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Urban Water Utility Reform – A tool for analysis and dialogue



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–

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Part 1. Introduction

This note presents an expanded set of the key tables and diagrams from the 'Review of success stories in urban water utility reform'. This Review was commissioned by the Swiss State Secretariat for Economic Affairs SECO. The Review sought to gain deeper understanding of the underlying dynamics of successful urban water utility reforms and – from the lessons learned – infer ways for SECO to improve its offering to urban water utilities in developing and transition countries. This accompanying note was developed when it became apparent that the Review's key tables and diagrams offer useful guidance to stakeholders on where a utility is located in its development or reform process, on successful reform paths, and on accommodating the political context of the utility. As such, the tables and diagrams can support a structured dialogue amongst the stakeholders in a utility reform process, as well as the formulation of a utility-specific reform strategy. This guidance note can be used by anyone involved in improving the operational and financial performance of urban water utilities. As a start, **Table 1** summarizes the level of operational and financial performance achieved by successful urban water utilities in developing and transition countries. **Table 2** lists core challenges in an urban water utility turnaround and refers to the relevant sections in this note for further guidance.

Table 1 what's possible to attain? Key performance indicators of successful urban water utilities

Utility	APA Vital	Nyewasco	PPWSA	Haiphong	Manila (East)	Tartu
Country	Romania	Kenya	Cambodia	Vietnam	Philippines	Estonia
Year	2014	2014	2014	2014	2012	2014
Availability of service (hrs/day)	24	24	24	24	24	24
Coverage ratio (% population)	63%*	85%	85%	96%	89%	99.8%
Metering (% of customers)	99.62%	100%	100%	100%	100%	100%
NRW (% of production)	27.15%	19%	7.76%	14%	11%	13%
Collection ratio (% of bills)	100%	100%	99.9%	99.8%	n/a	99.9%
Operating cost coverage**	1.11	1.26	2.81	1.45	n/a	2.22
Staff (# per 1.000 connections)	18	5	3.15	4.1	1.4	8

* Concerns whole district (not just Iasi municipality, which is 100% covered); ** Total operating revenues / total operating expenditures

Table 2 the core challenges of an urban water utility turnaround and guide to the subsequent tables and diagrams

- 1. Planning**
 - Identify the benevolent preferences and immediate concerns of the managing-director and the political leadership.
 - Explicitly consider the political context within which these actors operate – see Part 6.
 - Assess where the urban water utility is in its development process – see Part 3.
 - Design targeted interventions to address the immediate concerns of the managing-director and political leadership.
 - Adopt a sequential approach to the development of a utility in line with the two-phase reform model – see Part 2.
 - Start small with highly targeted interventions; increase assistance over time as local leadership prevails and results are achieved.
 - Identify a limited set of key performance indicators and relate additional assistance to achieving predefined targets – see Part 5.
- 2. Implementation**
 - Be a prime interlocutor of the managing-director on all dimensions of the reform process.
 - Keep the actual assistance in lockstep with the capacity and readiness of the political leadership, managing-director, and key staff (even when advocating more progressive change).
 - Act politically astute: seek the possible, rather than the ideal or best practice.
 - Apply roles, aid modalities and tools when relevant and with the right intensity – see Part 4.
 - Continue or increase financial assistance based on (intermediate) results and the achievement of targets – see Part 5.
- 3. Monitoring and evaluation**
 - Monitor progress in operational and financial performance – see Part 5.
 - Assess the emergence of success factors – see Part 3.
 - Evaluate the effective use of development funds and assess the sensibility to continue the assistance.
 - Identify the evolving (benevolent) priorities and concerns of the managing-director and the political leadership.

¹ The Review of Success Stories in Urban Water Utility Reform and this accompanying note have been prepared by Geert Engelsman and Michel Leushuis, RebelGroup International BV, 2 March 2016, Rotterdam, Netherlands.

Part 2. Two key findings from the Review

The Review identified a hierarchy of 15 success factors for urban water utility reform (Figure 1). The 'First-order' and 'Second-order' levels are necessary for success. The 'Contributing factors' and 'Additional sustainability factors' fortify success. The Review also found that successful urban water utility reform involves two distinct reform phases (Figure 2).

Figure 1 a hierarchy of success factors

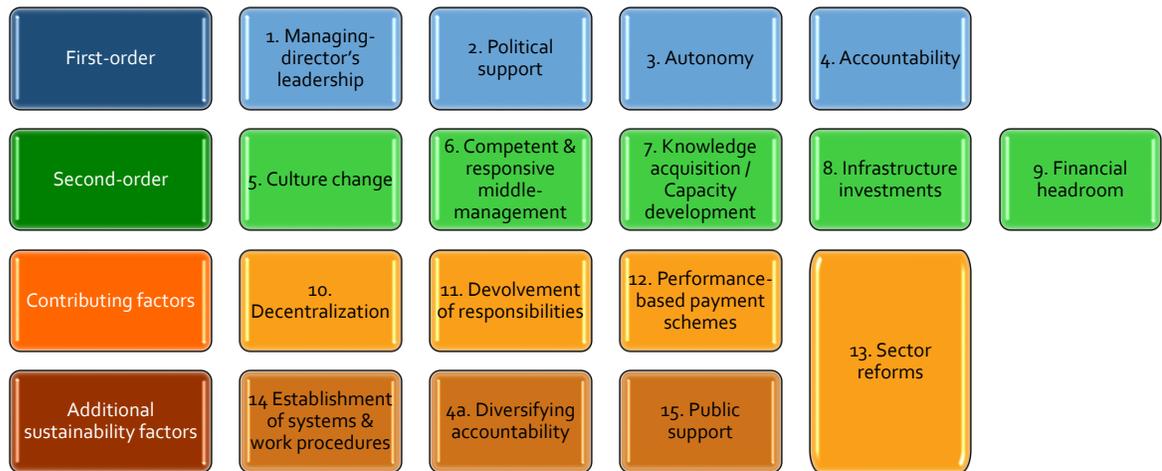
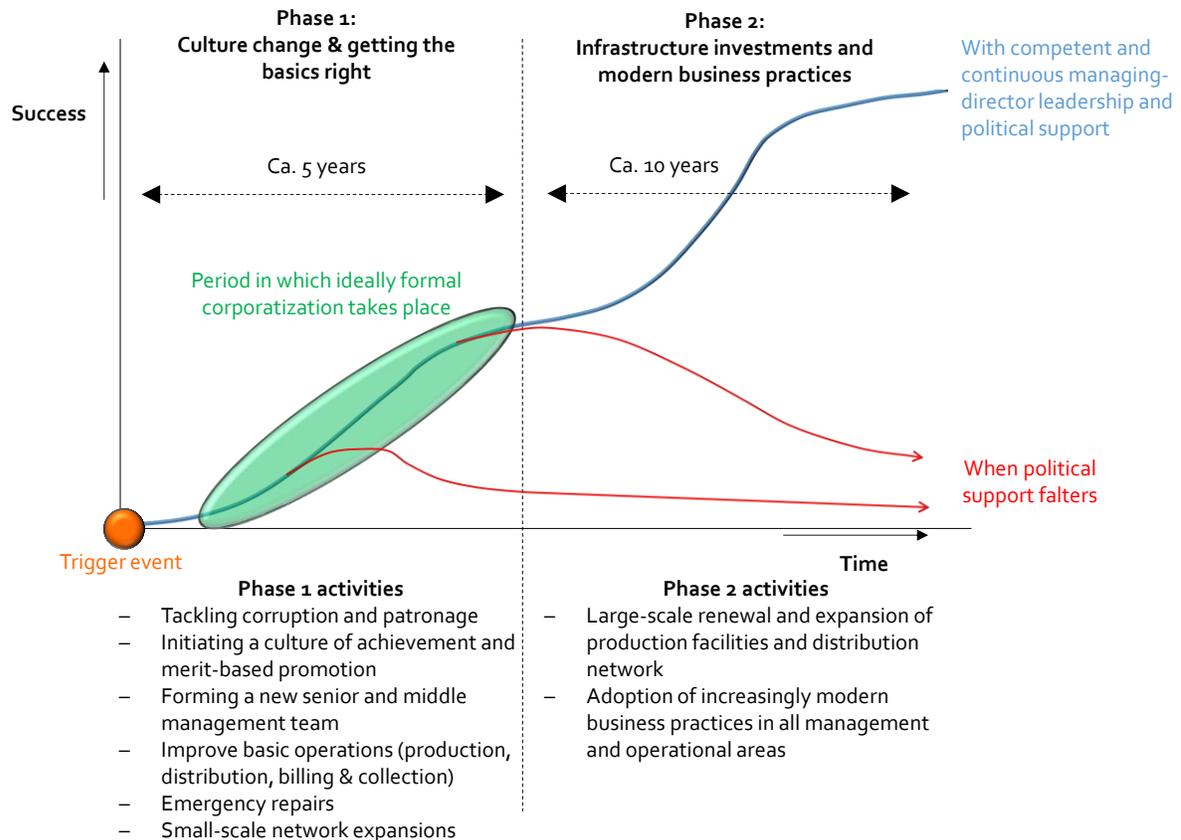


Figure 2 the two-phase reform model



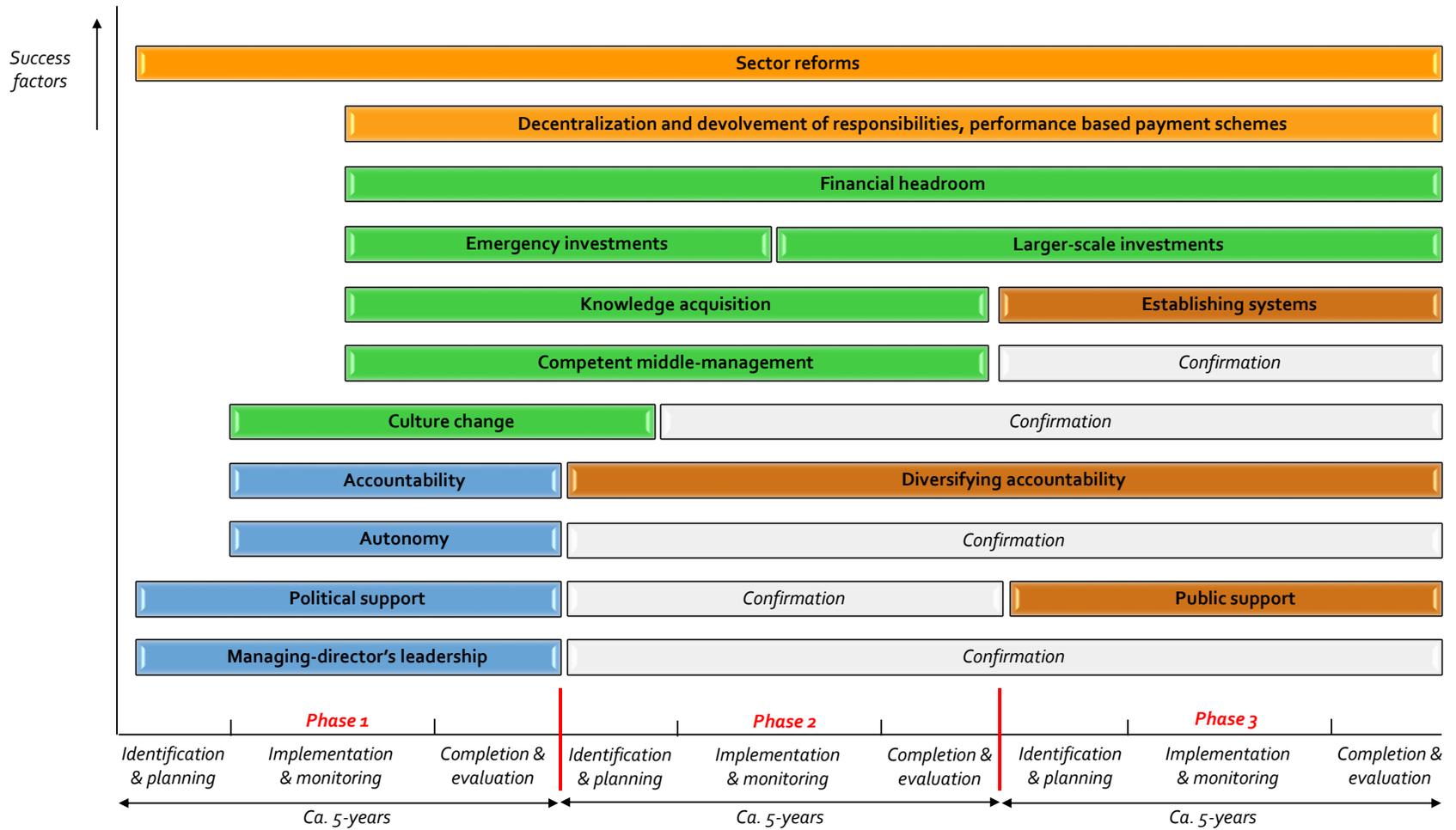
Part 3. The emergence of success factors

Table 3 includes leading questions to investigate where a utility is in its development process, i.e. to identify the emergence or prevalence of key attributes of successful urban water utilities. The answers to these questions can be distilled from: (i) key informant interviews; (ii) an analysis of media coverage; (iii) a utility's recent operational and financial performance; and (iv) an assessment of the political economy of a utility (**see Part 6**). The subsequent **Figure 3** shows when the emergence of various success factors is important for the successful turnaround of a utility.

Table 3 an inquiry into the emergence of success factors

Managing-director's leadership	What attitude does the managing-director display to the performance and reform of the utility? What actions has he initiated and pulled through? What is his status amongst the political elite and amongst staff? How politically astute is he? Is he likely to remain in function? How long is he in function?	Knowledge acquisition / Capacity development	How responsive are management and staff to the demands and offers of development agencies? How eager are management and staff to acquire new knowledge and apply this knowledge in their day-to-day work? How vocal are staff in expressing their needs and challenges?
Political support	Does the political leadership – at the national and local level – publicly and internally express and provide support to the managing-director and the reform agenda? Is the political leadership consistent in its formal and informal support? Do they stand up against opposition to reforms?	Financial headroom	Is the operating cost coverage improving? Is the utility generating own funds to make emergency investments or small-scale expansions of the network? Is there a coherent plan followed to achieve cost-covering water tariffs in due time?
Autonomy	Is the managing-director able to manage the utility without political interference? Can the utility practically avail of the water tariff revenues? Do the stakeholders accept the idea of formal corporatization to institutionalize such autonomy? Is there the intent and the action to corporatize within five years?	Infrastructure investments	What is the status of the infrastructure? What realism does the management and staff display in the volume, sequencing and management capacity of the investment plan? Are investment preferences prioritized?
Accountability	Does the managing-director feel responsible to himself, the customers and the political leadership, i.e. is there personal, downward and upward accountability? Are the concerns and preferences of the customers and political leadership benign and related to the common good? Are other stakeholders (e.g. business community) successfully demanding accountability and performance of the utility? Is the regulator pushing performance and accountability? Do financial institutions (IFIs, commercial banks, stock exchange, bondholders) hold the utility accountable?	Sector reforms	Are sector reforms being implemented which buttress a utility's reform efforts and process? Is the utility the example for the sector reforms?
Diversifying accountability		Establishment of systems	Are the work procedures systematized and documented? Are new staff trained based on these documents, working procedures and established systems?
Culture change	Competent & responsive middle-management	Public support	Does the urban populace value the utility's efforts and services? Is the utility's performance part of the city's identity and pride? Does the public resist political interference? Do customers demand involvement in the steering of the utility?
Decentralization & Devolvement of responsibilities	Performance-based payment schemes		
Does the managing-director shake up the internal organization? Are young, ambitious, committed and competent staff promoted to key positions? Is corruption, patrimonialism and nepotism consistently tackled? Is a merit-based culture emerging? Are responsibilities devolved and is performance rewarded?			

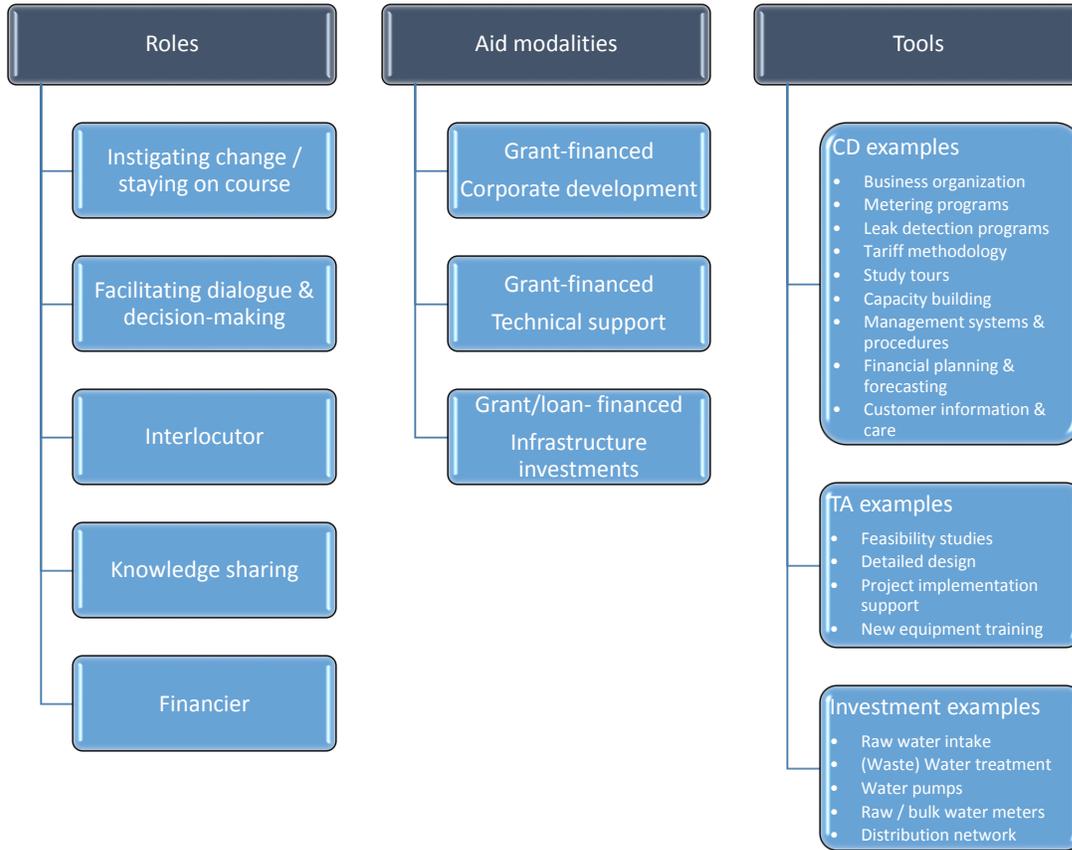
Figure 3 the relative importance of the emergence of individual success factors over time



Part 4. The role of development agencies

The Review identified five important roles development agencies play in a utility turnaround process (**Figure 4**). Development agencies do not avail of unique aid modalities or instruments in their support to successful urban water utility reforms; they do adjust the timing and intensity of these modalities and instruments according to relevance.

Figure 4 the roles, aid modalities and instruments of development agencies



Part 5. Performance targets, signposts and milestones

Table 4 presents common performance indicators and targets used by development agencies to incentivize reforms. **Table 5** includes signposts in the turnaround process, which hold a promise of success. **Table 6** includes milestones in the turnaround process, which indicate (first) success.

Table 4 common performance targets for urban water utility reforms

	Ultimate target
Metering (% of customers)	100%
Collection ratio (% of bills)	100%
Maintenance expenditures (per connection per year)	> US\$ 25
3-year operational business plan	< 2 years
Formal corporatization	< 5 years
Cost-covering water tariffs	100%
NRW (% of production)	< 20%
Operating cost coverage (total operational revenues / total operational expenditures)	> 1.5
Staff (per 1,000 connection)	< 5

Table 5 signposts in an urban water utility turnaround process, which hold a promise of success

	Timing (indicative)
Continuous annual improvements in key performance indicators	annually
Full-hearted engagement in monitoring, reporting and dialogue	monthly
Political and popular opposition to a utility's reform measures and management (including tariff increases)	< 3 years
Explicit, broadcasted support to specific reform measures from the local and national political leadership	Discretionary points in time; especially in first 5 years
Stable top-management	< 12 years
Use of a utility's own funds to improve basic utility operations	> 2 – 3 years

Table 6 milestones in urban water utility reforms

	Timing (indicative)
Formal corporatization	< 5 years
Utility achieves break-even	< 5 years
100% collection ratio	< 5 years
100% metering	< 6 years
Sub-sovereign lending to utility	< 7 years
Non-recourse lending to utility	< 12 years
Repayment of initial loan financing	Ca. 12 years

Part 6. Political economy analysis

A utility turnaround is influenced by a myriad of stakeholders (**Figure 5**). The Review concluded that urban water utility reforms are effectively decided upon and at the outset shaped by five principal stakeholders (the primary stakeholders in **Figure 5**). Moreover, a utility turnaround depends on developments in the local and political economy. Problem-oriented Political Economy Analysis (developed by amongst others the World Bank) seeks to (i) understand what motivates or constrains behaviour of key actors in attempted reform processes and (ii) identify context-specific responses that work within (rather than against) existing power relations and incentive structures (see **Figure 6** for the analytical framework, see Annex G of the Review for a general introduction). **Table 7** provides leading questions in a political economy analysis; **Table 8** highlights the core dimensions of a political economy.

Figure 5 the stakeholders in a Utility Turnaround

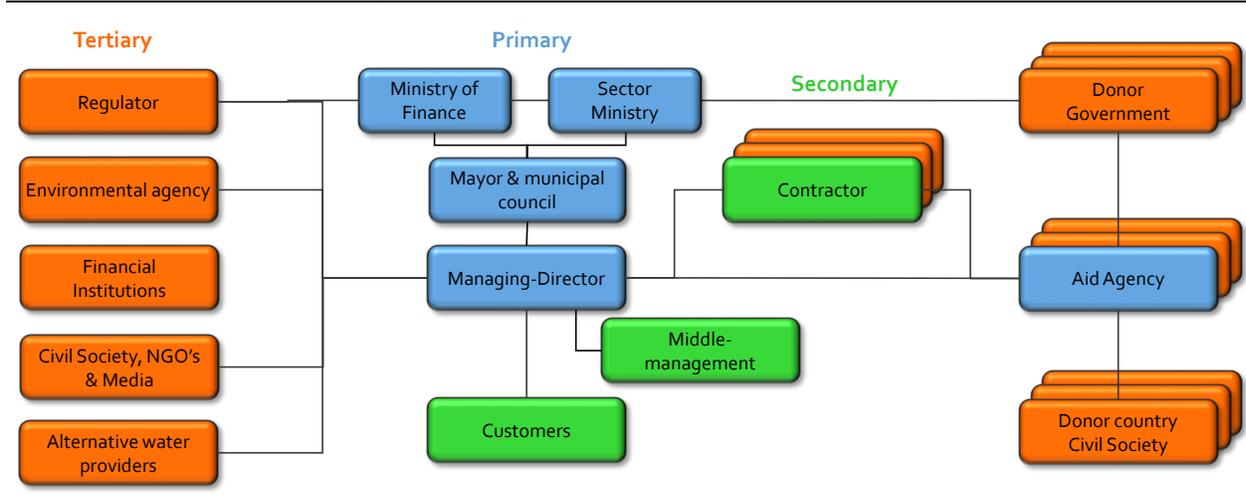
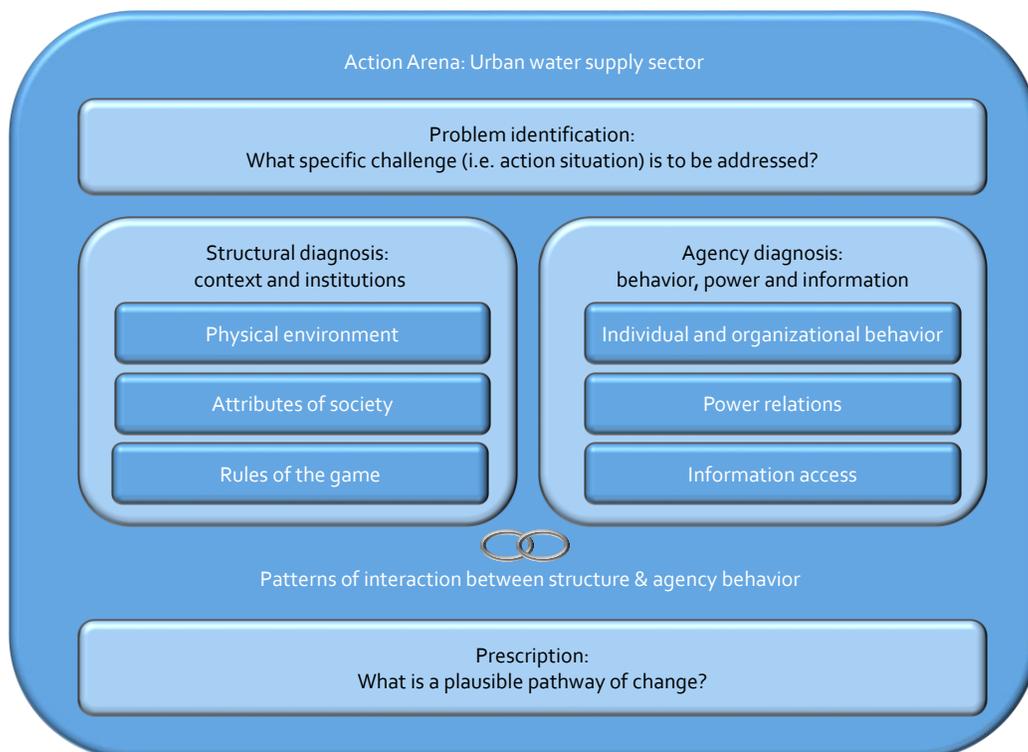


Figure 6 the analytical framework of Problem-oriented Political Economy Analysis



Source: Authors' combination of the frameworks of Daniel Harris (Applied Political Economy Analysis - A problem-driven framework. Politics and Governance Program - Methods and Resources, London: Overseas Development Institute. 2013) and Clark C. Gibson et. al (*The Samaritan's Dilemma. The Political Economy of Development Aid*. Oxford: Oxford University Press. 2005).

Table 7 leading questions in a political economy analysis

- Who are the key stakeholders?
- What are, for each, the attitudes, positions, motivations, roles, mandates, and actions?
- What are the (power) relationships between the different stakeholders?
- What are the dominant (competing) narratives concerning the utility and (possible) reforms? How to explain these narratives? What are their origins? *See subsequent table below*
- Do the advocates of change possess political legitimacy?
- What initial decisions, steps or activities are undertaken, by whom, for what immediate reason?
- What does the cooperation and decision-making process look like? Who are party to these processes? How are the interests, views and positions of critical stakeholders aligned and a reform agenda agreed upon? Which decision-rules and political and cultural norms are applied to reach agreement?

Table 8 core dimensions of a political economy

Physical / material environment	<ul style="list-style-type: none"> - Geo- and topography: e.g. abundance and location of water resources - Climate: e.g. seasonality of available water resources - Population: growth, density, ethnic diversity and urbanisation rate - Geopolitics: e.g. sharing of scarce resources with cities in neighbouring counties and countries - Economy: productive base, income levels, growth rate, and level of (in)equity
Attributes of society	<ul style="list-style-type: none"> - Cultural norms and symbols (embedded in history): e.g. the value of water, customary water rights, citizen voice - Historical legacies: e.g. the credibility and predictability of political commitments and citizen expectations; or the inherited water production and distribution infrastructure
Rules of the game	<ul style="list-style-type: none"> - Socio-political logics: e.g. dominant ideologies, the role of (traditional) leaders, the level and art of accountability (upward or downward), the extent of rule/policy bound behaviour, predictability of behaviour, the civil service culture (extent of risk-aversion), level of short-termism in politics, etc. - Socio-political organization: e.g. governance structure – flat versus hierarchical, representative versus authoritative, centralized versus decentralized, negotiation versus contestation, etc. - Formal institutional set-up: political and administrative bodies, constitution, laws, policies, strategies, development plans, budgetary processes, etc.
Agency behaviour	<ul style="list-style-type: none"> - Individual agent's motivations: e.g. personal, financial, ideational, political saliency, etc. - Individual agent's capacity: knowledge, resources, self-perception, veto-power, information processing power - Individual agent's expectations: benefits, costs, influence, risks, winner versus loser, etc.
Power relations	<ul style="list-style-type: none"> - (Power) relations: e.g. clientelism, patronage and rent seeking versus meritocracy; principal-agent, legitimacy, reliability, credibility, predictability, ownership of assets, control over resources, distribution of control over assets, dominant allegiances, etc. - Resource access: e.g. public goods, common pool resources, limited access orders.
Information	<ul style="list-style-type: none"> - Information access (imperfect, asymmetric, moral hazard, free riding) and information processing (heuristics/biases)

Sources: Fritz, Verena, and Brian Levy. 2014. "Problem-Driven Political Economy in Action: Overview and Synthesis of Case Studies." In *Problem-Driven Political Economy Analysis. The World Bank's Experience*, edited by Verena Fritz, Brian Levy and Rachel Ort. World Bank; Harris, Daniel. 2013. *Applied Political Economy Analysis - A problem-driven framework*. Politics and Governance Program - Methods and Resources, London: Overseas Development Institute. ODI. 2012. *Political Economy Analysis for Operations in Water and Sanitation: a guidance note*. London: Overseas Development Institute; Kooy, Michelle, and Daniel Harris. 2012. *Political Economy Analysis for Water, Sanitation and Hygiene (WASH) Service Delivery*. Project briefing, London: Overseas Development Institute; Manghee, Seema, and Alice Poole. 2012. *Approaches to conducting political economy analysis in the urban water sector*. Water Papers, Washington D.C.: World Bank; Gibson, Clark C., Krister Andersson, Elinor Ostrom, and Sujai Shivakumar. 2005. *The Samaritan's Dilemma. The Political Economy of Development Aid*. Oxford: Oxford University Press.