



Sustainable Costing and Financing for Equitable Services

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Expert Group Equitable Access to Water and
Sanitation, Budapest, 14 September 2017

Supporting water sanitation
and hygiene services for life



Where to start?

**The easy, the difficult and
the unknown**

Supporting water sanitation
and hygiene services for life

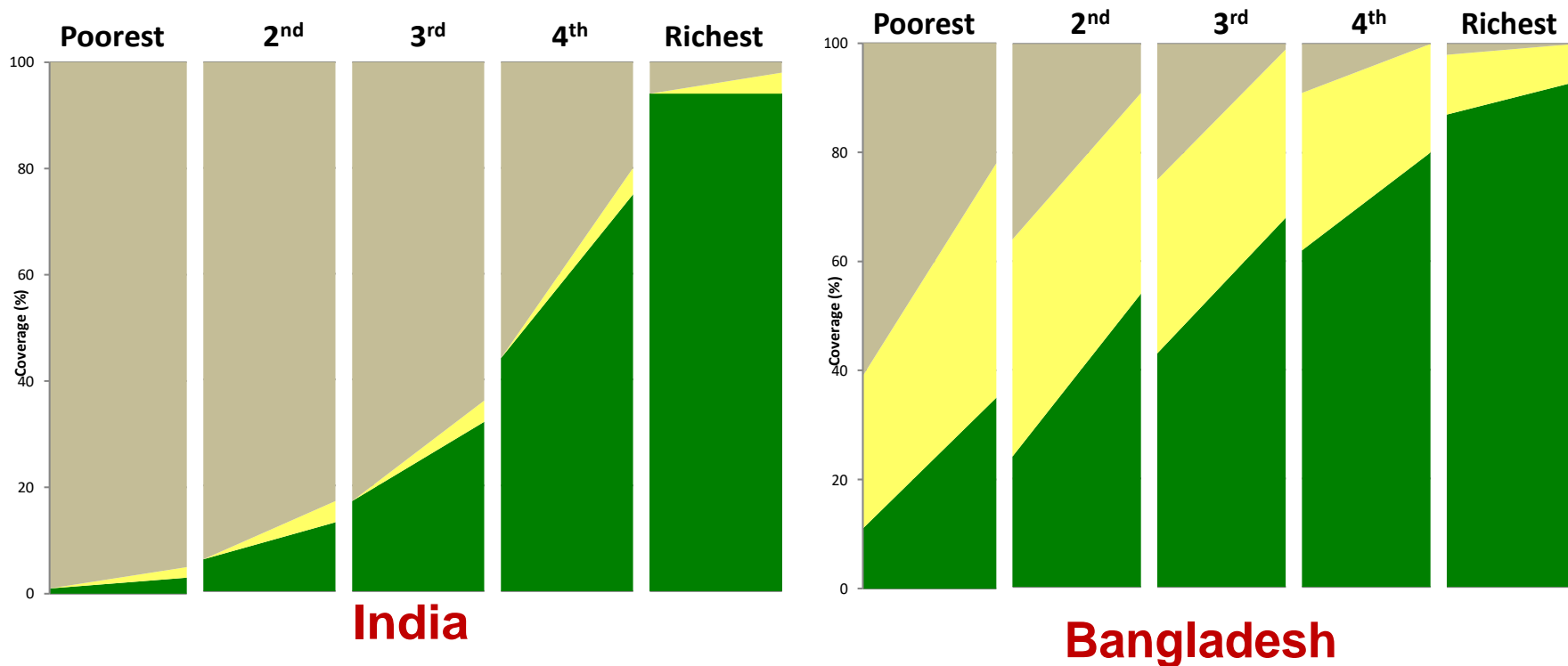
Outline (=> all sources in the slides)

1. Why is costing and finance so important for the equitable action plans?
2. You don't need to be an economist to talk costs and finance
3. Where to start?
 - The easy
 - The difficult
 - The unknown

1. Why is costing and finance so important for the implementation of equitable action plans?

- We need to know how much money is presently used for reducing geographical, social and economic disparities in access
- We need to know how much it costs, so we know how much money is needed
- We need to know how much is the gap so we can find financing solutions

Reaching the poorest and excluded is a political (financial) decision

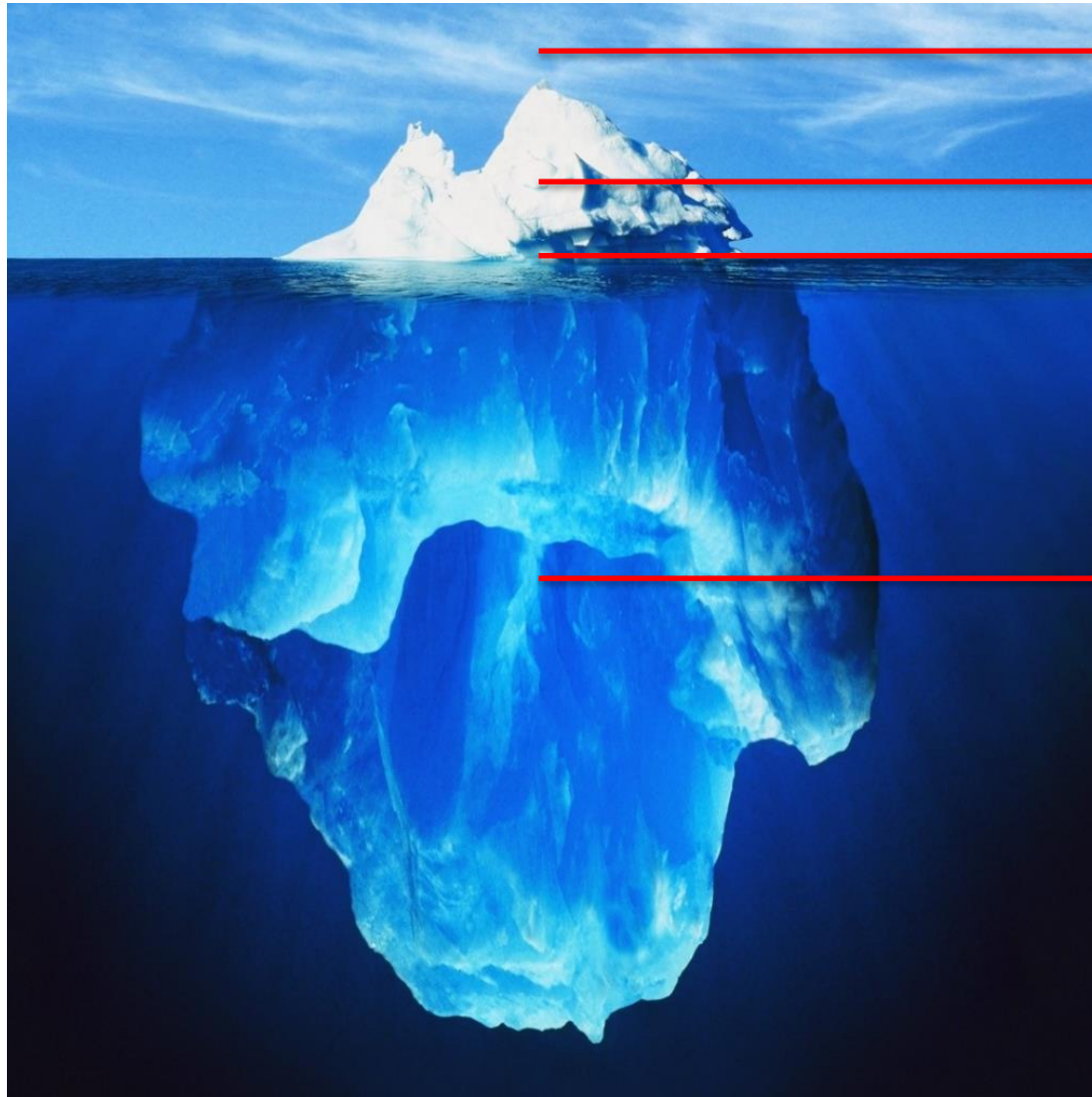


Data from 1990 - 2015

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2. You don't need to be an economist...

Costs and financing: Importance of non-capital expenditure



Capital expenditure

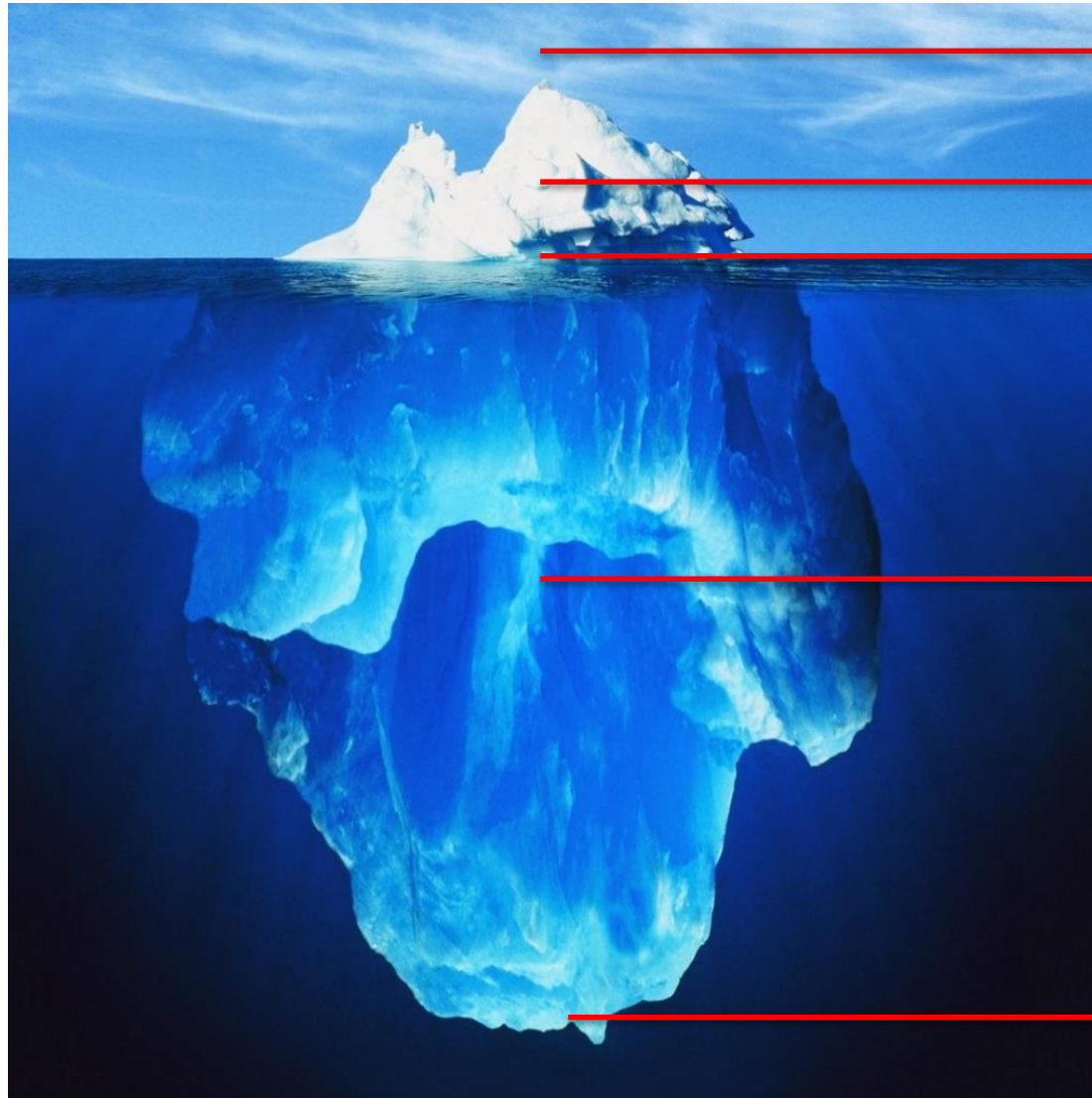
Minor maintenance

Major maintenance

Everything else:

- Regulation
- Policy
- Monitoring
- Institutions and people
- Costs of borrowing

Costs: the accounting names



CapEx

OpEx

Capital Maintenance
CapManEx

Direct support

Indirect support

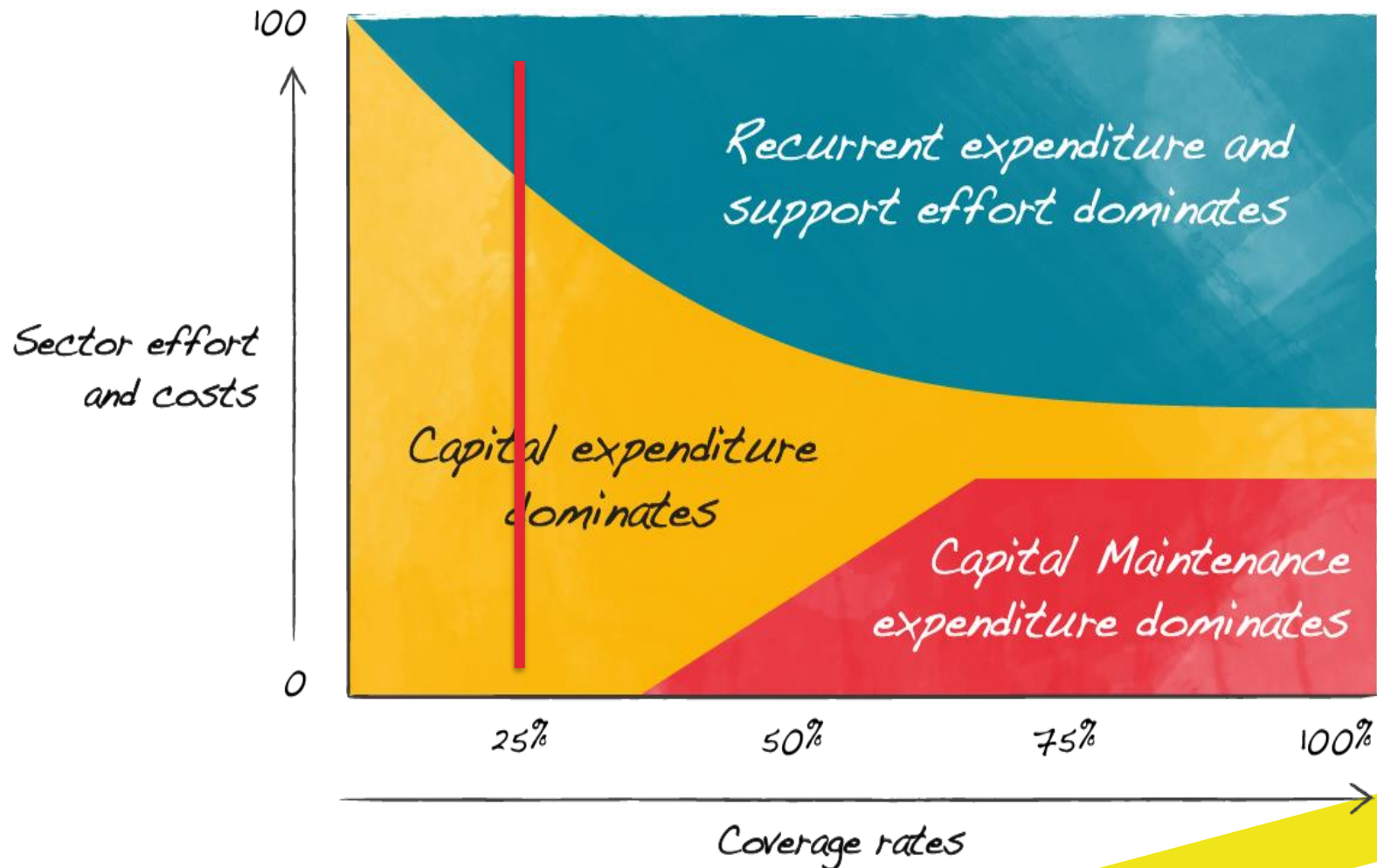
Costs of capital

Translation of costs in Russian. Page 40:

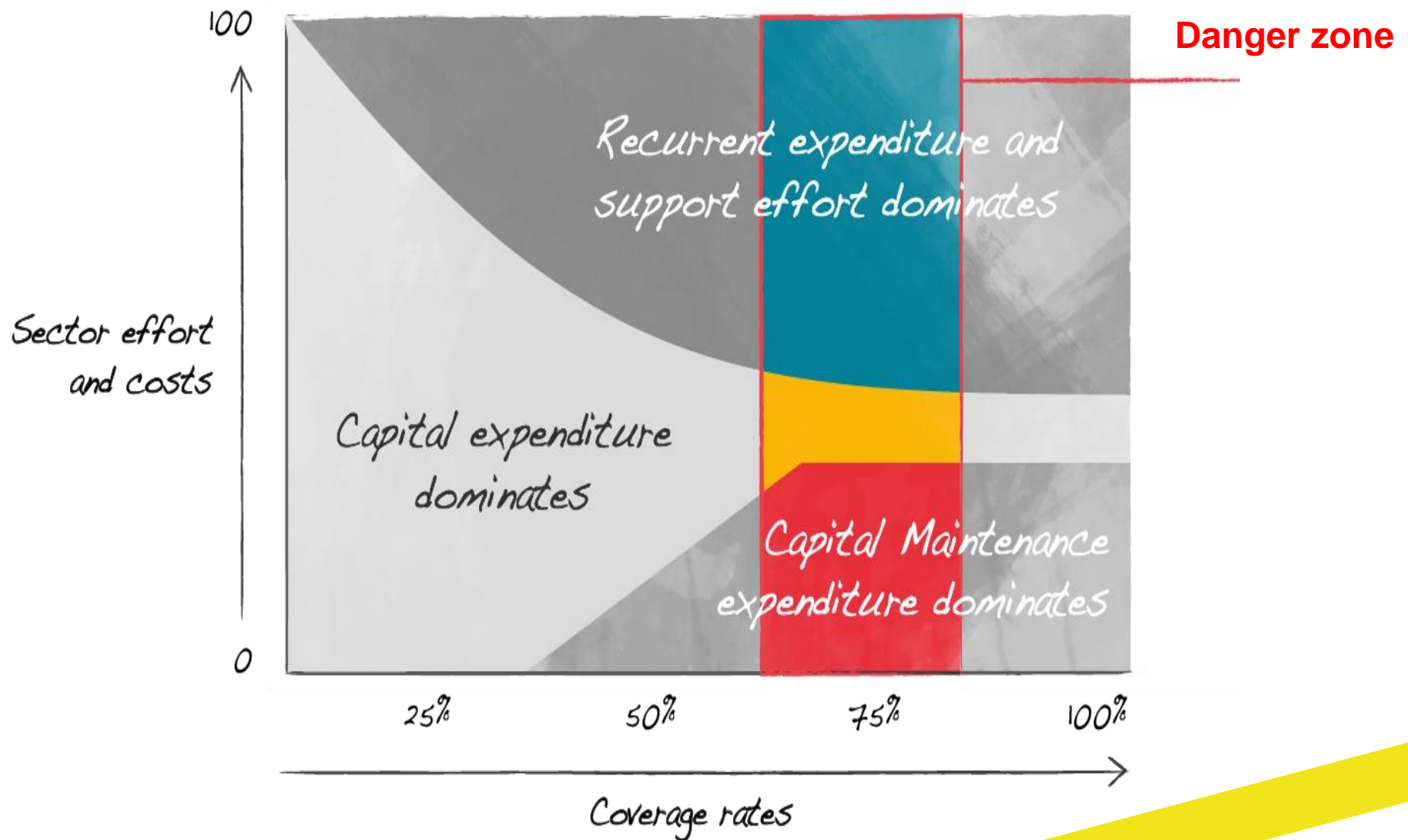
http://www.euro.who.int/__data/assets/pdf_file/0015/320505/Tacking-policy-action-SSW-supply-tools-good-practices-ru.pdf?ua=1

Sector evolves...

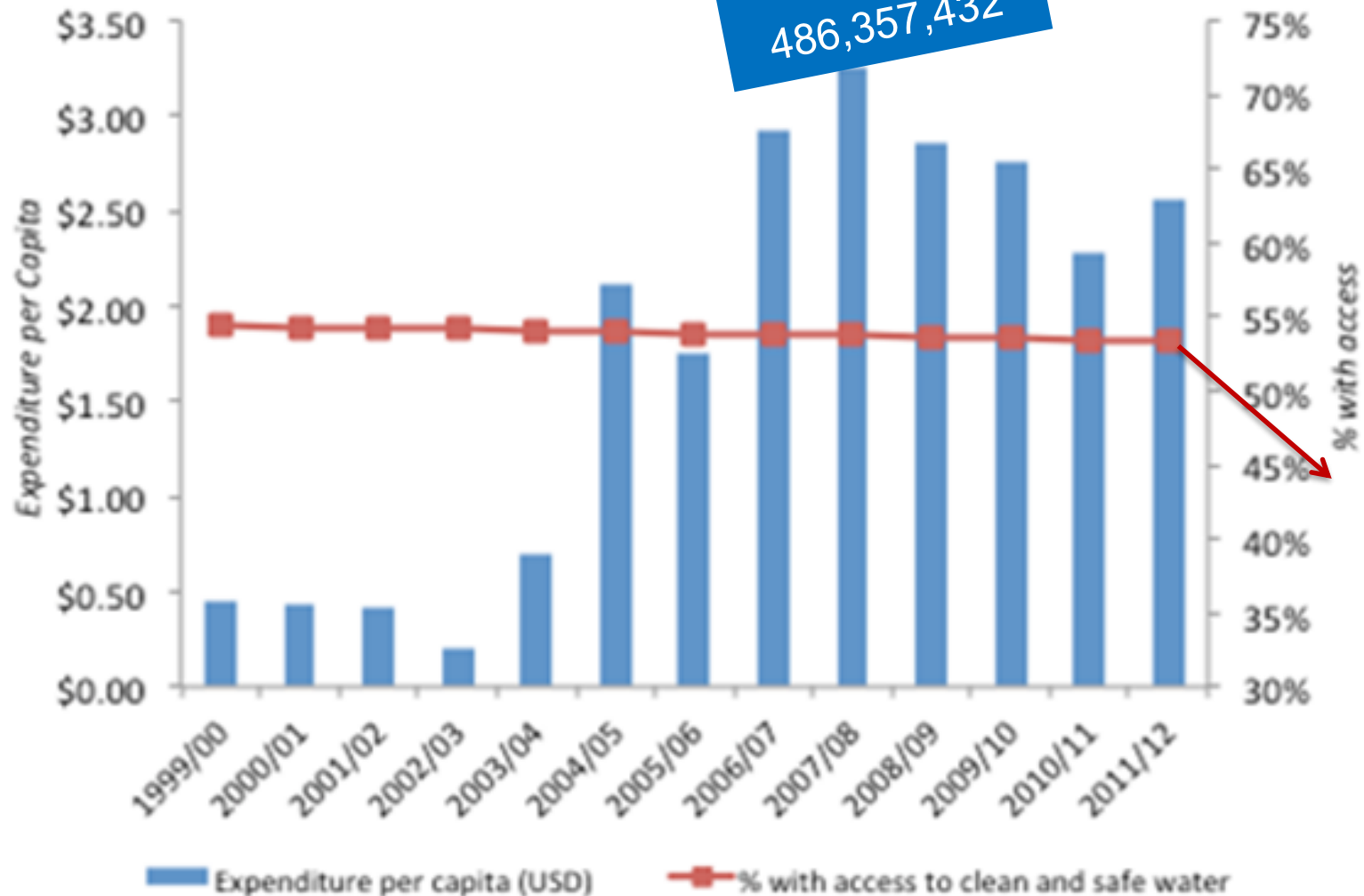
Effort, costs and institutional requirements also need to change



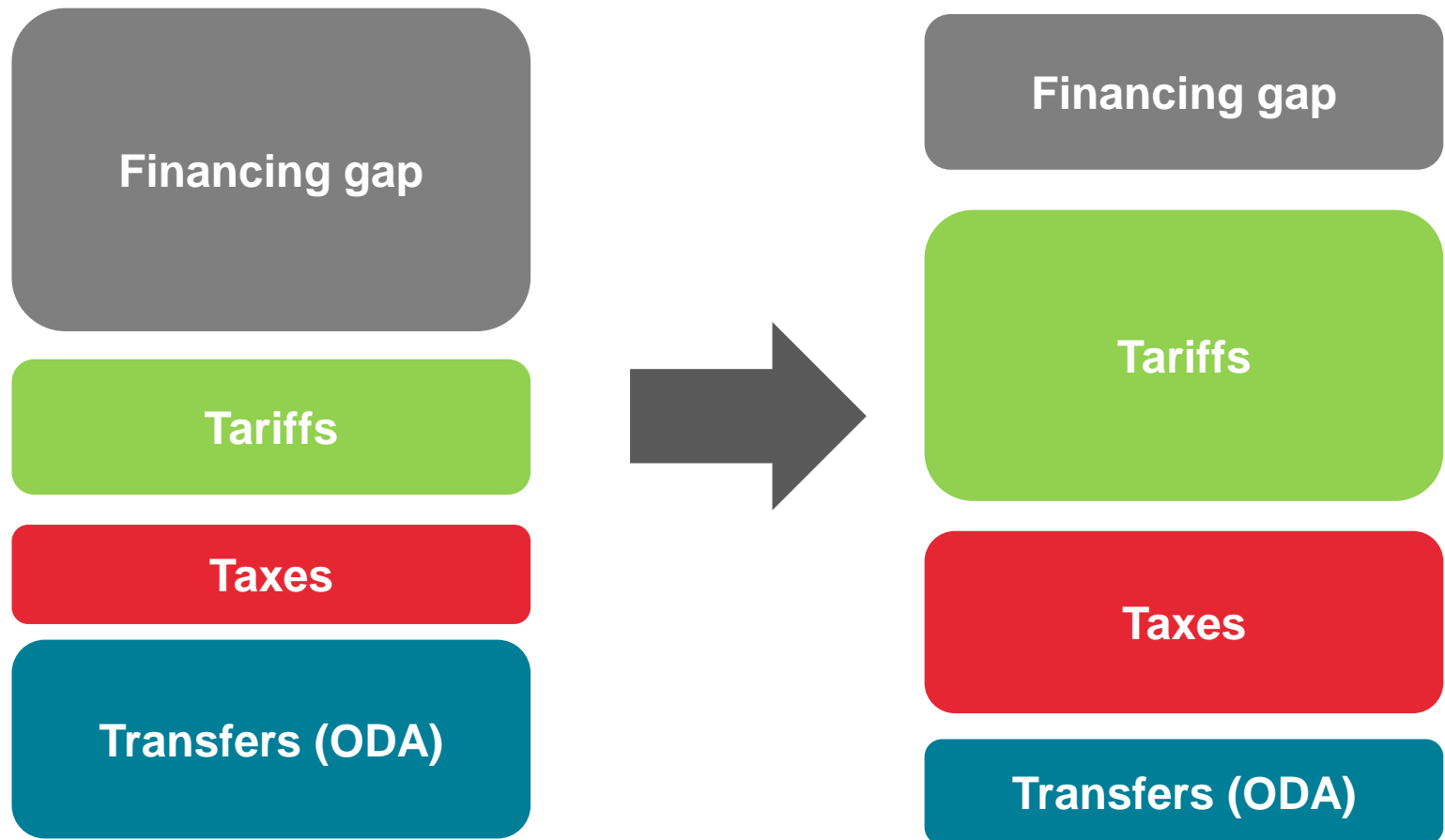
With no change in expenditure: danger zone of stagnation at 60% to 80% coverage



Tanzania: Rural water coverage stagnating and declining



The three Ts: Possible sources of finance for WASH costs



The three Ts: Possible sources of finance for WASH costs

Financing gap

CapManEx

CapEx

OpEx

Tariffs

Costs of capital

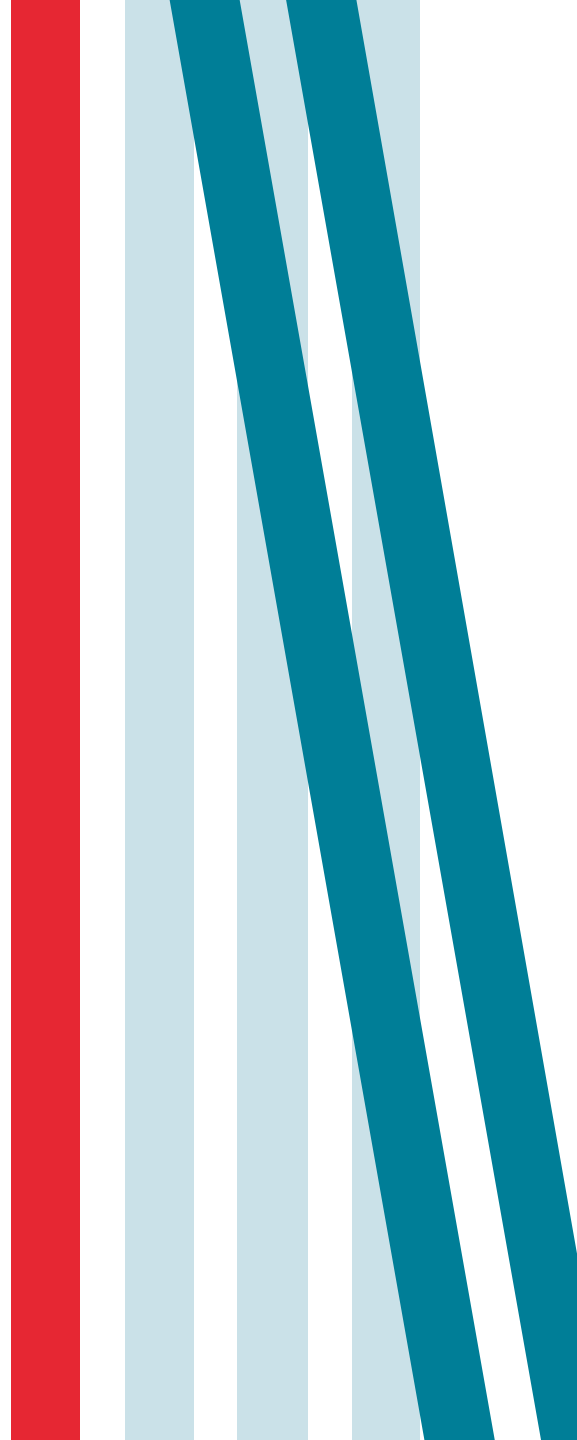
Taxes

Direct (and indirect)
support
CapEx

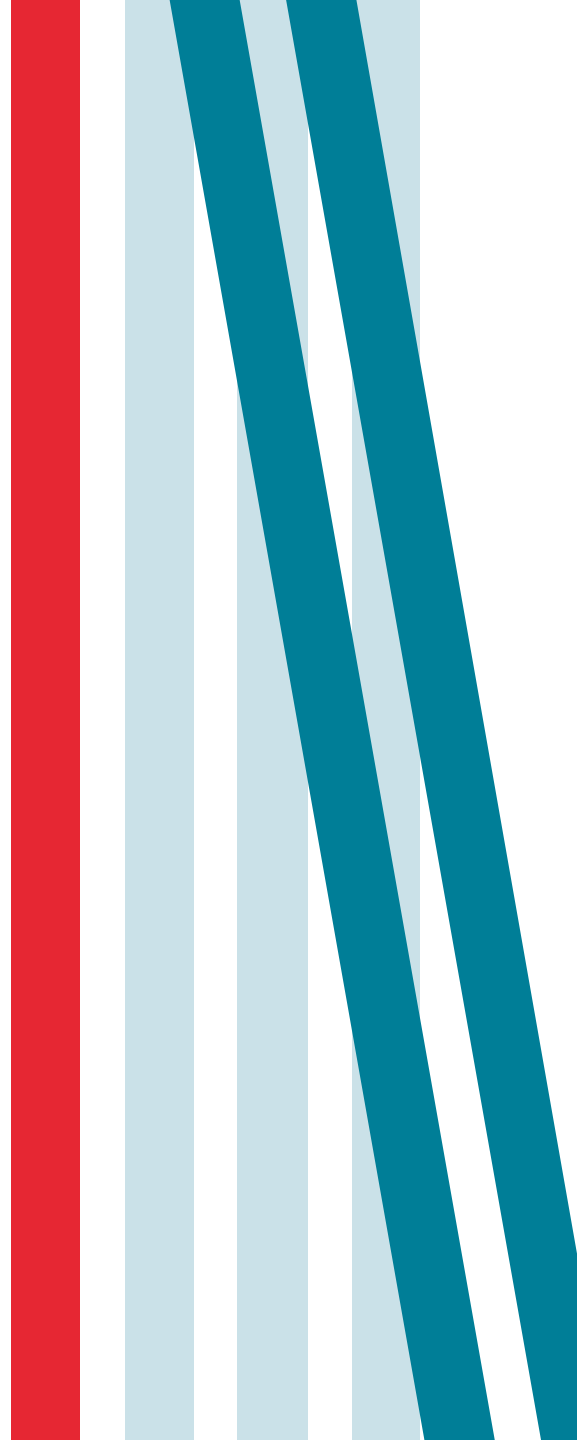
Transfers (ODA)

-

3. Where to start?



The easy



First step: the need to understand existing sources of finance and the value of the assets in place

- GUIDANCE NOTE Public Expenditure Review from the Perspective of the Water and Sanitation Sector, World Bank
- TrackFin: tracking financing to sanitation, hygiene and drinking water, WHO-GLAAS
- Life-cycle costing quick calculator and free online training, IRC
- Asset registry / management tools, IRC

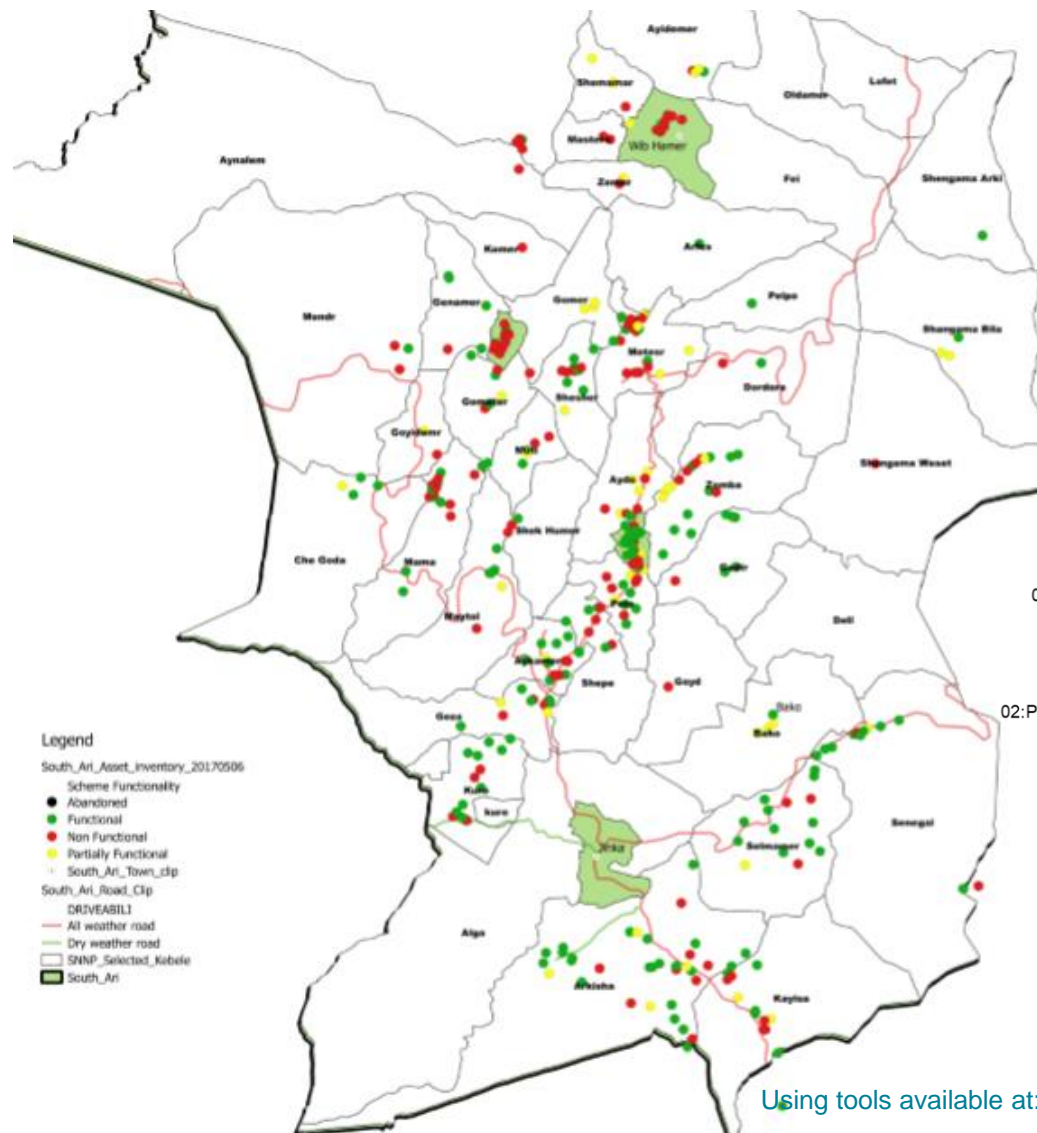
Ethiopia, Omo Region, Ethiopia



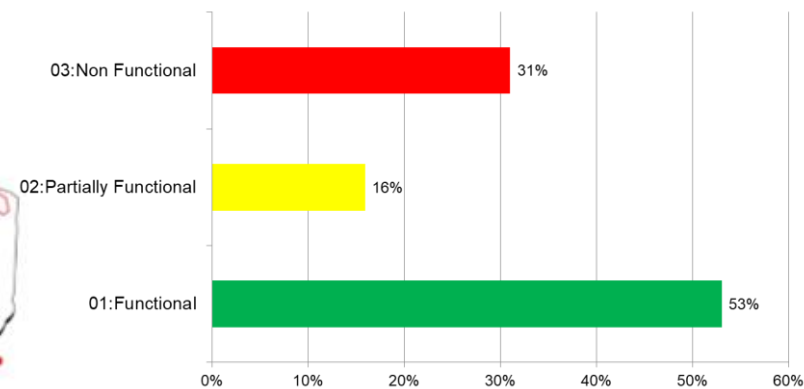
Responsible for providing water to 263,262 people in South Ari, Ethiopia => using asset registry tool to start budgeting a maintenance plan



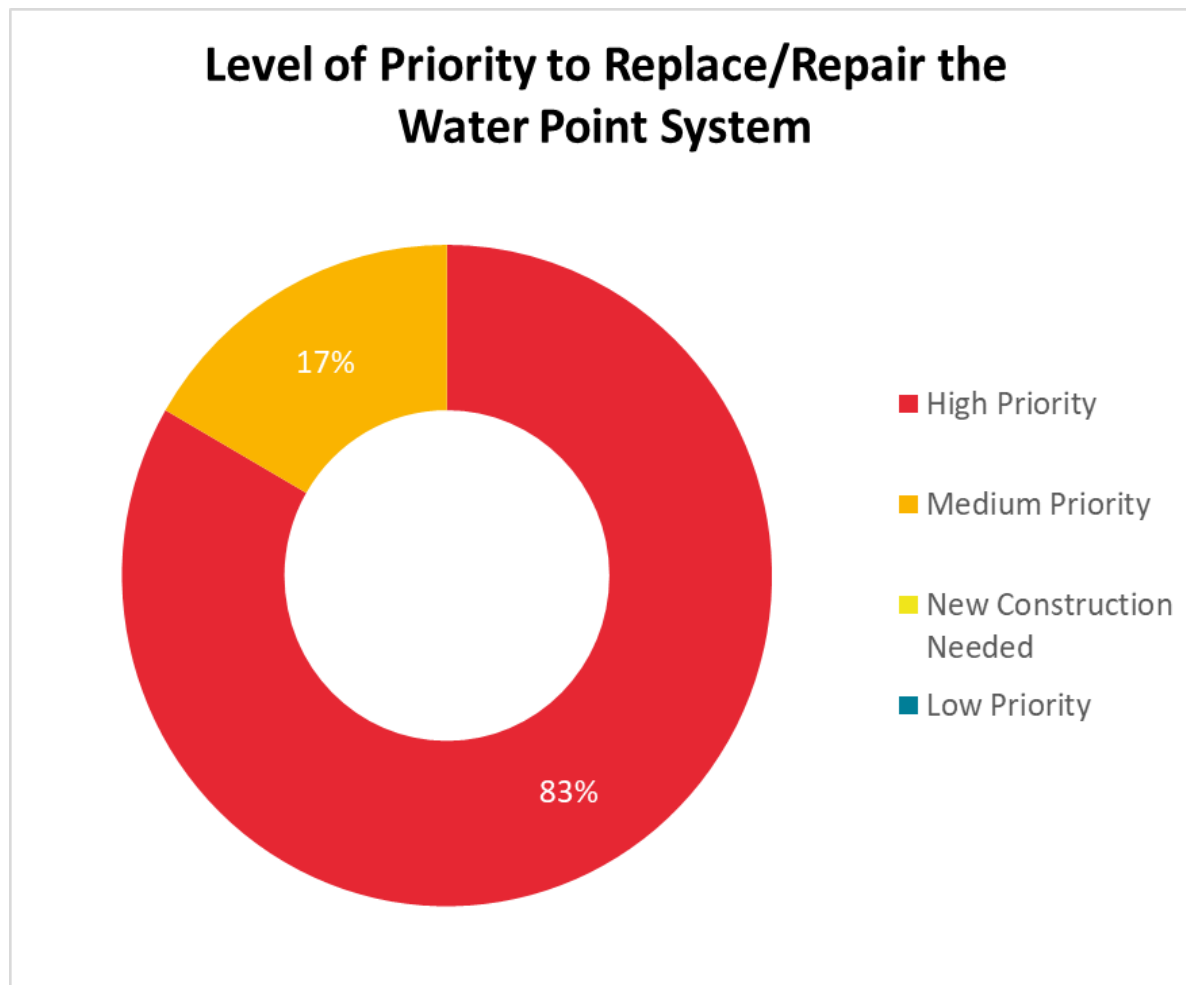
Value of assets and functionality South Ari



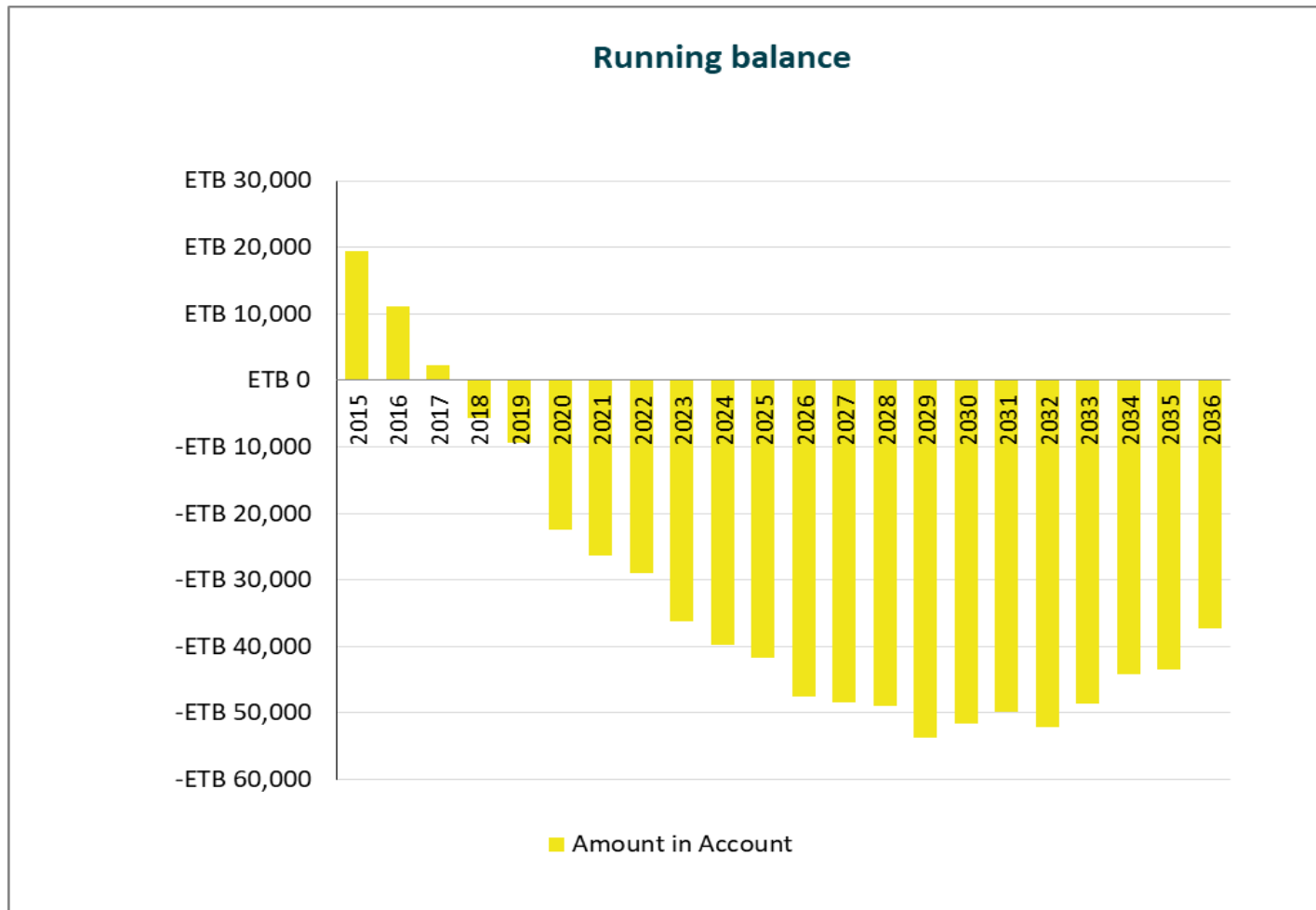
Thousands of US\$ wasted because of the failure to maintain infrastructure for a fraction of the investment



Value of assets and prioritisation

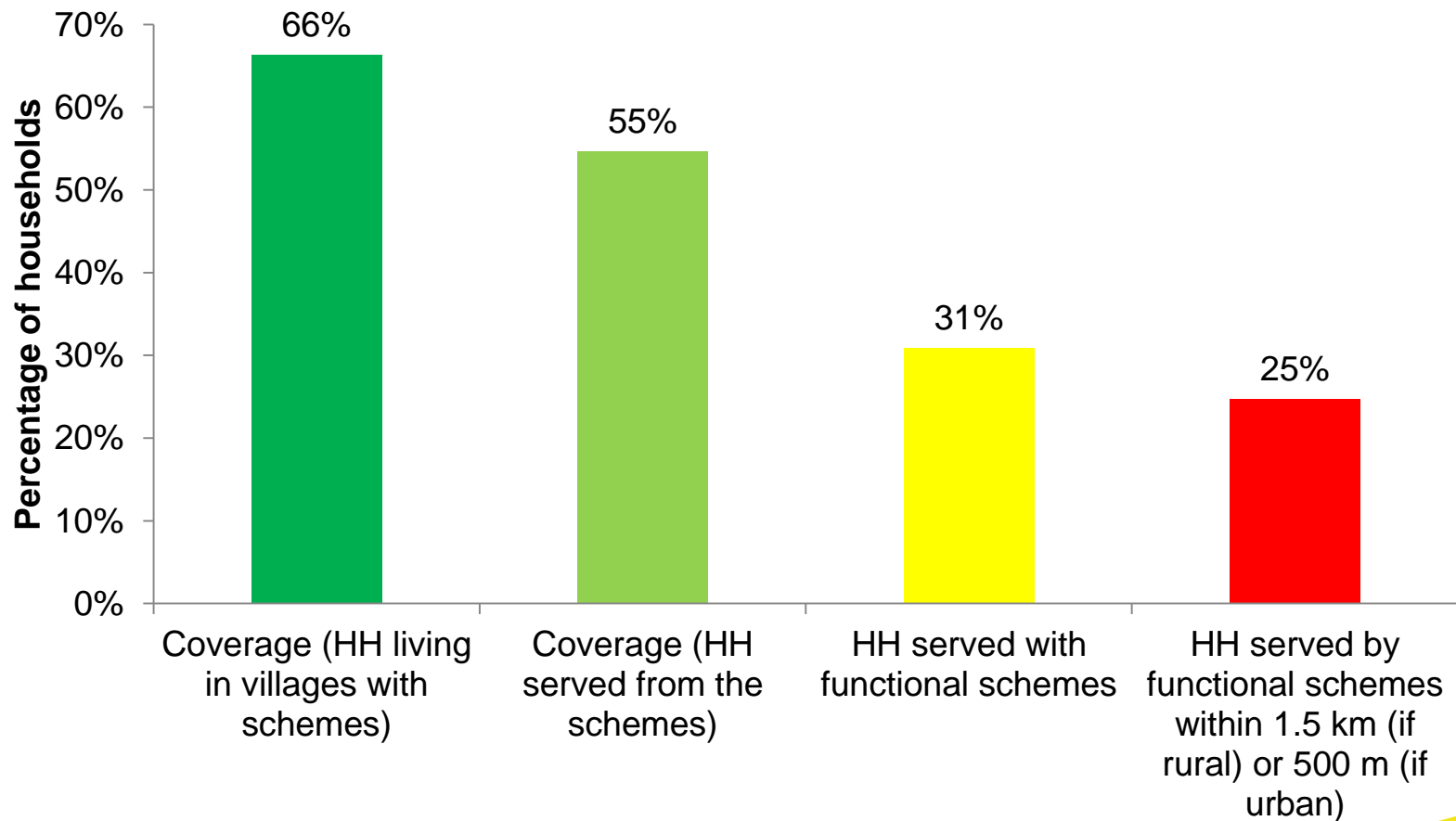


From asset management, to cash flow analysis to understand financing gaps in the future



Coverage, functionality and country norms

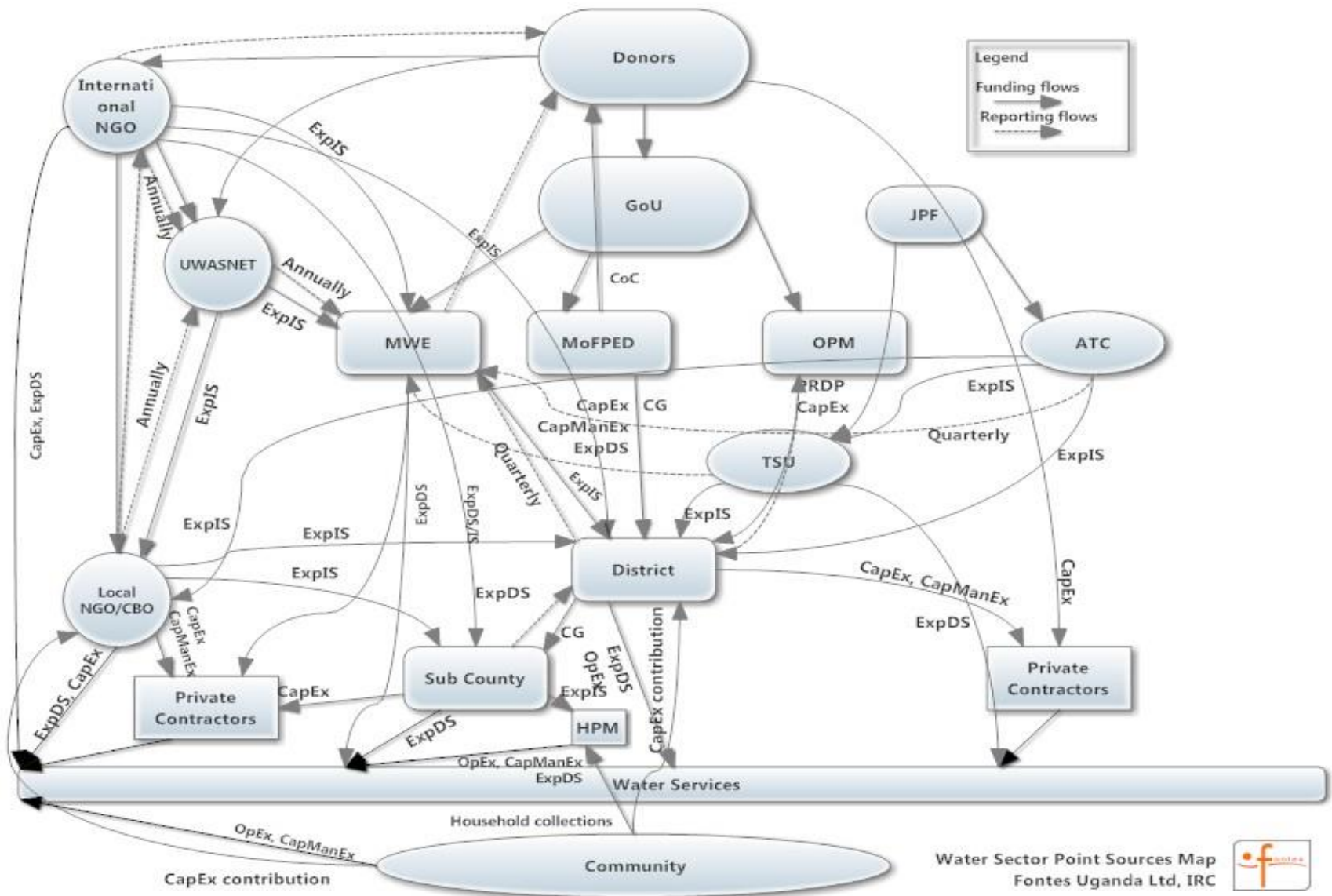
South Ari => CapEx is still very much needed



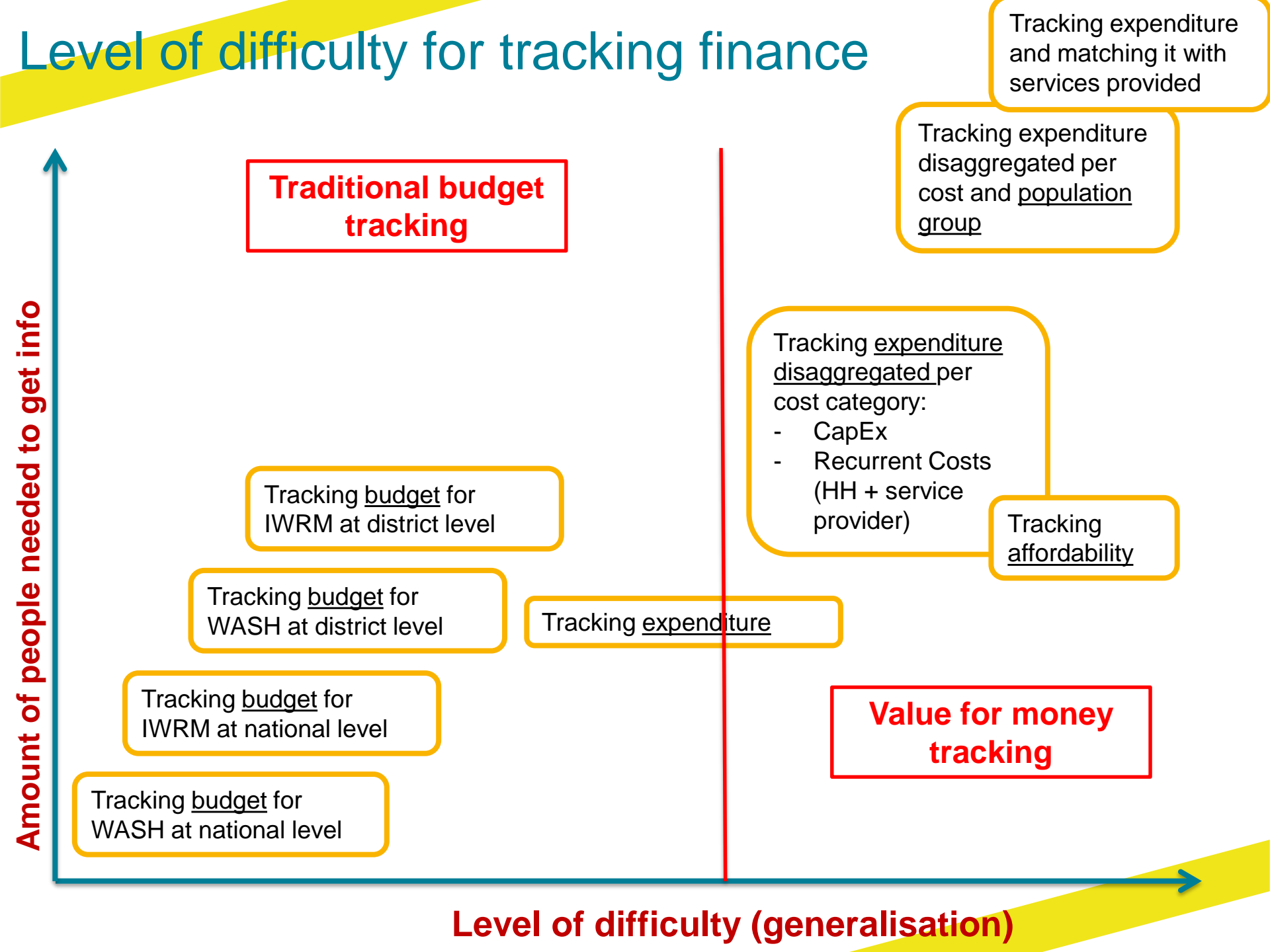
The difficult



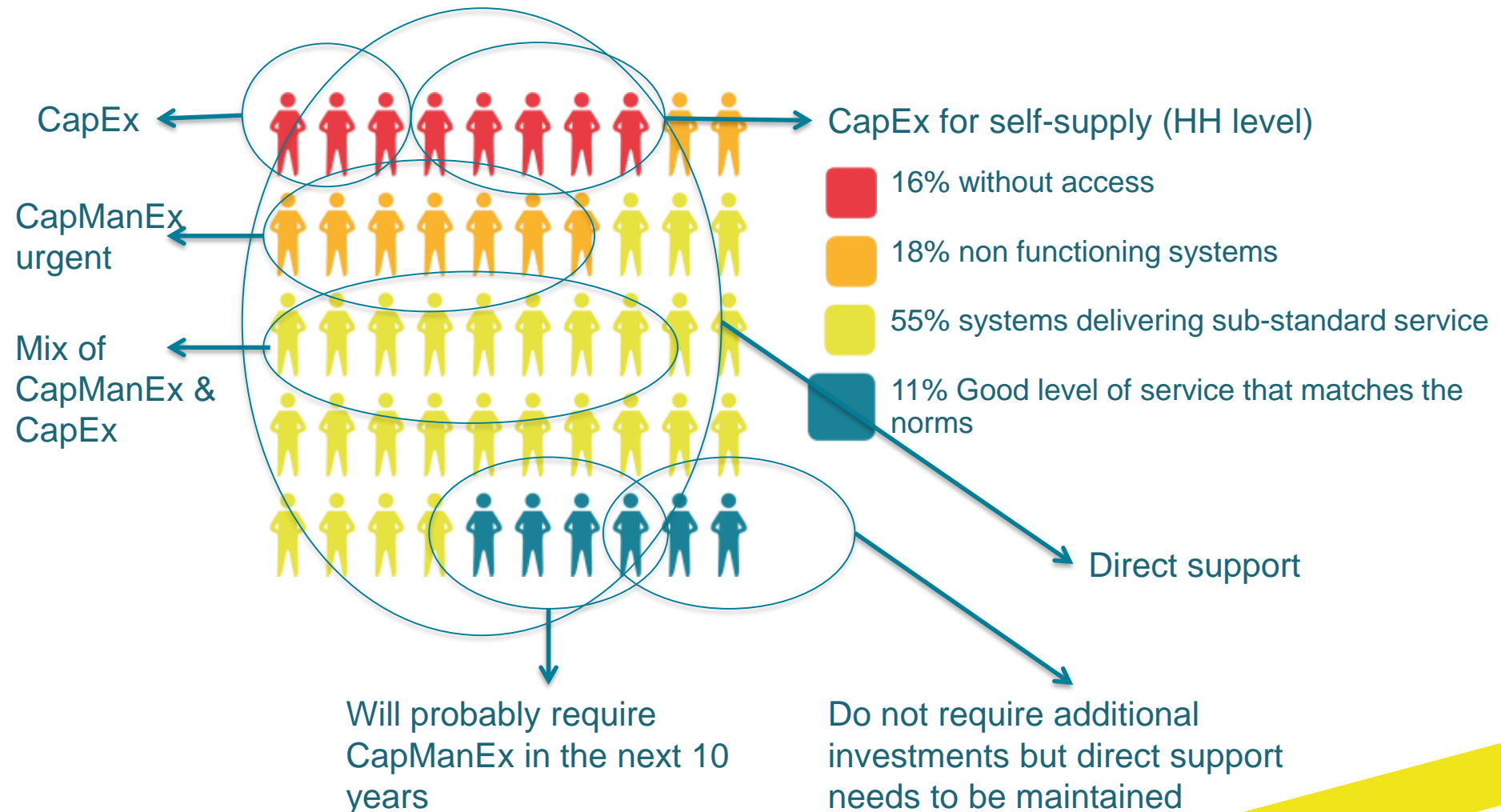
Mapping funding flows for different costs in Uganda



Level of difficulty for tracking finance



Step 2: Develop a financing strategy that combines population, infrastructure, service levels and costs



Develop financing strategies for each of the population segments

- How and where will we prioritise investments in new systems?
- What is the role of individual solutions and self-supply?
- What's the strategy for the replacement and expansion of systems?
- What's the role of the local institutions and what are the activities that they need to lead to ensure sustainability?

In reality... (75 respondents to 2016 WHO-GLAAS)

Financial planning framework for WASH	Countries using framework
National annual budgeting process	43%
Sector development or investment plans/agenda	35%
Multi-year/medium-term budget/expenditure framework	11%
Tariff law/policy	3%
No financial plan	8%

Level of implementation (number of countries, urban sanitation*)		
Insufficient	Partial	Consistent
10	10	12
13	5	8
4	0	4
0	1	1

The unknown





Can you (as a country) afford it?



Definitions: MDGs and the SDGs

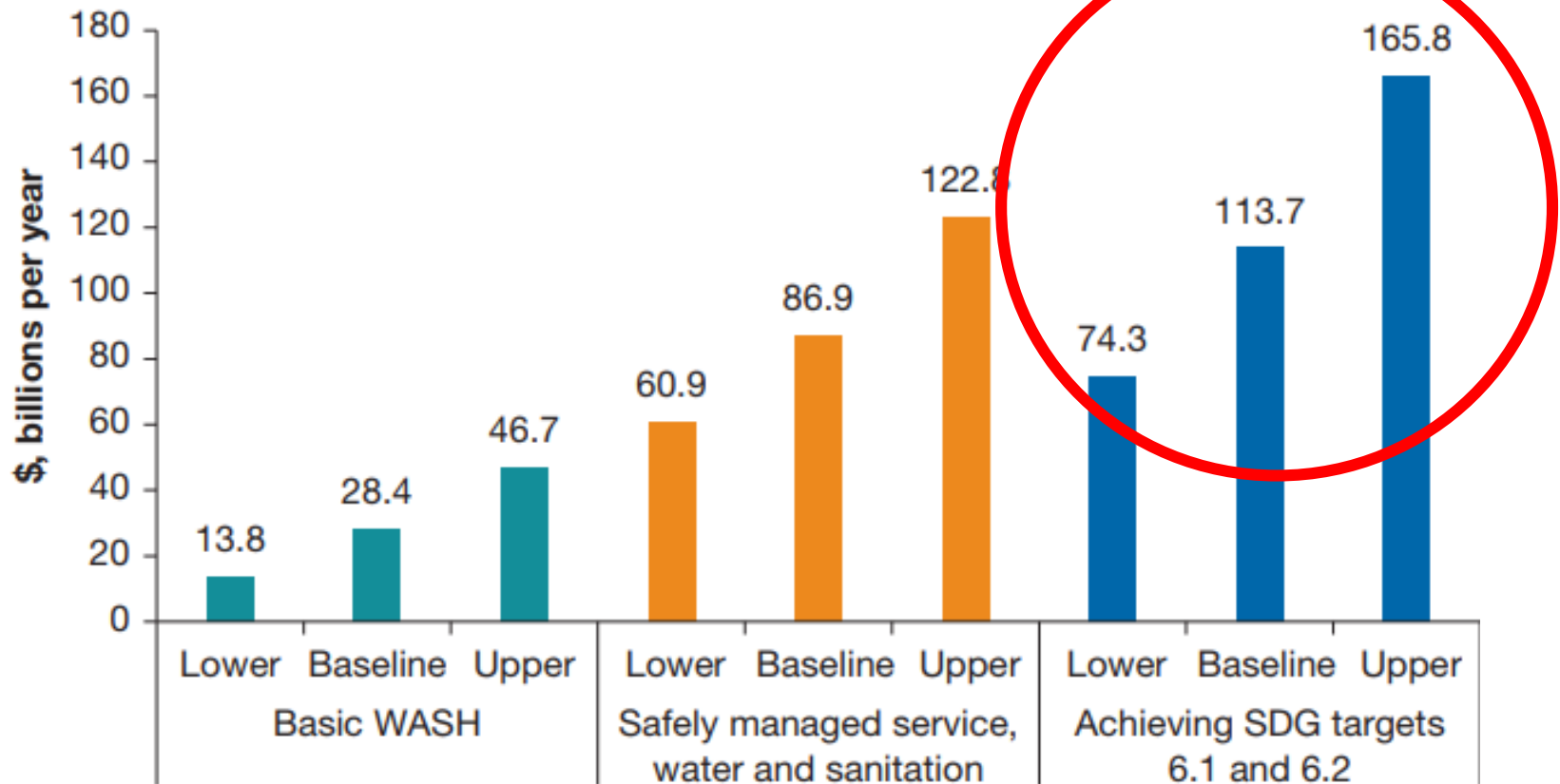
	MDG	SDG
	Basic access ^a	Safely managed access
Drinking water	<ul style="list-style-type: none">• Within a 30-minute round trip	<ul style="list-style-type: none">• On premises• Available when needed• Free from contamination
Sanitation and hygiene	<ul style="list-style-type: none">• Hygienic separation of human excreta from human contact	<ul style="list-style-type: none">• Not shared with another household• Proper disposal and treatment of waste

Note: MDG = Millennium Development Goal; SDG = Sustainable Development Goal.

a. Formerly known as "improved" under the MDGs.

Higher service levels, higher costs => only investment in infrastructure PER YEAR

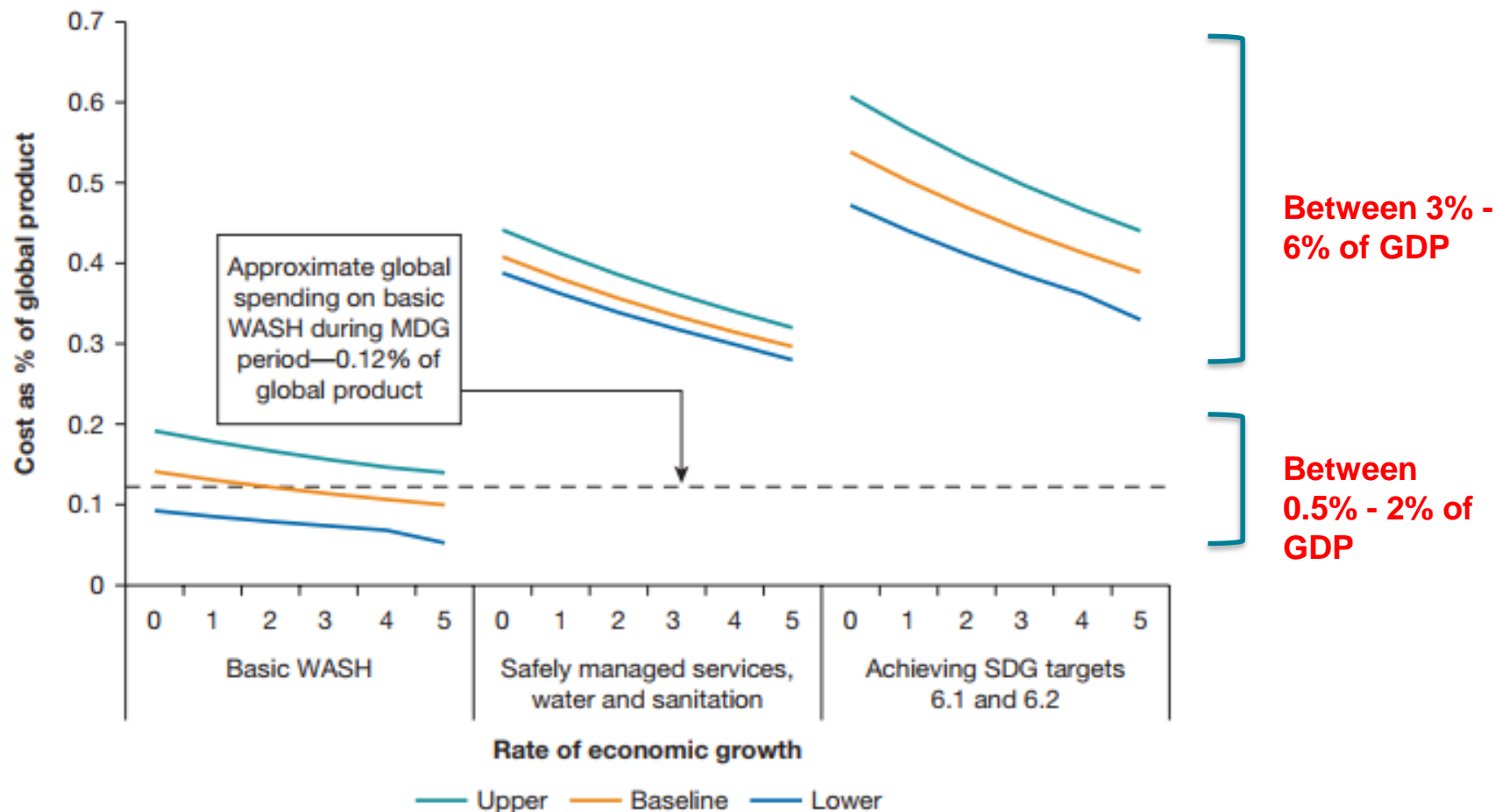
Variations in Baseline Costs for Annual Global Capital Costs



Note: Safely managed sanitation costs are for safe excreta management alone; they exclude latrine costs.
WASH = water, sanitation, and hygiene; SDG = Sustainable Development Goal.

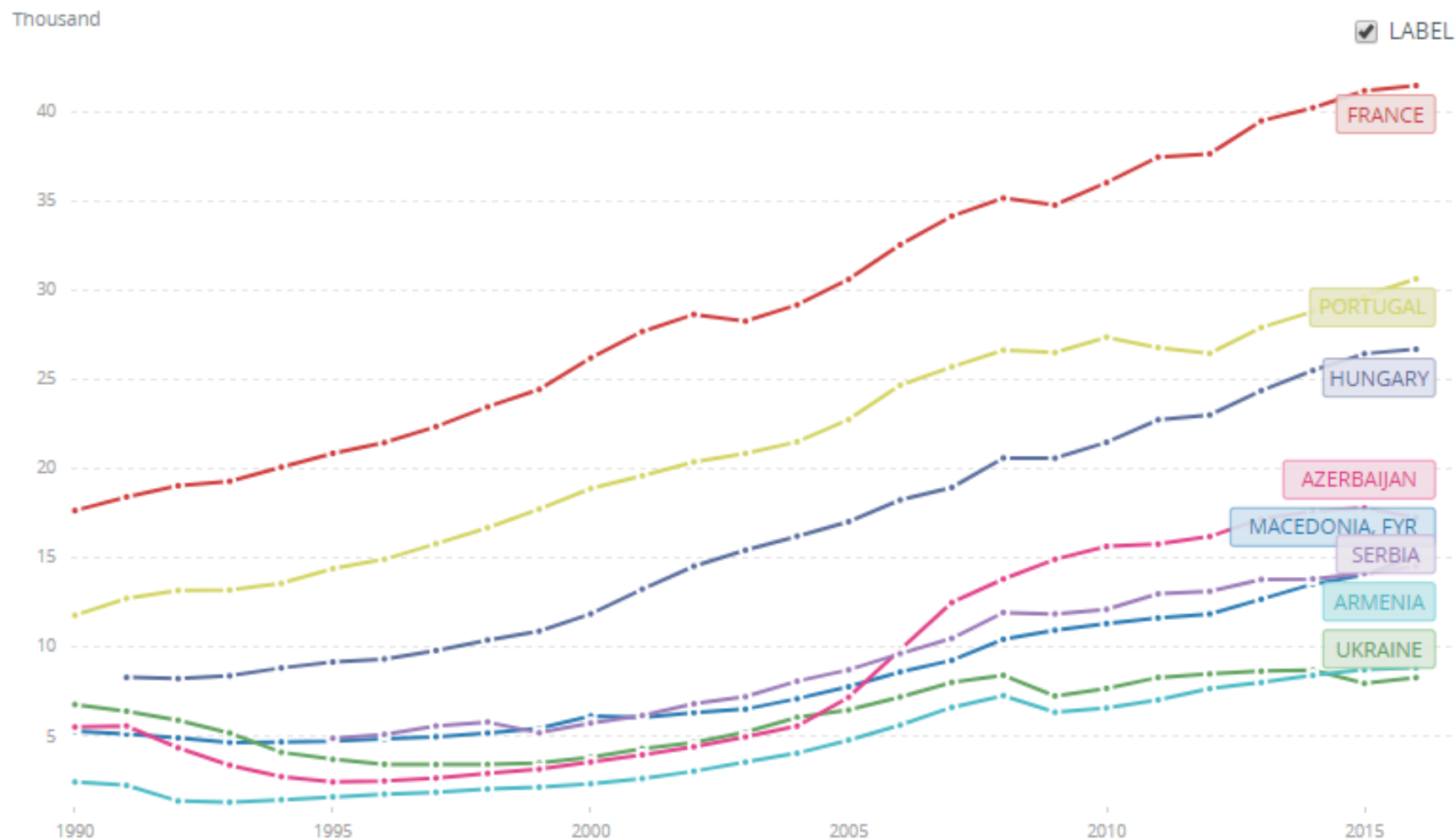
Can you afford it? Macro economic perspective

Global Costs of Achieving Different Service Levels as a Percent of GP_{140} under Economic Growth Rates of 0 to 5 Percent



Note: Safely managed sanitation costs are for safe excreta management alone; they exclude latrine costs.
GP = gross product; WASH = water, sanitation, and hygiene; SDG = Sustainable Development Goal.

GDP per capita, PPP (current international \$), 1990-2016



Achieving only the SDG targets 6.1 and 6.2

=> Construction only

=> Per person

=> Per year

	2016 GDP per capita \$	3% GDP	6% GDP
France	41,500	1,245	2,490
Azerbaijan	17,000	510	1,020
Ukraine	8,000	240	480

Tariffs + public finance = not fast enough, not the amounts required... bring in private finance

Funding sources ("3Ts")

Tariffs

User fees for services provided and households' investment for self-supply

Transfers

Transfers from external sources, such as international donors (ODA grants), foundations, NGOs, remittances

Taxes

Domestic taxes levied by local and central governments and provided as grants or subsidies

Pre-finance

Repay

Repayable financing

Concessional finance

Provided by development agencies with a grant element (e.g. "soft loans")

Private finance

Provided by private sector financiers at market rate (vendor finance, microfinance, loans, bonds, equity)

Key

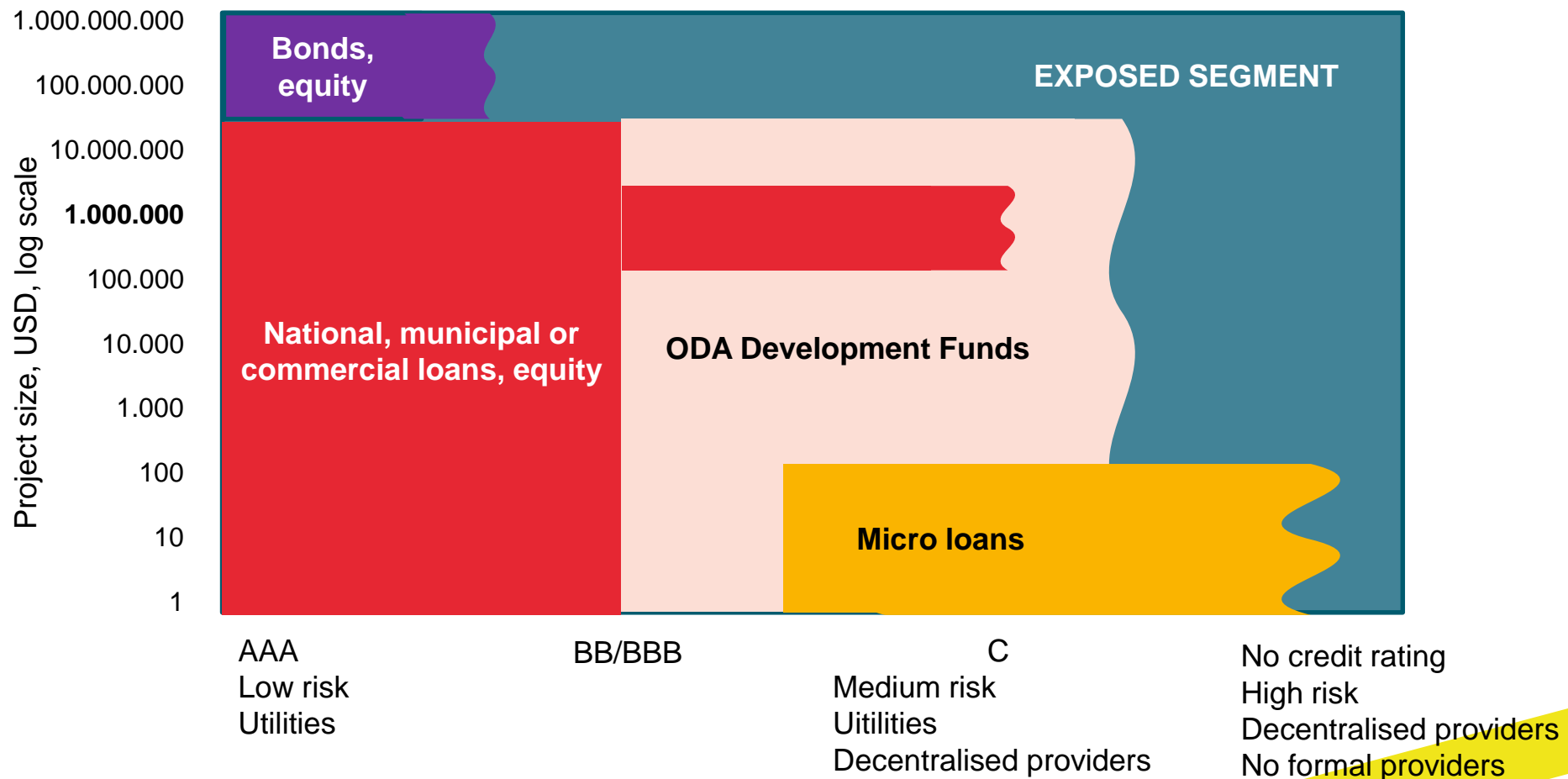
- Private funds
- Mixed public and private funds
- Public funds



We don't know...



Water project segmentation, financing options (work in progress)



In which of these countries would you be happy for your pension fund to invest in the WASH sector?

● Strong
 ● Moderate
 ● Weak

Criteria	Bangladesh	Benin	Cambodia	Ethiopia	Ghana	India	Indonesia	Kenya	Madagascar	Mali
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Criteria	Malawi	Mozambique	Nepal	Philippines	Rwanda	Senegal	Tanzania	Uganda	Zambia
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Criteria to attract additional private and public finance to the WASH sector

WASH sector-specific

Clear institutional roles AND legal framework that defines asset management

Non-revenue water ratios

Cost recovery ratios

Benchmarking of service providers

Financial sector-specific

Domestic bank financing and other non-grant financing to WASH

Credit rating / worthiness of utilities

Bond market

Only 5 out of 19 have no major constraints to attract private funding

● Strong ● Moderate ● Weak

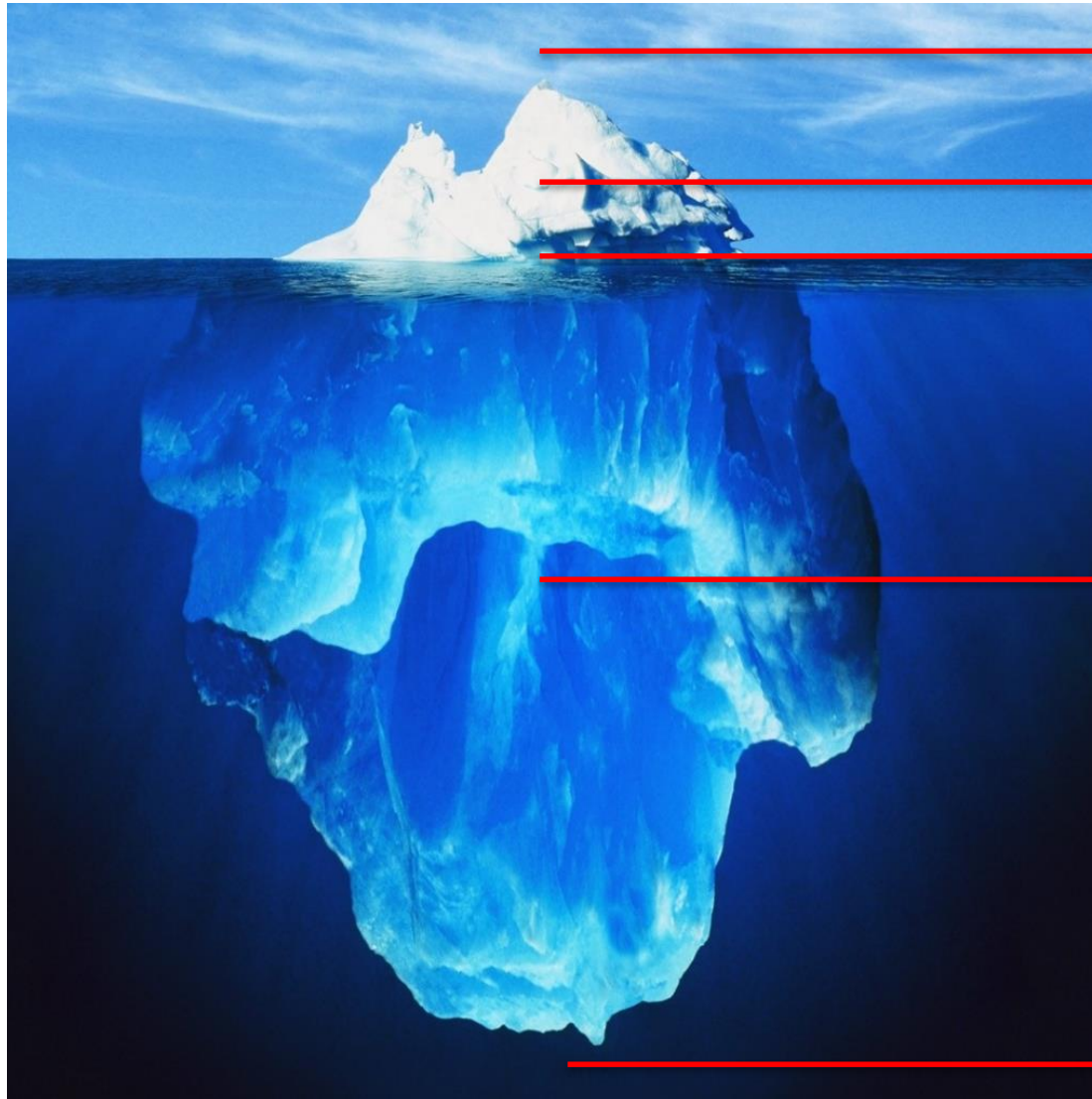
Criteria	Bangladesh	Benin	Cambodia	Ethiopia	Ghana	India	Indonesia	Kenya	Madagascar	Mali
Institutional and legal framework	Weak	Moderate	Strong	Strong	Strong	Strong	Moderate	Moderate	Moderate	Moderate
Non revenue water ratio	26%	28%	7%	23%	52%	42%	30%	42%	34%	28%
Cost recovery ratio	1.4	1.96	2.57	1.15	1.16	0.55	1.39	0.97	ND	1.15
Benchmarking of service providers	Weak	Weak	Strong	Weak	Moderate	Moderate	Moderate	Strong	Weak	Weak
Domestic bank financing / non-grant financing to WASH	Moderate	Moderate	Strong	Moderate	Moderate	Moderate	Strong	Moderate	Moderate	Strong
Credit rating / worthiness of utilities	Weak	Weak	Strong	Weak	Moderate	Strong	Strong	Strong	Weak	Weak
Bond market	Moderate	Moderate	Strong	Weak	Strong	Strong	Strong	Moderate	Weak	Weak

Criteria	Malawi	Mozambique	Nepal	Philippines	Rwanda	Senegal	Tanzania	Uganda	Zambia
Institutional and legal framework	Moderate	Moderate	Moderate	Moderate	Strong	Strong	Strong	Strong	Strong
Non revenue water ratio	33%	46%	ND	43%	41%	33%	56%	35%	51%
Cost recovery ratio	1.07	1.13	ND	2.4	.082	1.39	0.77	1.36	1.11
Benchmarking of service providers	Moderate	Strong	Weak	Moderate	Weak	Strong	Moderate	Strong	Strong
Domestic bank financing / non-grant financing to WASH	Moderate	Moderate	Strong	Strong	Moderate	Strong	Moderate	Moderate	Moderate
Credit rating / worthiness of utilities	Weak	Moderate	Weak	Moderate	Weak	Moderate	Weak	Weak	Moderate
Bond market	Moderate	Weak	Moderate	Strong	Moderate	Strong	Moderate	Strong	Moderate

Final message: Investing in the enabling environment is as important as investing in infrastructure

- The need to reach out to the political side with numbers
- The need for CSOs, NGOs, regulators, journalists to talk finance confidently
- An analysis for reaching the SDGs in Europe?
- Keep asking the hard questions on finance: Who is benefiting? What measures are in place to track if the poorest and most excluded are being served?

Costs and financing: Importance of non-capital expenditure



Capital expenditure

Minor maintenance

Major maintenance

Everything else:

- **Regulation**
- **Policy**
- **Monitoring**
- **Institutions and people**

Key Resources (all hyperlinked)

- [WHO/UNICEF Joint Monitoring Programme, 2017](#)
- [UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water \(GLAAS\), 2017](#)
- [The Costs of Meeting the 2030 Sustainable Development Goal Targets on Drinking Water, Sanitation, and Hygiene, World Bank, 2016](#)
- [Financing WASH: how to increase funds for the sector while reducing inequities, 2017](#)
- [Easing the transition to commercial finance for sustainable water and sanitation, 2017](#)
- [Universal water and sanitation: how did the rich countries do it?, 2015](#)
- [Roadmap to universal WASH district level, 2017](#)



Financing WASH: how to increase funds for the sector while reducing inequities

Position paper for the Sanitation and Water for All Finance Ministers Meeting
April 19, 2017

IRC
Supporting water sanitation
and hygiene services for the

 **water.org**

 Ministry of Foreign Affairs of the
Netherlands

Simavi
A healthy life for all



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Thank you!

Спасибо!

Any questions please reach me at:

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Supporting water sanitation
and hygiene services for life

Definitions: GDP, PPP, real

GDP per capita is a measure of a country's economic output that accounts for population. It divides the **country's** gross domestic product by its total population.

That makes it the **best measurement of a country's** standard of living. It tells you how prosperous a country feels to each of its citizens.

To compare GDP per capita between countries, you must use the purchasing power parity GDP. That creates parity, or equality, between countries by **comparing a basket of similar goods**. It's a complicated formula that values a country's currency by what it can buy in that country, not just by its value as measured by its exchange rates.

If you want to **compare GDP per capita over time**, then you must use real GDP per capita. That removes the effects of price changes.

Definitions: bond

In [finance](#), a **bond** is an instrument of indebtedness of the bond issuer to the holders. The most common types of bonds include [municipal bonds](#) and [corporate bonds](#).

The *holder* of the bond is the lender (creditor), the *issuer* of the bond is the borrower (debtor), and the *coupon* is the interest. Bonds provide the borrower with external funds to finance long-term [investments](#), or, in the case of [government bonds](#), to finance current expenditure.

The bond is a debt [security](#), under which the issuer owes the holders a debt and (depending on the terms of the bond) is obliged to pay them [interest](#) (the [coupon](#)) or to repay the principal at a later date, termed the [maturity](#) date.^[1] Interest is usually payable at fixed intervals (semiannual, annual, sometimes monthly).

Definitions: Credit worthiness of a service provider

Creditworthiness is a measure of a borrower's ability and willingness to service its debt obligations, which is more likely to occur **when they recover 150 percent or more of their operating costs** and have good debt service coverage ratios.

To be creditworthy, the utility must demonstrate **a reliable stream of positive cash flow from operations as well as sufficient cash reserves** in the case that future cash flows are not sufficient. It is important that the evaluation of creditworthiness be based on the entire capacity of the utility and not just on analysis of the individual project.

Concurrently, the creditworthy **utility must have a plan to handle contingent or implicit charges**, which may include unexpected cost increases and foreign exchange losses.

Economic returns of water and sanitation investments

The projected global (average) economic return on universal access to water supply and sanitation is \$4.3 for every \$1 invested (WHO 2012), and is higher for sanitation than for water.

The link between access to improved sanitation and reduction in mortality for children under age 5 is clear. Countries with higher sanitation access have lower mortality rates.

How did rich countries do it?

United States:

- National and local governments as driving force with public finance
- Water companies municipally owned
- From 1840 **municipal bonds** were the major source of finance for investment.
- In big cities, **property taxes**, tariffs and connection charges

United Kingdom:

- Before 19th century small private providers
- 20th century major municipalities created public utilities
- Sewerage systems financed by public finance via **commercial or central government loans**

How did rich countries do it?

South Korea:

- Political priority
- Aid from US in 1960s for massive infrastructure investments (17% water coverage)
- Tax and tariffs for maintenance
- Central government transfers to local service providers
- Tariffs not enough for sewerage, **liquor tax** was used

Other examples

[ABOUT](#)[NEWS](#)[BLOGS](#)[LIBRARY](#)[COLLABORATE](#)[i](#)

Unleash the power of public finance!

Universal water and sanitation coverage will require governments to invest more money, and to invest it more effectively. But how can this be achieved? This website will help you find answers.

Check out our **Q&A** and **Resources**.

- India: national tax for sanitation and major drive from prime minister
- South Africa: equitable shares
- Uganda: VAT and tax reforms
- Madagascar: surcharge on water bills
- Botswana: tax revenue from mining industry
- Netherlands: water financing facilities

What is a water financing facility?

Water Financing Facilities

Mobilising finance for
universal access to water
and sanitation services