



# Sustainable Service Delivery Models for Rural Water Supply - Findings from sixteen country study

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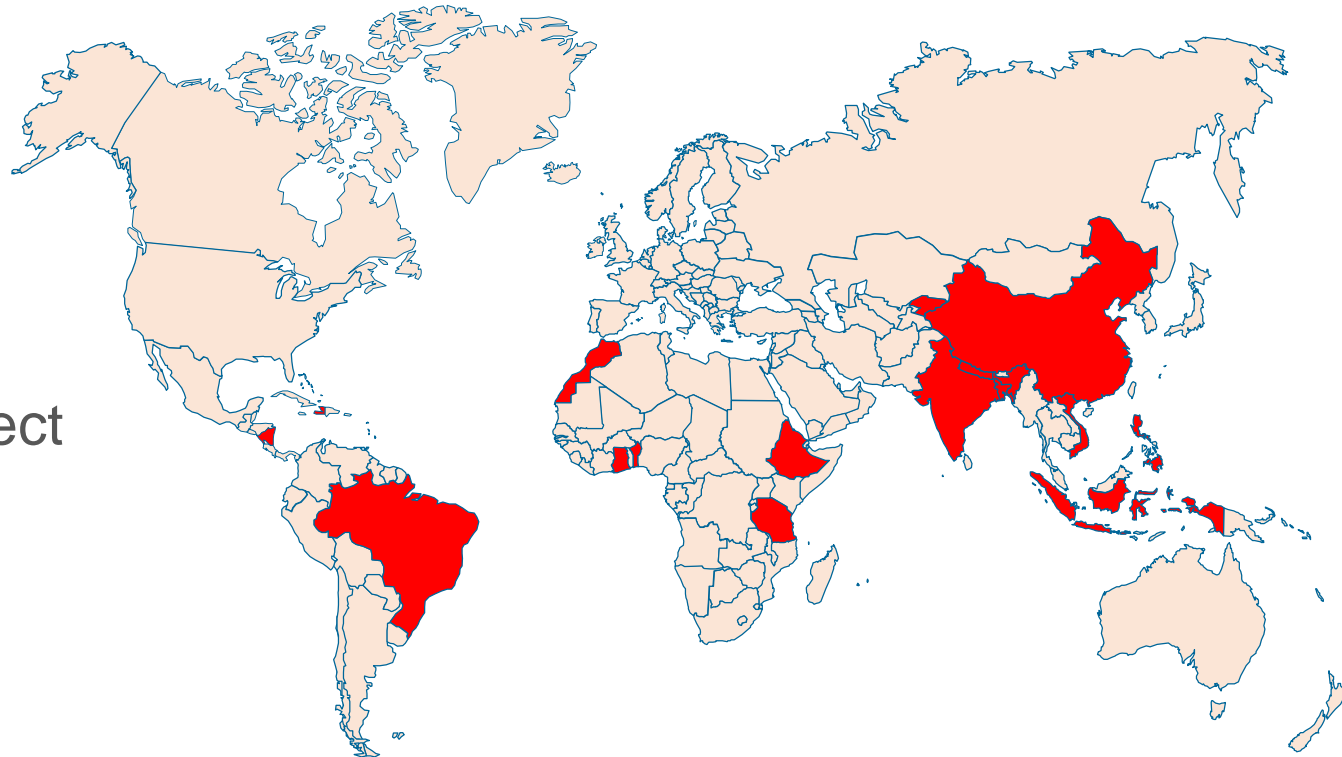
# Sustainability examined in 16 countries with World Bank programs to improve operations and inform global solutions

## Methodology:

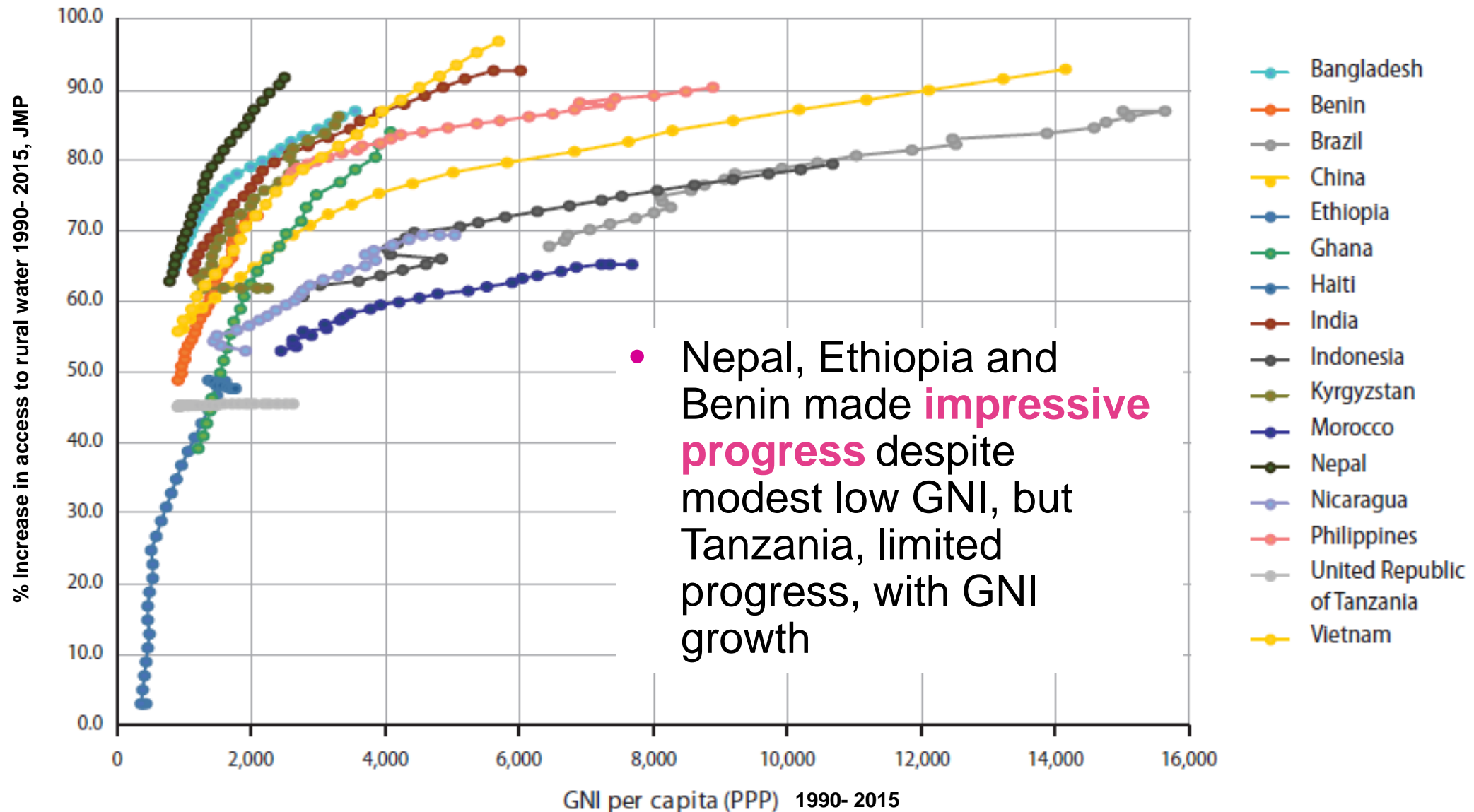
- Wide range of country contexts
- Desk review and field visits
- Support of local consultants, World Bank teams and local stakeholders

## Outputs:

- Global Synthesis
- Country Reports
- Tool to help teams do sustainability assessment during project preparation/review



# Access only partially predicted by increase in GNI



# Analytical framework recognizes: context, building blocks, institutional levels and service delivery models

**Country context:** economic development, population growth and urbanization, decentralization, geography and hydrology, aid dependency

**Sector governance:** political prioritization, aid effectiveness, private sector participation, human rights and inclusion; institutional arrangements and service delivery models, service levels

National sector level

Service Authority level

Service Provider level

Community based management  
Direct local government  
Public utility provision  
Private sector  
Supported Self-Supply

Institutional capacity

Financing

Asset management

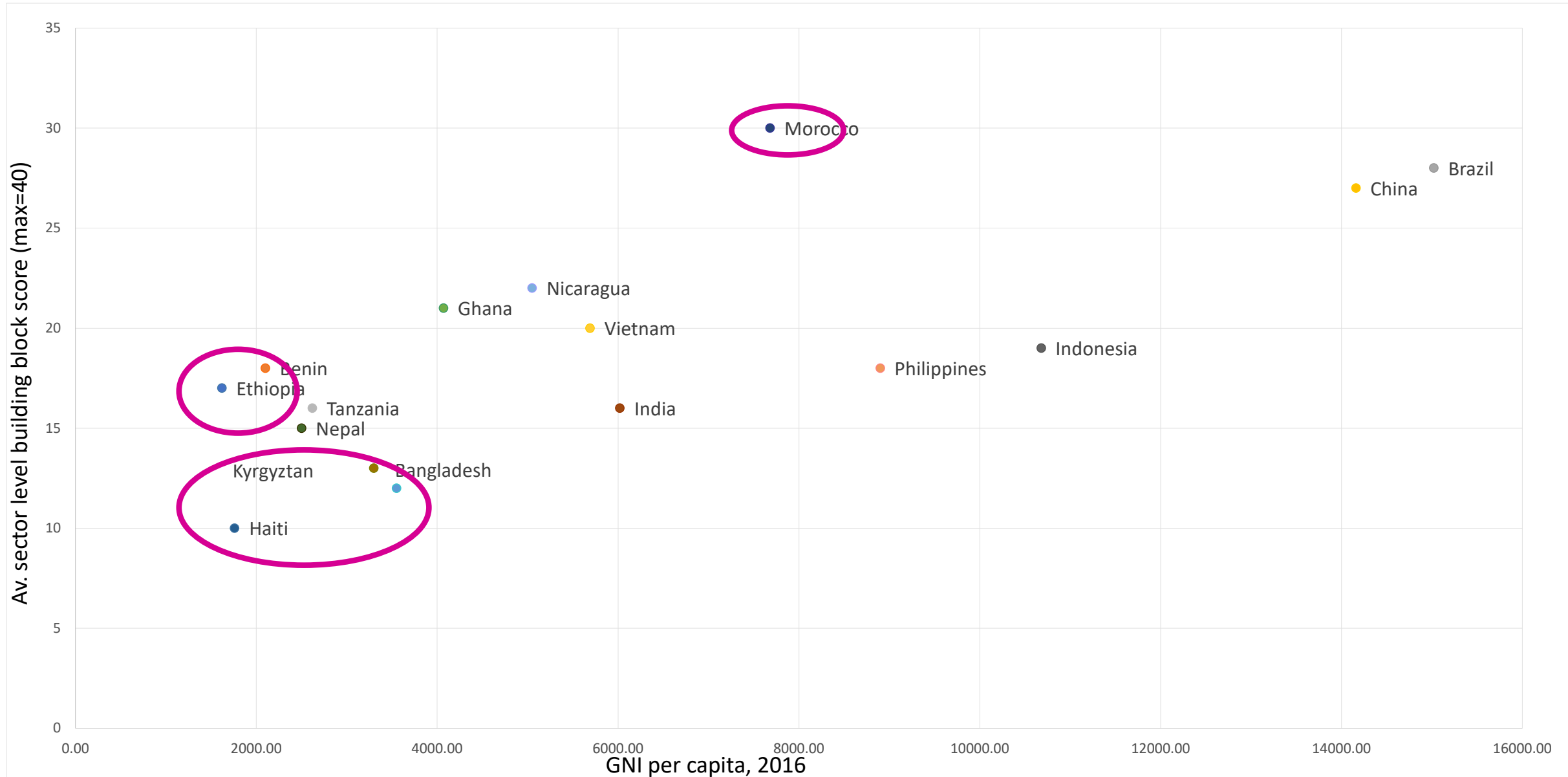
Water resources  
management

Monitoring and regulation

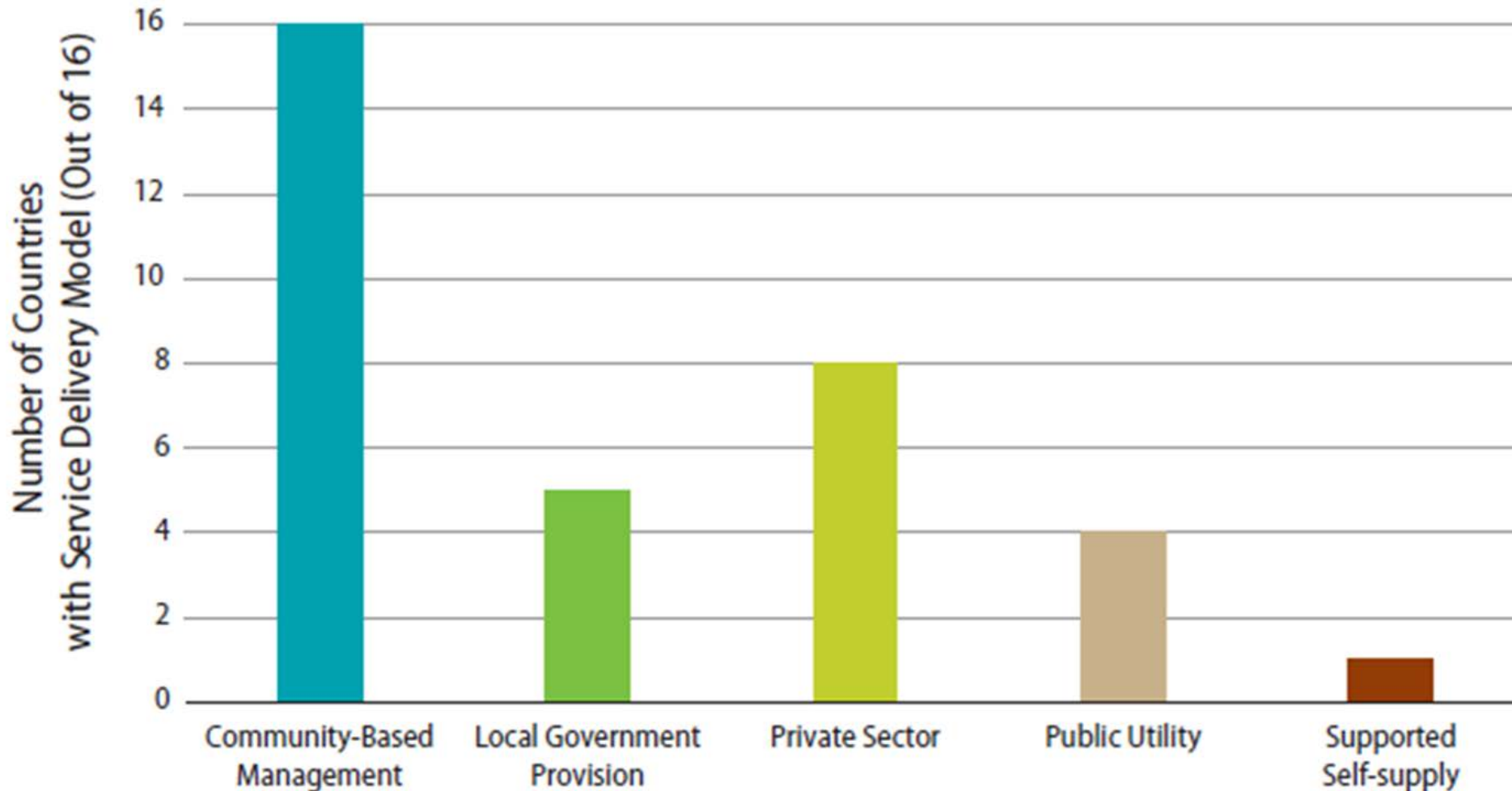
# RESULTS OF SECTOR ANALYSIS: MIXED PICTURE OF BUILDING BLOCKS AND COUNTRY SECTOR PERFORMANCE

Country	Institutional capacity	Financing	Asset Mangt.	WRM	Monitoring and Regulation	Aggregate Score
Benin	4	4	5	2	3	18
Bangladesh	4	2	2	3	1	12
Brazil	6	5	5	7	5	28
China	5	5	6	5	6	27
Ethiopia	5	4	2	3	3	17
Ghana	3	5	6	2	5	21
Haiti	3	0	3	0	4	10
India	5	5	2	2	2	16
Indonesia	5	5	3	2	4	19
Kyrgyzstan	2	3	3	3	2	13
Morocco	6	5	5	8	6	30
Nepal	3	3	3	3	3	15
Nicaragua	5	4	3	4	6	22
Philippines	3	4	2	3	6	18
Tanzania	3	3	2	5	3	16
Vietnam	3	5	4	5	3	20

# Sector Building Block scores vs GNI: increasing wealth does not explain all progress – political commitment is also important



# Distribution of Service Delivery Models: > 60 variants but CBM most common

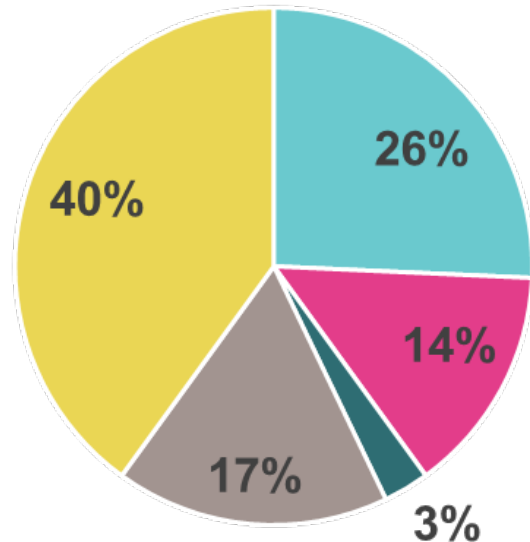


# Service Delivery Model scores: public utilities and private sector are strongest

SDM scores	Community Based Management	Local Government Provision	Public Utility	Private Sector	Supported Self-supply
Bangladesh	13	10		21	
Benin		10		19	
Brazil	21				
China	16		37	29	
Ethiopia	7				8
Ghana	9			13	
Haiti	5			13	
India	22				
Indonesia	23				
Kyrgyzstan	15				
Morocco	26	21	34	36	
Nepal	14				
Nicaragua	20				
Philippines	14	18	26	25	
Tanzania	17				
Vietnam	8	18		24	
<b>Av. all countries</b>	<b>15</b>	<b>15</b>	<b>32</b>	<b>22</b>	<b>8</b>



# A nuanced picture for community-based management: aggregation, systematic support and contracting increases performance



- Association of CBM
- CBM/ Private sector
- Other
- Supported CBM
- Unsupported CBM

- Community management with no, or very limited external support, no monitoring or regulation, results in poor performance with consistently low scores
- Stronger scores for **associations or federations** of CBM (Brazil, Tanzania)
- Strong scores for CBMs **provided with structured support** (Ethiopia), although doubts about scalability due to specific donor funding
- Better scores for CBMs **contracting private sector services** but retaining control – Haiti, Tanzania

# SISAR federated model, Ceará State Brazil

**CAGECE:** state utility – new system construction, monitoring and training, laboratory services

**Federation:** 8 regional units - major maintenance, billing, water quality testing

**Member Associations:** 729 community service providers - day to day O&M, user awareness meter reading



## Financing is aggregated and responsibility for costs are clearly defined:

- Association tariffs cover operational costs and technical support;
- Federation is responsible for financing capital maintenance of assets with short life-spans and corrective maintenance of major assets.
- The state government pays for capital maintenance and new investment from general state taxes

# Public utility provision in rural areas emerges as strong model in few countries



## Public utility provision:

- China, Morocco and The Philippines
- Water Affairs Companies in China are urban utilities and perform well in almost all aspects
- Absorbing rural populations is not commercially attractive and incentives are provided to support the process

## Direct local government provision:

- Few examples, low scores: institutional capacity and financing is weak; do not perform better than community management
- Many are not corporatized entities: not able to operate on commercial and autonomous basis; no ring-fencing of accounts from local government budgets

# Private service delivery models perform well, but require effort and resources to scale

- Relatively common – found in 8 countries with range of contractual mechanisms from build operate own, lease and concession contracts - outperforms other models with consistently higher financing scores
- Aggregated approaches to facilities and/or management shows promise
- Most are large-scale pilots and receive significant public funds, such as to facilitate transaction (enabling environment, project preparation) and attract private investments (capex viability grants)

## Vietnam framework to encourage domestic private finance with capital support to investors; Thai Binh province

- Since 2012, capital from private sector is 39% of total
- 42% of total designed rural water supply capacity
- private sector participation include build-own-operate-transfer (BOOT), build-own-operate (BOO) and O&M contracts



# Differentiation of 'market' will require context-specific solutions depending on local characteristics and service levels

## Highly dispersed rural populations

**Service levels:** basic, typically point source

### Interventions

- Supported self-supply
- Structured programs external support by LG or other;
- Focus on improving water quality;
- Public funding for capital maintenance costs
- Form of soft loans for some communities may be possible

## Rural communities and growth centres

**Service levels:** piped networks with or without household connections

### Interventions:

- Technical support to service providers;
- Simplified asset management
- Access to repayable financing;
- Clustering of management contracts
- Improve monitoring
- Delegate regulatory functions

## Concentrated rural populations

**Service levels:** Piped schemes, with household connections 24/7

### Interventions:

- Incentivize integration of rural areas;
- Strengthen asset management
- Improve regulation
- Performance benchmarking
- Improved consumer-oriented practices
- Access to repayable finance

# Key policy highlights

- 1. For rural service delivery there is no one size fits all model!:** this implies flexibility in sector policy and encouraging a range of solutions
- 2. The transition to higher service levels needs to be well managed:** better service levels with larger, more complex schemes, will require **professionalized operators**, asset management, comprehensive monitoring and introducing light touch regulation
- 3. Most communities on their own can often pay “O&M plus” but not full cost recovery:** financing from tariffs can cover O&M (and beyond) but plan for continued public financing for direct and indirect subsidies from taxes and transfers
- 4. Dispersed and hard to reach people require explicit focus to avoid stagnation:** as countries move along the development trajectory vulnerable, ethnic, minority and other vulnerable groups will always require tailored approaches
- 5. There is a ‘missing middle’ in the enabling environment:** investment in systems, human capacity and resources are required at Service Authority level to adequately support, monitor and regulate different models

Thank you!

Find more details of the study and the full report here:  
<https://www.aguaconsult.co.uk/project/global-study-on-rural-water-service-delivery/>

Contact me on: [h.lockwood@Aguaconsult.co.uk](mailto:h.lockwood@Aguaconsult.co.uk)



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