#### Joining Forces for Better Services?

When, Why, and How Water and Sanitation Utilities Can Benefit from Working Together

Global Study on WSS Utility Aggregation

March 22, Zabjlak



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## **Global Study Objectives & Approach**

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#### Motivation

Policy makers and practitioners around the world have looked at getting utility companies to "*work together*" as one way towards achieving SDG6.





**Objective.** To provide evidence-based guidance on *when, why, and how* water and sanitation utilities can work together ("aggregate") to successfully deliver specific policy outcomes (such as better services or lower costs).

Target audience. Policy makers, practitioners, Bank task teams

**Purpose.** Facilitate decision-making: whether to implement an aggregation reform; and if so, on design & implementation.



#### The Evidence Base





## Defining a Successful Aggregation

= "where the aggregated service provider performs significantly better than the previously disaggregated entities with regard to the intended purpose, without unreasonable deterioration of other performance dimensions"

However, why does success does not always materialize?





## Aggregation Typology

*Purpose* and *context* influence the design of the aggregation process





#### Design of Aggregation: Purpose, Scope







#### Design of Aggregation: Scale, Process







### Defining Aggregation: Examples

#### Aggregation of all functions & stages



# Aggregation of all functions & some stages



# Aggregation of some functions for all stages





#### Countries for which Data were Collected



#### Interactive Map: global overview of aggregation trends



## Key Findings: overview aggregation trends (1)

- The **level of decentralization** of WSS services increases in countries with higher levels of development and overall service coverage.
- Aggregation is **a relatively recent trend**, observed in African, European, and Latin American countries.
- Aggregation is more predominant in countries where local governments are responsible for WSS service delivery.
- The predominant aggregation type is a top-down, mandated process, targeted toward economic efficiency, encompassing all functions and services, following administrative boundaries, and taking the form of a merger.



## Key Findings: overview aggregation trends (2)

- Aggregations are happening in a diversity of contexts but are more **frequent in countries with high WSS services coverage**.
- Aggregations in countries with limited sector performance are predominantly aiming at **improving services**, whereas in countries where the coverage is high, **economic efficiency** is the main driver
- Countries with **smaller utilities and more fragmented** water sectors pursue **voluntary aggregations** more frequently



**Descriptive work.** describe utility structure & performance, build clusters and describe how utility structure relates to performance.

Analytical work. assess effects of aggregation on utilities structure and performance by comparing peer utilities that have undergone aggregation versus those which have not.

Data used. utility level data from IBNET
→ 1,306 utilities from more than 140 countries



#### Bigger is Generally Better....



Number of customers (in natural logs)

Unit cost and Performance, Depending on Size



## But with Increasing Size and Number of Towns, Transaction Costs Emerge...



Unit Cost and Performance for Utilities Serving more than One Town, Depending On Size



#### ... Transaction Costs...

#### Unit Cost and Performance, Depending on Number of Towns Served and Controlling for Customers







# ...And Specific Outcomes Depend on the Context and Purpose of Aggregation

• Limited, less complex aggregations, and aggregations of utilities that are already serving multiple towns, are more likely to achieve cost savings.

 merging a large number of previously independent utilities in a single step seems more challenging and prevents performance improvements and cost savings.

 Aggregations that involve small or weak utilities tend to improve their overall performance, but costs do not decrease as economies of scale are reinvested into maintaining the improved services.



• Small, less complex aggregations and aggregations that involve utilities that are already serving multiple towns are more likely to achieve cost savings.

• Aggregations that involve small or weak utilities tend to improve their overall performance rather than lowering their costs.



#### Diversity of the 14 Case Studies



Diversity in:

- purpose and design of aggregation
- country context (urban, rural)
- performance level

- level of development (income)
- processes and scopes of aggregation



#### Guidance & Key Messages





#### The Nature of the Guidance Provided

Recommendations based on evidence and observed experiences

Evidence base is not as clear cut as a policy maker would want; some conclusions might appear counter-intuitive

E.g. Consider one-off or long-term **transaction costs** that may prevent the economies of scale

#### Recommendations do not advocate for or against aggregation

Rather, it encourages a better understanding of the practicalities behind designing a successful aggregation reform, starting with identifying and formulating the **purpose** of the reform considering the **local context**.



#### Roadmap: A Long-Term Process of 4 Stages



#### Roadmap: Deciding Stage



 Deciding whether aggregation is the appropriate policy instrument to achieve the purpose sought

- Understand the policy purpose you seek to achieve and the context in which it takes place
- Decide whether aggregation is the right policy option to achieve your purpose
- Identify other complementary policy actions that will be necessary



#### Roadmap: Designing Stage



- Engage with stakeholders to build ownership and defuse conflict
- Define the appropriate scope and scale to achieve the purpose intended
- Select a governance model that will ensure success
- Discuss and reach agreement on the governance of the future aggregated provider
- Agree on the process that will most likely lead to success



## Roadmap: Implementing Stage



- Establish the appropriate legal framework for the aggregation
- Involve stakeholders throughout the process
- Define the necessary incentives to align interests at various levels
- Provide the necessary technical and financial support to aggregating entities
- Manage the risks linked to the aggregation process



#### Roadmap: Sustaining Stage



- Document the process and publicize success to all stakeholders
- Learn from challenges and adjust accordingly
- Deal with longer-term harmonization issues



Refer to the Report for a complete list of **lessons learned from aggregation experiences**, exploring:

- What Are Global Aggregation Trends?
- When Do They Work? The Quantitative Evidence
- Why Do They Work? The Qualitative Evidence
- How do they work? (scope, scale)
- Lessons on Process
- Lessons on Governance



## Knowledge Products





Main Products: (1) main global study report, and (2) online toolkit, providing access to all additional products listed below, and more.

#### Supporting Papers/Products:

- (3) literature review, annotated bibliography
- (4) statistical analysis based on IB-Net data covering 1,306 utilities from more than 140 countries
- (5) review of global aggregation trends, collecting data for 111 countries, displayed in an interactive map
- (6) 14 case studies from seven countries, providing a deep dive qualitative narrative of aggregation experiences.
- (7) Knowledge Brief on the global study



#### Main Report



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AUGUST 2017



Available on the **Open Knowledge Repository** and accessible via the **online Toolkit** 

## Online Toolkit on the Aggregation of WSS Utilities

#### Including..

- <u>videos</u> with first-hand interviews
- <u>interactive map</u> highlighting global trends in utility aggregation <u>glossary of aggregation typology</u>
- case study accounts: <u>Hungary</u>, <u>Brazil</u>, <u>Colombia</u>, <u>Romania</u>, <u>Portugal</u>, <u>Mozambique</u>, and <u>Indonesia</u>)
- main study report, statistical analysis, and all other supporting documents/papers
- and more...



#### Review of WSS utilities Aggregation Experience

 <u>http://www.worldbank.org/en/topic/</u> water/publication/wateraggregation-toolkit

JUMP TO TOOLKIT
AGGREGATION: PURPOSE, CONTEXT AND DESIGN
explore the basic concepts of was builty aggregations
SUCCESSFUL AGGREGATION GUIDANCE
View road map to a successful aggregation
AGGREGATION GLOBAL TRENDS: INTERACTIVE MAP
Interact with the aggregation global trends: interactive map and glossary
Read and better understand global case studies
() MULTIMEDIA STORIES FROM CASE STUDIES
Watch case study videos with first-hand interviews
Explore the supporting documents of the global study



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#### https://openknowledge.worldbank.org/handle /10986/28095



About the global study and toolkit

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