Presentation from

2015 World Water Week in Stockholm

www.worldwaterweek.org

VFM-WASH: Value for Money and Sustainability in WASH

How can VFM analysis be used in WASH?

Structure

1. What is VFM analysis?
2. Findings from VFM analysis of six DFID-funded programmes
3. How to use VFM analysis going forward

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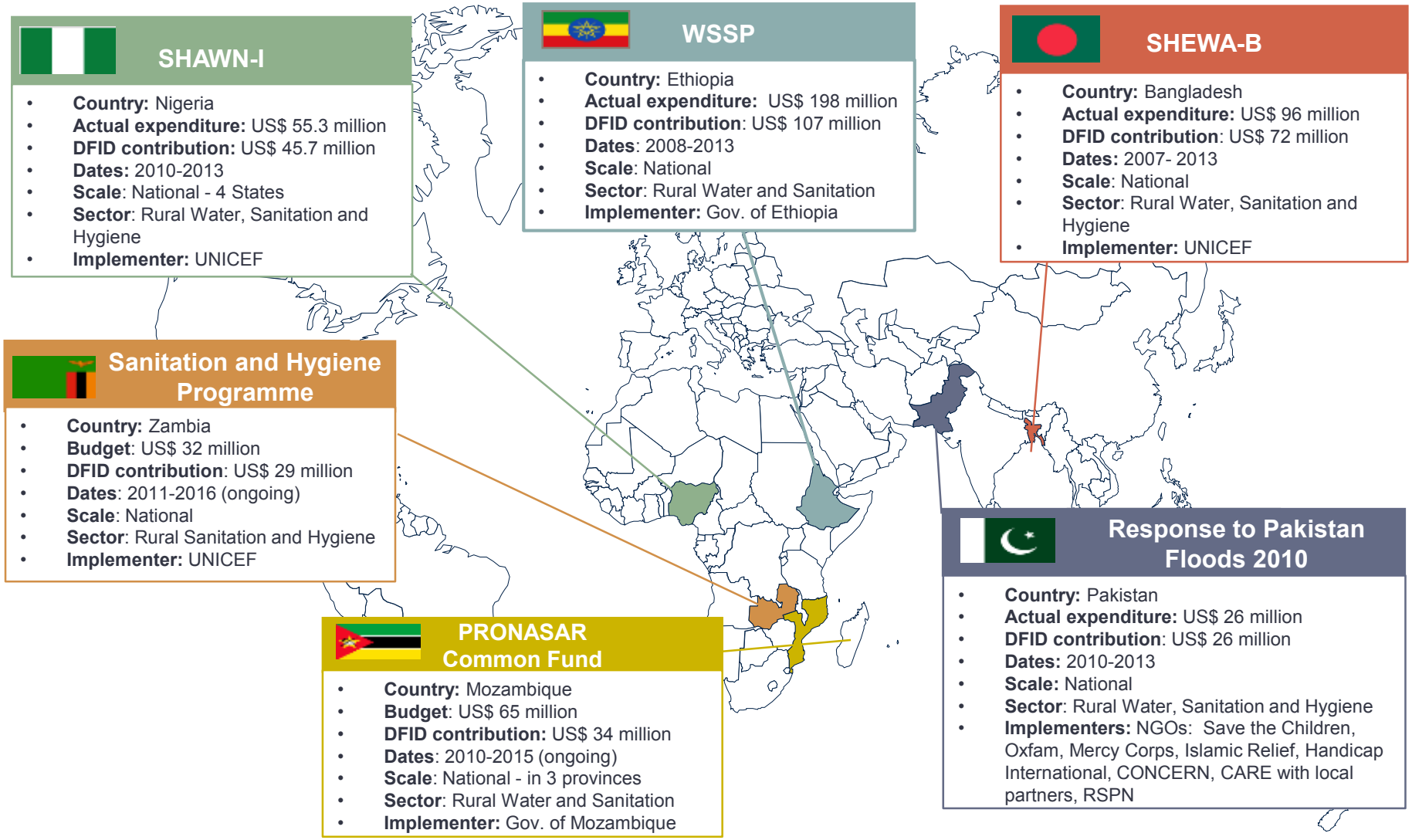
VFM-WASH research project

- **Objective 1: identify how VFM and sustainability can be improved in DFID-funded WASH programmes using operational research**
  - Developed a methodology to assess VFM of WASH investments
  - Used the methodology in DFID WASH programmes in six countries: Bangladesh, Ethiopia, Mozambique, Nigeria, Pakistan and Zambia
  - Captured findings and learning in a “how-to note” on VFM analysis of WASH programmes, a synthesis paper and country reports / briefs

- **Country level activities**
  - Interviewed programme stakeholders and sector actors, collected programme data and field visits
  - Discussed results remotely with programme stakeholders
  - Identified comparators and collected data from them
  - Presented results and recommendations to sector stakeholders

Overview of DFID-funded programmes



SHAWN-I

- **Country:** Nigeria
- **Actual expenditure:** US$ 55.3 million
- **DFID contribution:** US$ 45.7 million
- **Dates:** 2010-2013
- **Scale**: National - 4 States
- **Sector**: Rural Water, Sanitation and Hygiene
- **Implementer:** UNICEF

WSSP

- **Country:** Ethiopia
- **Actual expenditure:** US$ 198 million
- **DFID contribution**: US$ 107 million
- **Dates**: 2008-2013
- **Scale**: National
- **Sector**: Rural Water and Sanitation
- **Implementer:** Gov. of Ethiopia

SHEWA-B

- **Country:** Bangladesh
- **Actual expenditure:** US$ 96 million
- **DFID contribution**: US$ 72 million
- **Dates:** 2007- 2013
- **Scale**: National
- **Sector**: Rural Water, Sanitation and Hygiene
- **Implementer:** UNICEF

Sanitation and Hygiene Programme

- **Country:** Zambia
- **Budget**: US$ 32 million
- **DFID contribution**: US$ 29 million
- **Dates**: 2011-2016 (ongoing)
- **Scale**: National
- **Sector**: Rural Sanitation and Hygiene
- **Implementer:** UNICEF

PRONASAR Common Fund

- **Country:** Mozambique
- **Budget**: US$ 65 million
- **DFID contribution:** US$ 34 million
- **Dates**: 2010-2015 (ongoing)
- **Scale**: National - in 3 provinces
- **Sector**: Rural Water and Sanitation
- **Implementer:** Gov. of Mozambique

Response to Pakistan Floods 2010

- **Country:** Pakistan
- **Actual expenditure:** US$ 26 million
- **DFID contribution**: US$ 26 million
- **Dates:** 2010-2013
- **Scale:** National
- **Sector**: Rural Water, Sanitation and Hygiene
- **Implementers:** NGOs: Save the Children, Oxfam, Mercy Corps, Islamic Relief, Handicap International, CONCERN, CARE with local partners, RSPN

What is Value For Money?

Making the best use of available resources to achieve sustained development outcomes

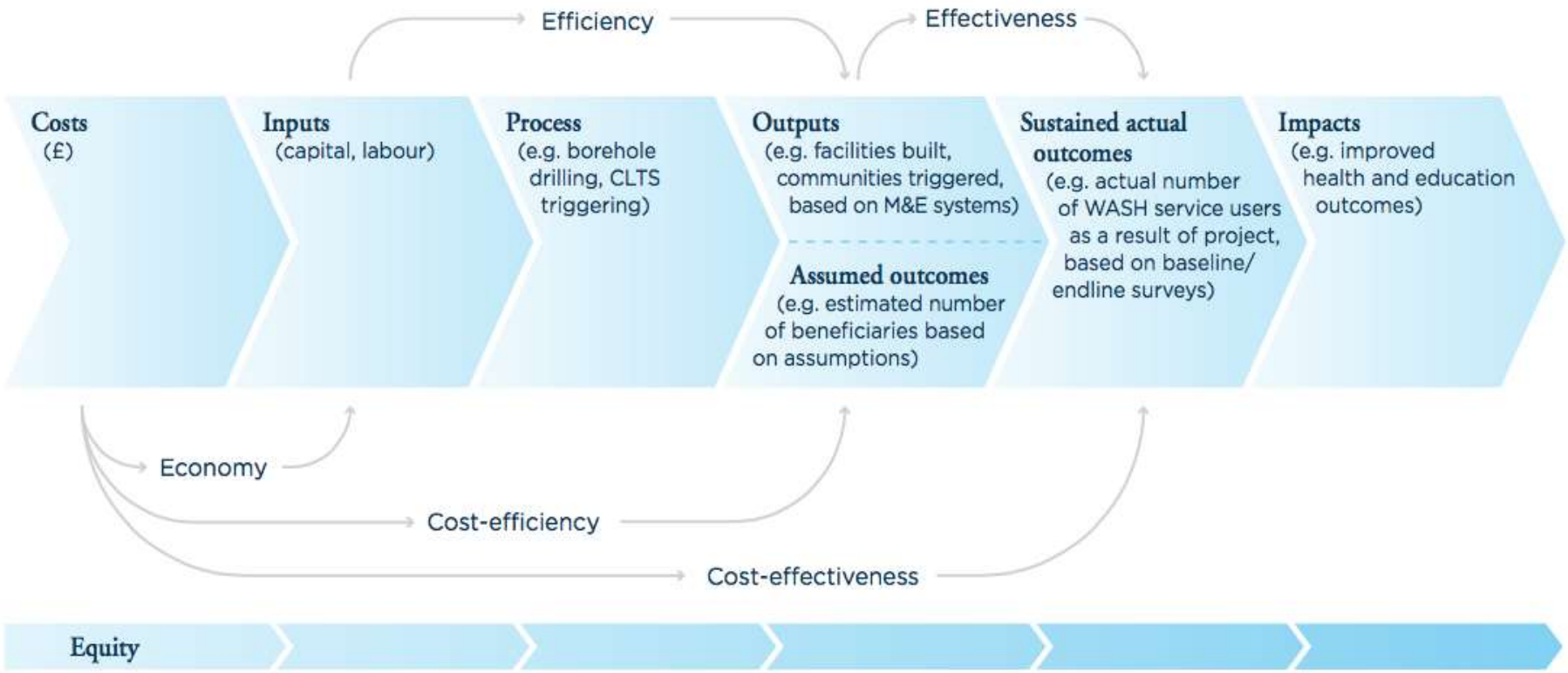
"maximising the impact of each pound spent to improve poor people's lives"
(DFID, 2011)

"optimal use of resources to achieve intended actual outcomes"
(UK Audit Office, 2009)

VFM is not necessarily about saving money and reducing unit costs:

It is about **maximising** actual outcomes and impacts

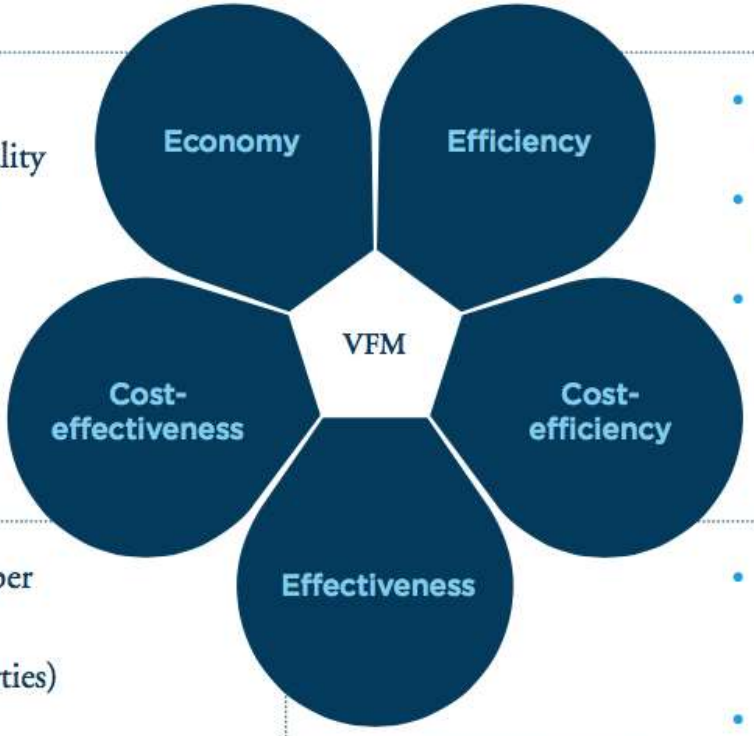
VFM dimensions along the WASH results chain



Source: Adapted by authors from DFID WASH Portfolio Review (2013)

Key VFM questions

- Unit costs of key inputs?
- Were inputs bought at right quality and right price? Do costs match to budget and those of other organisations?
- Efficiency of procurement?



- How well have inputs been converted into outputs?
- Have planned outputs been achieved?
- If not, why not? What were key implementation challenges?

- What are the programme costs per actual beneficiary over time?
- What are overall costs (to all parties) per actual beneficiary?
- How cost-effective have been efforts to increase equity (e.g. reaching the poor)?

- How effective has the programme in converting outputs into sustained actual outcomes?
- Are the services from the programme sustainable over time?

- What are the costs per output (e.g. to build a water point, trigger one community)?
- What are equivalent costs per assumed beneficiary?
- How much funding was leveraged from other sources of finance?

Summary of VFM-WASH findings

VFM indicators: averaged values for programme expenditure across years evaluated, incl. Indirect cost for programme support			Bangladesh (UNICEF programme)	Ethiopia (Government programme)	Mozambique (Government programme)	Nigeria (UNICEF programme)	Pakistan (NGO humanitarian projects)	Zambia (UNICEF programme)
Cost-efficiency								
Water	Outputs	Cost per public water point	**$1,223**	**no data**	**$23,755**	**$7,989**	**$184-601**	**--**
	Assumed outcomes	Cost per person who gained access to improved public water point	**$21**	**$27**	**$79**	**$31**	**$4-6**	**--**
Sanitation	Outputs	Cost per community triggered by CLTS	--	no data	$4,035	no data	--	no data
		Cost per community certified / verified as ODF	--	no data	$11,941	$5,668	--	$1,584
	Assumed outcomes	Cost per person served by a new latrine	**$4.5**	**no data**	**$14**	**$10.6**	**no data**	**$3.4**
Hygiene	Assumed outcomes	Cost per person gaining a place for hand-washing	$13	no data	--	no data	--	**--**
School WASH	Outputs	Cost per child in school with gained functional latrines	$10.9	--	--	--	--	no data
	Assumed outcomes	Cost per beneficiary of SSHE	$2.9	--	--	--	--	no data
Cost-effectiveness								
Water	Sustained actual outcomes	Cost per person who gained access to water point and uses it	$27-32*	no data	$132	no data	no data	--
Sanitation	Sustained actual outcomes	Cost per person gained and using a latrine	$6.9	no data	no data	no data	no data	$4.1
Hygiene	Sustained actual outcomes	Cost per person observed HWWS after defecation	$6	no data	no data	no data	--	no data

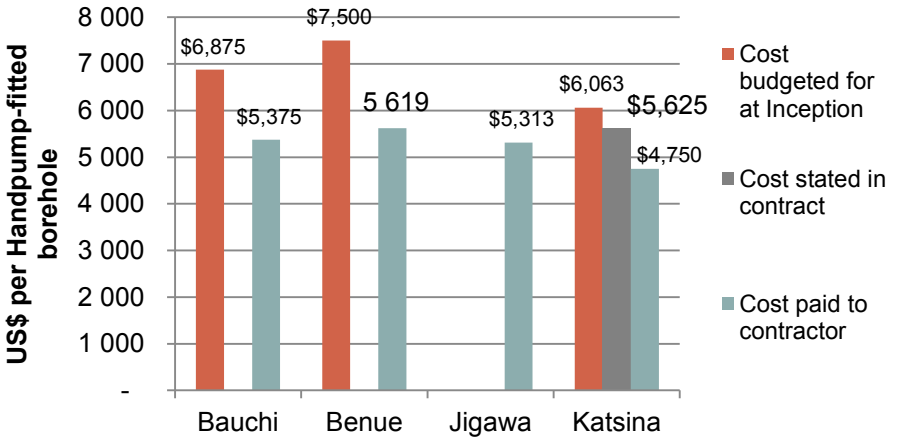
(*) For Bangladesh, this is the cost per new person who gained access to a higher level of water service and is using it

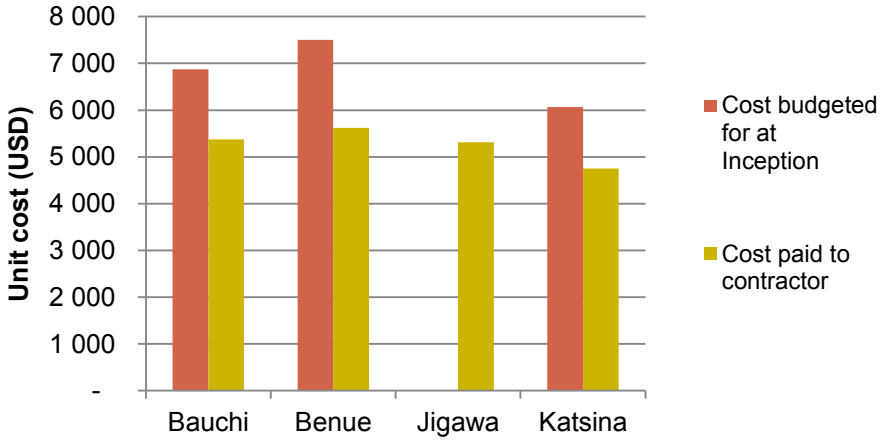
Water and Sanitation - Economy

- Limited data is available to monitor unit cost of inputs
- Some implementers monitor contract costs (UNICEF in SHAWN, SHEWA-B)

- SHAWN-B: Actual costs for hardware construction were consistently lower than budgeted. Several factors impacted economy:
  - External : competition between multiple qualified contractors at bidding
  - Internal : Efficient and monitored procurement processes

Nigeria SHAWN





Source: UNICEF cost data. All costs are direct hardware costs and do not include software or indirect costs.

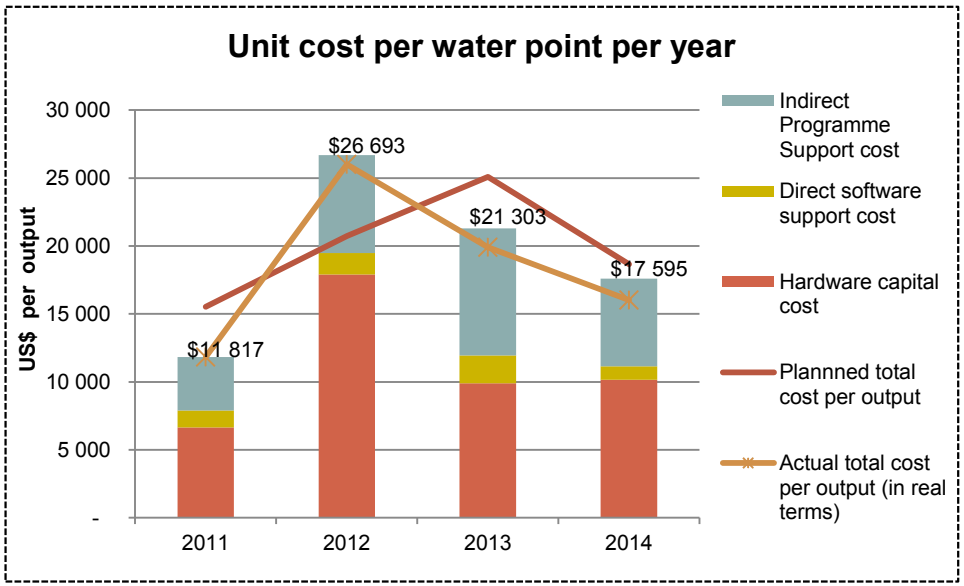
Water - Efficiency and Cost-efficiency

- In Mozambique: the realisation rate of water point construction by PRONASAR CF dropped from 77% in 2012 to 72% in 2013 - but then increased to 93% in 2014

- Efficiency of water point construction was lower than expected due to:
  - Disbursement of funds to PRONASAR CF was unpredictable, slow and often late
  - Complex hydrogeological conditions affected drilling in some regions
  - Flooding of the Zambezi River and political crisis in 2013

Mozambique PRONASAR

The average cost per water point constructed decreased by 35% between 2012 and 2014



- Improvement in cost efficiency mainly due to reduction in the cost of hardware, which can be explained by:
  - Improvements in procurement performance
  - Change in borehole characteristics
  - Use of lower cost technology

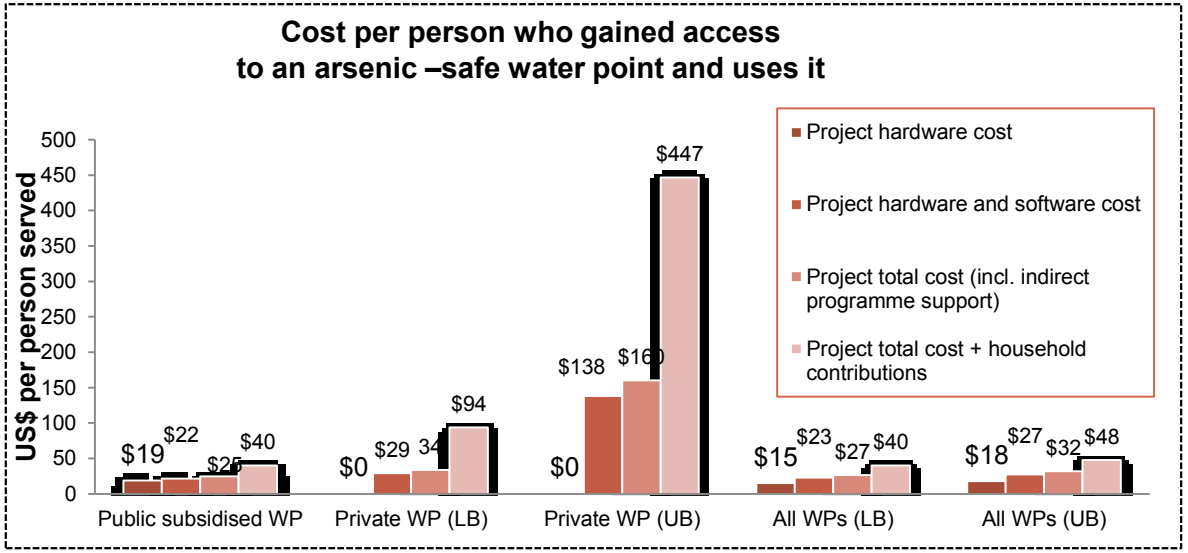
Water - Effectiveness and cost-effectiveness

- Effectiveness of water point construction is impacted by water quality and reliability
- Lack of outcome data: impossible to calculate cost-effectiveness in most cases: outcomes often had to be estimated based on assumed numbers of “users”

- Bangladesh : Impact of arsenic contamination on effectiveness
  - Almost universal access to improved services
  - Cost effectiveness in this case is measured in terms of cost per person who gained access to a higher water service level, rather than in cost per person who gained access to water

Bangladesh SHEWA-B

The programme cost per person who gained access to a private water point was between US$ 34 and US$160



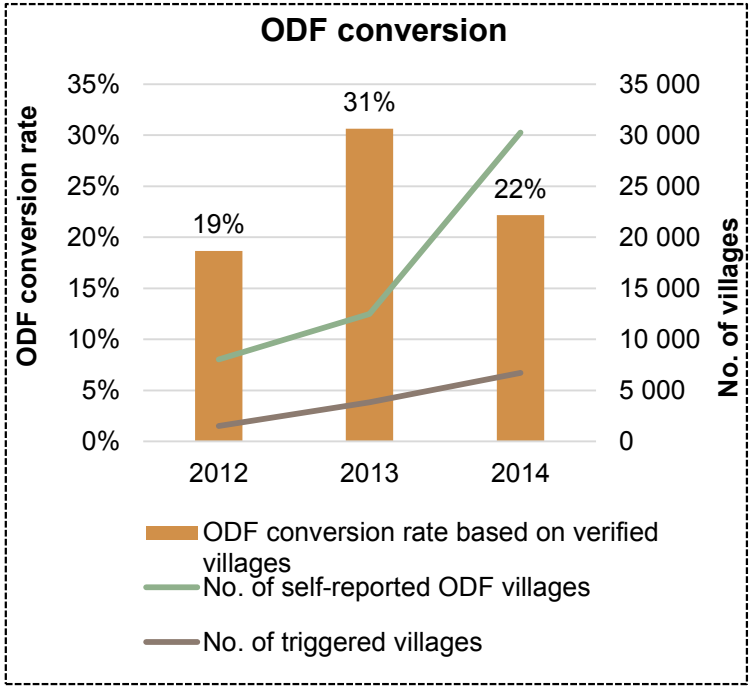
Note: LB= Lower bound; UB= Upper Bound

Sanitation - Efficiency and cost-efficiency (1)

- Assessment requires detailed M&E output data on quality and service level achieved - which often does not exist

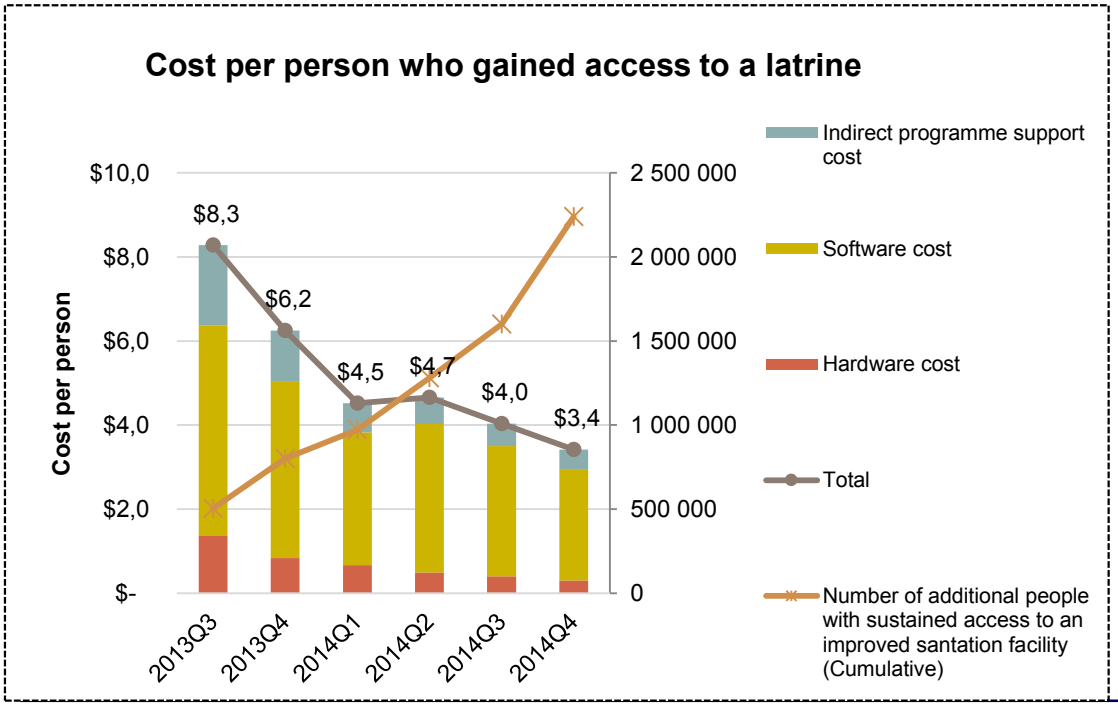
Zambia S&H P

- In Zambia S&HP: ODF conversion rate increased from mid-2013 to the end of 2014
- Improvement in efficiency due to:
  - Involving NGOs as facilitators at district level through the 2013 Scale-Up Strategy
  - Increased monitoring efforts and roll-out of mobile-to-web systems
  - Post-triggering activities



Sanitation - Efficiency and cost-efficiency (2)

- Efficiency improvement led to improvements in cost-efficiency
- The unit cost per person who gained access to a latrine decreased by 58% between Q3 2013 and Q4 2014



Zambia S&H P

Villages where mobile-to-web systems are used report a cost per person (with access to improved sanitation and hygiene) of US$ 2.40–2.60, approximately 24% lower than the average for the whole programme

Hygiene - Effectiveness and cost-effectiveness

- Data on effectiveness and cost effectiveness only available for SHEWA-B in Bangladesh
- Significant improvements in key outcome indicators were observed within the SHEWA-B intervention area, but there was no significant difference when compared to the control areas
- Cost-effectiveness indicators calculated using range of values for the costs of changing hygiene behaviours, depending on the type of targeted hygiene behaviour

	SHEWA-B (2008-14)
Cost-efficiency	
Programme cost per person reached with hygiene promotion activities	**US$ 0.68**
Cost per person able to recall at least one sanitation and hygiene message	**US$ 1.3**
Programme cost per new person gaining access to a handwashing station at a convenient location for handwashing after defecation	**US$ 13**
Cost-effectiveness	
Cost per person observed handwashing with soap and water	
Before food preparation	US$ 61
Before eating	US$ 36
After defecation	US$ 6
Cost per female caregiver observed handwashing with soap and water	
Before food preparation	US$ 12
Before eating	US$ 25
After defecation	US$ 5

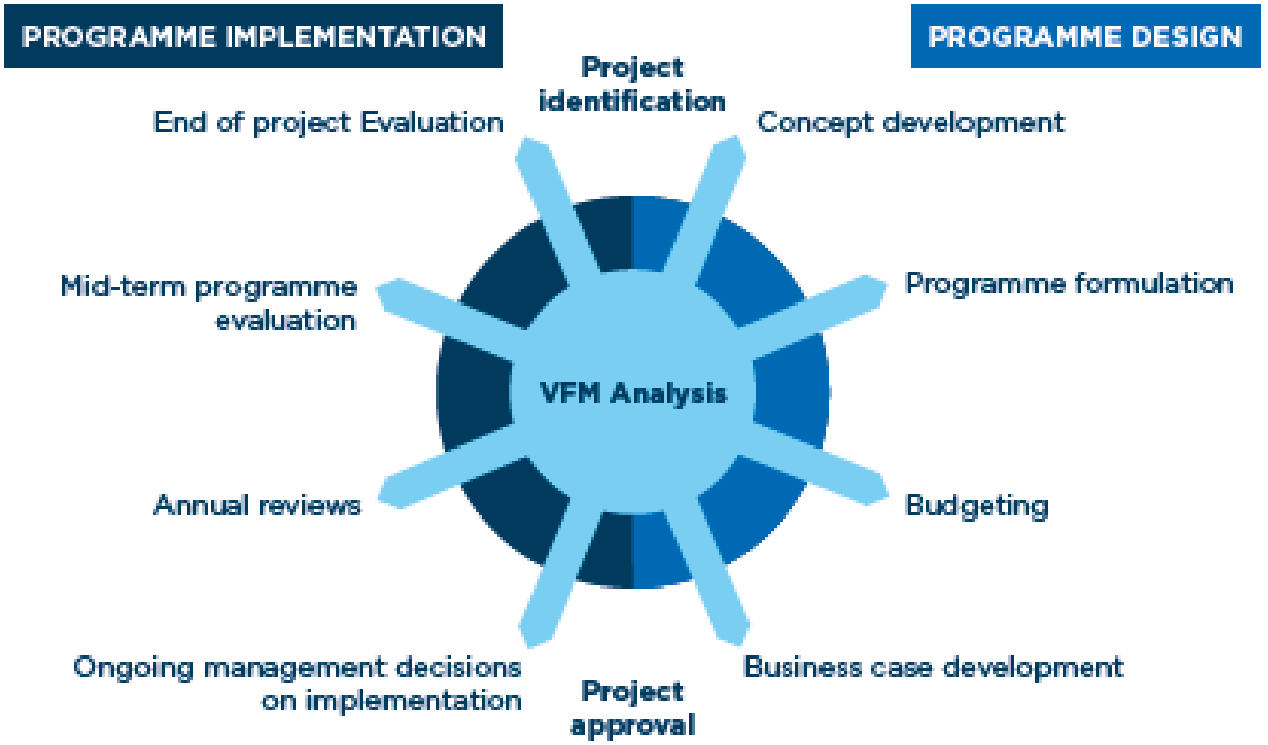
Bangladesh SHEWA-B

The interventions was more cost-effective with female caregivers

How can VFM analysis be used? (1)

- VFM analysis is an analytical tool that can be used to reveal information about the way in which WASH programmes are delivering results and can be used at various stages of the WASH programme cycle

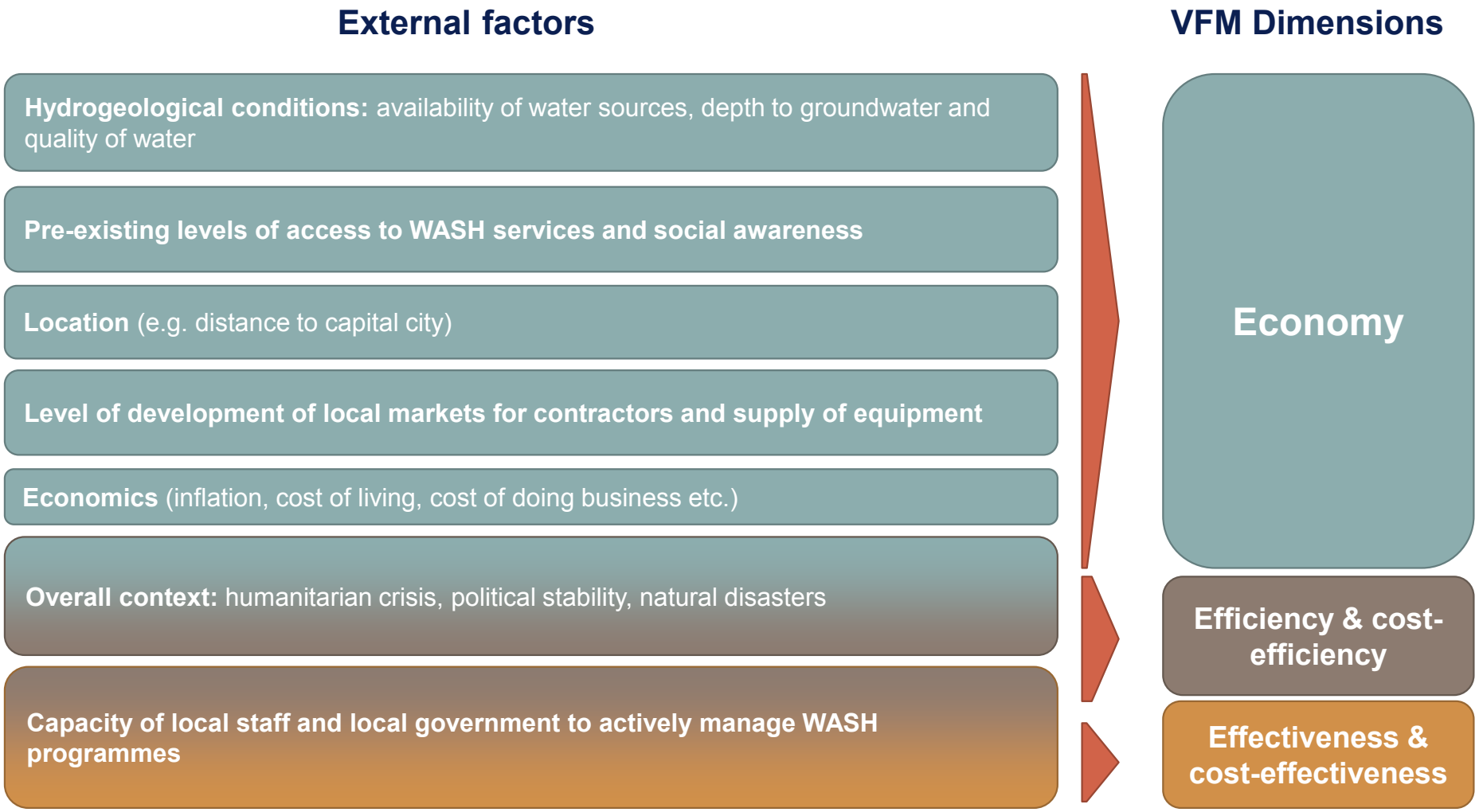
Using VFM analysis through the programme cycle



How can VFM analysis be used? (2)

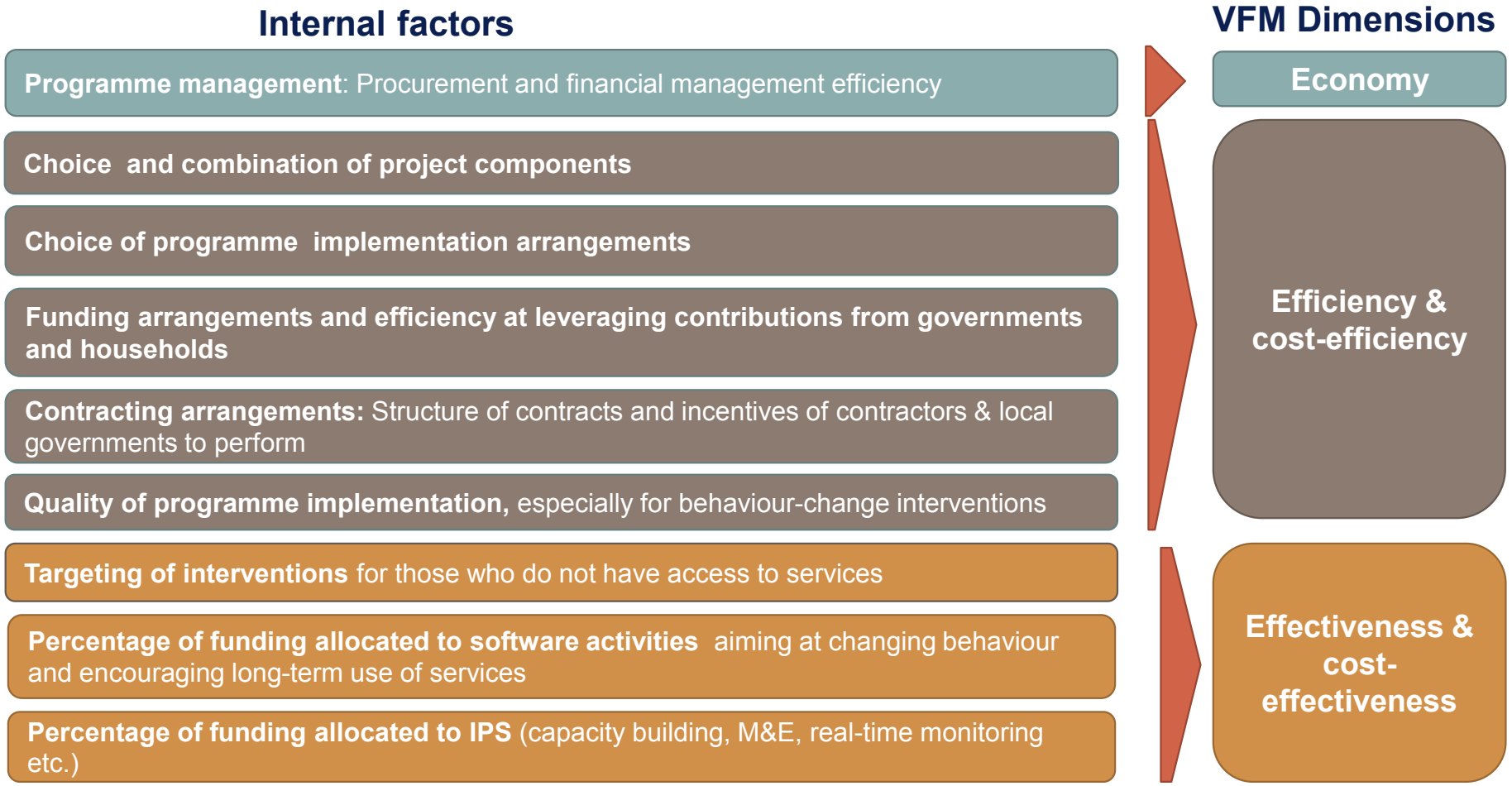
- Create a **culture of transparency** on programme results
- **Monitor use of public funding** (accountability to tax payers)
- **Demonstrate results** and **attract funding based on evidence**
- **Help managers better understand** and analyse performance issues they see on the ground, and their associated costs
- **Identify what drives VFM** as part of broader programme evaluation
- **Improve programming** through evidence-based decisions

Identify external factors impacting VFM



Focus on internal factors impacting VFM

- Programme managers need to use VFM analysis to better understand the impact of key management decisions to inform programme design and implementation decisions



VFM analysis: challenges and solutions

Potential challenges	Potential solutions
• **Programme results are not tracked in manner that is coordinated with cost tracking**	• Link M&E and financial reporting formats • Use contract information or bills of quantities to obtain additional data • Better understand the spending cycle • Shift to activity-based financial reporting
• **Outcome data is seldom collected**	• Support development of M&E frameworks • Complete with ad-hoc surveys
• **Risk of not comparing like with like**	• Collect detailed data on programmes expenditure • Adjust for external differences factors
• **Variations in VFM are difficult to attribute to a specific cost driver**	• VFM indicators are only an indication, cannot conclude about a causal relationship • Undertake more detailed analysis on this driver
• **Non-programme costs that contribute to outcomes are difficult to take into account**	• Capture life cycle costs that are significant, where possible

Conclusions: can a “VFM culture” be fostered?

- **Current status**
  - Demand for VFM analysis currently stems from donors: most VFM estimates are based on fairly crude analysis, figures usually not comparable
  - Programme implementers are not always embracing VFM analysis as they fear that the results be interpreted out of context / used against them

- **But there are clear potential benefits in doing VFM analysis which means that a “change in sector culture” needs to take place**

- **Initial efforts under VFM-WASH project need to be continued:**
  - Demonstrate potential benefits to programme implementers – so that they adjust their M&E systems and compute VFM data on a routine basis
  - Promote a consistent methodology so that comparable figures can be generated on a wider scale and be compared across programmes
  - Develop the methodology:
    - To collect data on non-programme costs
    - To compare data across time and geographies
    - To identify and measure VFM drivers

Recommendations

- **For programme implementers**
  - Conduct more detailed VFM analysis as part of routine programme management activities, so as to support the formulation of programme management decisions
  - Develop a centrally managed system to track inputs and outputs jointly, so as to produce meaningful VFM analysis that can be used for ongoing programme management
  - Strengthen the monitoring of sustained actual outcomes and of equity

- **For funders**
  - Demand more robust metrics for evaluating implementers' performance and supporting funding decisions, without losing sight of critical elements such as the equity and cultural acceptability (which cannot always be measured)
  - Request that programme implementers conduct VFM analysis as a "modus operandi" to obtain funding
  - Support the development of tools to facilitate VFM analysis
  - Support capacity building and information sharing on VFM analysis to support the development of a community of practice around VFM

Oxford Policy Management

Thank you

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