal VFM analysis.

External and internal VFM analyses are both suited to measuring and improving technical efficiency⁶, but external VFM analyses can also inform judgements of allocative efficiency⁷. Analyses that aim to improve programme performance require only internally valid measures of performance as the basis for a VFM judgement. The WASH sector currently lacks benchmarks for performance and beyond the World Health Organization (WHO)/ UN Children's Fund (UNICEF) Joint Monitoring Programme (JMP) classifications there are few universally accepted definitions within the sector.

Beyond clarifying the perspective of the analysis it is important to establish benchmarks or comparators for what may be considered 'good' VFM. There is a distinct lack of widespread sector-level comparators and well-established and commonly used VFM methodologies. This is not a challenge that is restricted to the WASH sector⁸. Beyond the lack of data and methodological consistency; the diversity of definitions used by various organisations monitoring data limits the comparability of results. This analysis qualitatively compares the GSF-VFM indicators with those of other programmes, as the WASH sector has some common indicators that are used across organisations and contexts. Though these comparisons are far from perfect, as different definitions are used across organisations and contexts, the limitations of these comparisons and this analysis more broadly are noted throughout the report.

2.2 Conceptual framework

The overall conceptual framework of this VFM analysis is derived from an adapted version of the WASH results chain⁹ (see Figure 1). For each of the country case studies, and for the desk reviews, this framework was used to structure the GSF monitoring data. This chain draws a logical relationship between events through time. For example, community triggering session and follow-up activities (inputs) leading to household latrine construction and a community being declared ODF (outputs), which corresponds to an assumed number of people living in an ODF environment (assumed outcome). It is important to note that GSF programmes do not have an explicit theory of change: rather, programme-specific theories of change are implicit in the causal relationships inferred by the results frameworks of the programmes, these results frameworks were used as the basis for developing country-specific results chains.

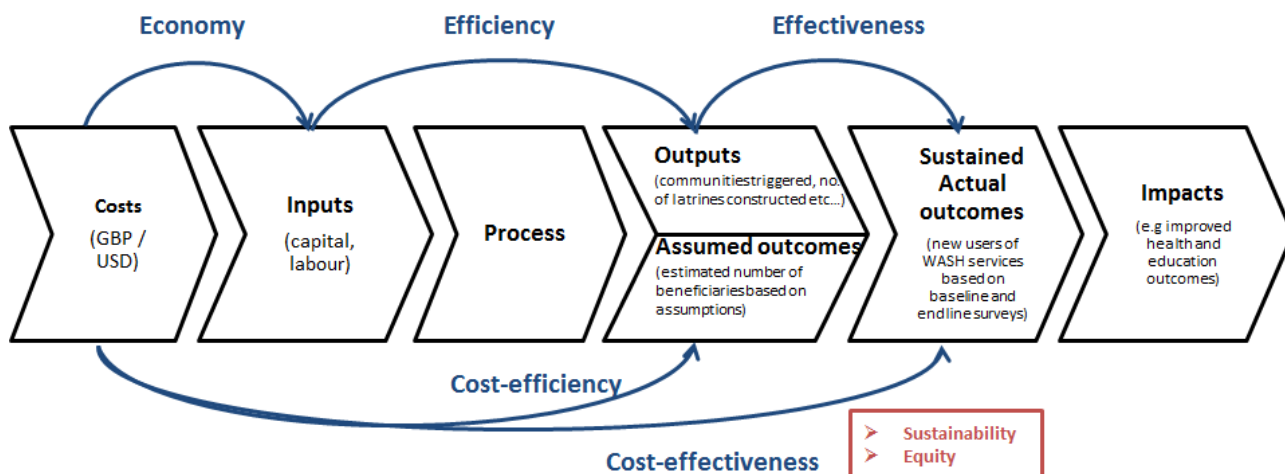
⁶ Technical efficiency is a measure of how well a chosen set of outputs is achieved given a budget constraint, or, a measure of whether costs are minimised given expected output.

⁷ Allocative efficiency is a measure of whether or not those outputs are the socially optimal basket to aim for.

⁸ Santatiwongchai, *et al.* (2015): 'Methodological Variation in Economic Evaluations Conducted in Low- and Middle-Income Countries: Information for Reference Case Development'.

⁹ Adapted by authors from DFID (2013): 'WASH Portfolio Review'.

Figure 1 The WASH results chain



The terminology used in the results chain can lead to unnecessary confusion: definitions of the components are provided below, with examples, in Table 2. It is worth emphasising that the authors make a distinction between ‘outcomes’ and ‘sustained actual outcomes’. This is because it is common in the WASH sector to measure outcomes as a function of outputs using assumptions to estimate outcomes. To truly understand sustained actual outcomes and impacts requires post-intervention surveys that monitor the sustainability of behaviour change over subsequent years.

Table 2 Definitions of the results chain

Component	Description	Examples
Costs	The financial costs of inputs	<ul style="list-style-type: none"> Organisational expenditure at all levels
Inputs	The resources used, in terms of finance and staff time	<ul style="list-style-type: none"> Capital Labour
Process	The process by which inputs are transformed into results. The process can be the object of a programme evaluation	<ul style="list-style-type: none"> Community triggering Post-ODF follow-up activities School promotion activities
Outputs	The direct deliverables of the programme	<ul style="list-style-type: none"> Number of triggerings delivered Villages certified as ODF Hygiene messages delivered Number of latrines constructed
Assumed outcomes	The assumed outcomes resulting from the outputs	<ul style="list-style-type: none"> The number of people assumed to be: <ul style="list-style-type: none"> using the latrine washing their hands living in ODF environments
Sustained actual outcomes	The sustained actual outcomes, i.e. the actual change in poor people’s lives over time (appropriately measured)	<ul style="list-style-type: none"> As above, but measured as opposed to assumed
Impacts	The longer-term impact of the WASH programme,	<ul style="list-style-type: none"> Reduced diarrhoea incidence School attendance

2.3 Analysis of the financial and monitoring data

2.3.1 Introduction

VFM analyses of this kind seek to account for the financial expenditure, from all sources, which contributes (or is assumed to contribute) to the achievement of target outputs and outcomes. In the present case this analysis is limited to the direct expenditure of the GSF, and does not account for household expenditure or the expenditure of other organisations (whether in cash or in kind). This is a key limitation of the study, and is noted where relevant. The analysis accounts for expenditures flowing directly from SG financial records (for example, 'software', expenditure on CLTS triggering), as well as those costs directly or indirectly supporting programme activities both at national level and global level (e.g. SG overheads, and management, administration and technical support provided at EA and secretariat levels).

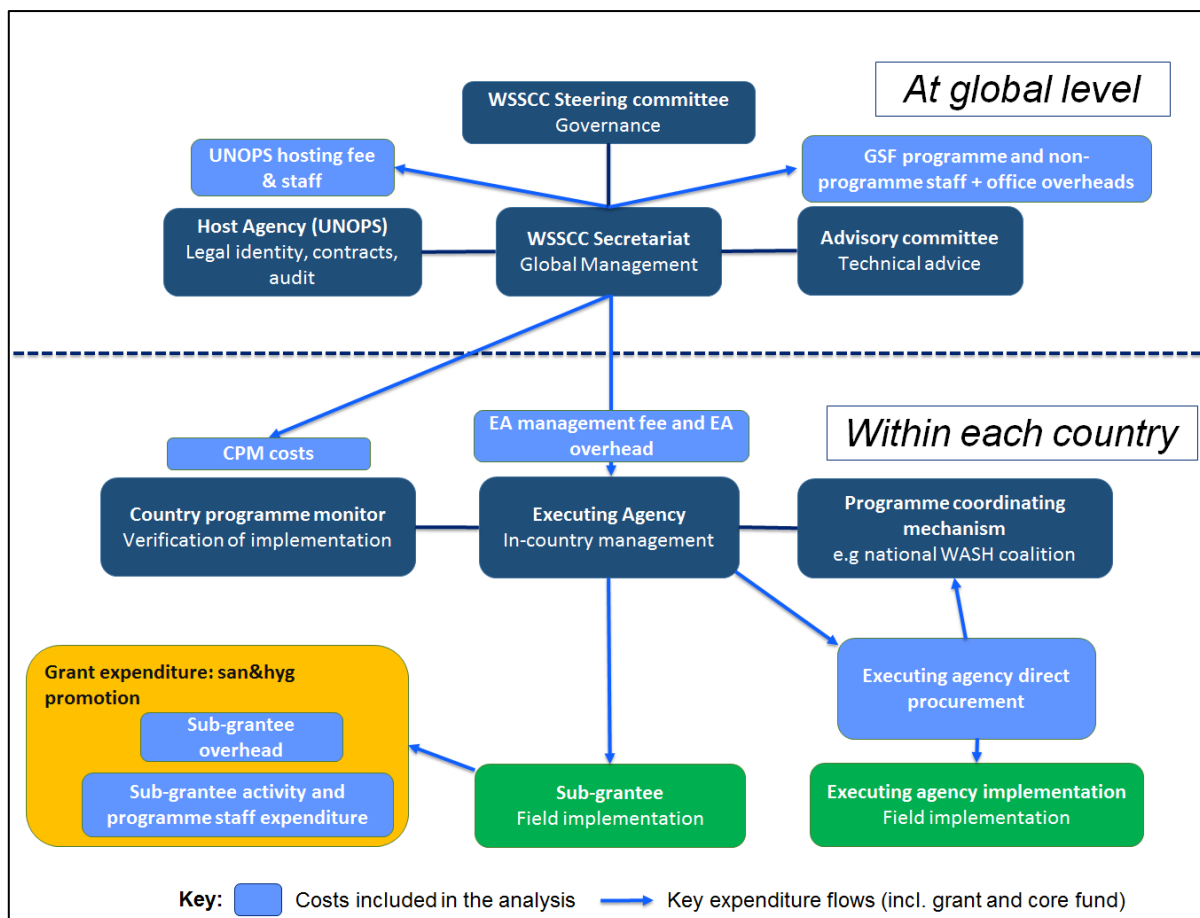
Analyses of this type may also seek to account for non-monetary inputs – such as household contributions in the form of labour or in-kind contributions in exchange for materials or labour – in the calculation of VFM indicators. In the context of sanitation and hygiene promotion programmes these inputs may be important factors in determining household service levels and the sustainability of latrine construction and use. Accurately quantifying such inputs is often challenging and costly as it requires detailed household-level data, captured in either cross-sectional surveys or through ongoing programme monitoring. This level of data was not available to the authors; however, future estimations of these inputs through targeted pilots or data collection may enrich future studies.

This section provides details of the sources of the financial data and how these data were treated in the analysis.

2.3.2 Financial data analysis

A high-level mapping of the key costs included in this analysis and how they are inter-linked is shown in Figure 2 below. To calculate VFM indicators data on financial expenditure need to be aligned with monitoring data of programme inputs, outputs and outcomes. In the country case studies this alignment could be made directly using detailed financial and output monitoring of individual SGs, whereas the desk review analysis relied on aggregated data collated by the EAs.

Figure 2 Financial data map



In each of the countries the financial analysis followed a two-step process. Financial reports were first coded by activity, which ensured that financial data could be aggregated and aligned with a programme results chain (i.e. input, output or outcome indicators). It should be noted that the aggregated EA reports used a template based on activity-based reporting¹⁰; this was a key enabling factor in the analysis as it provided a basis for more accurately coding expenditure. The greater the granularity and consistency of financial reporting, the more accurately expenditure could be aligned with activities and therefore the more accurate and robust the VFM analysis is. Ideally all future VFM analysis would be based primarily on detailed SG reports.

It should be noted that the description of activities varied between countries. In part this is because programme activities genuinely varied, but also because reporting standards and typologies differ both within country programmes (i.e. variations in how SGs account for their expenditure) and between GSF countries.

In the second step of the analysis, financial expenditure was cost-classified based on intended purpose: i.e. according to whether it relates directly to implementing defined programme activities (for example community triggering), or whether it is associated with other logistical, organisational or institutional activities which facilitate, support, or guide direct implementation. In this study we used an adapted version of the cost classification structure developed by the WASHCost¹¹ and Trackfin¹² projects. The definitions associated with this generic costing typology (outlined in Table 3

¹⁰i.e. expenditure is reported both against the budget lines used in the accounting system as well as separately by activity.

¹¹ Fonseca *et al.*, (2011): 'Cost-based decision support tools for water and sanitation'.

¹² WHO (2015): 'TrackFin Initiative: Tracking financing to sanitation, hygiene and drinking-water at the national level'.

below) have been adapted and refined to accurately reflect the specific activities related to sanitation and hygiene promotion and the structure of GSF programming.

Table 3 Description of cost classification

Type of expenditure	Definition	Expenditure included
CapEx (software)	Expenditure associated with the implementation of programme activities – most often associated with SG activities but also including EA implementation of programme activities. We distinguish here between hardware (latrine pans, rings, etc) and software (the supporting behaviour change communication and other demand side activities)	Activity expenditure (e.g. community triggering, post-triggering, etc.)
		SG programme staff time
		Cross-cutting expenditure from the programme grant envelope
Direct programme support	<p>This category captures the expenditure associated with improving the quality of programme implementation and facilitating programme delivery within the country. This captures all support that is technical in nature, as opposed to administrative.</p> <p>In addition, ‘direct support’ includes administrative and non-programme expenditure incurred by SGs and the EA, as these are taken to be an extended function of the activity cost.</p> <p>This also includes a proportion of the overall costs of global GSF programme staff. This proportion is based on the assumed amount of time these staff members spend actively advising, supporting and collaborating with EAs and SGs on improving programme technical approaches, as opposed to time spent on overall programme management and administration.</p>	SG Office and administration
		EA management fee and operational expenditure
		GSF technical support ¹³
Indirect programme support	<p>Expenditure associated with managing and administrating the global GSF programmes. This includes all the costs of non-programme staff within the secretariat, the UNOPS hosting fee, and a proportion of the overall costs of programme staff.</p> <p>‘Indirect support’ also includes expenditure related to the overall strategic direction and oversight of the GSF global programme: such as the cost of the advisory committee, organisational development, and global learning and sharing.</p>	CPM cost
		GSF secretariat administration
		UNOPS host agency fee
		Additional UNOPS staff time ¹⁴
		Global learning, sharing, and organisational development ¹⁵

Some of the costs incurred at global level (such as: i) the UNOPS host agency fee; ii) overhead and administration costs, and iii) non-programme staff costs) are not specific to a particular country programme. This expenditure was attributed across the entire GSF international programme proportional to the size of the implementation grant allocated to each country – exclusive of the costs of the EA management fee and CPM costs.

¹³ In this analysis it has been assumed that half (50%) of GSF programme staff time is spent on providing direct technical support to country teams, and half of that time is spent on overall programme management.

¹⁴ This includes the cost of UNOPS financial and administrative staff supporting the GSF secretariat. In internal accounts, this is captured as ‘UNOPS indirect staff costs’ and ‘centrally managed direct costs’. These costs are over and above the standard UNOPS hosting fee.

¹⁵ These values are derived from UNOPS accounts and include the costs of ‘organisational development’, ‘monitoring and evaluation’, ‘GSF Advisory Committee’, ‘Learning and sharing events’, and ‘WSSCC country programme development and GSF pipeline’.

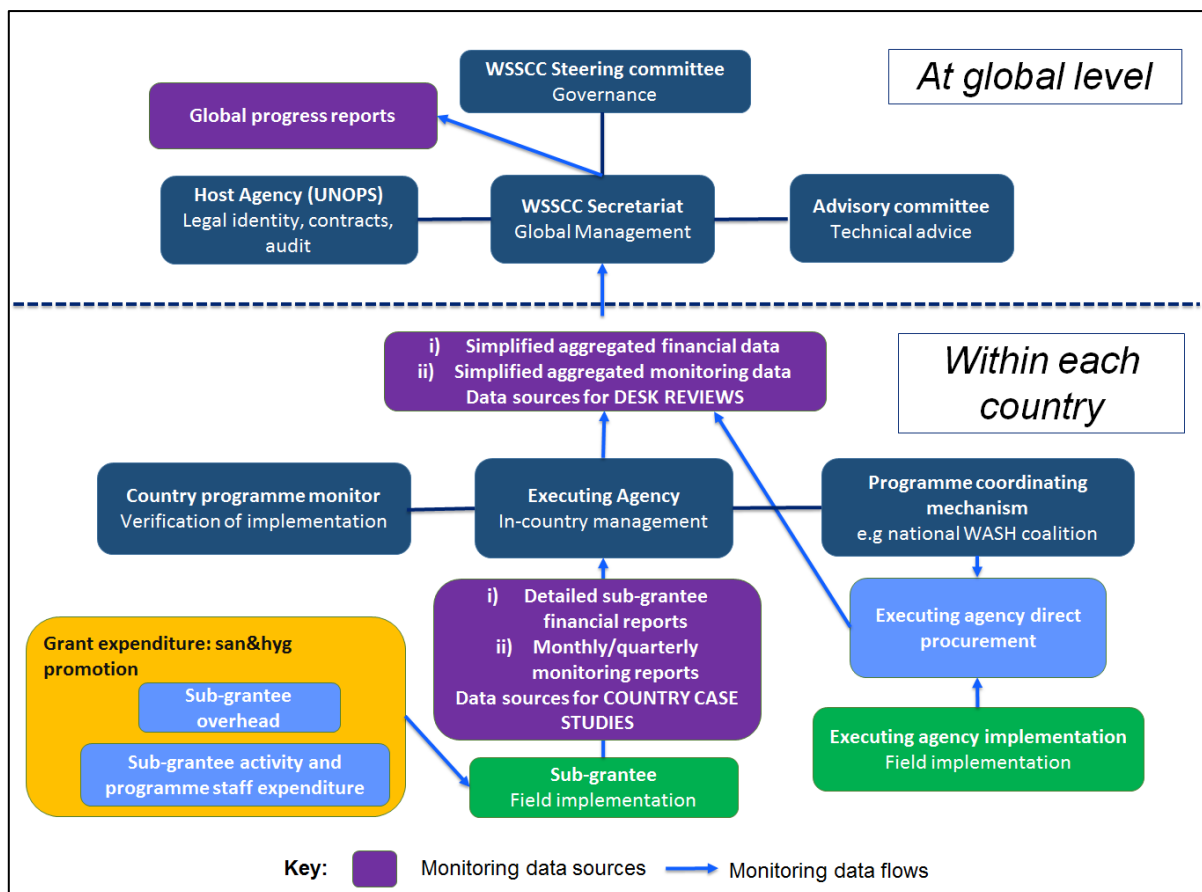
Similarly, at national level some costs incurred at EA and SG levels are not specific to a particular activity and therefore they need to be attributed – the mechanics of this attribution work slightly differently at different institutional levels:

1. At SG level overheads and cross-cutting expenditure is attributed to activities by size (expenditure). Therefore in a given year if 20% of direct programme expenditure was on community triggering then 20% of overhead costs would also be attributed to this activity.
2. At EA level, operational and management expenditures are attributed on the following basis, broadly proportioned to size (expenditure) across implementation activities. For example, if SG expenditure constitutes 73% all implementation expenditure, then 73% of EA operational and management costs is therefore attributed to the SGs. If direct procurement activities represent 27% of implementation expenditure it is apportioned 27% of expenditure and so on.
3. At the next stage, these smaller pots of expenditure are apportioned to individual SGs according to size. For example, 7% is attributed to a particular SG if the pot represented 7% of all SG expenditure. Finally, these pots are attributed to SG activities (e.g. community triggering), also by size.
4. Similarly, overall GSF secretariat institutional, operation and management expenditure are attributed across country programmes in direct proportion to the size of the grant to the country programmes.
5. Once these values have been brought down to national level, they are attributed to programme components, SGs, and activities in the same manner as point 2 in this list.

2.3.3 Monitoring data analysis

As mentioned previously this analysis only utilised existing GSF monitoring data. The authors made no attempt to validate the monitoring data used. For the desk-based reports, country-level monitoring data aggregated by the EA were used. For the two countries for which there was a detailed SG analysis (Cambodia and Madagascar) the SG monitoring data as reported to the EA were used.

Figure 3 Monitoring data map



A fundamental limitation of the cross-country comparison within GSF programmes relates to the different ways indicators are defined in different countries, as well as the different protocols for data collection and verification found amongst country programmes. Table 4 summarises those indicators that are collected across all the country programmes. These unavoidable factors limit the explanatory power of the VFM findings and this must be borne in mind when making cross-country comparisons.

Table 4 Indicators routinely collected across all the programmes

Component	Indicator
1. Process/ activity	1.1 Number of communities triggered
	1.2 Number of communities re-triggered
	1.3 Number of schools triggered
2. Output	2.1 Number of communities declared ODF
3. Assumed outcome	3.1 People living in ODF environments
	3.2 Number of people adopting hand-washing practices with soap and water at critical times
	3.3 Number of households in project area changing from open- or fixed-place defecation to using an improved household sanitation facility (JMP definition)
	3.4 Number people in project area changing from open to fixed-place defecation

In calculating the economy indicators (1.1, 1.2, and 1.3) only the activity costs, programme staff time and allocated direct procurement expenditure are included. The cost-efficiency indicators (3.1, 3.2, 3.3, and 3.4) include all expenditure from all sources.

The subsequent section presents the findings of the VFM analysis across all six countries. The key assumptions underlying this analysis are:

- the results reported in the monitoring data are solely a function of GSF expenditure (i.e. attribution/ contribution analysis was not within the purview of this study); and
- the results and financial data reported by SGs and collated at EA level are comprehensive, accurate and robust.

3 Synthesis of VFM findings across six country programmes

3.1 Introduction

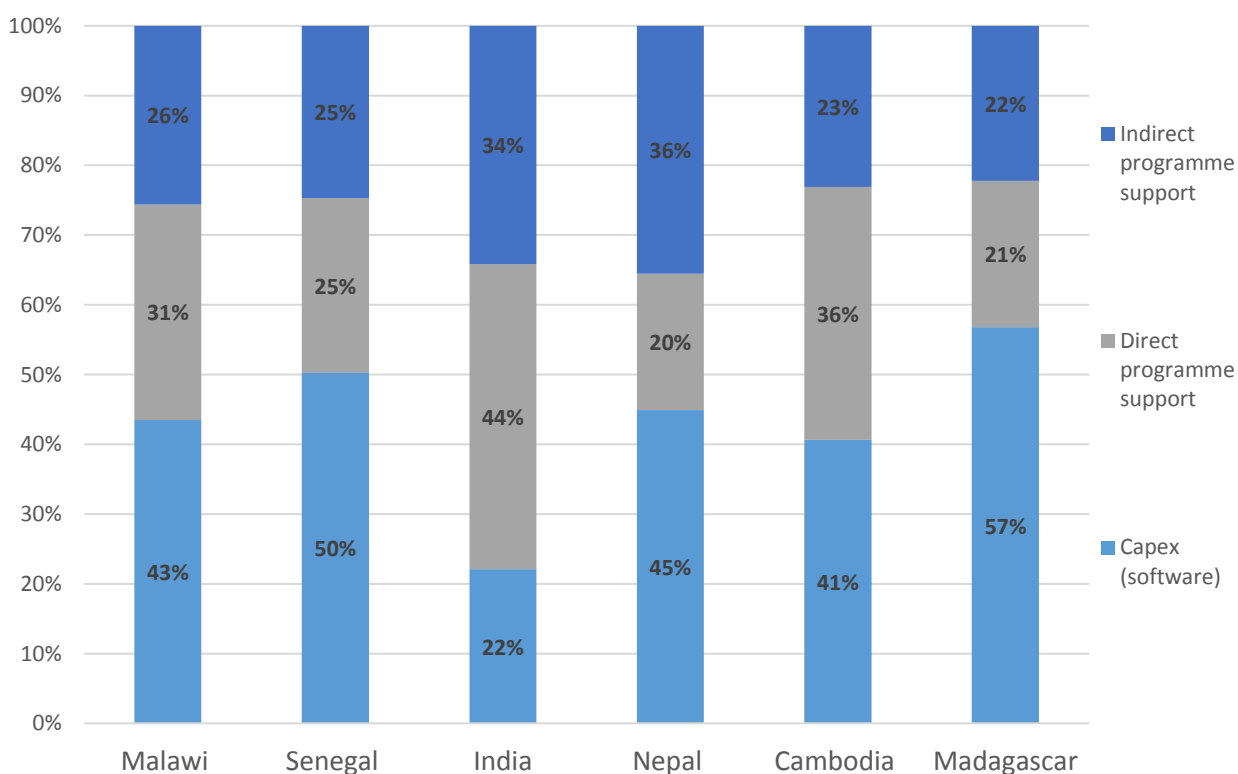
The first part of this section presents the results of the analysis of the financial data. This is followed by a presentation of the VFM figures in absolute terms and indexed to the mean. The indexed figures provide a clearer way of analysing the data.

3.2 Financial analysis

Figure 4 presents the summary results of the country level financial analysis, grouped by cost classification. Proportional expenditure on CapEx (software) varies considerably: from 22% in India to 57% in Madagascar. In five out of the six countries this range is much narrower (41%–57%), indicating that India is the outlying value.

The second cost category, expenditure on direct programme support, varies in a similar manner, from a low of 20% in Nepal to a high of 44% in India. Finally, indirect programme support expenditure does not vary to the same extent (22%–36%) as much of the expenditure is relatively fixed compared to programme size (for example the UNOPS hosting fee).

Figure 4 Cost-classified expenditure – proportional spending



Note: In Madagascar SG financial reports did not disaggregate between the programme staff or administrative staff – these are incorporated together under CapEx software.

Figure 5 presents this same information but in absolute figures, to allow for a comparison of overall magnitude.

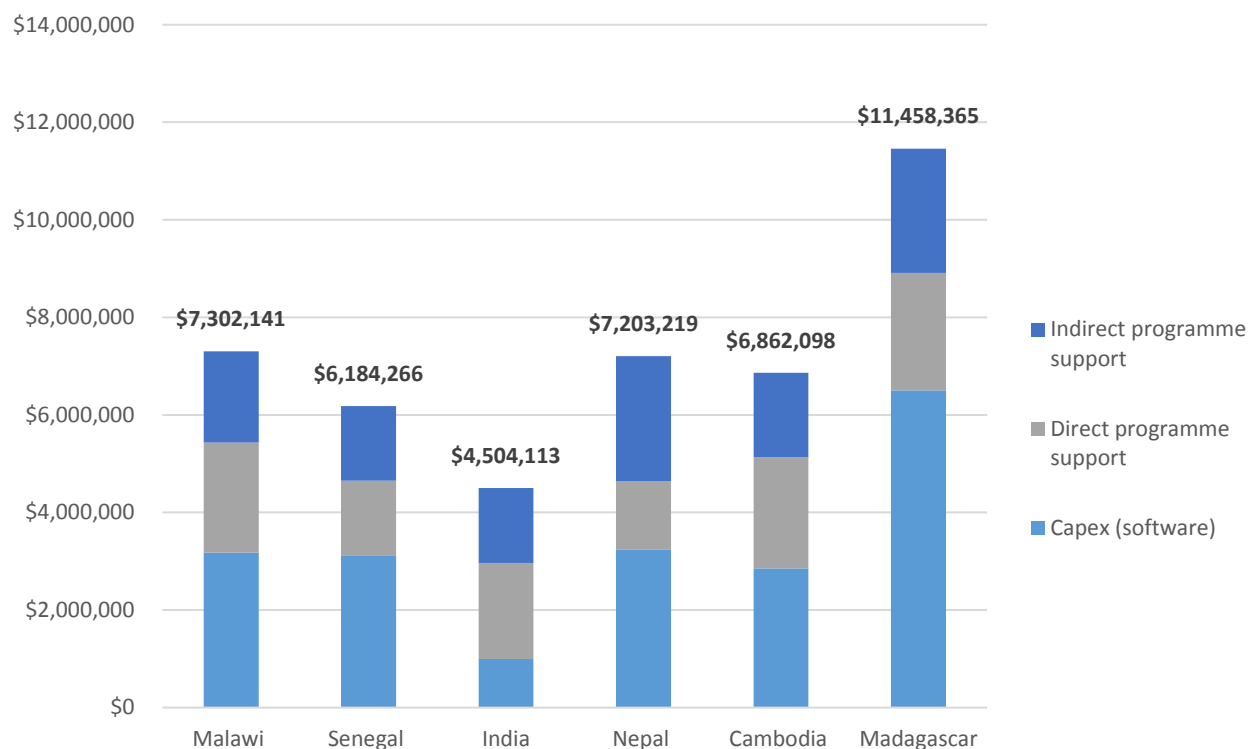
Figure 5 Cost-classified expenditure – absolute spending

Figure 6 shows the three cost categories further disaggregated into key expenditure areas.

The first two categories (activity costs and SG programme staff time) are those that are used in the economy calculations and capture the costs of implementing activities. In the case of the desk reviews the EA did not disaggregate these values. Therefore the values presented here are an estimated disaggregation of these lump sum values derived from example SG reports and key informant inputs.

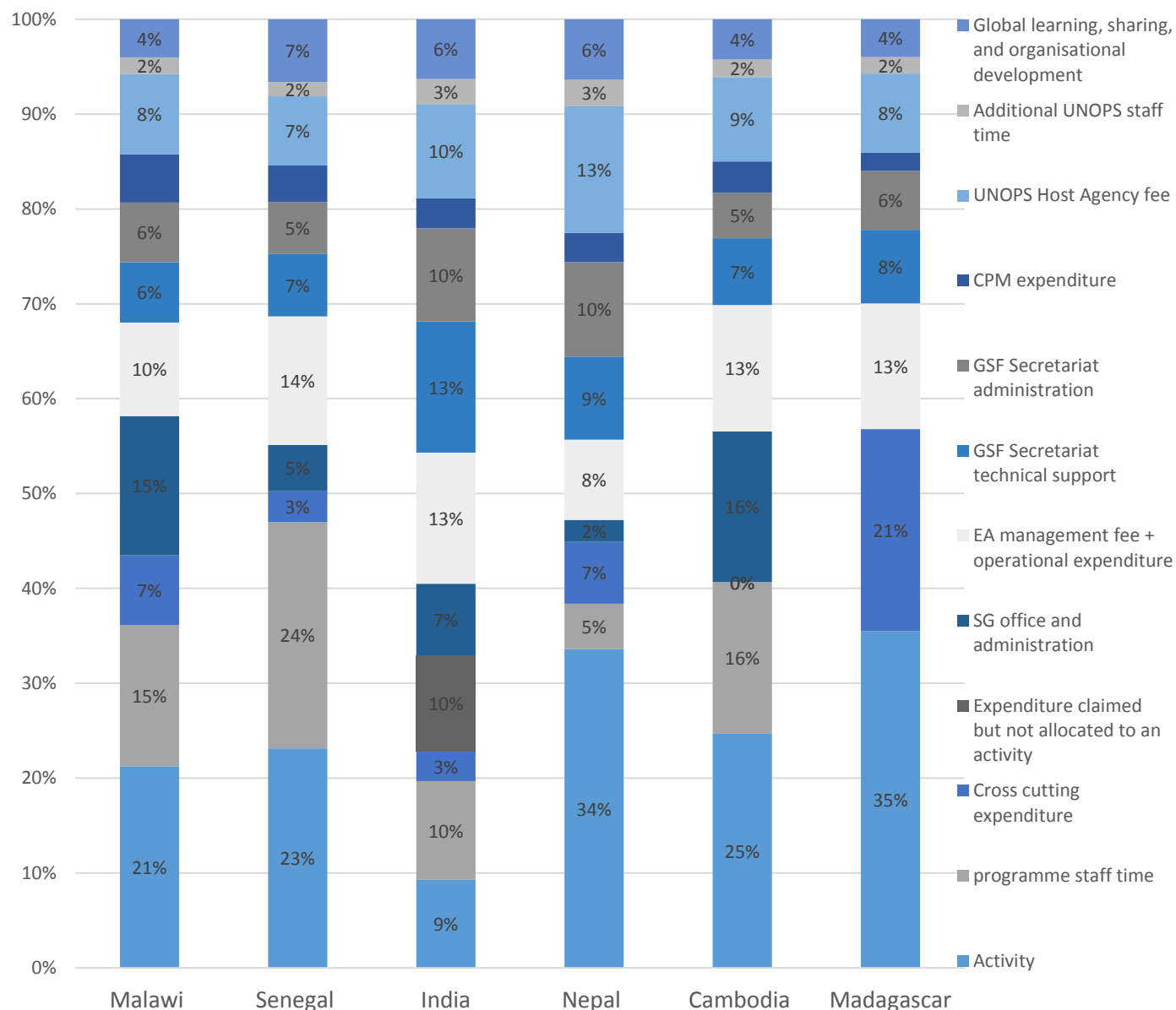
The considerable diversity in proportional expenditure shown in both Figure 4 and Figure 6 is driven in part by differences in programme design (for example, the India programme has a relatively low activity cost partially as the programme diverts considerable resources to influencing and advocacy), but is also likely influenced by local socio-economic factors (such as lower labour costs in India).

Another key driver is the extent to which the programme utilises other resources. For example, Senegal has notably higher staff costs than all other programmes. This is largely because the community mobilisers are paid a cash incentive for their time. Similar incentives are also paid in the Cambodia and Madagascar¹⁶ country programmes. Conversely, other programmes, such as Malawi, utilise government staff for community triggering. In these cases the contribution of their time is not captured in financial reporting, reducing direct comparability with other countries¹⁷.

¹⁶ By some NGO implementing partners.

¹⁷ The Oxford Policy Management (OPM) team attempted to estimate the value of this labour, based on interviews with the Malawi EA. Based on a series of assumptions detailed in the separate desk-review report, the total government contributions were estimated at approximately 123,000 person hours (roughly 15,000 working days, 60 person years) of labour across the entire programme. These hours are not captured as a 'cost' incurred by the programme. The team were unable to put a reliable figure on the cost of this due to lack of knowledge of government salaries.

Figure 6 Key expenditure areas



3.3 VFM indicators

Figure 7 (overleaf) compares the key VFM indicators across all six studies. Country values are indexed against the average (0 = average across all countries, 100 = twice the average, and -100 = half of the average). This allows for a clearer cross-country comparison. The absolute values for key outcome indicators are also presented below.

Immediately noticeable is the variation between countries with regard to economy figures and the cost-efficiency of achieving ODF communities – while the indicators for outcomes are more closely clustered around the mean. There are many factors that can drive these differences, in addition to the effectiveness of the implementation agencies. These include: i) implementation approach; ii) programme context; and iii) indicator definition. It is beyond the scope of this report to comment, for all six countries, on the extent to which variation is driven by the interaction between these factors. However, the comparative analysis conducted for the two in-depth case studies shed some light on this through the comparative analysis of SGs. Taking the Cambodian case study as an example, this showed that:

- variation in inputs costs were found to reflect different implementation approaches adopted by each SG, with some allocating more resources to the sensitisation and training of stakeholders before community triggering, whereas others allocated more towards post-triggering follow-up; and
- the context to which each SG operates can vary considerably and this can impact on the achievement of results. Therefore in recent years some SGs (notably COCD and Rainwater) in the face of slower than expected progress on results indicators have looked to re-focus programming on 'high priority' communities, which are considered to be those which are easier to convert. This results in more favourable VFM values in recent years, but may not indicate an upswing in SG efficiency or effectiveness.

For the cost-efficiency indicators¹⁸, which are all on a per capita basis, the definitions used in the monitoring data become implicitly more closely aligned. This is because the per capita figures for the assumed outcomes account for both programme effectiveness (in this case the triggering to ODF certification ratio) and village and household size.

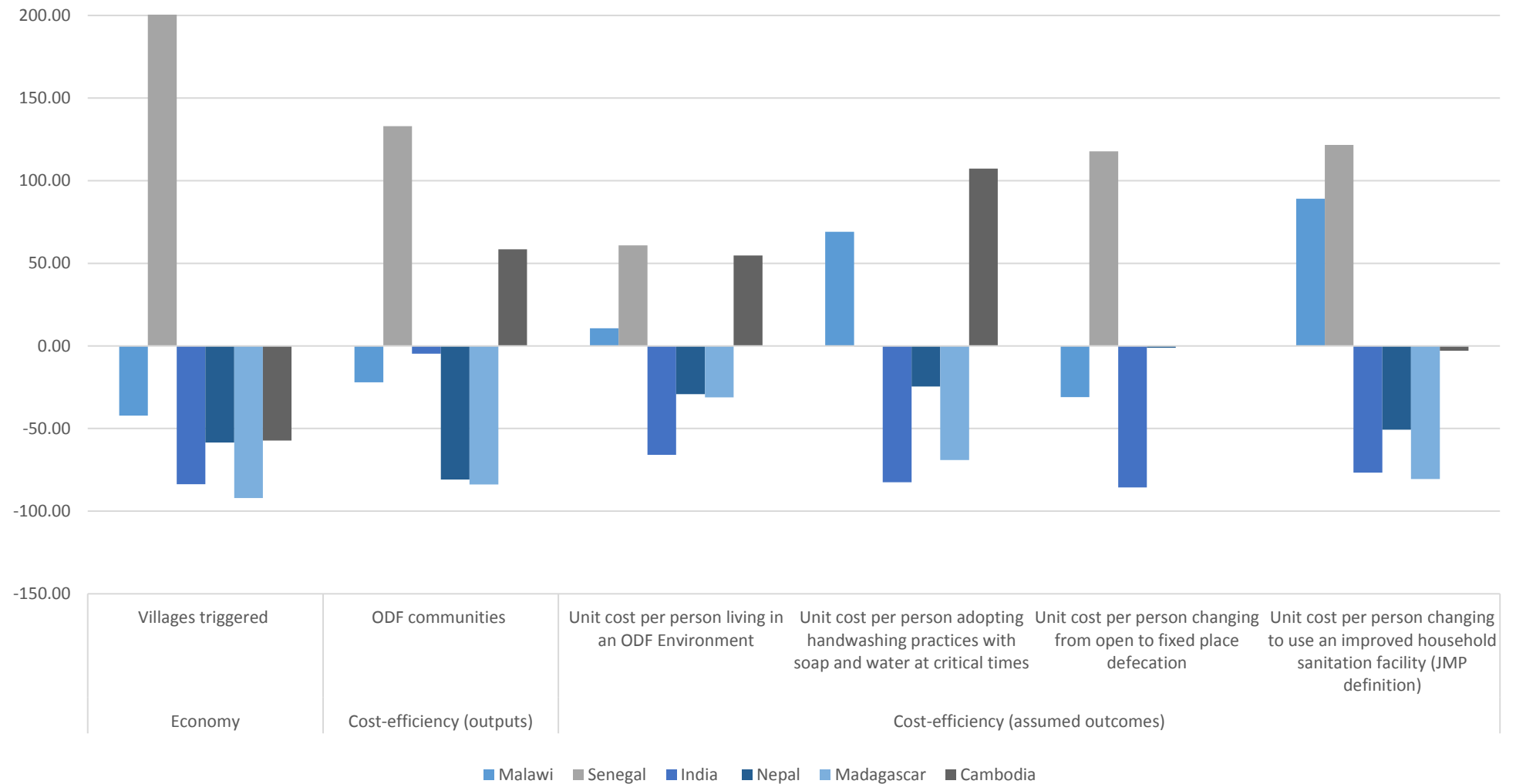
A key difference driver in the comparative economy figures for communities triggered and the comparative cost-effectiveness figures is the conversion rate in each country. For example, in Nepal and Madagascar the high conversion rates mean that the costs of achieving an ODF community relative to the average are significantly lower than the costs of triggering compared to the average. In the case of India, Malawi, and notably Cambodia, the costs of achieving ODF status are high compared to the costs of triggering communities. This is reflective of the lower conversion rates from triggered communities to ODF communities. The conversion rates are not necessarily solely reflective of programme effectiveness.

The differences are also driven by how stringent the ODF verification requirements are, and the extent to which societal attitudes can be shifted – or, in the case of India, by significant changes in the implementation approach¹⁹.

¹⁸ Those associated with the assumed outcomes.

¹⁹ The India GSF programme conducted triggering sessions in thousands of communities yet post-triggering follow-up and results monitoring was only conducted in a small proportion of these due to changes in the programme planning. As a consequence, actual conversion rates may be higher than those presented in the findings. For a more precise understanding of conversion rates in India, country-level monitoring systems should aim to restrict the reporting of results to only those communities where follow-up has taken place.

Figure 7 Indexed VFM indicators (0 = average of the six countries)



As with comparing the input and output indicators there is a further clustering around the mean when the cost-efficiency indicator for ODF communities is compared with the cost-efficiency indicator for people living in ODF environments. For Malawi, Nepal, Cambodia, and Madagascar the costs per person living in an ODF community are higher relative to the mean than the cost of achieving ODF status. This is reflective of the smaller community size for declared ODF communities (as defined by the reporting indicator used). In the case of Senegal and India the converse is true, reflecting larger community sizes (Table 5).

Table 5 Approximate average number of households in a community²⁰

GSF country programme	Number of households
Nepal and Madagascar	10–20
Senegal	~50
India	100–500
Malawi	200
Cambodia	250

Another important comparison is between the indicators for people changing to fixed-place defecation and the number of people changing to the use of an improved sanitation facility. In Nepal and Senegal the costs of moving a person to the use of improved sanitation are lower relative to the mean than the costs of moving a person to fixed-place defecation relative to the mean. This is because a higher proportion of latrines constructed within the programme are improved latrines. Conversely, in India and Malawi fewer of the latrines constructed are improved. This is particularly marked in the case of Malawi, where the costs of moving a person to fixed-place defecation are below average, while those of moving a person to the use of improved sanitation are above average.

Focusing on any one of these three indicators individually masks the different drivers of the costs, while each indicator in turn reflects a different aspect of the programme. Dispersion around the mean is reduced as one moves further along the results chain. This is partially due to the fact that the definitions behind the monitoring indicators implicitly become more closely aligned. Outcome indicators partially control for the differences in conversion rates (between triggered and ODF communities), and more importantly community size. As mentioned previously the different countries monetise the full costs of the programme to different extents: the figures presented in this section pertain only to expenditure by the GSF, EAs and SGs. Other expenditure that contributes to the outcomes – including other organisations' staff time and hardware expenditure by households – is not built into these figures.

3.4 VFM indicators for key outcomes

Figure 8 and Figure 9 below display the absolute figures for key GSF outcome indicators. Further data are contained in Annex C of this report and a more extensive discussion of the data is provided in each country report, including a breakdown of the indicators by cost classification.

²⁰ EAs' estimations during interviews.

Figure 8 Comparisons of key results (1)

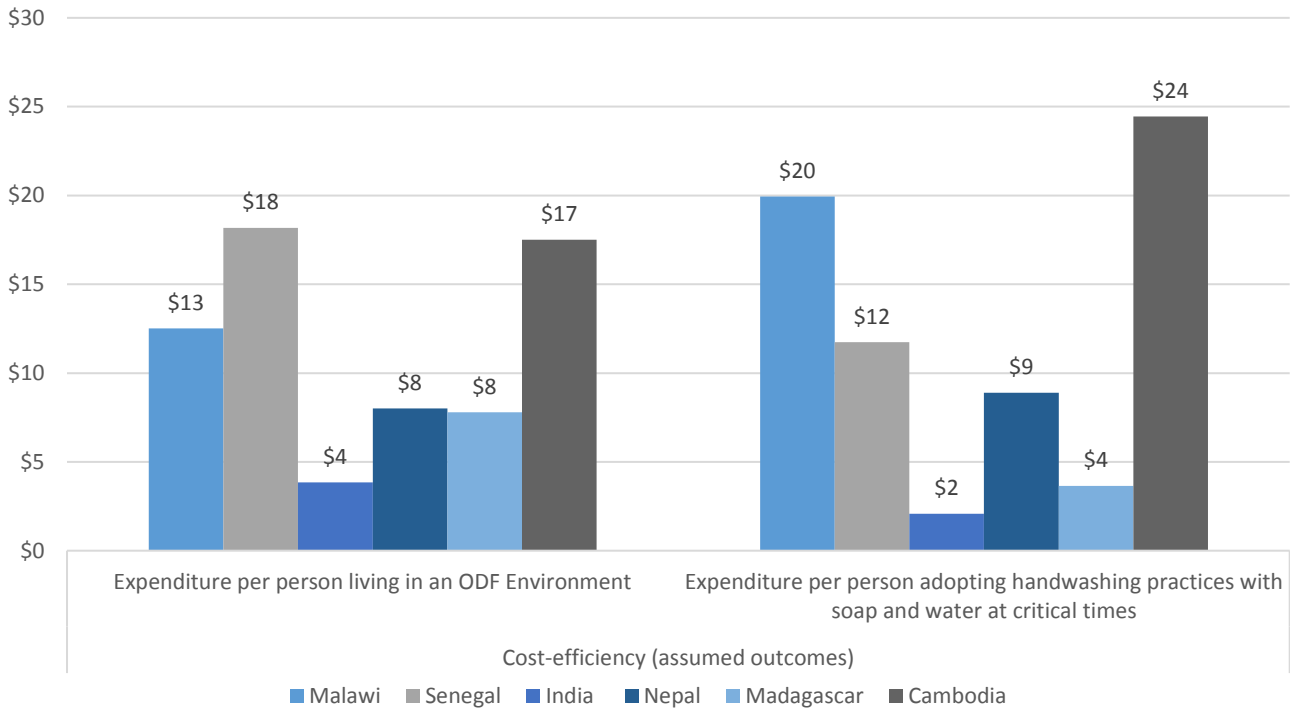
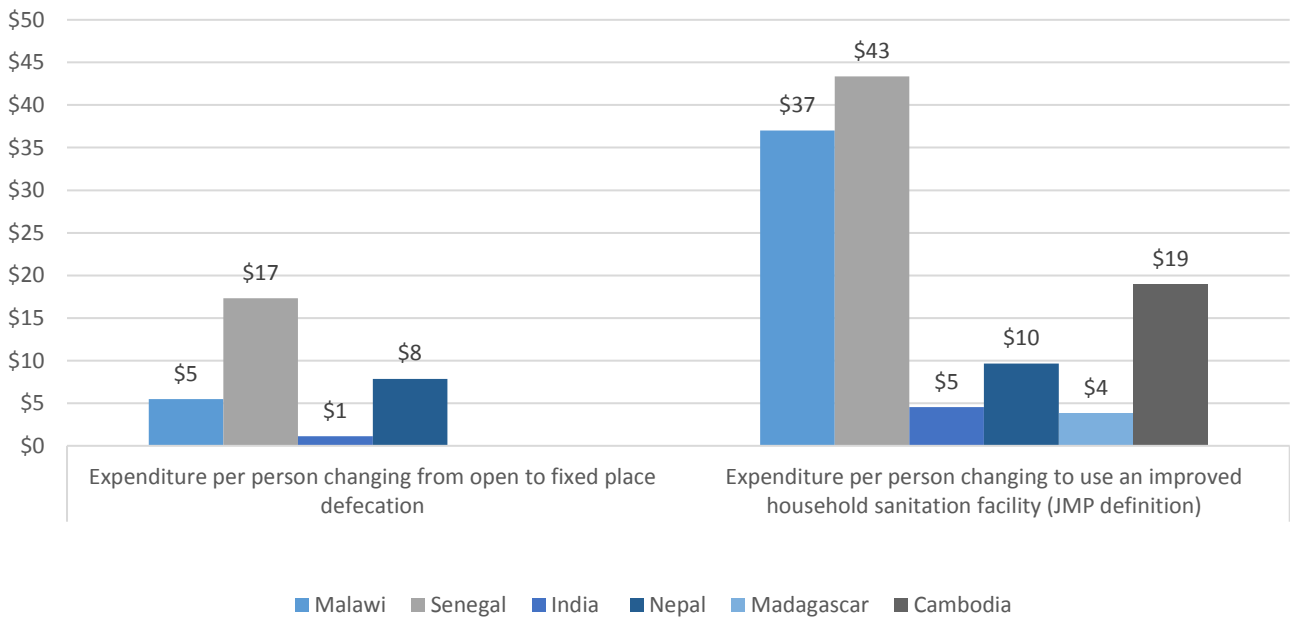


Figure 9 Comparisons of key results (2)



4 Benchmarking the results against the ‘VFM-WASH’ project

4.1 Introduction

This section compares the VFM findings from this analysis with published data from the ‘VFM-WASH’ study. This recently completed study examined the VFM of WASH interventions in six of DFID’s large country programmes. Four of these country programmes (in Bangladesh, Mozambique, Nigeria, and Zambia) included sanitation and hygiene components, and generated data which can be compared with GSF findings. The matrix of comparable VFM indicators is shown in Table 7, below.

The ‘VFM-WASH’ findings presented in this report have been drawn together from a range of project publications, these include:

- a synthesis report of VFM studies in six countries (<http://vfm-wash.org/vfm-synthesis-report/>);
- ‘Assessing the Value for Money of SHEWA-B in Bangladesh’, (<http://vfm-wash.org/analysing-the-value-for-money-of-shewa-b-in-bangladesh/>);
- ‘Assessing the Value for Money of PRONASAR Common Fund Investments in Mozambique’, (<http://vfm-wash.org/mozambique-assessing-the-value-for-money-of-pronasar-common-fund-investments-in-mozambique/>);
- ‘Assessing the VFM of DFID’s SHAWN-I programme in Nigeria’, (<http://vfm-wash.org/assessing-the-vfm-of-dfid-shawn-i-programme-in-nigeria/>); and
- ‘Assessing the Value for Money of DFID’s Sanitation and Hygiene Programme in Zambia’, (<http://vfm-wash.org/zambia-assessing-the-value-for-money-of-dfid-sanitation-and-hygiene-programme-in-zambia/>).

Table 6 provides an overview of the programmes. Further details can be found in Annex B.

Table 6 Sanitation activities – Programmes’ characteristics

	Bangladesh	Mozambique	Nigeria	Zambia
Activities	<ul style="list-style-type: none"> • Social mobilisation for household investment in latrines • Procurement of sanitation hardware for ‘ultra-poor’ and hard-to-reach areas 	<ul style="list-style-type: none"> • CLTS, including hygiene promotion • CLTS in schools 	CLTS, including hygiene promotion	<ul style="list-style-type: none"> • CLTS in communities • Sanitation marketing
Context (description)	<ul style="list-style-type: none"> • Long history of CLTS or similar social mobilisation techniques • Rapidly declining rate of open defecation nationally during the programme period • Availability of experienced masons and materials 	<ul style="list-style-type: none"> • Low access to improved sanitation in target districts (2%–31%) 	<ul style="list-style-type: none"> • Low access to improved sanitation in target states : 11%–41% (MICS 2011) 	<ul style="list-style-type: none"> • Low access to improved sanitation in target districts (8% in 2013)

	Bangladesh	Mozambique	Nigeria	Zambia
Type of sanitation facilities constructed	<ul style="list-style-type: none"> • Various pit latrines, most of which had permanent slabs and were 'improved' 	<ul style="list-style-type: none"> • Traditional, traditional improved and improved latrines 	<ul style="list-style-type: none"> • Unimproved and improved latrines at community-level 	<ul style="list-style-type: none"> • Traditional improved and improved at community-level
Funding sources included in the VFM analysis	<ul style="list-style-type: none"> • Programme with co-funding from national sanitation subsidy programme and household contributions 	<ul style="list-style-type: none"> • Programme (for CLTS campaigns) 	<ul style="list-style-type: none"> • Programme (UNICEF and government) 	<ul style="list-style-type: none"> • UNICEF Programme funds, NGOs, government, and households (for the construction of sanitation facilities)
Funding sources not included in the VFM analysis		<ul style="list-style-type: none"> • Households for latrine construction 	<ul style="list-style-type: none"> • Households for latrine construction 	

4.2 Note on limitations of, and interpretation of, comparative figures

From the outset it is important to state the limitations of comparing findings between the GSF-VFM study and the VFM-WASH study, and to provide guidance regarding the interpretation of results.

- 1) **Differences in programme design and implementation:** In the DFID-supported VFM-WASH project, the sanitation and hygiene interventions assessed were just one component of a broader WASH programme that has diverse objectives beyond improving sanitation and hygiene practices. This is very different to the focused programming within GSF programmes. Therefore the economy and cost-efficiency findings from VFM-WASH will, in some cases, also include the costs of activities not associated with sanitation and hygiene-related outputs and outcomes.
- 2) **Differences in results reporting and definitions:** The DFID country programmes assessed in the VFM-WASH study were independent from one another, and as a consequence were not bound by a common monitoring framework or subject to common data collection protocols. This means that there remains a certain degree of inherent uncertainty in the comparability of individual indicators as the definitions may vary.
- 3) **Differences in the context in which the programme is implemented:** Linked to the point above contextual factors can lead to implicitly different definition. These contextual differences are of course also a driver of the costs of a programme. Again, it should be stated that a lower cost effectiveness VFM indicator does not necessarily equate a more effective programme when comparing across countries.
- 4) **Limitations of existing GSF data:** As mentioned previously, all the GSF-VFM findings are premised on the monitoring results generated through country-level reporting being accurate. It is beyond the scope of this study to systematically critique the quality and reliability of these data.

Extreme caution should be taken regarding drawing strong inferences, both in terms of comparative programme performance and overall VFM, from the data laid out in subsequent sections. The fledgling nature of VFM analysis in the WASH sector means that detailed comparators are hard to come by. The subsequent section should only therefore be used as a means to place the GSF results in a broader context.

4.3 Sanitation and hygiene indicators

The three sub-Saharan Africa programmes summarised in the table above included a CLTS component, with triggering activities conducted by NGOs. Programmes in Zambia and Nigeria also included hygiene promotion activities. In addition, the Zambia programme funded sanitation marketing activities. SHEWA-B in Bangladesh took a different approach: it primarily used local social mobilisation teams, Community Hygiene Promoters (CHPs), working with households and running tea sessions and market sessions to promote household investment in hygienic latrines. The programme also provided a very small number of subsidies for ultra-poor households to build latrines. Most of the intervention areas had already been exposed to CLTS-type triggering and the rate of open defecation was already relatively low, so the programme focused on promoting the use of hygienic latrines rather than on eliminating open defecation.

Table 7 summarises which of the core GSF indicators were collected under the other programmes. For reasons discussed above, this section only seeks to compare the cost-efficiency indicators.

Table 7 Comparable indicators collected as part of the VFM-WASH study

Component	VFM indicator	SHEWA-B Bangladesh (2008–2014)	PRONASAR CF Mozambique (2011–2014)	SHAWN-I Nigeria (2010–2013)	ZSHP Zambia (2012–2014)
Process/ activity economy	Expenditure per community triggered by CLTS		•	-	-
Output (cost-efficiency)	Expenditure per community certified / verified as ODF		•	•	•
Assumed outcome (cost-efficiency)	Expenditure per person living in a certified ODF community (programme only)	•		•	
	Expenditure per new sanitation facility construction (programme only)	•			
	Expenditure per new sanitation facility construction (incl. programme and household contributions)	•			
	Expenditure per person who gained access to a sanitation facility (programme only)	•	•	•	•
	Total expenditure per person who gained access to a sanitation facility (incl. programme and household contributions)	•	•		•
	Expenditure per person who gained access to a sanitation facility and who uses that facility	•			•

4.3.1 Efficiency

Review of DFID VFM data

In the DFID studies the analysis of efficiency data was limited by the variable quality and availability of data on the number of communities triggered and verified as ODF.

ODF conversion rates (i.e. the percentage of triggered communities through CLTS who are verified as ODF) varied from a low of around 13% for Mozambique to a high of 39% for Nigeria. In Zambia

and Nigeria there were efficiency losses due to delays in completing the full ODF certification and third-party verification procedures. This means that actual ODF conversion rates were probably underestimated.

Comparison with GSF data

According to the monitoring data drawn from the data files provided to the consultancy team, in two out of the six mature GSF country programmes analysed ODF conversion rates are markedly higher than those reported in the DFID programmes. These high conversion rates were found in Madagascar (73%) and Nepal (92%). At the other end of the spectrum, the GSF countries with the lowest ODF conversion efficiency – Cambodia and India – achieved similar conversion rates to the DFID programmes. Some common efficiency drivers were identified in both these assessments:

Follow-up: Extended post-triggering monitoring is linked to higher rates of conversion efficiency.

Initial conditions: Conversion rates tended to be higher in countries where the initial rates of improved sanitation coverage were higher.

In addition, data emerging from GSF monitoring systems suggest that programme maturity is also a driver of conversion rates. That is, the proportion of newly triggered communities converting to ODF status progressively increases year-on-year. This is presumed to be down to two factors: i) the increased knowledge, capacity, and effectiveness of SG implementation, which is adaptive to approaches that work; and ii) the gradual permeation of GSF messaging, through a variety of channels, at local and national levels.

4.3.2 Cost-efficiency

Review of DFID VFM data

In the three countries where data were available the cost per community verified as ODF varied: US\$1,584 in Zambia, US\$5,668 in Nigeria, and US\$11,941 in Mozambique.

The cost per person living in an ODF community ranged between US\$17 in Nigeria and US\$37 in Bangladesh, whereas the cost per person who had gained access to a sanitation facility ranged between US\$3.4 in Zambia and US\$14 in Mozambique. These costs are mostly made up of community mobilisation and various programme support costs (but do not include institutional costs).

The message emerging from the DFID data is that in different countries different levels of effort and expenditure are required to change behaviours, depending on starting sanitation conditions and local context. In Bangladesh, for example, there has been a decade-long push to reduce open defecation, with the result that most communities have already been triggered at least once. The focus of SHEWA-B's interventions was therefore on supporting households to convert temporary or shared latrines into more permanent and private facilities. For that reason, the number of households who moved to a situation where they were living in an ODF environment as a result of the programme was relatively small (and the costs per person were therefore higher than in other countries). On the other hand, the cost per person gaining access to a latrine was low when compared to other programmes, as a small amount of focused social intermediation was all that was required to encourage household investment in new toilets.

For the Mozambique and Zambia programmes, comparisons of cost-efficiency indicators across different years showed a significant decrease in the costs per CLTS campaign over time. In each of these cases there are significant costs associated with setting up the country programme and

initiating the roll-out of key project activities. As mentioned in the previous page it also presumed, the data the efficiency of programme activities will improve year-on-year.

Finally, it is important to take account of a programme's capacity to leverage household investments to build latrines, given that with a CLTS approach households are expected to use their resources in cash and in-kind to build latrines. The SHEWA-B programme in Bangladesh was the most efficient in leveraging household investments. Programme expenditure of US\$20 leveraged an additional US\$48.50 of household investment for each latrine built. Comparator data from BRAC shows that the total hardware cost per latrine was between US\$41 and US\$104, and it can be seen that leveraged investment for toilets built as a result of the SHEWA-B programme is at the lower end of this range. This demonstrates that households were choosing lower-cost options.

Comparison with GSF data

Based purely on the data made available to the study team, and acknowledging some of the limitations of these comparisons, as stated at the beginning of this section, GSF country programmes appear to be generally more cost-effective at achieving ODF status, as compared to the DFID programmes. In particular, in the Madagascar and Nepal programmes the costs per verified community are shown to be substantially lower than those achieved elsewhere. However, when using the indicator cost per person changing to use an improved sanitation facility, unlike the previous measures in three of the six GSF programme (Cambodia, Malawi, and Senegal) the costs are higher than in the DFID programme, and in the case of Senegal these values are much higher. These findings suggest that in relative terms these programme appear to have been more cost-efficient at achieving ODF communities. However, this has not been matched by the construction of latrines that meet JMP standards. At the other end of the scale the most cost-efficient programmes on the measure are Bangladesh and Zambia, in terms of the DFID studies, and India, Madagascar and Nepal for the GSF programmes.

5 Reflections on undertaking this VFM study (recommendations and limitations)

5.1 Introduction

This section discusses the challenges in applying the VFM methodologies to GSF systems and sanitation more broadly, and it also outlines the limitations of this study. Recommendations for furthering the analysis or applying similar analyses are included throughout.

5.2 Financial data

The core of the VFM analysis is linking financial inputs to monitoring data on programme activities, outputs, and outcomes in a way that is logically consistent. To do so one implicitly infers causal relationships between the expenditure allocated to an activity and the results measured as arising for the same activity. In the case of these VFM analyses this was achieved through activity coding financial data. **The activity-based reporting was a key enabling factor in conducting the desk-based analyses. Any organisation seeking to undertake such analysis will benefit from adopting activity-based reporting.**

This VFM analysis required bringing multiple sources of financial data together to complete the analysis. In all cases the analyses drew on SG financial reports, EA reports prepared for the GSF secretariat and UNOPS accounts. Within the GSF there exists no single system for tracking expenditure from a source (i.e. a donor) to an activity. Furthermore, considerable diversity in reporting formats and categories was observed between countries. **Organisations seeking to carry out an analysis such as this should ensure that their financial reporting is interoperable at all levels, and that it uses budget lines/codes that can be reliably aggregated across organisational tiers.**

5.3 Monitoring data for VFM analyses

This study was conducted using only the existing data collected by the GSF and its EAs; the absence of primary data collection is a limitation of this study. The authors did not seek to validate the GSF data and all results of the analysis have embedded within them the definitions and assumptions used in GSF reporting. In most cases GSF programme monitoring within countries is aligned to national definitions, with the GSF global indicators being reported as derivatives of these data. The differences in definitions of key indicators have already been discussed at various points in the report.

The VFM team acknowledges that country-specific definitions of key programme indicators is an important and legitimate part of ensuring the relevance of GSF programmes. Nevertheless, these differences do weaken the power of the cross-country comparison of VFM indicators between country programmes.

For internal VFM analyses and comparisons between SGs within a country these issues are still present (for example, community size varies between a SG's programme areas within a country) but they are less salient as the definition of key indicators is relatively standardised between SGs. Adapting the GSF systems to facilitate cross-country comparison would require that definitions are standardised for all key metrics and that financial systems are adapted to report cost classifications consistently. Given that the GSF explicitly aligns behind national definitions for key indicators this would require the double measurement of many outcome indicators, and far more emphasis on measuring impact. The GSF systems are more readily suited to conducting, at least initially, internal

VFM metrics to inform judgements of technical efficiency over time or between SGs within a country. **Organisations should carefully consider what they wish to use the analysis for. Producing internally valid results (i.e. those that can be used for comparisons within a programme or for the programme across time) is likely to require fewer changes to monitoring systems than producing externally valid results. Results that can be compared across sectors are likely to require the measurement of impact-level indicators using reliable evaluation methodologies.**

Sanitation programming presents a specific conceptual challenge to assessing VFM: namely that single activities, such as CLTS, by design lead to many outcomes (latrine adoption, ODF environments, behaviour change). Therefore in a VFM analysis a single source of expenditure must act as the numerator for multiple outcomes. The key GSF results, as articulated in the global progress report,²¹ are all highly correlated, and consequently VFM analysis took each of these separate results to be a function of the same expenditure. This is a key reason why the VFM indicators should not be treated as, or quoted as, discrete unit costs.

As part of this work, the VFM team examined some of the existing survey data (baseline and mid-line) to assess their suitability for future analysis. The team found that in most cases the indicators used at baseline and mid-line differed in their measurement to the degree to which a comparison was not possible. This is a huffed missed opportunity as surveys provide a key opportunity to estimate: hard to measure indicators such as hygiene behaviour change; slippage rates; and validate assumptions used in the monitoring data. All of these survey data may be used in conjunction with the monitoring data to more accurately assess sustained actual outcomes.

The GSF make considerable investments in sector capacity (for example, through knowledge generation and training SGs) and advocacy. While it is possible to map the financial flows to these activities, monitoring the outcomes and producing VFM indicators is more challenging. Assessing the effectiveness of these investments requires much further consideration and a different methodological approach, such as contribution analysis. Such analyses rely on a clear theory of change (with the assumptions explicitly stated), which may either be validated or challenged by the results of the analysis. VFM analyses can be applied to qualitative indicators, as a means to report the kind of change, or result, in descriptive terms, that a programme has achieved in relation to an associated cost. A descriptive VFM analysis of sector advocacy and capacity building investments can be found within the detailed country case studies from Cambodia and Madagascar. This analysis was limited by the absence of formal reporting against the short-, medium-, or long-term objectives of advocacy activities. These types of advocacy and capacity building activities, where it is more difficult to show attribution and the relationship between results and resources is more complex, may be better suited to a strong evaluation that explores the relationship between results and costs and that makes a judgement about whether the intervention was VFM.

5.4 Recommendations on cost categories and future VFM analyses

An overarching objective of this study was to recommend a better cost classification structure and aggregation procedure to facilitate future VFM analyses, and to standardise this for cross-sector benchmarking.

The cost classifications applied in this study build on the typology developed by the WASHCost project (Fonseca *et al.*, 2011); and the VFM-specific costing framework developed as part of the OPM-managed VFM-WASH project. The WASHCost classifications represent the sector's most well defined cost typology and the system used by the GSF should be consistent with the WASHCost conceptualisation and definition of costs.

²¹ 'People with improved toilets', 'People live in ODF environments' and 'People with hand-washing facilities'.

The WASHCost framework includes not only the direct cost of maintaining infrastructure assets, but also the associated, indirect, costs of supporting service delivery, such as those incurred as part of district- and national-level administration, planning, and policy-making. Taken together, these are conceptualised as the full ‘life-cycle costs’ of maintaining a WASH service. Table 8 outlines the core WASHCost typology.

Table 8 WASHCost life-cycle cost components

Cost components		Definition
CapEx. The costs of providing a service where there was none before; or of substantially increasing the level of services.	CapEx – hardware	Capital invested in constructing or purchasing fixed assets, such as concrete structures, latrines, pumps and pipes to develop or extend a service.
	CapEx – software	The costs of one-off work with stakeholders prior to construction or implementation, extension, enhancement and augmentation (including costs of one-off capacity building).
Recurrent expenditure. Service maintenance expenditure associated with sustaining an existing service at its intended level.	Operational expenditure	Operating and minor maintenance expenditure; typically regular expenditure such as labour, fuel, chemicals, materials.
	Capital maintenance expenditure	Asset renewal and replacement costs; occasional and ‘lumpy’ costs of activities that seek to restore the functionality of a system, such as replacing pump rods or foot valves in hand pumps or a diesel generator in motorised systems.
	Cost of capital	Cost of interest payments on micro-finance and loans used to finance CapEx. Cost of any returns to shareholders by small-scale private providers.
	Expenditure on direct support	Expenditure on support activities for service providers, users or user groups.
	Expenditure on indirect support	Expenditure on macro-level support, including planning and policy-making, support to decentralised service authorities or local government.

Source: Fonseca *et al.*, 2011

The WASHCost framework was not designed specifically for VFM analyses. Thus, framework developed under the VFM-WASH project aggregated the WASHCost classifications into three bandings categorised by types of inputs, distinguishing between hardware, direct software support and indirect programme support costs (Table 9). These aggregations more readily allow for summary data to be presented, as well as acting as a sufficient level of detail for key VFM calculations.

Table 9 Programme cost categories

Type of costs	Definitions
Direct hardware	Initial capital costs and associated construction-related services to put new services in place. Hardware investments include activities such as drilling, installing pumps and pipe systems, building latrines etc., the costs of equipment and labour costs, and the one-off associated 'software' costs for detailed design studies and construction supervision.
Direct software support	Direct support activities associated with community mobilisation related to the outputs: <ul style="list-style-type: none"> • CLTS campaigns; mobilisation, hygiene promotion; and • support and training to service providers.
Indirect programme support	Cost of planning and implementing the activities of the programme. This includes the salaries of experts and programme support staff, as well as consultancies contracts, M&E studies and audits, training of technicians and goods (IT, equipment, etc.). The costs of programme staff or consultants directly engaged with hardware installation or direct software support would be allocated to those categories. In some cases, this may mean estimating the proportion of staff time spent on such activities.

Source: Authors.

Both the WASHCost framework and the VFM-WASH framework lack the detail necessary to assess software-based sanitation programmes. To that end the authors have developed a typology that adequately captures the key dimensions of programme expenditure to calculate VFM indicators whilst remaining conceptually consistent with both the WASHCost and VFM-WASH frameworks. Key additions to the cost typology include classifying the institutional costs of the Secretariat and separating out CapEx on software-related activities from those related to hardware. Table 10 summarises the cost classifications used. This is a tailored cost typology that accounts for costs across the entire programme and is interoperable with other classification systems.

Establishing a framework for describing costs is only half the challenge – core to the use of the framework is the ability to readily allocate costs to cost classifications. Financial systems must be adapted to allow expenditure falling in separate cost classifications to be recorded as such. As noted in Section 5.2 costs are currently aggregated differently between SGs and EAs.

Developing country-specific cost typologies that more accurately reflect the programme design will facilitate a more detailed analysis. The framework developed as part of this study is flexible enough for this to be done with relative ease. The coding system developed and used for analysing the financial data in this study represents one example of a more detailed typology. Activities in each country will always be slightly different so common coding will need to be done with care to ensure the codes capture the diversity of implementation modalities. The assignment of cost classification to activity lines is not necessarily fixed and will depend on the indicators being analysed in the VFM analysis. To this end the development of codes also needs to be consistent with the results framework and the description of causal relationships therein.

Table 10 Cost classifications developed for this study

Type of expenditure	Definition	Example of GSF expenditures included
CapEx (software)	Expenditure associated with the implementation of programme activities – most often associated with SG activities but also including EA implementation of programme activities.	Activity expenditure (e.g. community triggering, post-triggering, etc.)
		SG programme staff time
		Cross-cutting expenditure from the programme grant envelope
Direct programme support	<p>This category captures the expenditure associated with improving the quality of programme implementation and facilitating programme delivery within the country. This captures all support that is technical in nature, as opposed to administrative.</p> <p>In addition, direct support includes administrative and non-programme expenditure incurred by SGs and the EA, as these are taken to be an extended function of the activity cost.</p> <p>This also includes a proportion of overall costs of global GSF programme staff. This proportion is based on the assumed amount of time these staff members spend actively advising, supporting and collaborating with EAs and SGs on improving a programme's technical approach, as opposed to time spent on overall programme management and administration.</p>	SG office and administration
		EA management fee and operational expenditure
		GSF technical support
Indirect programme support	<p>Expenditure associated with managing and administrating the global GSF programmes. This includes all the costs of non-programme staff within the secretariat, the UNOPS hosting fee, and a proportion of the overall costs of programme staff.</p> <p>Indirect support also includes expenditure related to the overall strategic direction and oversight of the GSF global programme, such as the cost of the advisory committee, organisational development, and global learning and sharing.</p>	CPM cost
		GSF secretariat administration
		UNOPS host agency fee
		Additional UNOPS staff time
		Global learning, sharing, and organisational development

Source: Authors

5.5 Conclusion

This analysis provides a strong basis from which the GSF may begin to track VFM within their mature country programmes. Drawing on existing monitoring data this analysis was comparatively less resource intensive than other evaluation methods and other methods of economic evaluation, though this does result in the findings having limited comparability with other sanitation programmes.

This report has demonstrated the potential of analysing and tracking VFM indicators within GSF country programmes and has provided recommendations relevant to both GSF and other organisations seeking to deploy this analysis to improve their understanding of WASH programming. The perspective from which an analysis is conducted and the purpose of any such analysis are important considerations. Analyses seeking to be used for programme monitoring and improvement (technical efficiency) only are likely to be less resource intensive and to carry more analytical power than those which seek to establish figures that can be used to compare programmes across country and sectors (allocative efficiency). In devoting organisational resources to this type of monitoring it is important to consider how the results will be used, and consequently what threshold of evidence is required.

Annex A Methodology details

Table 11 provides details of the codes used to aggregate expenditure details by activity and Table 12 maps which of these codes were used for calculating specific indicators.

Table 11 Activity codes used in the analyses

Cambodia	Madagascar	Desk review countries
Community triggering	Community triggering	Advocacy
Post-triggering follow-up	Post-triggering follow-up and validation	Community triggering
School WASH	Hygiene promotion (BCC)	Post-triggering follow-up
Community hygiene promotion	Hygiene promotion (municipal)	District planning
Cross-cutting/other	Follow-up on hygiene promotion (BCC)	Hygiene and sanitation
SG programme staff time	Hygiene promotion follow-up (municipal)	Knowledge management &
SG overheads	Cross-cutting	Promote equity and inclusion
	Institutional triggering	Promotion of private sector
	Knowledge management and sharing	Sanitation marketing
	Sanitation marketing	School triggering
	Training community organisations	SG overheads
	Working with credit unions	Cross-cutting
	Staff (programme and non-programme)	M&E activities
	Office overheads	

Table 12 Calculations map for common indicators

	Inputs	Outputs	Assumed outcomes			
Community triggering	Villages triggered	Communities declared ODF	People lining in ODF environments	People washing their hands with soap	People using a basic latrine	People using a JMP improved latrine
Post-triggering follow-up	Villages re-triggered					
Hygiene and sanitation promotion	-	-				
School WASH	School promotion sessions conducted	-				
Knowledge management and sharing	-	-				
Promote equity and inclusion	-	-				
Promotion of private sector investment	-	-				
Sanitation marketing	-	-				
Advocacy	-	-				
District planning	-	-				
	Economy		Cost-efficiency			

Annex B Overview of the programmes discussed in this report

Overview of the Accelerated Sanitation and Hygiene programme in Malawi

In 2010 GSF awarded Plan International the EA contract for Malawi to implement a CLTS approach in targeted districts in Malawi. The Accelerated Sanitation and Hygiene (ASH) programme was intended to support Malawi to attain national targets under the second Malawi Growth and Development Strategy (MGDS II) and the Millennium Development Goals. The key outcomes of this programme are:

1. a decrease in open defecation, increased use of improved sanitation and promotion of the use of safe hygiene practices in rural districts with the lowest baseline and investment;
2. sanitation and hygiene promotion campaigns;
3. capacity development of local district government, civil society, and private sector;
4. support in planning of implementation of sanitation and hygiene promotion activities at district level; and
5. documenting of lessons learnt from GSF programmes, which will contribute to improved programming for coordination and scaling up.

It was expected that over a five-year implementation period (2011–2016) the programme activities would reach over 1 million people across 3,600 communities in six districts selected due to high levels of open defecation and because no other major donors were operational in them.

EA staff reported that community triggering sessions are largely led by government employees who are not directly funded²² by the ASH programme; these same people lead follow-up and monitoring and verification processes. The time costs for a government employee per village are estimated to be: three hours per village per triggering; four to eight hours on follow-up visits; and between four and eight days on verification. It is reported that at least three staff government staff members undertake each of these activities. Similarly routine monitoring data is collected by District Health Extension Workers, who are paid government employees. This equates to approximately 123,000 person hours of labour across the entire programme, which is not captured as a 'cost' incurred by the programme. As opposed to other GSF programmes the programme in Malawi works much more through government systems and employees, and consequently the costs of activity costs as reported by SGs are lower than the true costs of the activities.

Programme profile (as at Q3 2015)	
Dates of the programme	Dec 2010 – present
Commitments as at 31 Dec 2014	\$6.55 million
Disbursements as at 31 Dec 2014	\$5.69 million
EA	Plan Malawi
CPM	PWC
Number of SGs	11
Programme areas and scale	Six rural districts

²² SGs cover some facilitator expenditures, such as lunch, and daily subsistence costs, but they do not cover government staff salaries.

Overview of the GSF programme in Nepal

Established in 2010 UN-HABITAT were the recipients of a \$13.8 million dollar grant. Due to delays relating to contracting the programme did not commence implementation until early 2012. The Nepalese government has the ambitious target of achieving universal sanitation coverage by 2017 and the intermediate target of 53% coverage by 2015.

Implementation in Nepal takes place within the institutional architecture established by the National Sanitation and Hygiene Master Plan. The National Hygiene and Sanitation Coordinating Committee directs the efforts of the GSF programmes, and closer to the ground implementation is coordinated through Village Development Committees. Implementation takes place predominantly in Terai (lowland valleys) and mountainous areas.

UN-HABITAT have awarded 38 sub-grants to 18 partners (predominantly NGOs). In the first round of funding each SG was awarded a single thematic area to work on. In the second round of funding this is to change, with SGs working across programme areas.

The April 2015 earthquake hit five of the GSF programme districts very badly. It is estimated that 15% to 95%²³ of sanitation infrastructure was destroyed in these regions. This makes a VFM analysis after this period largely meaningless and as such the analysis was limited to before the earthquake. Any future analysis would require accurate information on the extent of the damage and the contribution of the recovery effort. It is reported that since the quake many relief organisations have been working in GSF districts.

Programme profile (as at Q3 2015)	
Dates of the programme	Oct 2010 – present
Commitments as at 31 Dec 2014	\$13.83 million
Disbursements as at 31 Dec 2014	\$8.00 million
EA	UN-Habitat
CPM	CSC & Co.
Number of SGs (as at Dec 2014)	14
Programme areas and scale	Six districts (Phase 1) and nine districts (Phase 2)

Overview of the GSF programme in Senegal

The Senegal programme is the only programme covered by the desk reviews to be managed by a national NGO (AGETIP). As at December 2014 the GSF had committed \$6.16 million to the programme. At the programme's outset CLTS was a nascent approach in Senegal, with the majority of programming focused towards subsidy-based approaches.

²³ Estimate by Sudha Shrestha.

The SGs in Senegal are a mix of NGOs and private sector agencies. As with other countries the SGs had mixed levels of experience of WASH: some organisations having a strong track record and others not having worked in the sector before.

As at December 2014, 800 villages had been triggered; 360 of which have become ODF. Progress has accelerated during the course of the programme: 191 of the 360 ODF declarations were made in 2014 alone.

Implementation in Senegal is done through a large network of motivated ‘relays’: these people facilitate discussions on hygiene and sanitation around and beyond triggering. They are drawn from people living within the community. They receive support from the SGs and a financial incentive. In return for this they are responsible for motivating the community and monitoring the programme in their area.

Programme profile (as at Q3 2015)	
Dates of the programme	May 2010 – present
Commitments as at 31 Dec 2014	\$6.16 million
Disbursements as at 31 Dec 2014	\$4.32 million
EA	AGETIP
CPM	PWC
Number of SGs	11
Programme areas and scale	Five provinces in Senegal

Overview of the GSF programme in India

In 2010 the GSF awarded NR Management Consultants a contract to act as the executing agency in India. As at December 2014 \$6.22 million had been committed to the programme. Of the country programmes covered by this VFM analysis NR Management Consultants are unique, being the only company to be awarded a contract as an EA.

The programme is also unique as it takes place within the context of a large centrally funded subsidy programme – the SBM (previously known as the Nirmal Bharat Abhiyan 2012–14 and the Total Sanitation Campaign (1999–2012). SBM provides a hardware subsidy of 12,000 Indian rupees (INR) per household (approximately \$180), as well as subsidies for school latrines and community sanitary complexes. From this total household subsidy amount a proportion may also be spent on information, education and communication materials and behaviour change communication (BCC) activities.

As a result, the programme in India is focused more on hygiene promotion and the leveraging of government resources through triggering. There is also a school component and a component focused on building institutional capacity to deliver services.

Programme profile (as at Q3 2015)	
Dates of the programme	Dec 2010 – present
Commitments as at 31 Dec 2014	\$6.22 million
Disbursements as at 31 Dec 2014	\$5.03 million
EA	NR Management Consultants
CPM	KPMG
Number of SGs	18
Programme areas and scale	Three states

Overview of the CR-SHIP I programme in Cambodia

The CR-SHIP I targets 200,000 households in 2,000 villages from 53 districts in five provinces that have less than 50% sanitation coverage. The follow-up CR-SHIP II programme will target roughly 261,000 households in about 1,500 rural villages in five additional provinces. CR-SHIP's implementation is split over five components. These are: i) sanitation and hygiene promotion; ii) capacity development; iii) advocacy; iv) M&E; and v) sector coordination.

These five components seek to meet four broad outcomes (as per the CR-SHIP results framework): 1) people achieve better hygiene outcomes through changed sanitation behaviours; 2) capacity is created for the sustainable spread of improved sanitation and hygiene; 3) existing and new government and support agencies put more resources into sanitation and hygiene work; and 4) successful and innovative approaches in sanitation and hygiene are identified, proved and spread.

All grants to SGs are recorded under programme component 1. The programme uses two broad approaches (CLTS with hygiene promotion, and sanitation marketing), although the CLTS and hygiene promotion component is by far the largest.

There were three rounds of contracting for SGs. The first round focused only on CLTS and hygiene promotion. The second round was for sanitation marketing. The third round contracted additional CLTS and hygiene promotion NGOs. SGs are a mix of local NGOs (LNGOs) and international NGOs (INGOs). With the exception of the Netherlands Development Organisation (SNV), all sanitation and hygiene promotion SGs were LNGOs. Within these LNGOs some had previous experience in WASH programming but for many this was their first large sanitation programme. All sanitation marketing SGs were INGOs. SNV are by far and away the largest of the SGs: to date they account for 41% of SG expenditure, though they no longer have a live contract as part of CR-SHIP I.

Programme profile (as at Q3 2015)	
Dates of the programme	March 2011 – present
Commitments as at 31 Dec 2014	\$12.5 million

Disbursements as at 31 Dec 2014	\$6.2 million
EA	Plan
CPM	PWC
Number of SGs	14
Programme areas and scale	2,000 villages

Overview of the *Fonds d'Appui pour l'Assainissement* programme in Madagascar

The *Fonds d'Appui pour l'Assainissement* (FAA) sanitation and hygiene programme has steadily grown in size and scope since the project kicked off in March 2010. As at 2013 the FAA operated in 14 out of the 22 regions in Madagascar, but after additional grant funding in 2014 it now achieves nation-wide coverage. Since 2010 the executing agency Medical Care Development International (MCDI) has awarded 47 small and large grants to some 34 SGs. These grants have been awarded in various stepped phases, with certain SGs receiving multiple grants over multiple years as a result of good performance.

The implementation of the programme at SG level is primarily focused on **Outcome 1** of the programme: achieving sanitation behaviour change through CLTS (see Box 1 below). In addition to direct SG activities, MCDI implements a range of cross-cutting activities which address all four programme outcomes. These activities include the support and capacity building of SGs and of other sector actors, advocacy and communications, learning and knowledge sharing, and M&E.

Programme profile (as at Q3 2015)	
Dates of the programme	March 2010 – present
Commitments as at 31 Dec 2014	\$12.9 million
Disbursements as at 31 Dec 2014	\$8.9 million
EA	MCDI
CPM	FTHM consulting
Number of SGs	34
Programme areas and scale	14 regions

Comparator (non-GSF) programmes

Overview of the PRONASAR Common Fund programme – Mozambique

Overview: National Water Supply and Sanitation Programme (PRONASAR) was a government-led programme to improve rural WASH in Mozambique, which aimed to provide improved access to improved water and sanitation facilities to 7.4 million rural inhabitants by 2015. The first phase of

PRONASAR Common Fund (CF) was implemented by the government between January 2010 and March 2015. By the end of 2014, when the analysis took place, US\$60.6 million had been disbursed by donors and the Government of Mozambique to the PRONASAR CF, from an initial budget of US\$65 million.

Scope of the VFM analysis. The VFM analysis was carried out while activities were still being implemented. It focused on investments made between 2011 and 2014. It was not possible to separate out DFID's specific contribution from other expenditure going through the CF, as they are not separately tracked.

Overview of the SHAWN-I programme – Nigeria

Overview: The Sanitation, Hygiene and Water in Nigeria (SHAWN) programme was funded by DFID and implemented by UNICEF Nigeria, and ran from 2010 to 2013. It aimed to accelerate progress in latrine usage, adoption of improved hand-washing practices and consumption of safe water for 2.3 million people. It had four main components: sanitation and hygiene promotion; water; deployment of resources at state and local government levels to enable scaling up of state-wide access to WASH services; and capacity building of government staff. It initially covered 12 Local Government Authorities (LGAs), with eight more added in December 2011, making a total of 20 LGAs.

SHAWN-I disbursed about US\$55.3 million between March 2010 and November 2013, of which US\$45.7 million came from DFID.

Scope of the VFM analysis. The VFM analysis covered the investments made during the whole duration of SHAWN-I (2010–2013). It was not possible to track VFM variations between years. The VFM analysis focused on the first two components of the SHAWN-I programme: sanitation and hygiene on the one hand, and water on the other.

SHEWA-B – Bangladesh

Overview: Sanitation, Hygiene Education and Water Supply in Bangladesh (SHEWA-B) programme was a collaboration between the Government of Bangladesh, DFID and UNICEF. It was implemented over six years from 2007 to 2013. The goal was to reduce diarrhoeal disease and acute respiratory infection (the top two causes of post-natal under-five deaths in Bangladesh). SHEWA-B had a strong programmatic focus on sanitation and hygiene behaviour change. It directly targeted 21.4 million people with hygiene promotion within the selected intervention areas, and indirectly targeted an additional 10 million people outside intervention areas, bringing the total number of targeted beneficiaries to 31.4 million.

Total programme expenditure was US\$96 million, of which DFID contributed US\$72 million, the Department of Public Health Engineering provided US\$16.3 million in direct contributions plus US\$ 2 million in staff costs, and UNICEF contributed US\$2.5 million. In addition, the programme leveraged US\$66 million in household contributions.

Scope of the VFM analysis. The VFM analysis was carried out after the programme had formally ended in 2013 and covered the six years of implementation (2007–2013).

Overview of the Zambia Sanitation and Hygiene Programme – Zambia

Overview: The Zambia Sanitation and Hygiene Programme (ZSHP) was funded by DFID and was implemented by UNICEF-Zambia between November 2011 and March 2016. It aimed to accelerate progress in latrine use, and improve hand-washing practices by 3 million people and 500,000 school

children in 1,000 schools in 67 districts. The ZSHP encompassed several activities, including: (1) Community approaches to total sanitation; (2) institutional sanitation; (3) a communication and hygiene promotion strategy; and (4) sanitation marketing.

The total programme budget was US\$32 million, of which US\$ 21 million had been spent up to the end of 2014. DFID contributed a total of US\$29 million over the life of the programme.

Scope of the VFM analysis. The VFM analysis was carried out while the programme was still being implemented. It covered the period from 2012 to 2014 and mainly covers community approaches to total sanitation and institutional sanitation, as these are the main programme components.²⁴

²⁴ The institutional sanitation component also covers the first half of 2015.

Annex C VFM indicators

Malawi

	Activity	SG programme staff time	Cross-cutting expenditure	SG office and administration	EA management fee + operational expenditure	GSF Secretariat technical support	GSF Secretariat administration	CPM expenditure	UNOPS host agency fee	Additional UNOPS staff time	Global learning, sharing, and organisational development	Total
Communities triggered	\$137	\$96	-	-	-	-	-	-	-	-	-	\$234
Communities re-triggered	-	-	-	-	-	-	-	-	-	-	-	-
Schools triggered	\$537	\$377	-	-	-	-	-	-	-	-	-	\$914
ODF communities	\$466	\$327	\$161	\$322	\$216	\$139	\$138	\$112	\$185	\$39	\$89	\$2,194
People living in ODF environments	\$2.7	\$1.9	\$0.9	\$1.8	\$1.2	\$1	\$0.8	\$0.6	\$1.1	\$0.2	\$0.5	\$12.5
Number of people adopting hand-washing practices with soap and water at critical times	\$4.2	\$3.0	\$1.5	\$2.9	\$2.0	\$1	\$1.3	\$1.0	\$1.7	\$0.4	\$0.8	\$19.9
Number of people changing from open to fixed-place defecation	\$1.2	\$0.8	\$0.4	\$0.8	\$0.5	\$0.0	\$0.3	\$0.3	\$0.5	\$0.1	\$0.2	\$5.5
Number of people changing to using an improved household sanitation facility (JMP definition)	\$7.9	\$5.5	\$2.7	\$5.4	\$3.6	\$0.0	\$2.3	\$1.9	\$3.1	\$0.7	\$1.5	\$37.0

Senegal

	Activity	SG programme staff time	Cross-cutting expenditure	SG office and administration	EA management fee + operational expenditure	GSF Secretariat technical support	GSF Secretariat administration	CPM expenditure	UNOPS host agency fee	Additional UNOPS staff time	Global learning, sharing, and organisational development	Total
Communities triggered	\$863	\$889	-	-	-	-	-	-	-	-	-	\$1,752
Communities re-triggered	-	-	-	-	-	-	-	-	-	-	-	-
Schools triggered	-	-	-	-	-	-	-	-	-	-	-	-
ODF communities	\$1,516	\$1,562	\$319	\$213	\$888	\$433	\$357	\$251	\$478	\$100	\$433	\$6,550
People living in ODF environments	\$4.1	\$4.3	\$0.9	\$0.9	\$2.4	\$1.2	\$1.0	\$0.7	\$1.3	\$0.3	\$1.2	\$18.2
Number of people adopting hand-washing practices with soap and water at critical times	\$2.7	\$2.8	\$0.6	\$0.4	\$1.6	\$0.8	\$0.6	\$0.5	\$0.9	\$0.2	\$0.8	\$11.7
Number of people changing from open to fixed-place defecation	\$4.0	\$4.1	\$0.8	\$0.6	\$2.3	\$1.1	\$0.9	\$0.7	\$1.3	\$0.3	\$1.1	\$17.3
Number of people changing to using an improved household sanitation facility (JMP definition)	\$10.0	\$10.3	\$2.1	\$1.4	\$5.9	\$2.9	\$2.4	\$1.7	\$3.2	\$0.7	\$2.9	\$43.4

India

Activity	SG programme staff time	Cross-cutting expenditure	SG office and administration	EA management fee + operational expenditure	GSF Secretariat technical support	GSF Secretariat administration	CPM expenditure	UNOPS host agency fee	Additional UNOPS staff time	Global learning, sharing, and organisational development	Expenditure claimed but not allocated to an activity	Total	
Communities triggered	\$27	\$9	-	-	-	-	-	-	-	-	\$30	\$66	
Communities re-triggered	\$4	\$5	-	-	-	-	-	-	-	-	\$3	\$12	
Schools triggered	\$19	\$21	-	-	-	-	-	-	-	-	\$21	\$61	
ODF communities	\$241	\$271	\$80	\$196	\$353	\$359	\$256	\$83	\$342	\$70	\$164	\$263	\$2,678
People living in ODF environments	\$0.3	\$0.4	\$0.1	\$0.3	\$0.5	\$0.5	\$0.4	\$0.1	\$0.5	\$0.1	\$0.2	\$0.4	\$3.8
Number of people adopting hand-washing practices with soap and water at critical times	\$0.2	\$0.2	\$0.1	\$0.2	\$0.3	\$0.3	\$0.2	\$0.1	\$0.3	\$0.1	\$0.1	\$0.2	\$2.1
Number of people changing from open to fixed-place defecation	\$0.1	\$0.1	\$0.0	\$0.1	\$0.2	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.1	\$0.1	\$1.1
Number of people changing to using an improved household sanitation facility (JMP definition)	\$0.4	\$0.5	\$0.1	\$0.3	\$0.6	\$0.6	\$0.4	\$0.1	\$0.6	\$0.1	\$0.3	\$0.4	\$4.6

Nepal

	Activity	SG programme staff time	Cross-cutting expenditure	SG office and administration	EA management fee + operational expenditure	GSF Secretariat technical support	GSF Secretariat administration	CPM expenditure	UNOPS host agency fee	Additional UNOPS staff time	Global learning, sharing, and organisational development	Total
Communities triggered	\$147	\$21	-	-	-	-	-	-	-	-	-	\$168
Communities re-triggered	-	-	-	-	-	-	-	-	-	-	-	-
Schools triggered	\$39	\$8	-	-	-	-	-	-	-	-	-	\$47
ODF communities	\$181	\$26	\$35	\$13	\$46	\$47	\$54	\$17	\$72	\$15	\$34	\$538
People living in ODF environments	\$2.7	\$0.4	\$0.5	\$0.2	\$0.7	\$0.7	\$0.8	\$0.2	\$1.1	\$0.2	\$0.5	\$8.0
Number of people adopting hand-washing practices with soap and water at critical times	\$3.0	\$0.4	\$0.6	\$0.2	\$0.8	\$0.8	\$0.9	\$0.3	\$1.2	\$0.2	\$0.6	\$8.9
Number of people changing from open to fixed-place defecation	\$2.6	\$0.4	\$0.5	\$0.2	\$0.7	\$0.7	\$0.8	\$0.2	\$1.1	\$0.2	\$0.5	\$7.9
Number of people changing to using an improved household sanitation facility (JMP definition)	\$3.2	\$0.5	\$0.6	\$0.2	\$0.8	\$0.8	\$1.0	\$0.3	\$1.3	\$0.3	\$0.6	\$9.7

Cambodia

Activity	SG programme staff time	Cross-cutting expenditure	SG office and administration	EA management fee + operational expenditure	GSF Secretariat technical support	GSF Secretariat administration	CPM expenditure	UNOPS host agency fee	Additional UNOPS staff time	Global learning, sharing, and organisational development	Total	
Communities triggered	\$88.7	\$84.2	-	-	-	-	-	-	-	-	\$173	
Communities re-triggered	-	-	-	-	-	-	-	-	-	-		
Schools triggered	\$49.5	\$76.3	-	-	-	-	-	-	-	-	\$126	
ODF communities	\$810.4	\$773.2	\$94.4	\$673.8	\$645.6	\$341.2	\$231.3	\$159.9	\$430.1	\$89.8	\$206.0	\$4,456
People living in ODF environments	\$3.2	\$3.0	\$0.4	\$2.6	\$2.5	\$1.3	\$0.9	\$0.6	\$1.7	\$0.4	\$0.8	\$17
Number of people adopting hand-washing practices with soap and water at critical times	\$4.4	\$4.2	\$0.5	\$3.7	\$3.5	\$1.9	\$1.3	\$0.9	\$2.4	\$0.5	\$1.1	\$24
Number of people changing from open to fixed-place defecation	-	-	-	-	-	-	-	-	-	-	-	
Number of people changing to using an improved household sanitation facility (JMP definition)	\$3.5	\$3.3	\$0.4	\$2.9	\$2.8	\$1.5	\$1.0	\$0.7	\$1.8	\$0.4	\$0.9	\$19

Madagascar

	Activity	SG programme staff time	Cross-cutting expenditure	SG office and administration	EA management fee + operational expenditure	GSF Secretariat technical support	GSF Secretariat administration	CPM expenditure	UNOPS host agency fee	Additional UNOPS staff time	Global learning, sharing, and organisational development	Total
Communities triggered	\$18.1			\$14.2								\$32
Communities re-triggered												
Schools triggered												
ODF communities	\$145.1			\$113.4	\$60.0	\$35.0	\$28.2	\$8.7	\$37.7	\$7.9	\$18.1	\$454
People living in ODF environments	\$2.5			\$1.9	\$1.0	\$0.6	\$0.5	\$0.1	\$0.6	\$0.1	\$0.3	\$8
Number of people adopting hand-washing practices with soap and water at critical times	\$1.2			\$0.9	\$0.5	\$0.3	\$0.2	\$0.1	\$0.3	\$0.1	\$0.1	\$4
Number of people changing from open to fixed-place defecation												
Number of people changing to using an improved household sanitation facility (JMP definition)	\$1.2			\$1.0	\$0.5	\$0.3	\$0.2	\$0.1	\$0.3	\$0.1	\$0.2	\$4

Summary of VFM indicators for sanitation derived from the VFM-WASH study (all values in USD)

VFM indicator	Type of expenditure	SHEWA-B programme Bangladesh (2008 – 2014)	PRONASAR CF programme Mozambique (2011 – 2014)	SHAWN-I Nigeria (2010 – 2013)	ZSHP Zambia (2012 – 2014)
Cost per community triggered by CLTS	Total (CapEx software only)		2,988	1,338	
Cost per community certified / verified as ODF	Capital hardware				142
	Capital software		7,431	2,732	1,228
	Other direct and indirect programme costs		4,510	2,936	215
	Total		11,941	5,668	1,548
Cost per person living in a certified ODF community (programme only)	Total	37		17	
Cost per new sanitation facility construction (programme only)	Total	20 (including hardware)			
Cost per new sanitation facility construction (incl. programme and household contributions)	Total	68			
Cost per person who gained access to a sanitation facility (programme only)	Hardware	0.1			0.3
	Capital software	2.5	10.4	5.5	2.6
	Other direct and indirect programme costs	1.9	3.6	5.1	0.5
	Total	4.5	14.0	10.6	3.4
Total cost per person who gained access to a sanitation facility (incl. programme and household contributions)		15.4	14.7		6.4-18.4