



Financing water supply and sanitation services in Uganda

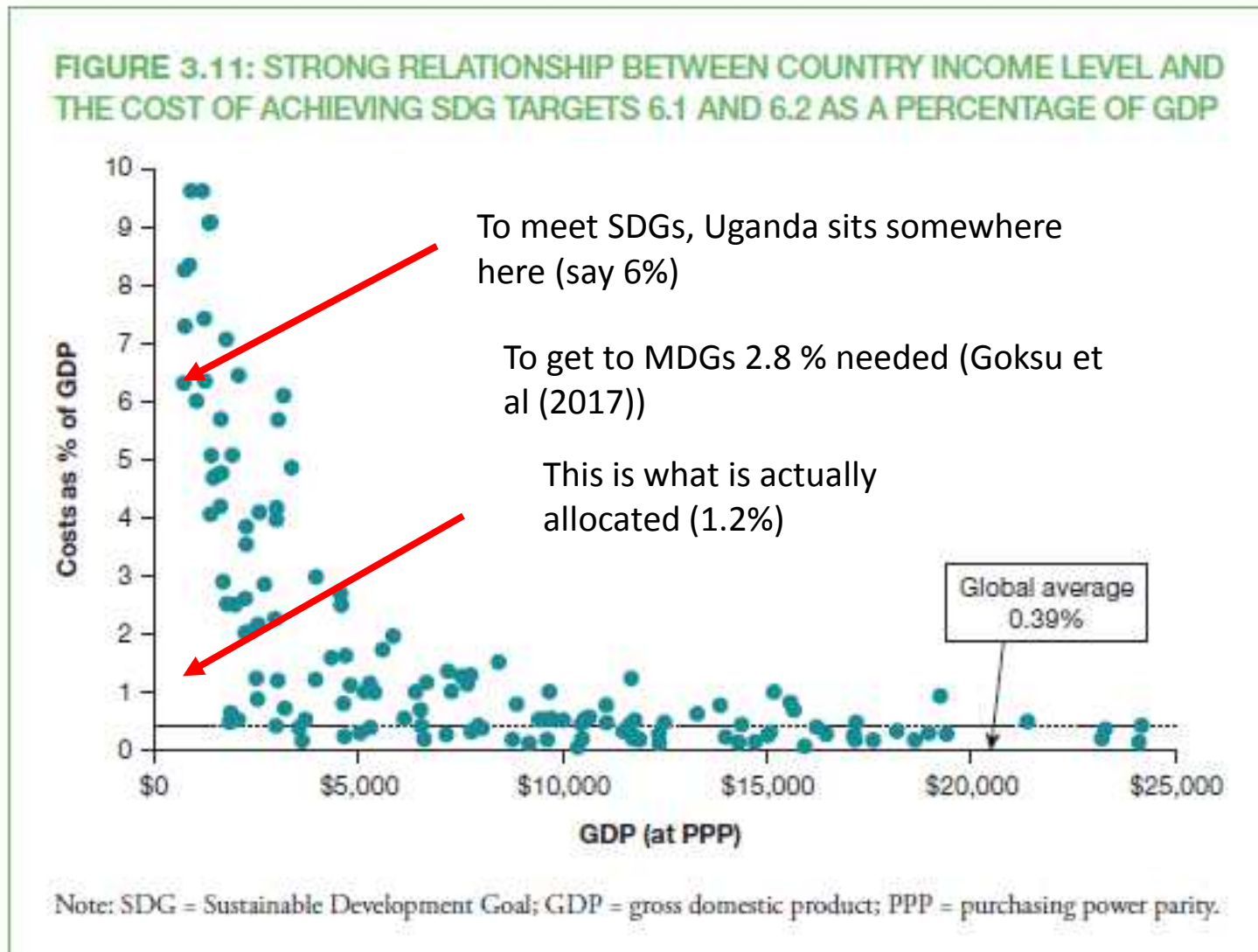
A look into the future

Ian Palmer 27 September 2017

Structure

- The financing gap.
- How to blend finance sources.
- The importance of effective operational performance.
- Specific provisions for each type of funding.
- Closure: what is to be done?

What level of funding is needed?



Source: Hutton and Varughese, 2016

Where is the money coming from presently?

Billion US\$

GOU budget	331
External (concessional)	357
AIA *	355
Total (budgeted)	1,043

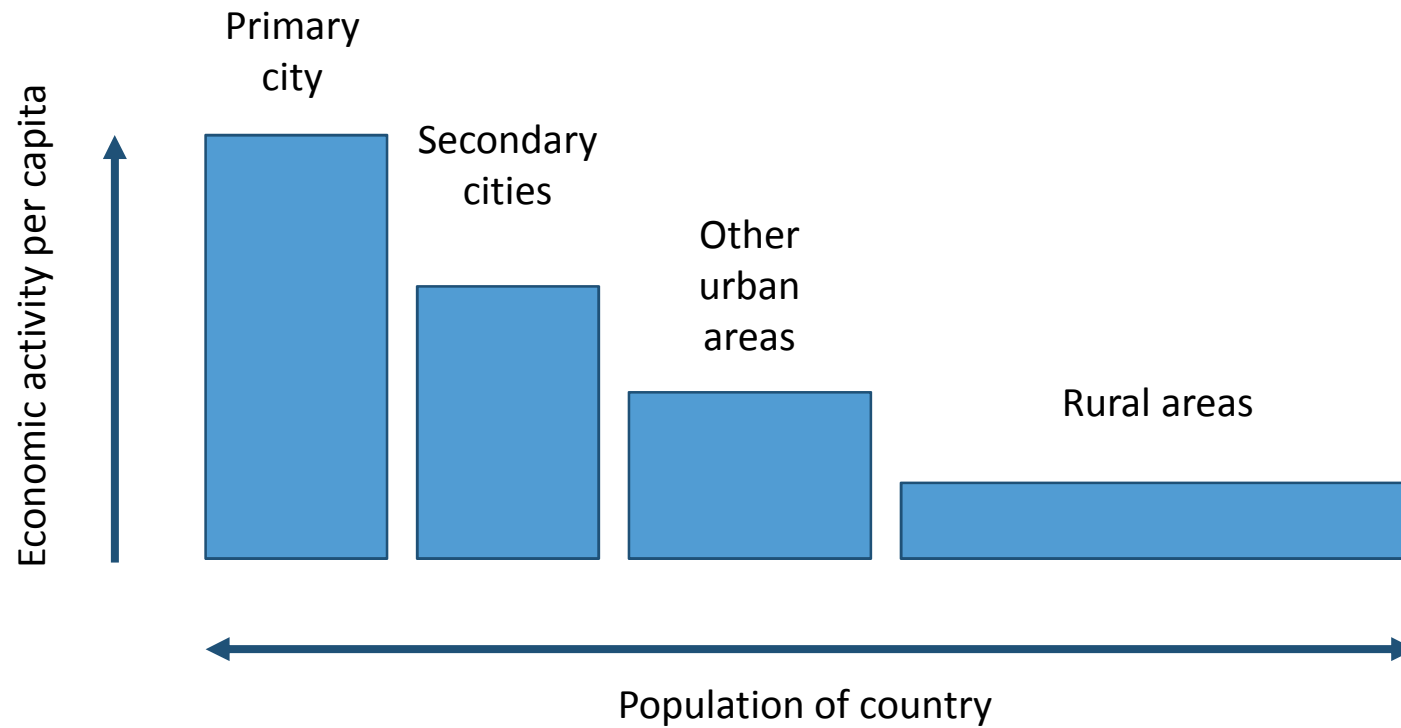
Very little from private sector

Source: MWE Water sector review, 2017

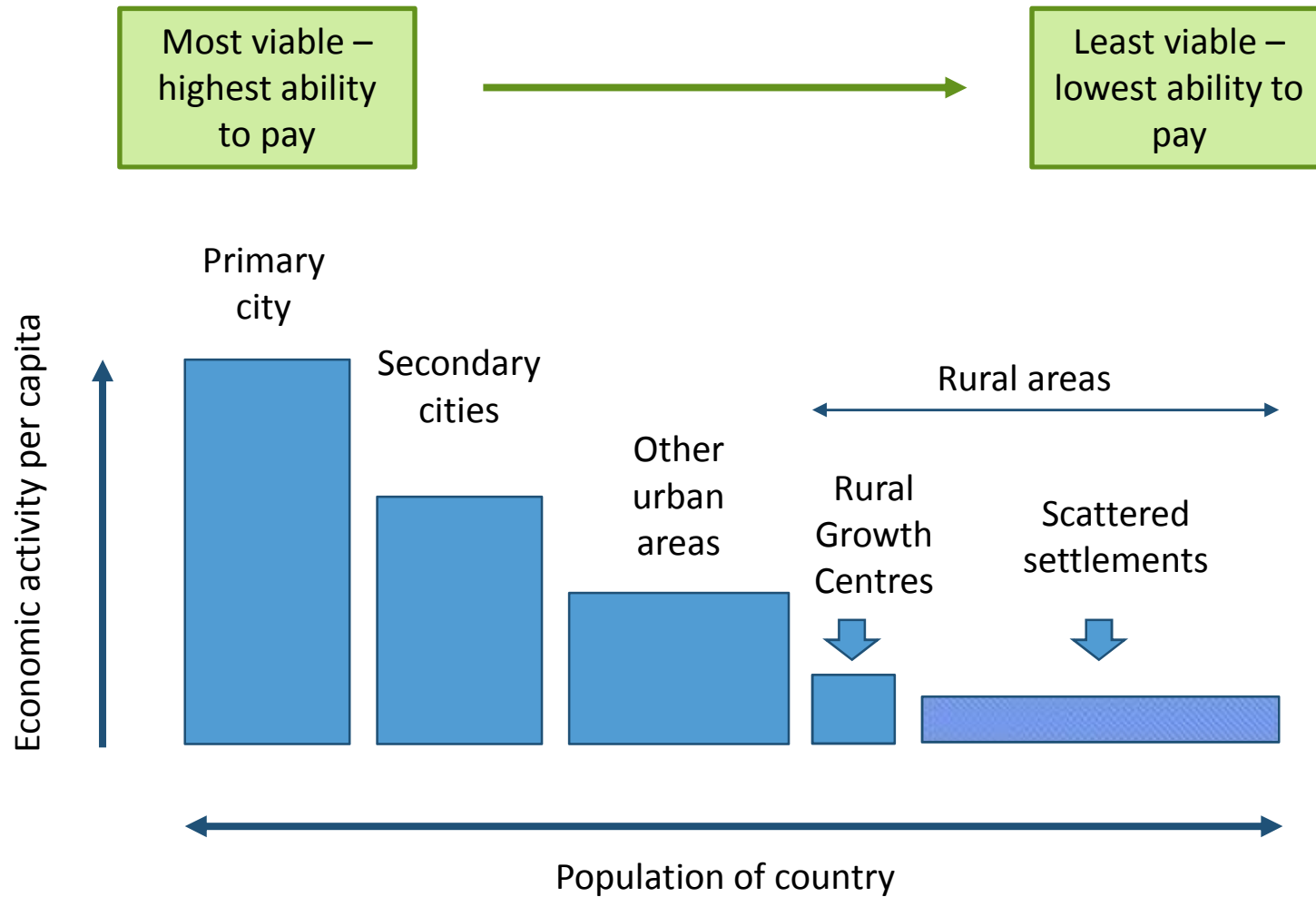
* AIA (Appropriation in aid) – use of cash surpluses from service providers

**What follows is an overview of how
finance can be blended**

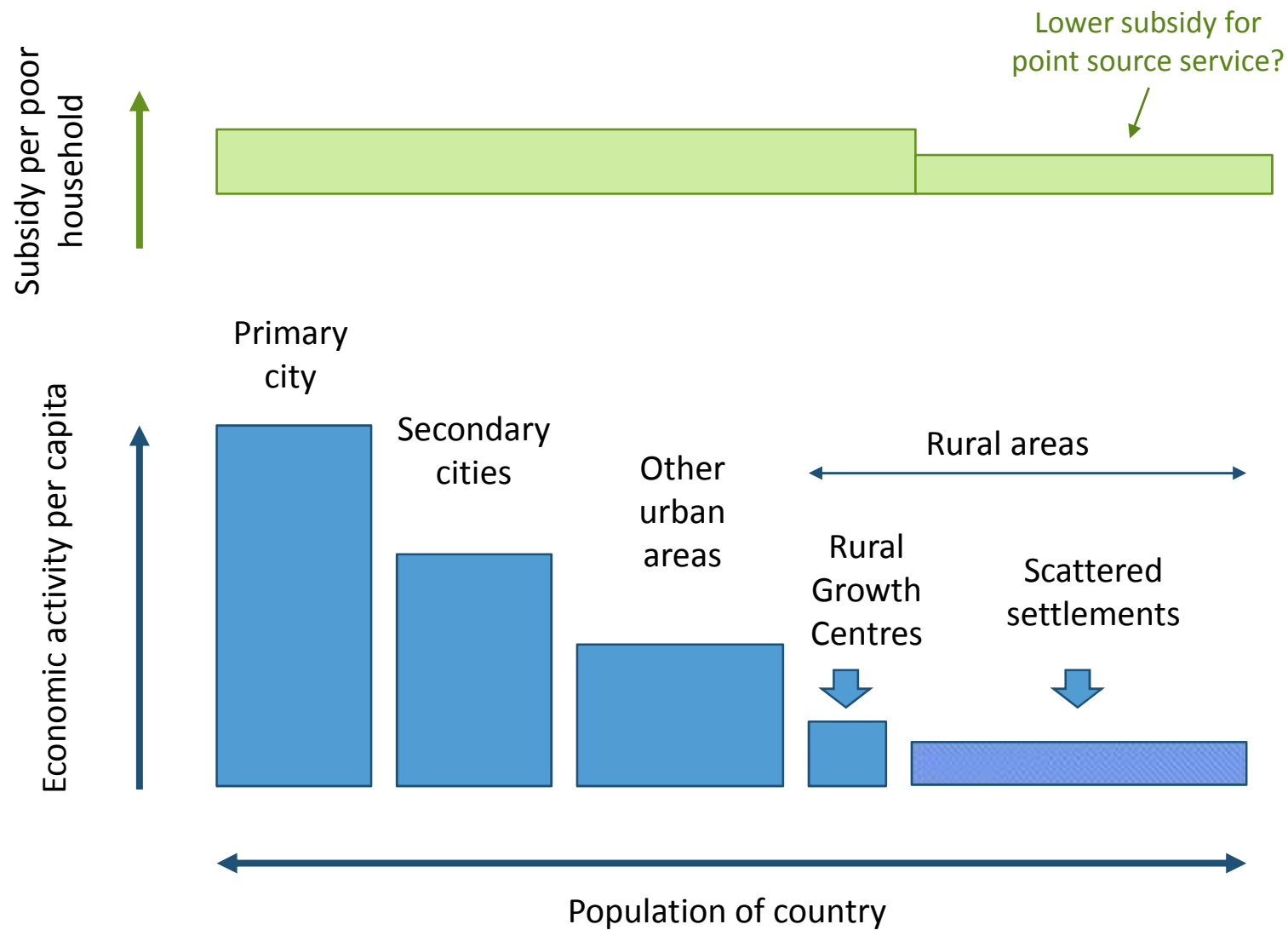
Economy of settlements (Typical developing country)



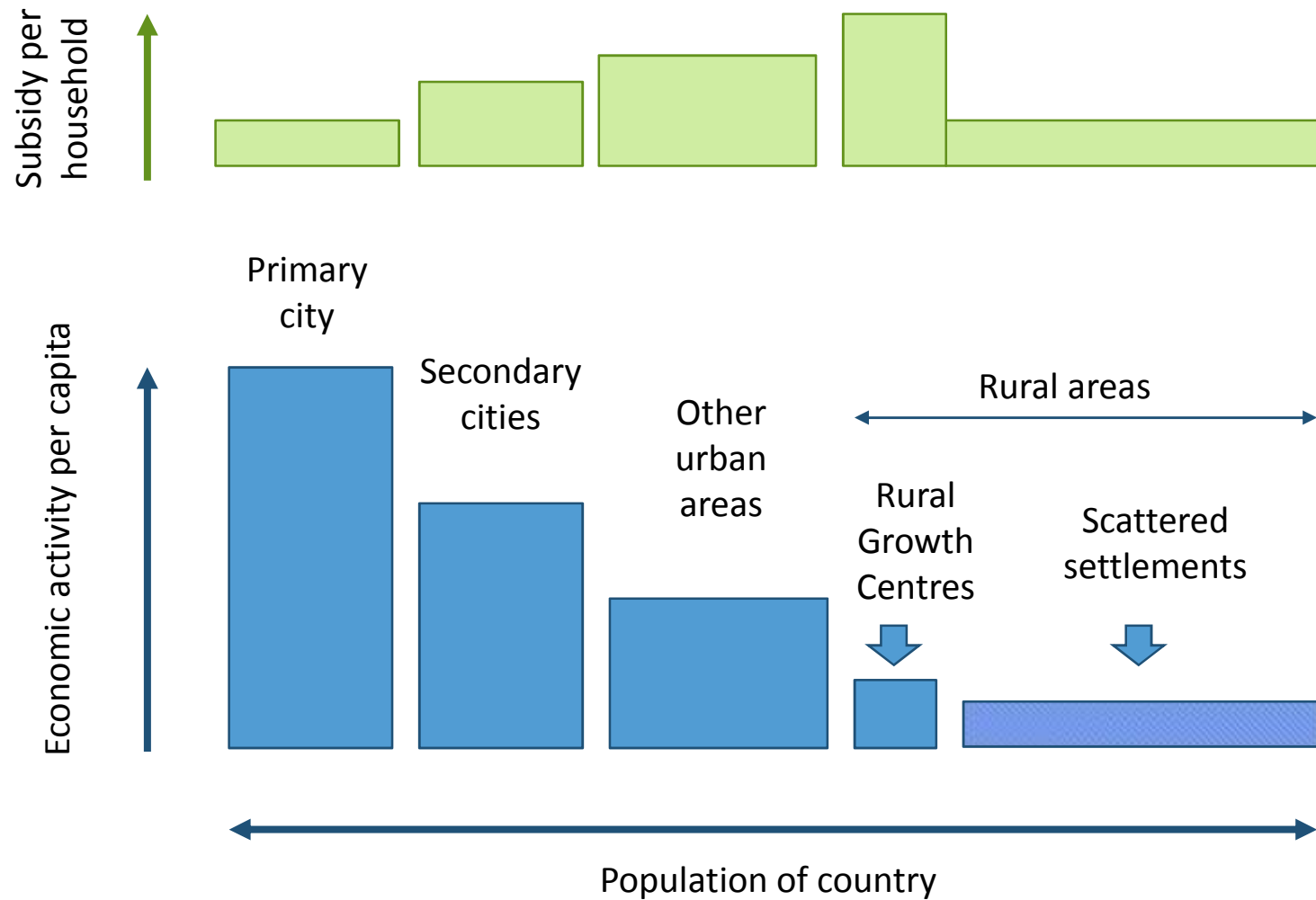
What this means for financial viability of service providers



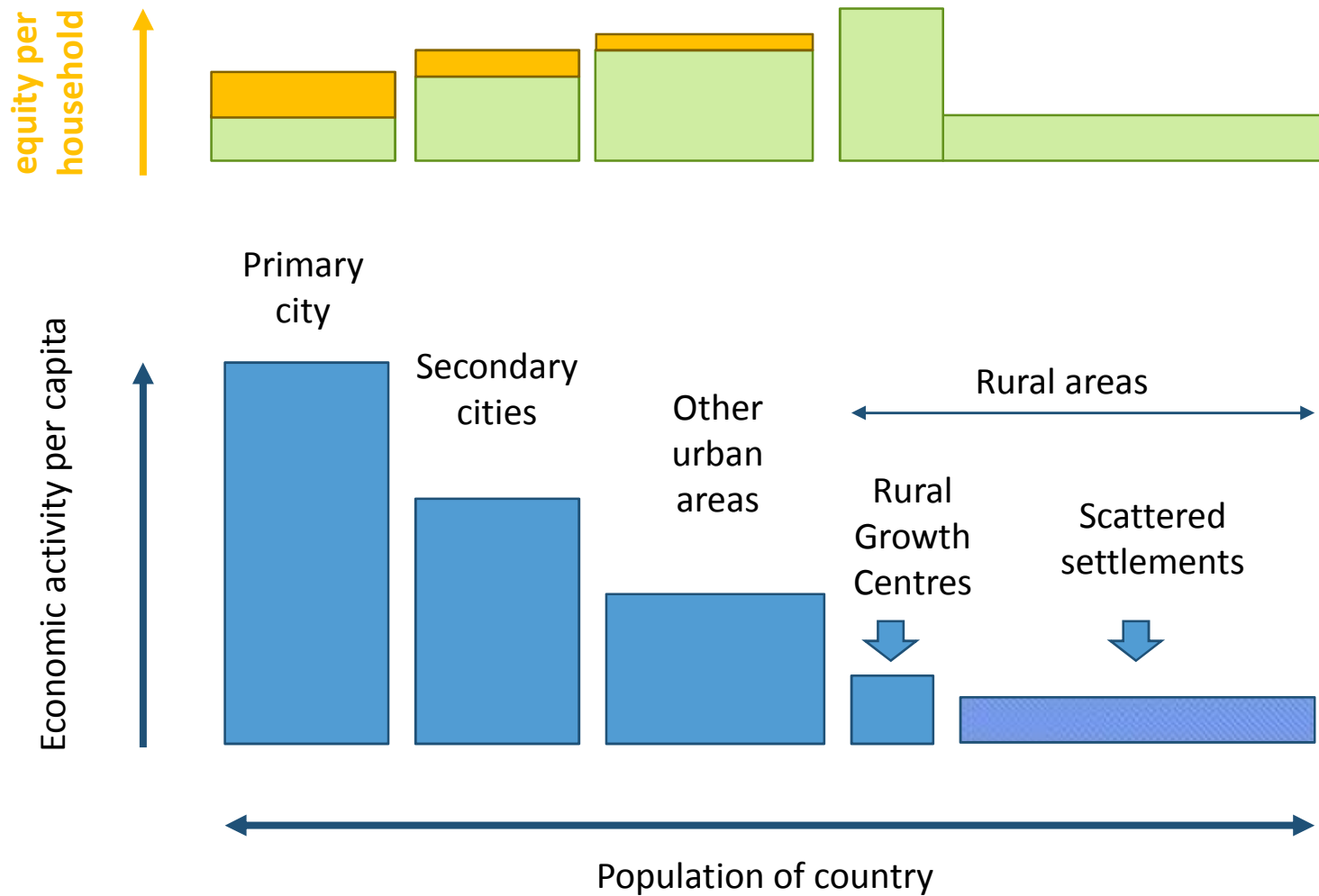
What this means for **capital subsidies per poor household** (transfers from GOU and grants from outside)



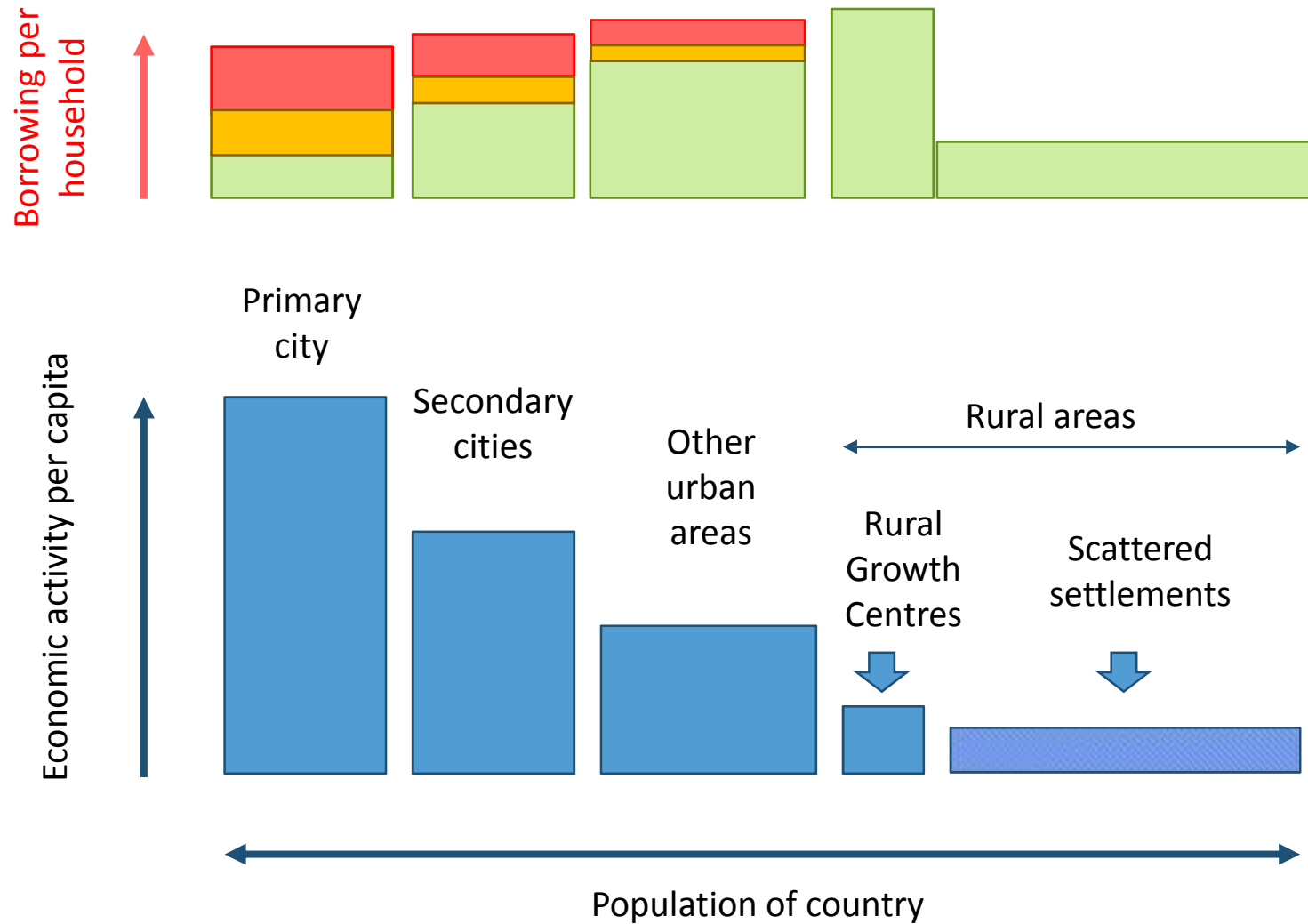
What this means for **capital subsidies per household** (transfers from GOU and international grants)



What this means for equity (AIA - use of operating surpluses and associated reserves)

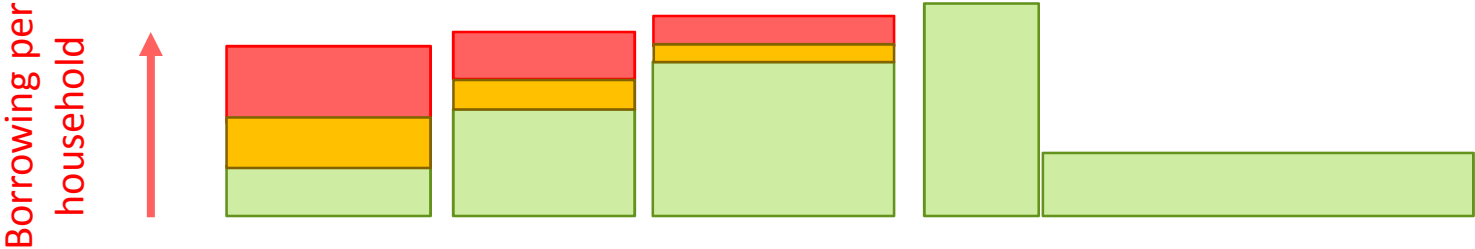


What this means for borrowing (whether by national government or service provider)

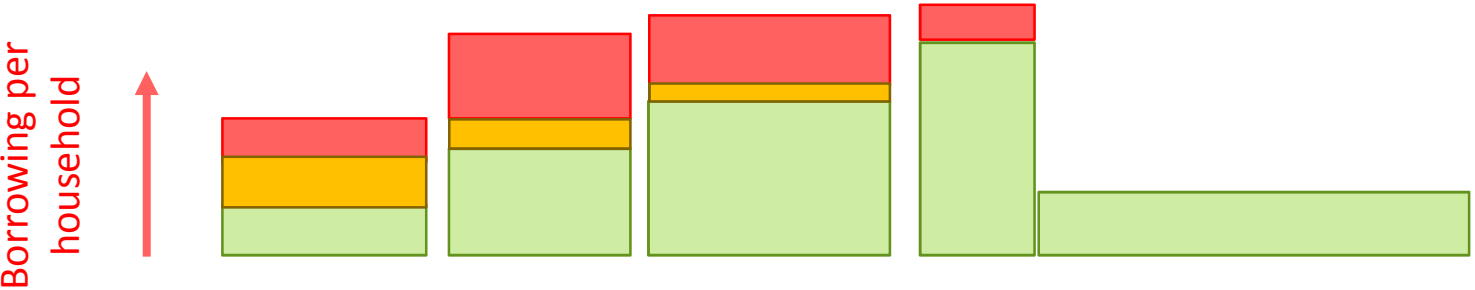


Concessional vs commercial borrowing

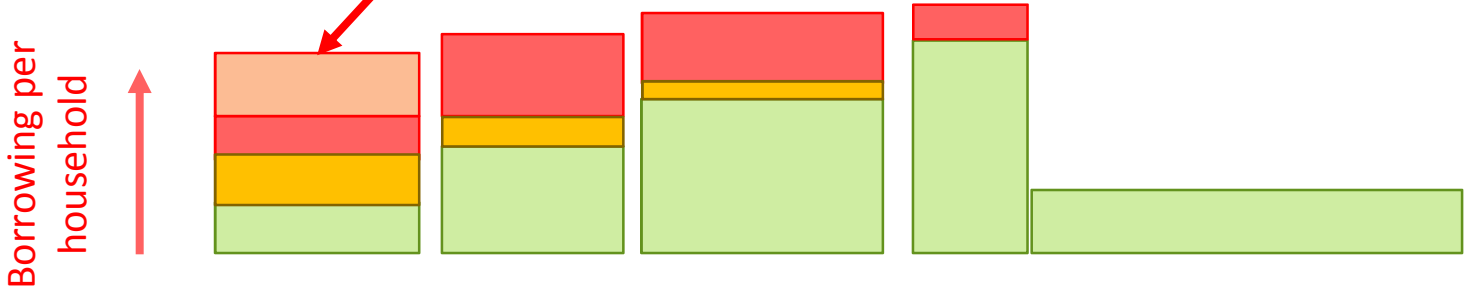
Assume start is with concessional loans (from previous diagram)



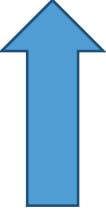
Shift concessional loans to economically weaker areas



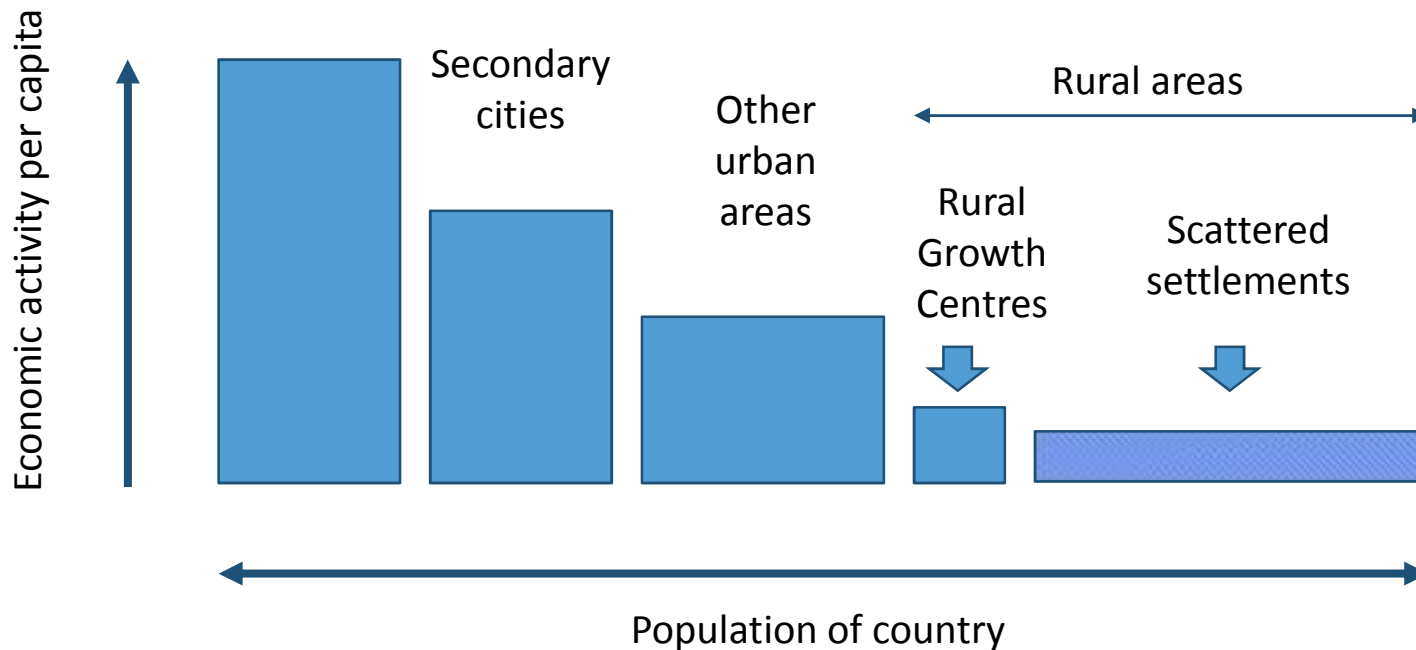
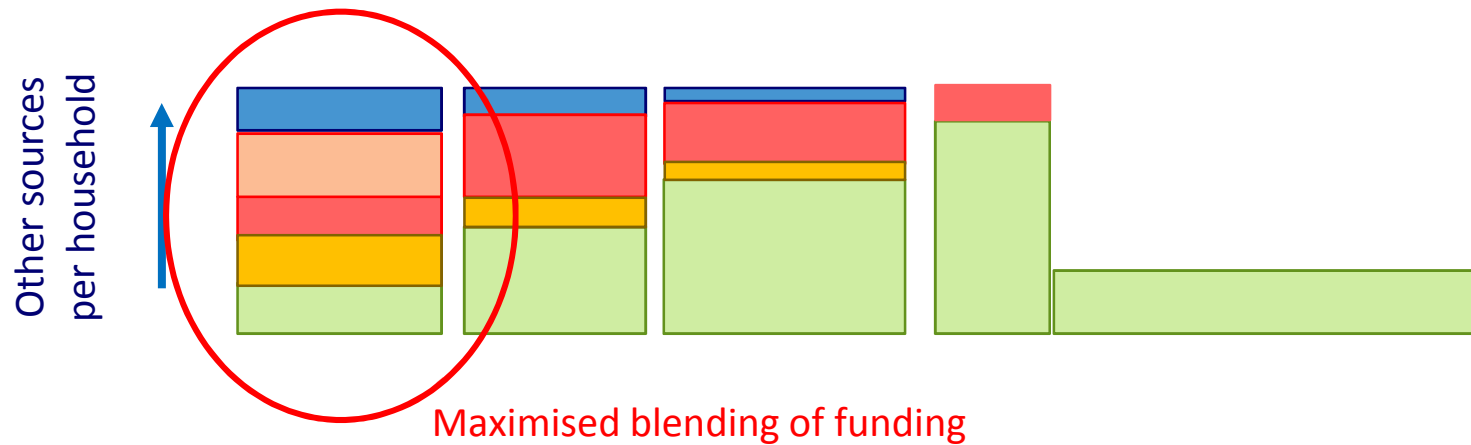
New commercial loans



Overall increase in funding to sector

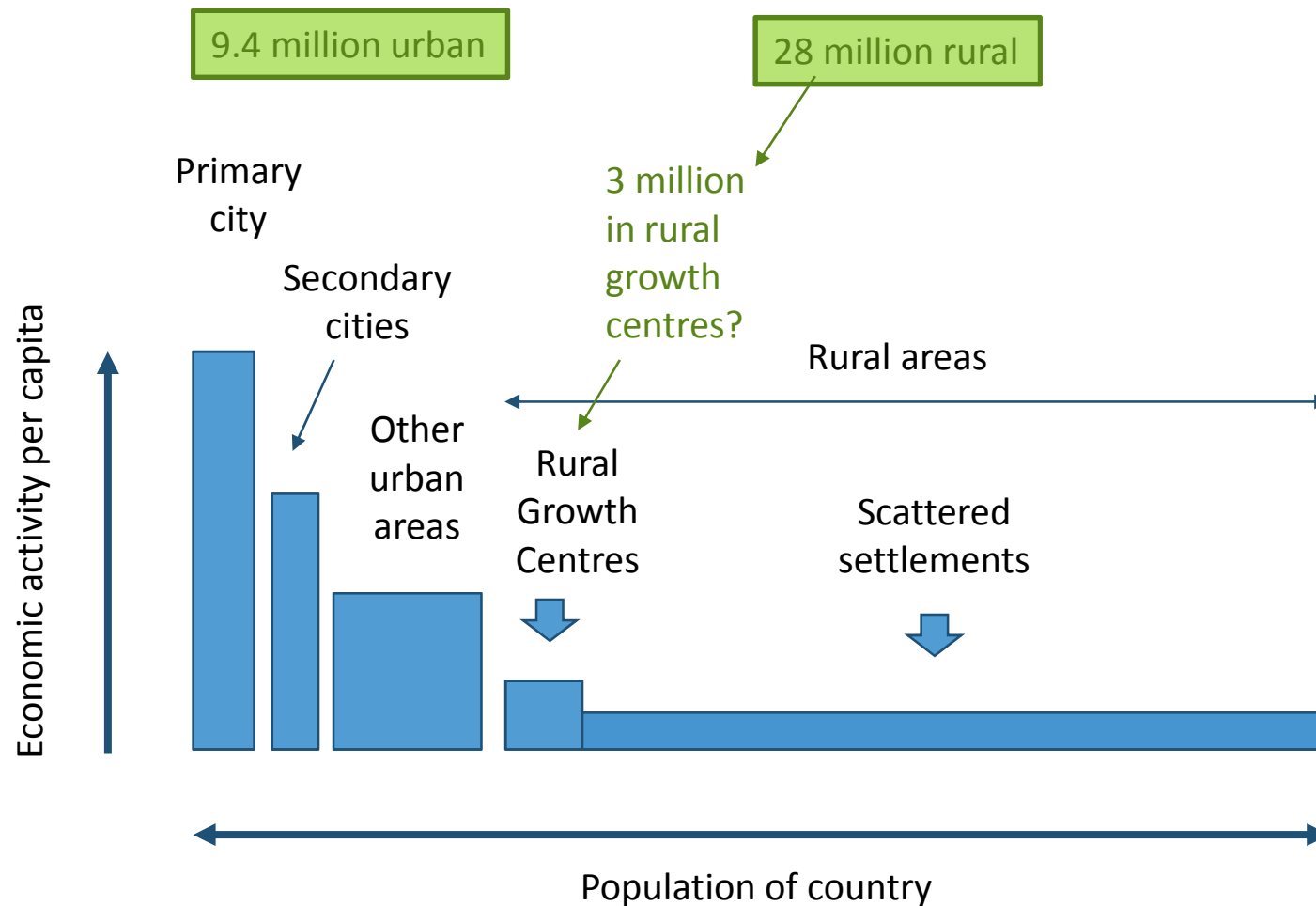


What this means for other sources of funding off budget (development charges and PPPs)

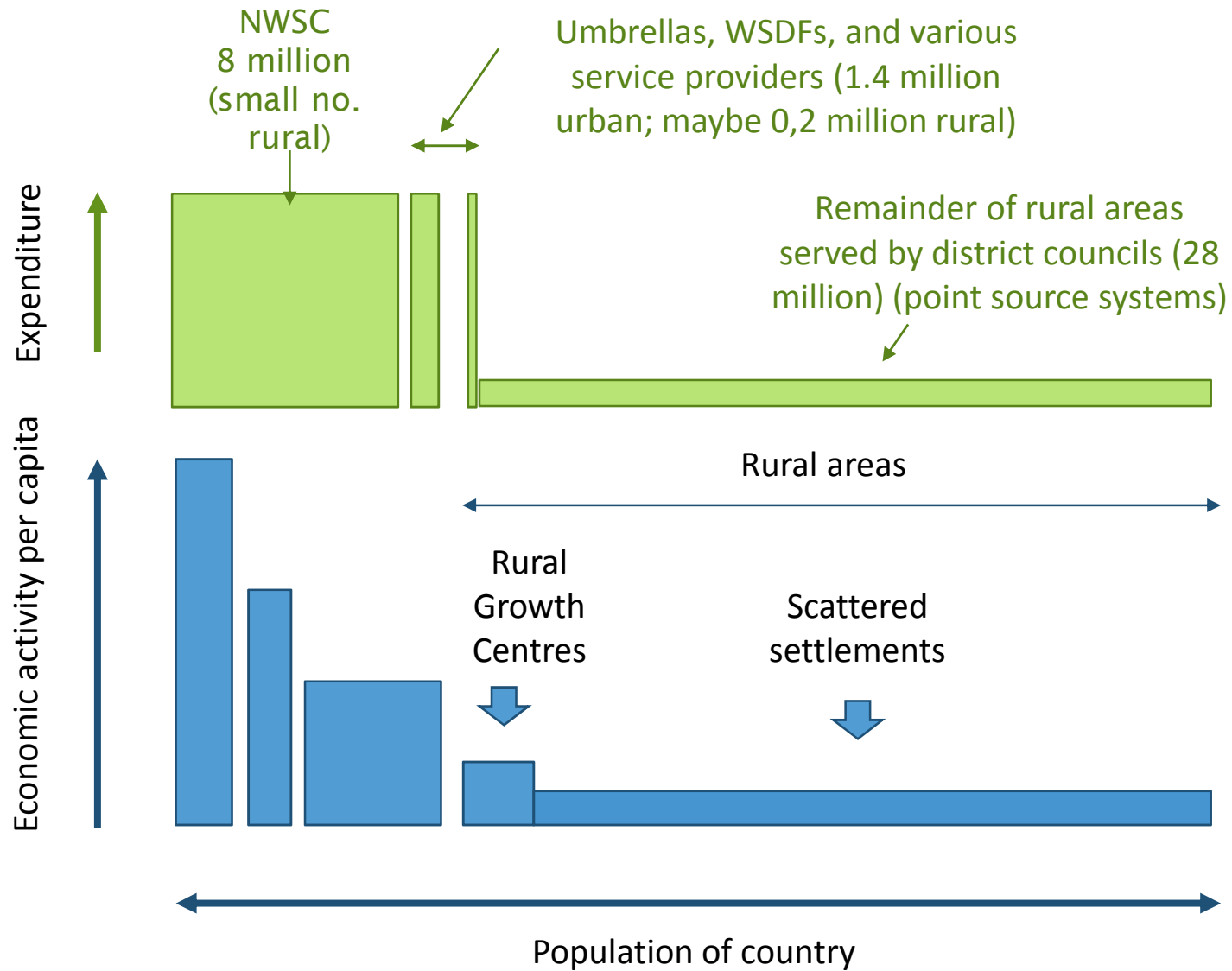


How does this play out in Uganda?

The Uganda settlement situation



Current institutional arrangements (with population in area of institution)



Future service provision obligations

Piped water

Institution	Backlog (population to be served) - millions	Growth over coming decade (population) millions	Growth rate assumed
NWSC	2	6.3	6% p.a
Umbrellas - urban	0.8	1.1	6% p.a
Umbrellas - rural	2.8	0.6	2% p.a
Districts		??	small
Total	5.6	8.0	

Sanitation

- Maybe 2 million to get sewerage sanitation
- Maybe 5 million currently and additional 7 million require effective faecal sludge management

A look at the specifics of each financing option

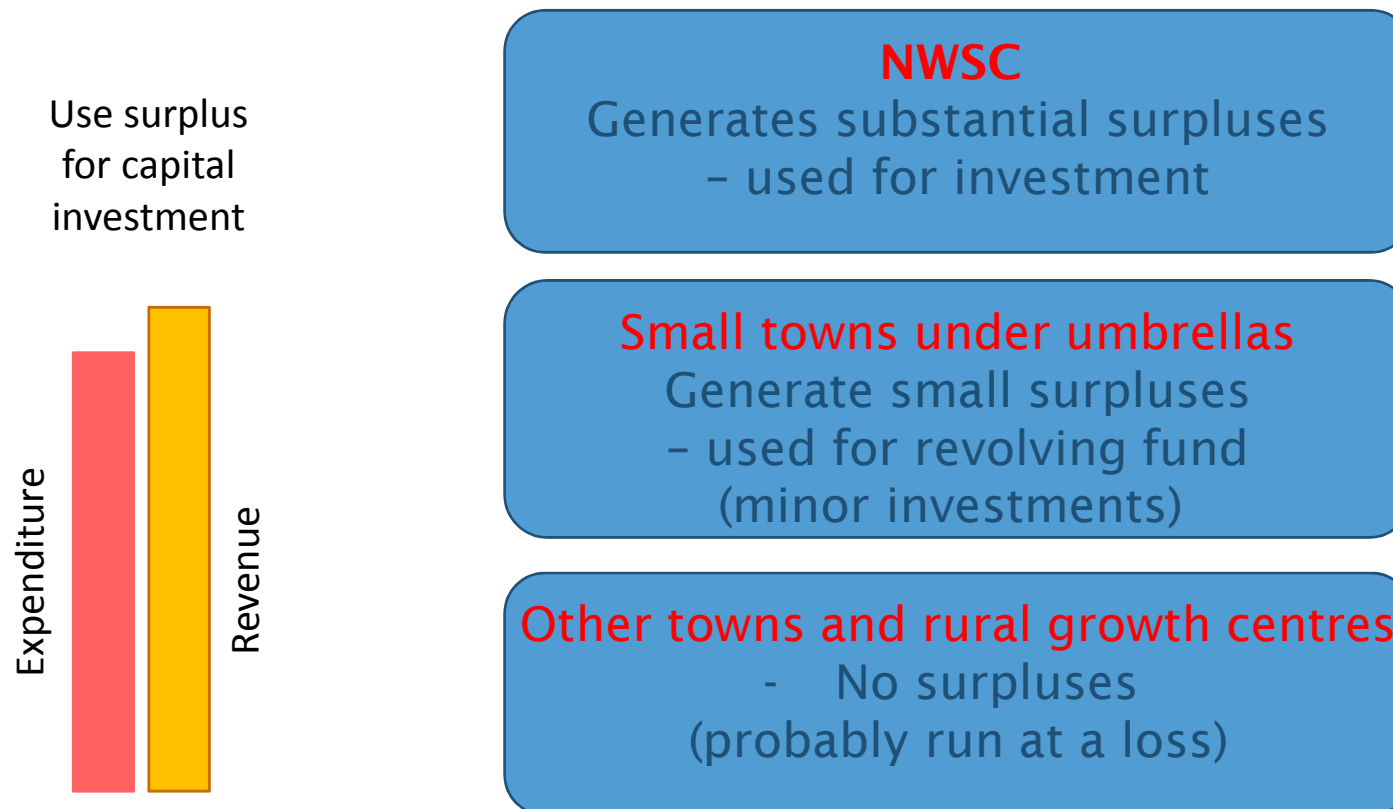
Capital finance - the nine main options

- On national budget
 - GOU: transfers to LG and NWSC
 - International partners – grants and concessional funds
 - Green funding
- On local government or NWSC budget
 - Own revenue (AIA): operating surpluses and reserves
 - Commercial borrowing
 - Land-based financing
- Off budget
 - PPPs: BOT and financing support to small operators.
 - Direct provision of infrastructure by developers.
 - CSO funding.

GoU transfers?

- Currently 3% of budget
- Recognition of the key role water and sanitation plays in social and economic development?

Own source funding from cash reserves (AIA)



But there is only so much one can do with AIA in a fast growing and fast urbanising country – tariff increases have limits

Water in Uganda is costly – limits ability to raise surpluses

TABLE 3.2. Median Affordability, by Country, 2010-13

Country	Median revenues per cubic meter sold (US\$), proxy for tariff	Median annual revenues Per connection	Median affordability (% of country's GNI per capita)
Benin	1.20	201	2.4
Burkina Faso	1.10	269	3.2
Congo, Dem. Rep.	0.75	440	5.2
Côte d'Ivoire	0.82	171	0.9
Kenya	1.01	173	1.7
Malawi	0.83	238	9.2
Mali	0.64	279	2.6
Mozambique	0.70	122	3.9
Niger	0.60	234	1.8
Senegal	1.09	266	2.3
Tanzania	0.43	98	1.7
Togo	0.64	215	2.2
Uganda	1.14	207	4.7
Zambia	0.46	185	1.1

Source: van den Berg and Danilenko, 2017

But new technology can help: reduce costs and increase revenue

Smart operating systems improve revenue and reduce costs:

- Meter reading with smart phones
- Account submission by phone
- Payment by phone
- Prepayment public stand-posts

Pumping and water abstraction

- Work on small systems but at large scale (thousands of systems)
- Standardised technology
- Solar pumping

NWSC and Kisumu examples



Debt finance (borrowing hierarchy)

■ Concessional

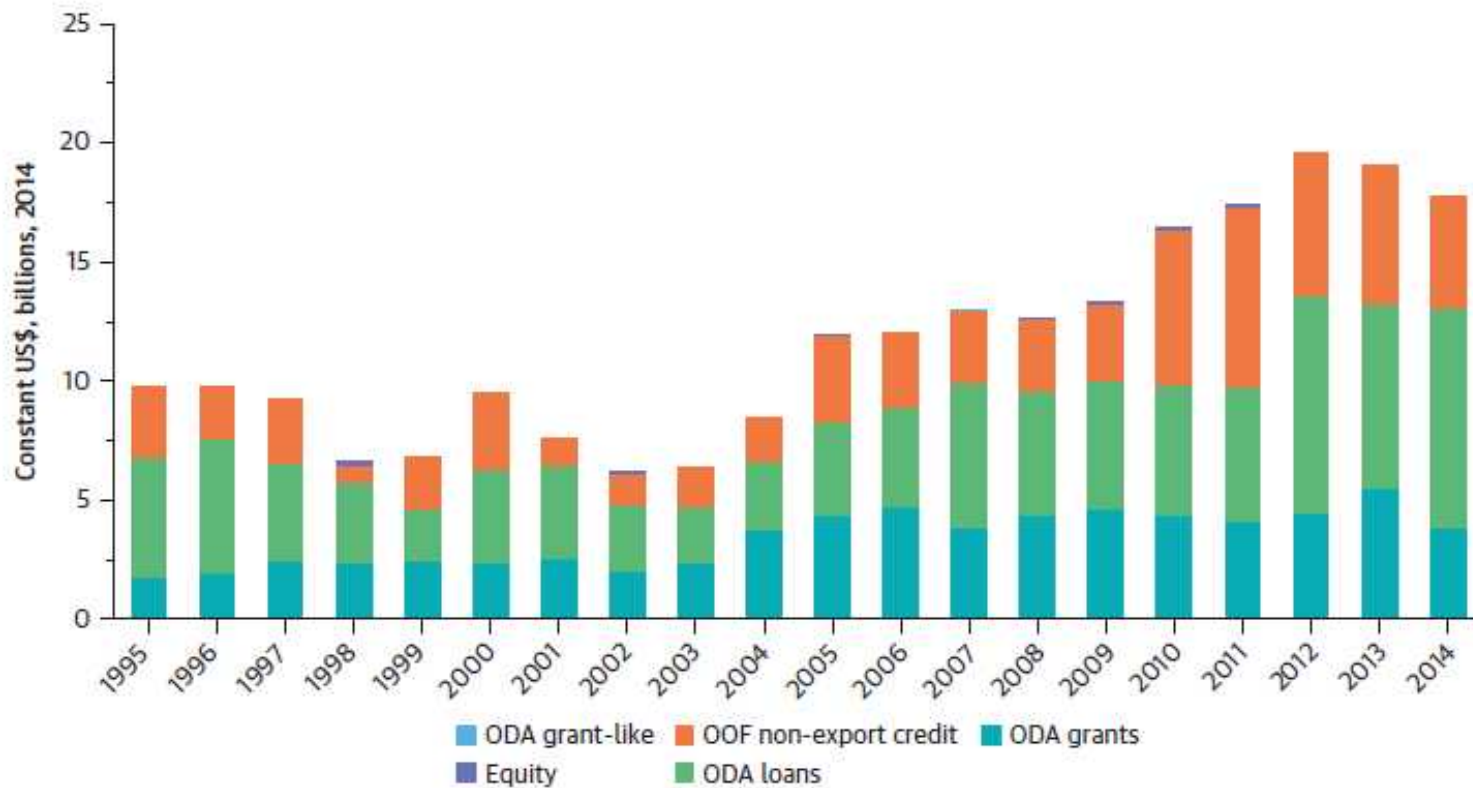
- National government borrows and transfers funds.
- Service provider borrows from DFI but with government guarantee (mostly)
- Service provider borrows from private bank but secured through output-based aid, for example.

■ Commercial

- Service provider takes loan from private financial institution – no guarantee
- Service provider issues bonds.

Concessional finance: where is this heading?

FIGURE 1. Official Development Finance for the Water Sector by Type, 1995-2014



Source: Adapted from the OECD DAC Database, accessed October 25, 2016.

Note: ODA = official development assistance; OOF = other official flows.

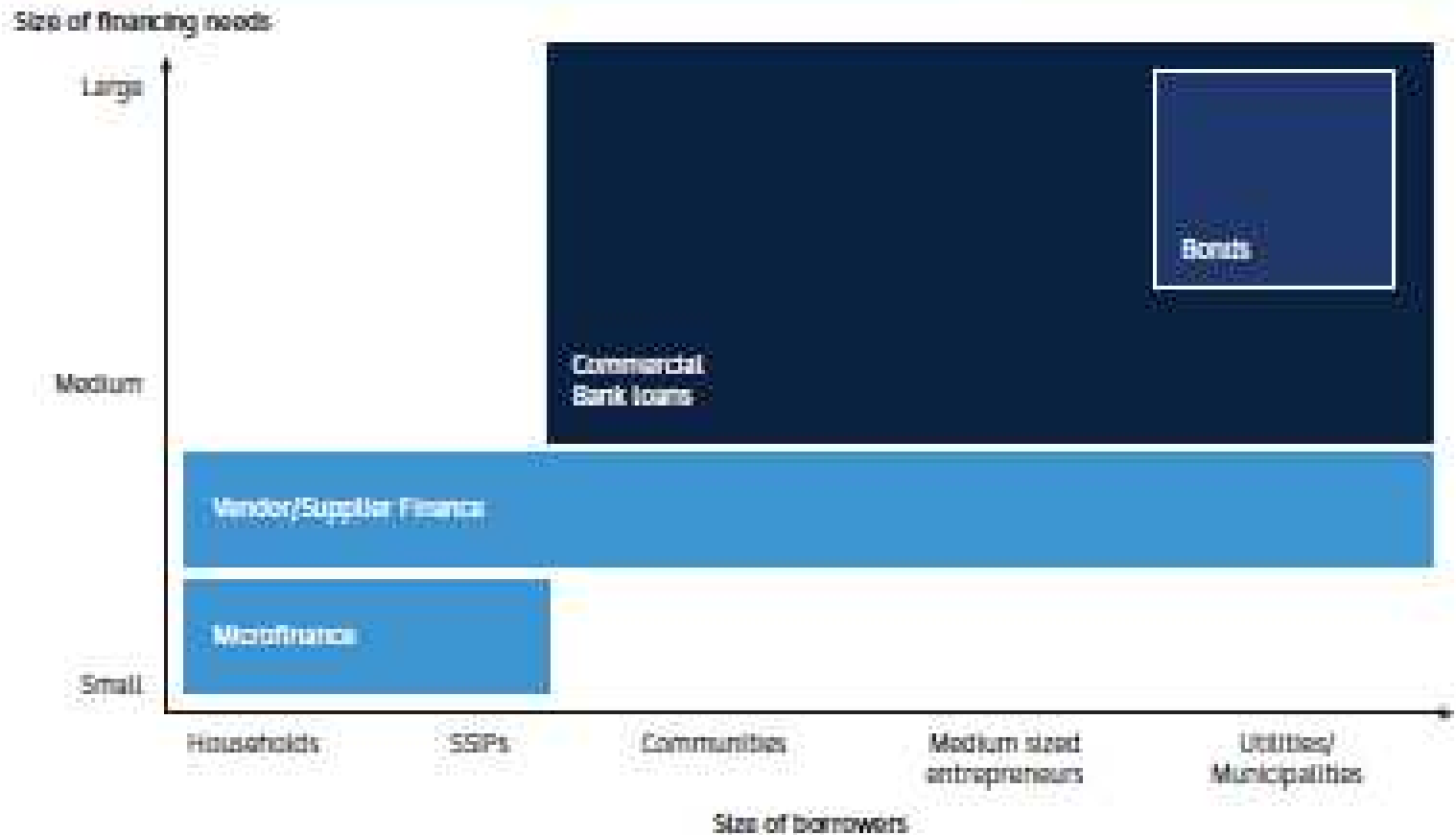
Source: Kolker et al, 2016

Need for higher levels of concessional finance

- Concessional finance makes up about 10% of finance to water sector in developing countries presently. In Uganda it is about 30% currently.
- But it is a vital component of the financing mix.
- Given the current level of the Ugandan economy, its high backlog in providing services, and yet with high economic growth potential, international development partners have much to contribute.
- Can the 30% be sustained over the coming decades as overall investment in the sector ramps up?
- It is important to retain the long term commitment of key international partners.

Private funding sources

FIGURE 2.4. Uses of Commercial Finance, by Borrower Size and Financing Need



Source: World Bank/FUNCEF 2011.

Source: Goksu et al, 2017

Using concessional finance to improve access to commercial finance

- Ramping up the use of commercial finance, particularly by NWSC, is essential for Uganda.
- It releases concessional finance and GOU funding for smaller systems.
- Output-based aid (OBA) can be an important way of incentivising commercial borrowing : the Kenyan example (Embu).
- Using OBA to improve micro-lending: The Bangladesh example.

Are interest rates in Uganda too high?

How does the Uganda banking sector compare?

	Financial Service Providers		Lending Terms		
	No. of Banks	No. of MicroFinance Agencies	Mortgage Interest Rate (%)	Mortgage Term (years)	Down payment (%)
Burundi	10	27	15.0	20	30
Comoros	4	4	10.5	20	25
Djibouti	11	2	7.0	20	25
Eritrea	6		12.0	25	25
Ethiopia	19	15	14.0	10	40
Kenya	51	12	17.1	10	10
Rwanda	9	22	17.3	15	20
Somalia	6	4	8.5	30	0
Tanzania	54	13	18.0	25	10
Uganda	25	17	25.0	20	20

Using housing finance as an example as there is a common product.

How can the difference between Kenya and Uganda be explained?

(Source: CAHF Annual Survey, 2016)

Examples of blended finance

	Capital investment per person served per year (US\$)	Grants	Cash flow	Loans
NYEWASCO (Kenya – local – urban)	22	5%	14%	80%
NWSC (Uganda – national – urban less small urban centres)	4	28%	52%	16%
ONEA (Burkina Faso – national – major urban centres)	23	52%	10%	29%
SDE/SONES (Senegal)	10	29%	23%	47%

Data for 10 years up to 2013; 2002-2011 in the case of NWSC

Source, Heymans et al, 2016. P33

Financing small scale expansions and renewal – the revolving fund

- The revolving fund for small towns functioning under the Umbrellas is an innovative new initiative.
- Service providers, now including the Umbrellas themselves, make regular contributions to the fund and can draw down on this for small scale capital investments, for example:
 - Extensions to networks.
 - Replacement of components

PPPs

- Large scale concession contracts (such as the two in South Africa and one on Côte d'Ivoire) are unlikely to happen in Uganda (Unless NWSC is changed to a private entity).
- But BOT type contracts have some potential in the case of a bulk water supply or wastewater treatment.
- Significant potential with small scale operators: Uganda was innovative with water supply operators but this is lacking support.
- Biggest potential is in sanitation sector, with an urgency to support septic tank and pit emptying operators.

Faecal sludge management: small PPPs with blended finance

- Private operators
- Support access to credit to purchase vehicles
- Use public funds for treatment works



Tremelot

Micro-finance for sanitation

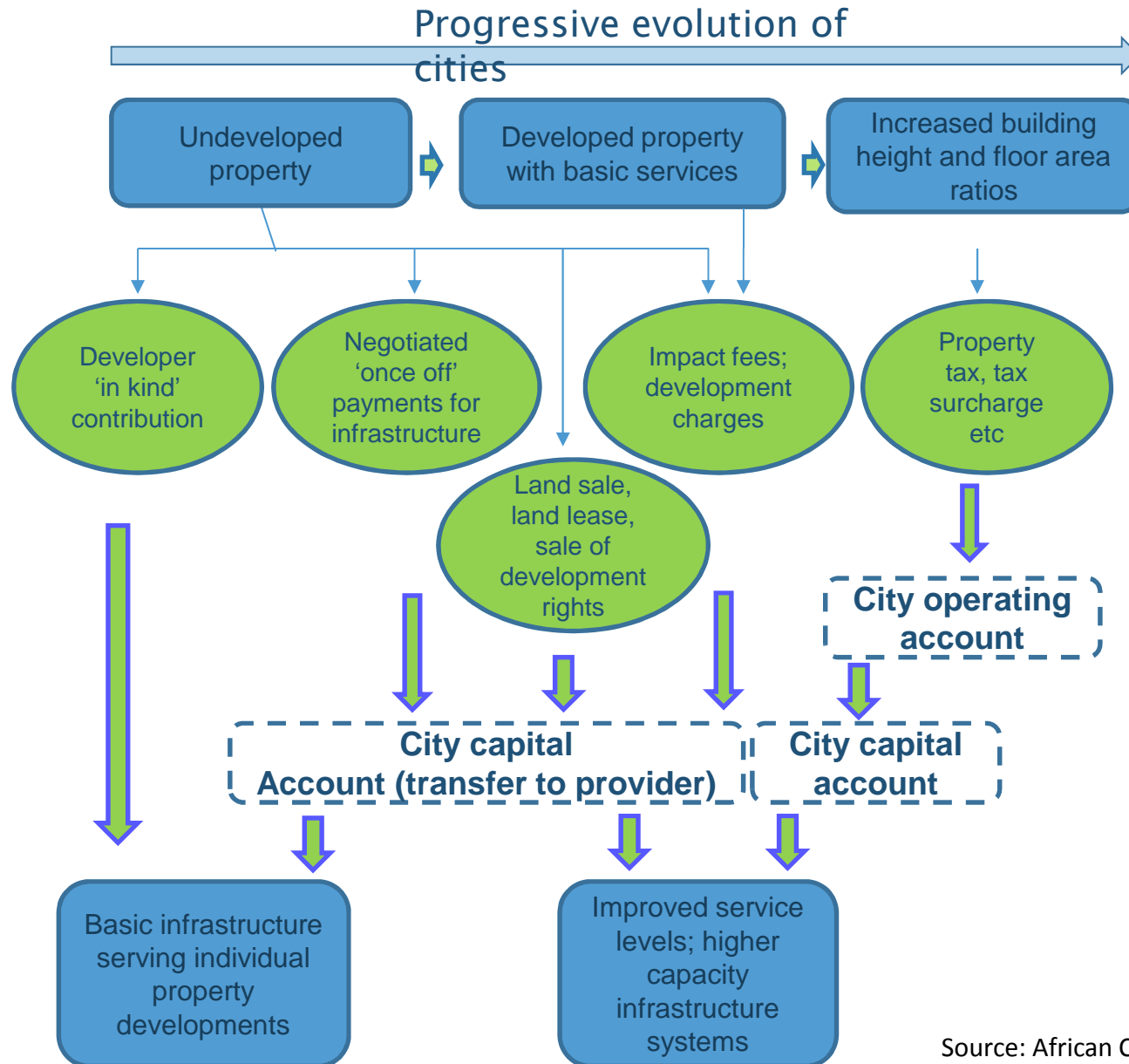
- In Bangladesh development finance institutions support two micro-finance institutions with output-based aid.



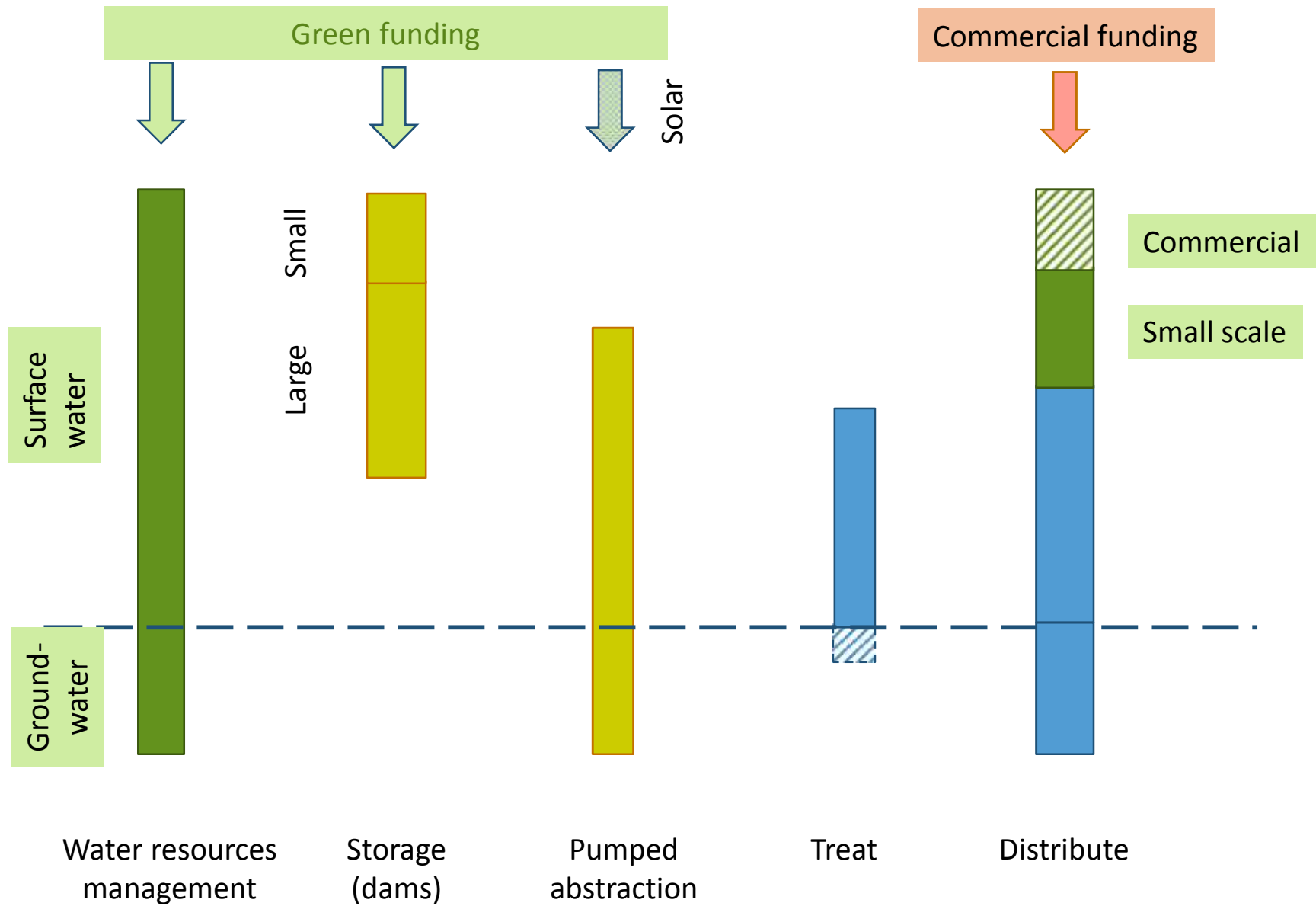
Photo credit: Water and Sanitation Program

Source: World Bank and UNICEF, 2017

Land-based financing



Water for production and combined systems



Conclusions

- A. Uganda does not have nearly enough finance for the water and sanitation sector.
- B. GOU needs to allocate higher levels of funding on the national budget.
- C. Concessional finance has a key role to play but will not be accessed fast enough and at large enough scale.
- D. AIA is important but has limits.
- E. Greater attention to land-based finance is necessary.
- F. Access to small loans to households and small operators is important.
- G. Ultimately success will depend in the extent to which commercial finance can be used by NWSC.



Thank you

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