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Urban Water Utility Reform – A tool for analysis and dialogue



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–

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Summary

In 2015, SECO undertook a Review of Success Stories in Urban Water Utility Reform. Key tables and diagrams from the Review are presented in this document – forming a tool for analysis and dialogue. This tool offers 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. The tool can support a structured dialogue amongst the stakeholders in a utility reform process, the formulation of a utility-specific reform strategy, and the monitoring of reforms. The tool is to be used in light of the findings of the Review.

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Part 1. Introduction

Access to clean water – a life and economic necessity

The use of clean and piped water across urban centers facilitates inclusive economic growth: it reduces epidemic risks, strengthens people's physical health, enhances labor participation and productivity, and allows citizens to pursue economic opportunities. For years, SECO, alongside other donors, has strived to support urban water utilities in developing and transition countries to become strong service providers and to supply clean water to city inhabitants. The 2030 Agenda for Sustainable Development reconfirms the importance of this goal: striving to achieve, by 2030, universal and equitable access to safe and affordable drinking water (SDG Goal 6.1).

Effective institutions, reliable basic public services – a perpetual challenge

Urban water supply is more than contract signing and cornerstone laying. Once the ribbons are cut, adequate operation and maintenance is required to reach the life-time potential of the built assets. In many countries, the reality is far from this ideal; urban water utilities struggle to sustain their infrastructure systems. Daily work is dominated by fire-fighting problems, rather than by good business conduct. Most utilities are not used to regularly maintaining their assets, strategically planning their investments or developing their business. As a result, the quality of service is poor and clients are reluctant to pay. This in turn starves the utilities of the necessary means to hire and keep qualified staff, repair and replace assets when necessary, and undertake strategic investments. It is difficult for utilities to break this vicious cycle on their own.

Corporate Development – a SECO priority

SECO supports urban water utilities in partner countries to improve their business practices. Technical assistance to improve the service delivery of water utilities has always been part of SECO's support, but the approach has evolved. In 2010, SECO decided to include 'corporate development' measures more systematically in its infrastructure portfolio. Since then, a number of projects in Latin America, Africa, South East Europe and Central Asia have been developed. They combine grant-financing for physical infrastructure with comprehensive corporate development measures in the areas of operations, financial management, human resources, organization and customer relationship management. SECO's objective for this additional assistance is to transform the supported utilities into customer-oriented, self-financing and sustainable utilities, which help meet SDG Goal 6.1. to provide universal and equitable access to safe and affordable drinking water.

A review of success stories – SECO continuously strives to improve its offering

In 2015, SECO commissioned a 'Review of success stories in urban water utility reform' as a follow-up to the Independent Evaluation of SECO's work on the corporate development of public utilities. 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. A brief summary of the Review's findings is provided in below text box. The full text can be found on SECO's website.

A tool for analysis and dialogue

The Review's key tables and diagrams offer 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, the formulation of a utility-specific reform strategy, and the monitoring of reforms.

SECO has (jointly with the Review's authors) captured an expanded set of the key tables and diagrams from the Review into this document, which as such provides a concise tool for the analysis of and dialogue on an urban water utility's performance and (potential) reforms. This tool can be used by anyone involved in improving the operational and financial performance of urban water utilities. We hope it will serve your purposes and that together we can reach – sustainably – the furthest outskirts of urban centers in developing countries with clean water.

The tool forms an integral part of and should be understood in the light of the findings of the 'Review of success stories in urban water utility reform'. The tool's figures, diagrams and tables is not to be used mechanically. For example, the absence of one or more success factors does not mean a development agency should not engage with a particular utility. It only suggests that the development agency should look together with the utility for entry points to trigger the emergence of these success factors.

The Review of success stories in urban water utility reform – a one-page summary

Purpose and scope

The purpose of the Review was to identify practical ideas on how to mould together the many necessary elements for the successful reform of water utilities. The Review included (i) in-depth case studies of three successful, publicly-owned, water utilities: APA Vital (Iasi, Romania), Nyewasco (Nyeri, Kenya) and PPWSA (Phnom Penh, Cambodia); (ii) a cursory study of five successful water utilities: Haiphong (Vietnam), Manila (Philippines), NWSC (Uganda), ONEA (Burkina Faso), and Tartu (Estonia); (iii) a review of relevant development literature; (iv) the solicitation of the experience and judgments of leading water supply sector specialists; and (v) a cross-check of the findings with the outcome of the independent evaluation of SECO's corporate development of public utilities.

Three key analytical findings (all presented in this tool)

First, the Review identified 15 success factors, which are divided into first-order, second-order, contributing and sustainability factors. This hierarchy of factors can help assess utilities and their sector context and provide a basis for the systematic monitoring of reforms. Second, the Review uncovered two distinct reform phases. These phases illustrate the evolutionary nature and the long-term character of successful utility reform. Overall, the process may last 15 years or more. Awareness of this long-term character of utility reform is essential in setting realistic expectations for corporate development programs, which often are implemented in phases of 2-4 years. Third, the Review identified five essential roles development agencies have played in successful utility reform. This typology can help development agencies to clarify and assign responsibilities between donors, their headquarters, field offices and consultants.

The difficulty of successful reform

The Review paints a clear picture of the dynamics of change, the development phases in a turnaround process and the key attributes of successful urban water utilities. It is tempting to distil out of this story line a unique road to success, which every urban water utility – eager to emulate the success stories – should travel. Most water sector experts recognize that such a road does not exist and that each utility needs to go through its own development process. The difficulty of successful reform lies in three key features of the reform process. First, the reform-minded managing-director and the explicit support of the local and national political leadership to the reform *precede* all other reform efforts. Second, the ownership and leadership of the managing-director and his political principal are – at the end of the day – *voluntary*: they themselves need to feel the urgency of reform and the incentive to make the decisions which herald in the changes. Third, the utilities truly *evolve*, with the pieces of the puzzle slowly falling into place, through a concerted effort, but one that is neither fully planned nor controlled by any one of the principal stakeholders. The reforms are transformational and endogenous in nature, driven by competent and audacious local leaders.

Three lessons

The Review offers three practical lessons to consider in utility reform. First, in the initial stages of a reform process the focus should be on securing the ownership of the managing-director and the (local) political leadership. Such ownership and leadership is more likely to prevail if (externally-financed) reform efforts are locally led and address the preferences and immediate concerns of the managing-director and the political leadership. Second, where local leadership emerges and prevails over time, development agencies can help by empowering the change makers *inter alia* through facilitating an in-country dialogue and collective action process, capacity building, providing man- and brainpower, and results-based financing. For the assistance to remain effective, it is vital to remain perceptive of what is happening within the utility and its (political and social) environment and be ready to tweak the assistance to the circumstances at hand. Third, following such a tailored, demand-driven, politically astute approach allows development agencies to apply the two-phase reform model, i.e. to start small and focus the assistance on emergency measures, getting the basic operations right and facilitating culture change, before scaling up the support – when initial success is achieved and local ownership and leadership prevails – to large-scale investments and the adoption of increasingly modern business practices.

The road to success is long and bumpy

The Review shows that it is possible for underperforming urban water utilities in developing countries to evolve into modern service providers with high-quality service delivery and a solid financial performance. This does require hard work and competent and audacious local leaders (in particular from the managing-director), the competent support and push from a development agency, and the acceptance that the road to success is long and bumpy, requiring perseverance and a healthy portion of good fortune.

Part 2. The Tool

2.1 Objectives

The tool is derived from the 'Review of success stories in urban water utility reform' and features key elements of the report. This tool can be used by anyone involved in improving the operational and financial performance of urban water utilities. It is intended to assist stakeholders in:

- (i) assessing where a utility is located in its development or reform process,
- (ii) understanding the (political) context in which a utility operates; and
- (iii) conducting a structured dialogue amongst the stakeholders on reforming the utility.

2.2 Framing the reform goals and process

The Review (Chapter 2.1, p. 14) shows – unequivocally – that urban water utilities in developing countries can provide high-quality services, achieve high coverage rates, and operate efficiently: covering their operational, maintenance and (partially) investment costs. **Table 1** presents the financial and operational level at which a selection of urban water utilities operate (and these utilities are no exceptions – there are more – in a diverse set of political economies).

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 summarizes core challenges of an urban water utility turnaround. This tool provides guidance on a number of these challenges. The relevant sections of the tool are referred to in the table.

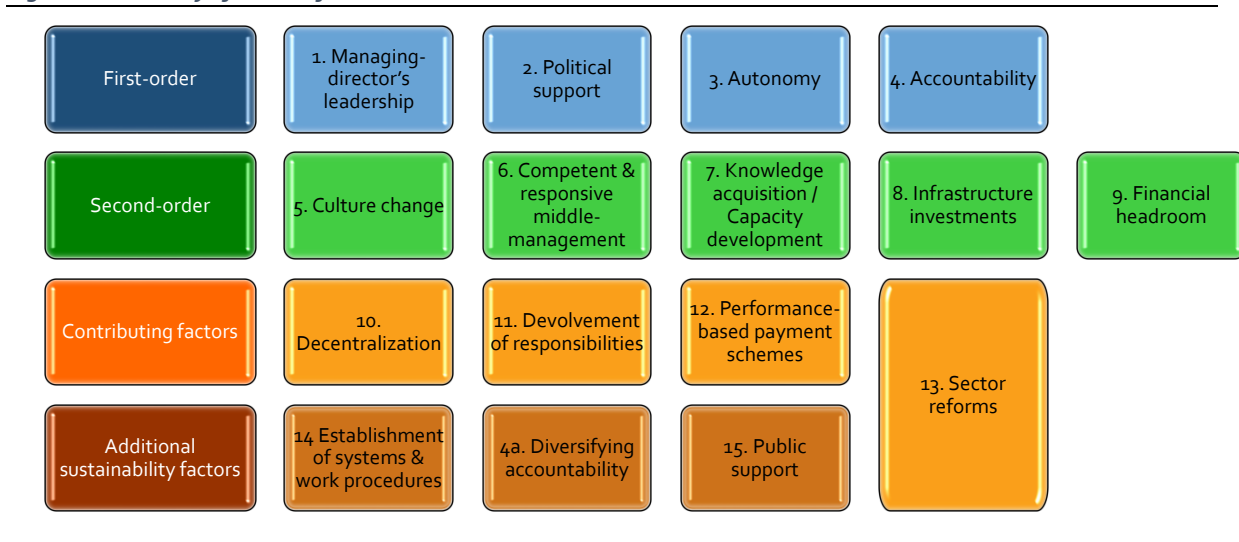
Table 2 *the core challenges of an urban water utility turnaround and guide to the subsequent tables and diagrams*

1. **Planning**
 - Assess where the urban water utility is in its development process – see sections 2.3, 2.4 and 2.5.
 - Explicitly consider the political context within which these actors operate – see section 2.8.
 - Identify the benevolent preferences and immediate concerns of the managing-director and the political leadership.
 - 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 section 2.4.
 - Start small with targeted interventions; increase assistance over time as local leadership prevails and results are achieved.
 - Identify a set of key performance indicators and relate additional assistance to achieving predefined targets – see section 2.7.
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 section 2.6.
 - Continue or increase financial assistance based on (intermediate) results and the achievement of targets – see section 2.7.
3. **Monitoring and evaluation**
 - Monitor progress in operational and financial performance – see section 2.7.
 - Assess the emergence of success factors – see section 2.5.
 - 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.

2.3 A hierarchy of success factors

The Review (Chapter 2.2, p. 15 and Chapter 3.3, p. 26) identified a hierarchy of 15 success factors for urban water utility reform (Figure 1). The Review distinguished first and second order success factors. Both levels are necessary to achieve success. The difference is that the first order factors are a pre-requisite for the second order factors to materialize or to be utilized effectively. In addition to these necessary conditions, there are contributing factors of success, i.e. factors which can support success, but are not necessary per se. The additional sustainability factors fortify success in time.

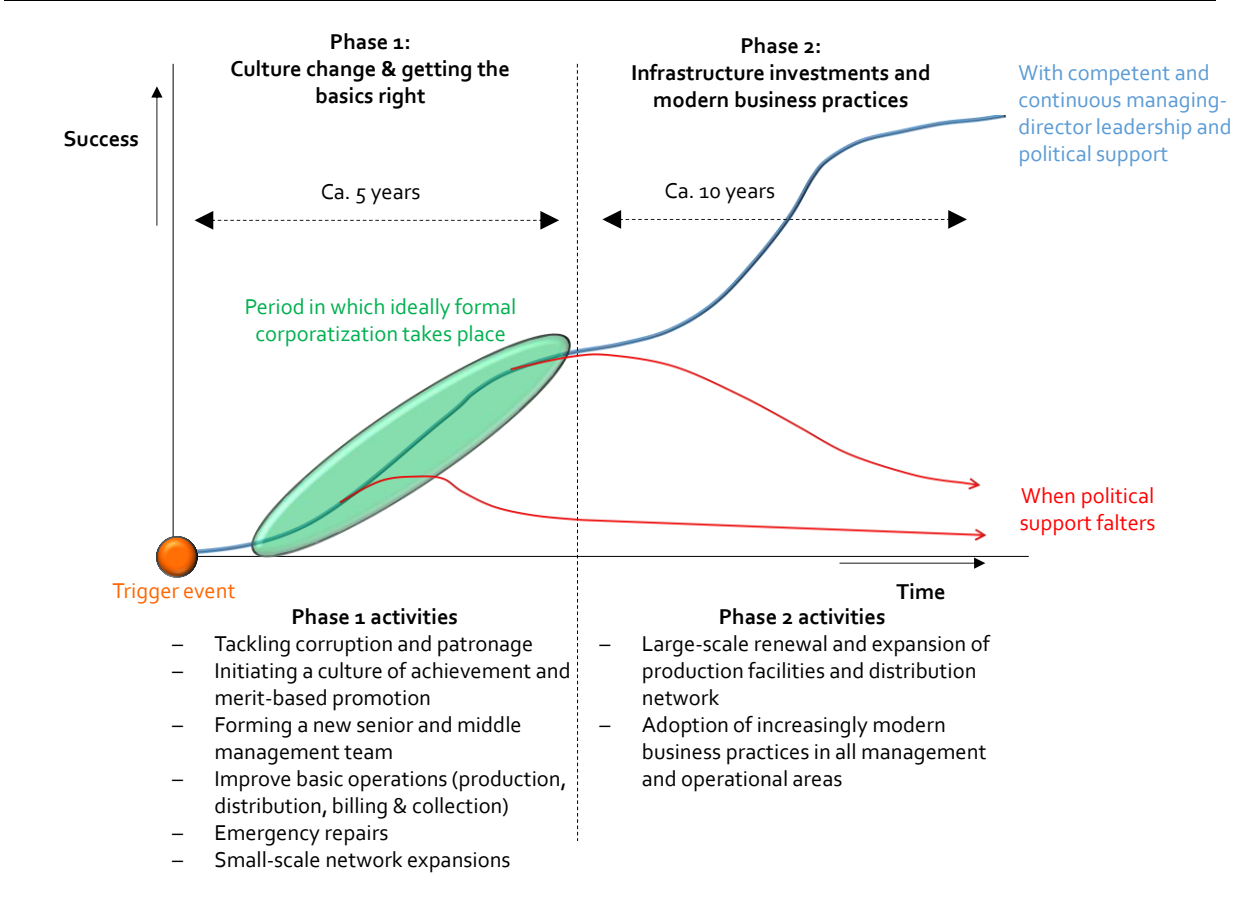
Figure 1 a hierarchy of success factors



2.4 A two-phase reform model

The Review (Chapter 3.2, p. 23) identified two distinct development phases in successful urban water utility turnarounds (**Figure 2**). The first phase revolves around cultural change and getting the operational basics right. The second phase entails large-scale infrastructure investments and the adoption of modern business practices.

Figure 2 the two-phase reform model



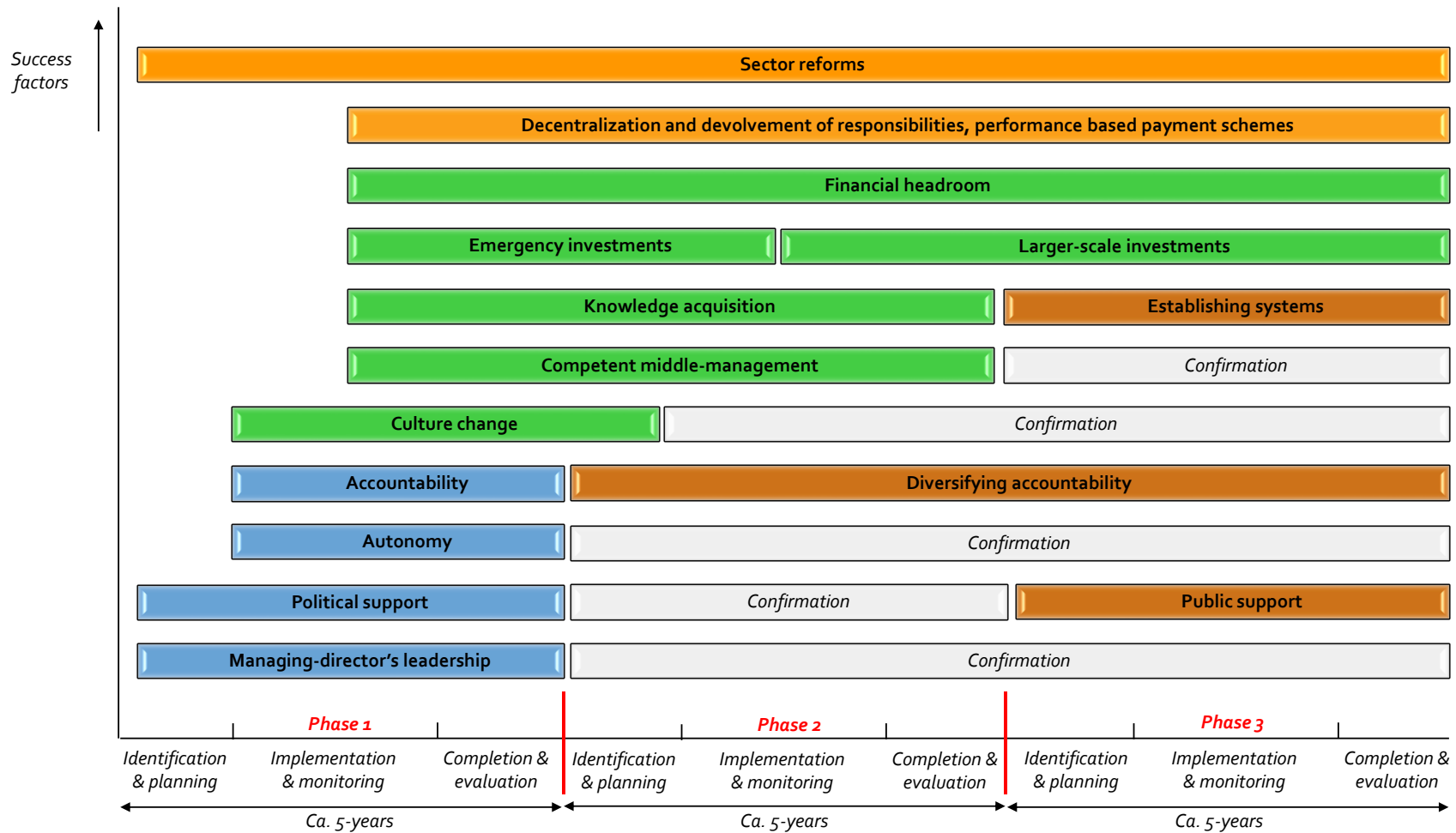
2.5 The emergence of success factors

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 section 2.8**). 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		

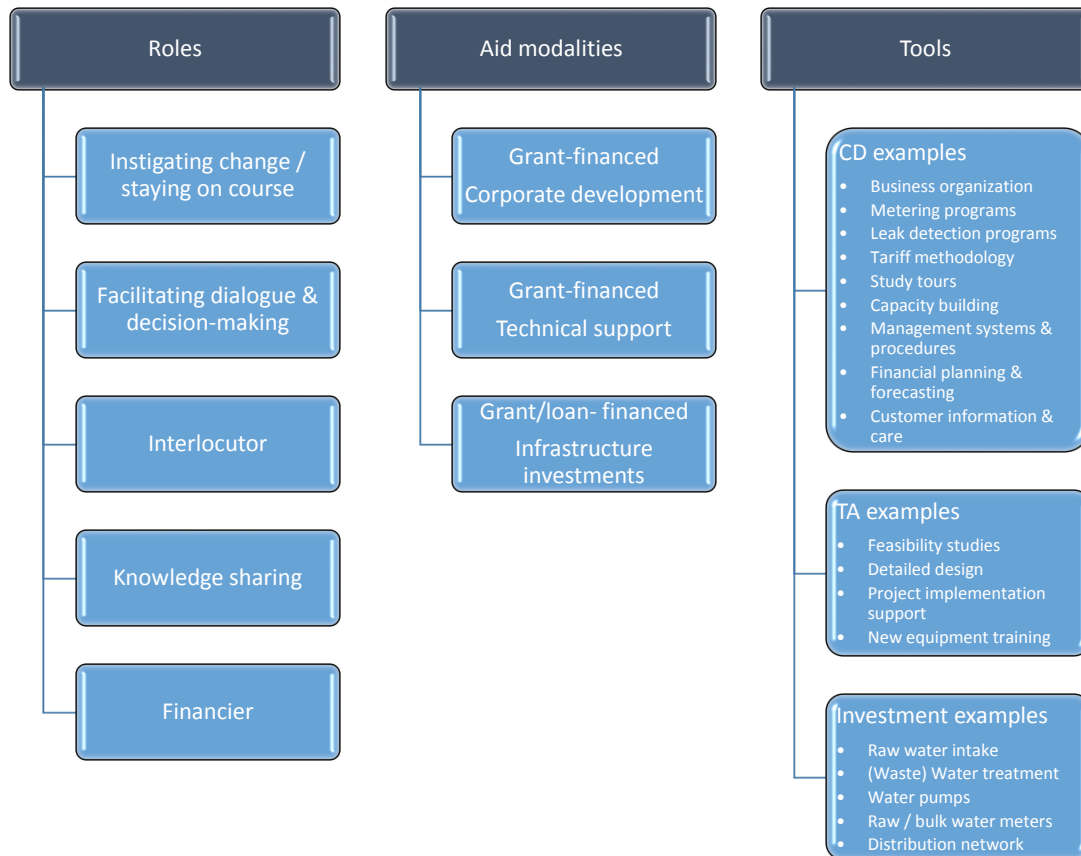
Figure 3 the relative importance of the emergence of individual success factors over time



2.6 The role of development agencies

The Review (Chapter 4.1, p. 28) 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



2.7 Performance targets, signposts and milestones

Table 4 common performance indicators and targets used by development agencies to incentivize 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, which indicate (first) success

	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

2.8 Political economy analysis

A utility turnaround is influenced by a myriad of stakeholders (Figure 5). The Review (Chapter 3.1, p. 21) 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) 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. Figure 6 presents the analytical framework of Problem-oriented Political Economy graphically. Annex G of the Review provides a more elaborate 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

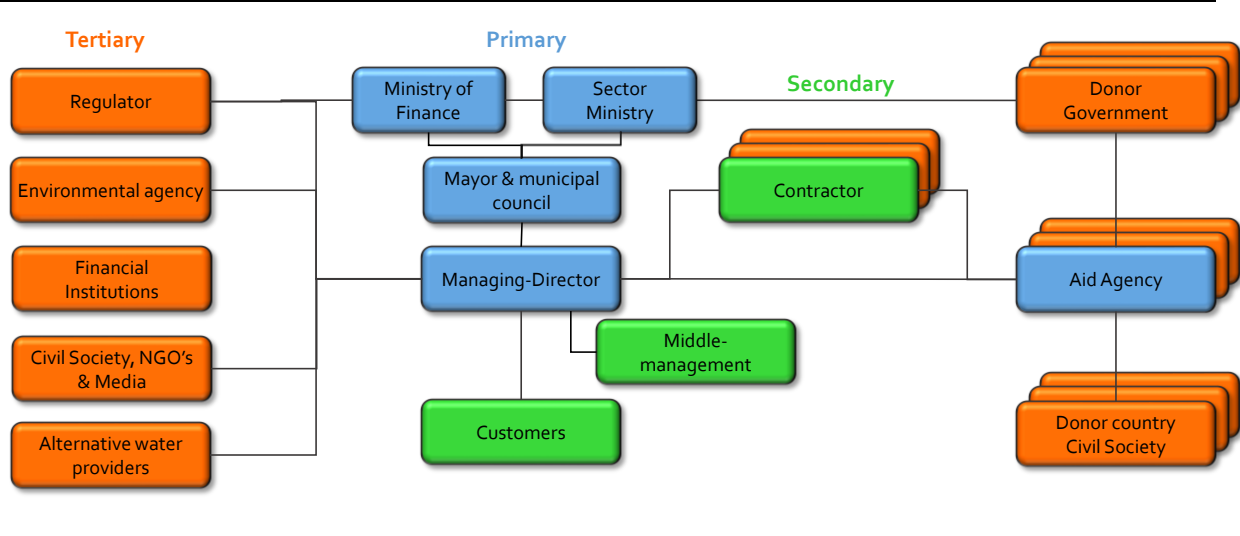
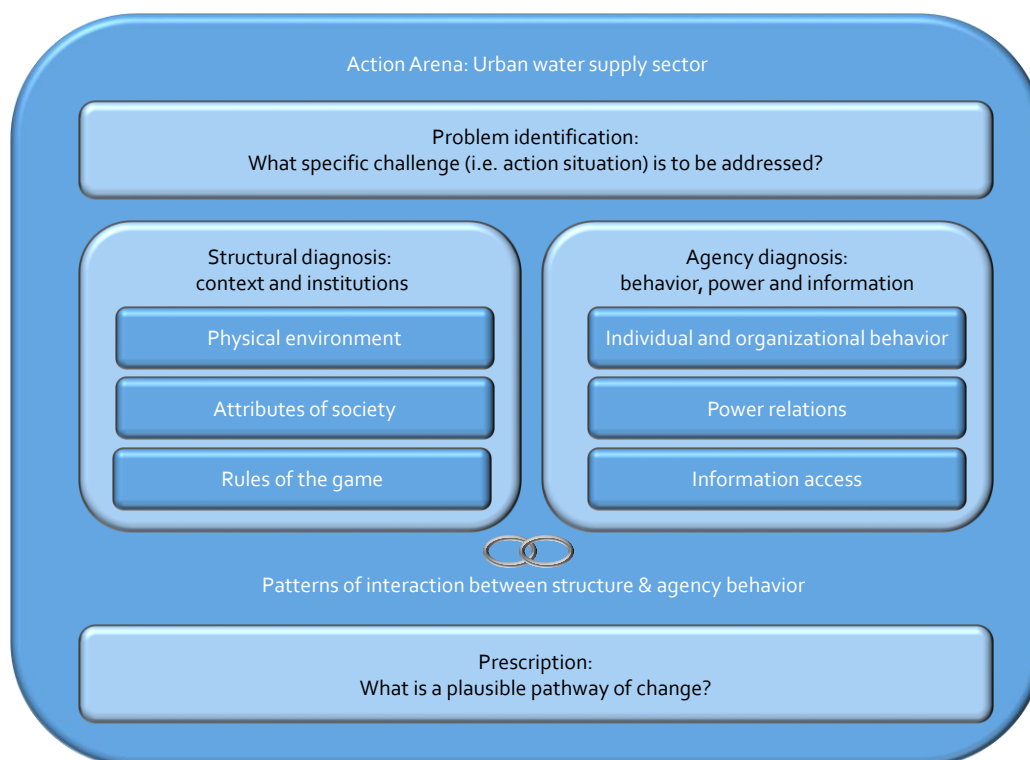


Figure 6 the analytical framework of Problem-oriented Political Economy Analysis

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.