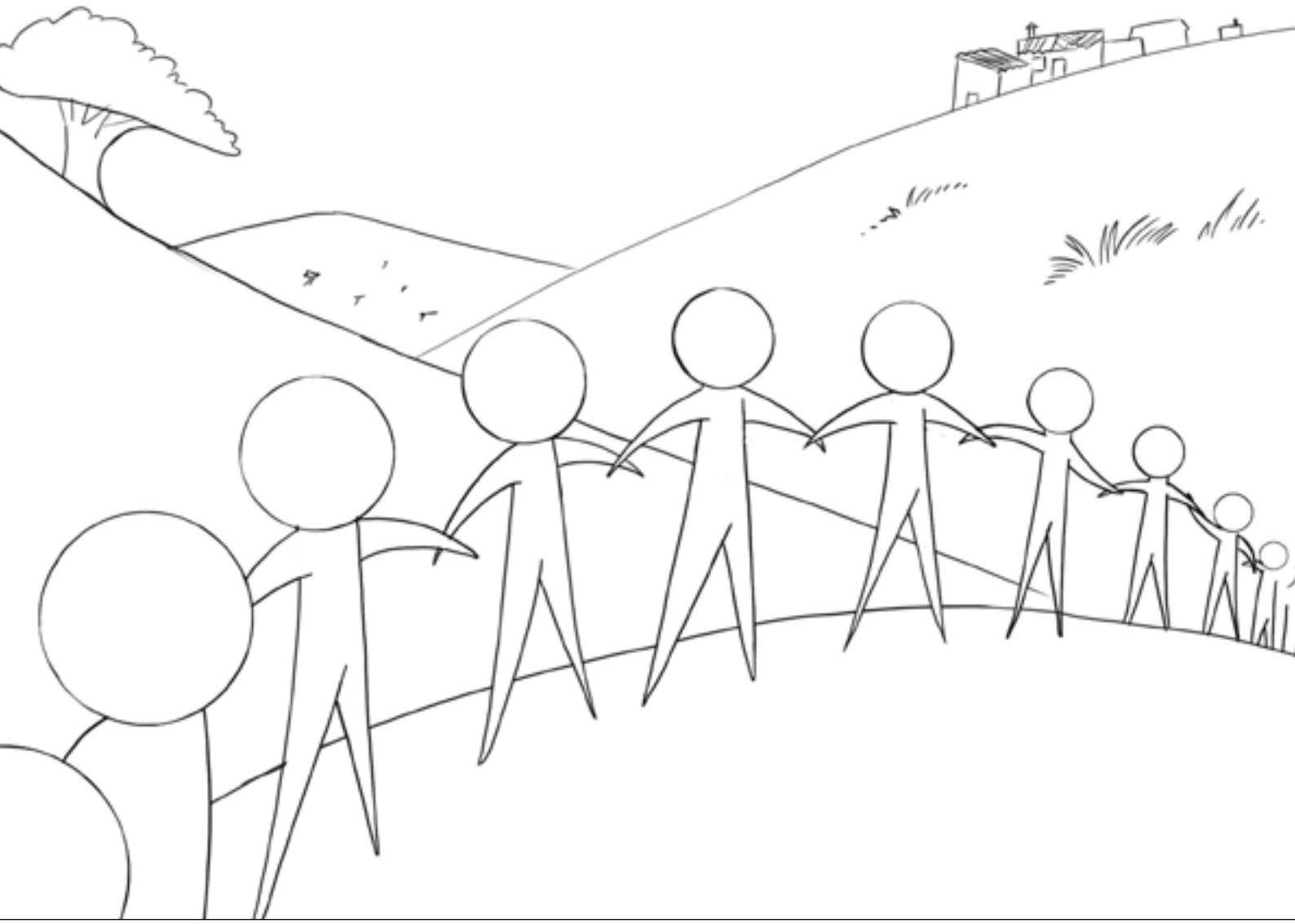
BEWOP

TOOL SERIES

Water Supply Governance Analysis and Assessment

OPERATIONAL TOOL

GUIDELINES



GWOPA Global Water Operators' Partnerships Alliance

UN HABITAT FOR A BETTER URBAN FUTURE

UNESCO IHE DELFT

A joint initiative of GWOPA/ UN-Habitat and IHE Delft Institute for Water Education

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Water Operators' Partnerships are peer support arrangements between two or more water and sanitation operators, carried out on a not-for-profit basis with the objective of strengthening operator capacity.

The Boosting Effectiveness of Water Operators' Partnerships (BEWOP) initiative is producing a series of guidance materials, tools and games to help WOP partners expertly plan and implement WOP partnerships and effectively learn and share knowledge with one another.

Two types of products feature in the second phase of this BEWOP initiative. Process Tools support WOP participants prepare for, design, implement and follow through with their WOPs. Operational Tools support in the transfer of knowledge on specific operational topics relevant for water utilities.

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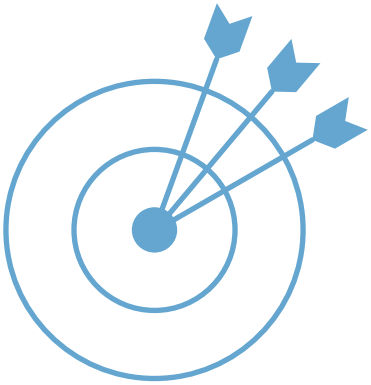


Objective

This tool aims to support professionals in water utilities, acting as a guideline to reflect and discuss water governance challenges and alternatives. Since most water issues are commonly considered as inherently related to technical problems, this tool invites the reader to consider other dimensions of water supply.

As problems and solutions to these problems are not only technical, but also governance related (new policies, new institutions, etc.). Thus, the water governance analysis and assessment framework offer an instrument to study the governance system in and around water utilities, where most water professionals work and operate.

Overall, this tool provides a framework to judge objectives, opportunities, and challenges for water and sanitation development.

How this tool works

The framework relies on strategic questions to reflect upon when analysing or assessing water governance. This tool guides users to consider the following questions:

1. What is the issue or problem and who is the problem owner? What is the current situation surrounding the issue and how does it influence the implementation of solutions?
2. What are the causes of the problem, or what is influencing the issue to become problematic?
3. Who are the actors in the governance network influencing the issue, the problem, or the implementation of a solution? Which actors are benefitting from the current situation?
4. What are the institutions (customs, laws, regulations, authorities etc.) related to the governance of the issue?
5. What performance criteria would you use to assess progress in the implementation of alternatives or solutions to the problem at hand?

Contents

Introduction

No Water, No Future[1] declared the Prince of Orange Willem-Alexander in 2002. His speech directed attention to the issues of water scarcity and access to safe water and sanitation as a crisis of governance. Since then many documents have been published stating similar claims: good water governance is a prerequisite to improve water management (Akhmouch & Correia, 2016; Havekes et al., 2013; World Bank, 2010)

But, what is good water governance? What is water governance? What water? And the governance of what? Is it good because of the outcomes, or is it good because of the institutional arrangements? Recent experiences draw attention to and critique the notion of good governance and international institutions driving a specific (neoliberal/western) political agenda.

It is beyond the scope of this water governance framework to answer the question of what is good water governance. Instead, with this framework, we want to give water professionals a set of instruments to analyse, assess, and discuss water governance in the context of water supply and sanitation utilities.

In this framework, we differentiate two distinct approaches. First, water governance analysis as an approach to analyze and address a specific water issue or problem. For example, to analyze the governance system of groundwater resource protection in Maputo, Mozambique. Second, water governance assessment, in which you use a set of assessment criteria and objectives. For example, to assess the governance system of groundwater resources protection in Maputo, Mozambique based on the criteria indicators of sustainability (social equity, economic efficiency, and environmental integrity).

What are we talking about, what is the issue, follow the flow

Thinking of governance issues can be broad and generic, which usually leads people to talk about it in relative superficial terms. To avoid this, one needs to place strategic questions to understand water governance in terms of what water (groundwater, surface water, waste water, etc.), and what governance (basin governance, groundwater governance, corporate governance, etc.) is under discussion. These questions target specific water governance issues: for example, groundwater resources management, water supply, drainage and sewerage, small scale decentralized sanitation, rainwater harvesting, reuse of reclaimed water resources) or problems: for example over-abstraction of water, pollution issues, leakages, cost-recovery, and then try to relate them with other governance issues.

Every water issue faced by a water company or utility has its own governance system. The same city can have groundwater protection with a set of laws and stakeholders different from those meant to deal with the issue of leakage losses, while both issues play in their own governance system. Yet, the two governance systems are related to aggravated problems in non-revenue water puts pressure on the abstraction from the groundwater resource. The implementation of solutions, e.g. increasing the volume of groundwater abstraction for increasing water supply to the city, enables or hampers various environmental elements, actors and institutions in the governance system.

1 "No Water No Future" Speech by the Prince of Orange at the Accra Conference, Ghana, Monday April 15th 2002 in preparation for the World Summit on Sustainable Development 2002 organized in Johannesburg, South Africa. https://www.koninklijkhuis.nl/documenten/toespraken/2002/04/15/no-water-no-future-speech-by-the-prince-of-orange-at-the-accra-conference-ghana-monday-april-15th-2002

Figure 1 shows a river basin. Of course we can talk and think of river basin governance, but that does not make much sense if we are not specific about the issue we are dealing with. *When analyzing and assessing governance, we first need to think of the problem at hand*. For example, we could assess a case in which groundwater resources for urban water supply are over-abstracted and depleting. Now we can start thinking of the governance system around this issue. And because water flows, it guides our attention to specific dynamics: in our case, first the groundwater resource, then its inflow (rain, upstream catchments, etc.), its outflow (the water network it is supplying to and downstream groundwater flows or rivers it is feeding), and then we might conclude that the governance problem is at the river basin level or national level.

In other cases, you might be asked to think about governance in order to enable the implementation of a solution (a wastewater emission permit, water infrastructure, pre-paid system, public toilets, etc.). Also then it is advised to go back to the problem: what problem are we solving by introducing new technology? Is this the best alternative to the problem?

Figure 1. Natural infrastructure for Water Management (Source: Cohen-Shacham, Walters, Janzen, & Maginnis, 2016)

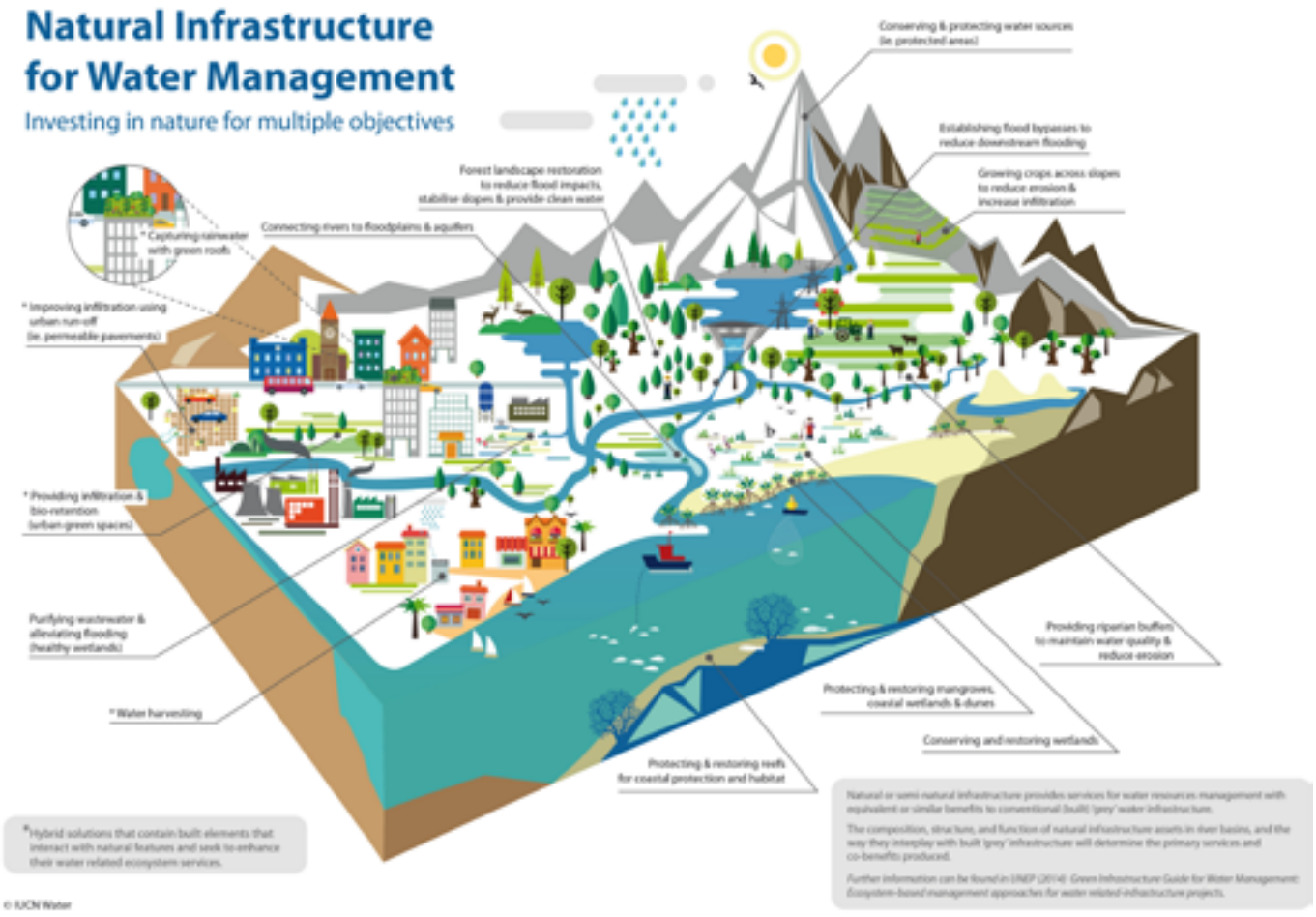


Figure 1 does not show the men, women, and the organizations and institutions creating, steering and influencing the problems and solutions in our human-water systems. So, after identifying the problem, the next task is to identify the actors involved (the stakeholders) and the institutions (laws, rules, regulations, plans, etc.) they developed in order to manage the groundwater resource. It is often common to find that the main problem relates to fragmentation in tasks and responsibilities, faults of communication, cooperation, and coordination between these various actors who are planning, managing, using, manipulating, and distributing the water resources and flows in the system.

Integrated Water Resources Management (IWRM) explores the interrelations between water resources, its quantity and quality, for various water uses. Many countries base their national water or river basin management plans on the concept and objectives of IWRM. However, there is a big gap between the drafting and designing of plans and their actual implementation[2]. This latter is a question for governance analysis.

A way to approach actor identification is to follow the water flow: Who is using and abstracting from the groundwater resource? Who is influencing the inflow to the groundwater resource upstream? Who is using and managing the outflow of the groundwater resource downstream? Who is responsible for managing the groundwater resource and developing rules and regulations to manage the quantity and quality of the groundwater resource?

The upcoming sections of this framework will introduce you to some practical approaches to answer these questions. We refer to two main approaches: first the *governance analysis*, as a way to examine water issues by defining the problem at hand, the actors involved, and its institutional components. Second, the *governance assessment* as a path to compare the current water issue and its components against previously determined criteria, usually referring to notions of sustainability, actionable governance indicators, efficiency, and equity.

Figure 2. Governance is about the people who are creating the rules of the game (Source: Cornell Univeristy, 2005)

2 Cherlet (2012) shows, based on GWP and UN-Water reports, that about two-thirds of the 125 researched countries have IWRM plans in place and about one-third of those 125 countries have these IWRM plans implemented.

Governance analysis

You can use a governance analysis to examine the governance situation around a specific water and sanitation management challenge, for example, a governance analysis on managing groundwater resources for drinking water supply in Maputo, Mozambique. You can also frame it in the specific context of where this challenge originates, often the reason why you are involved in doing the governance analysis. For example, to analyze the governance system related to groundwater depletion due to over-abstraction for urban water supply in Maputo, Mozambique.

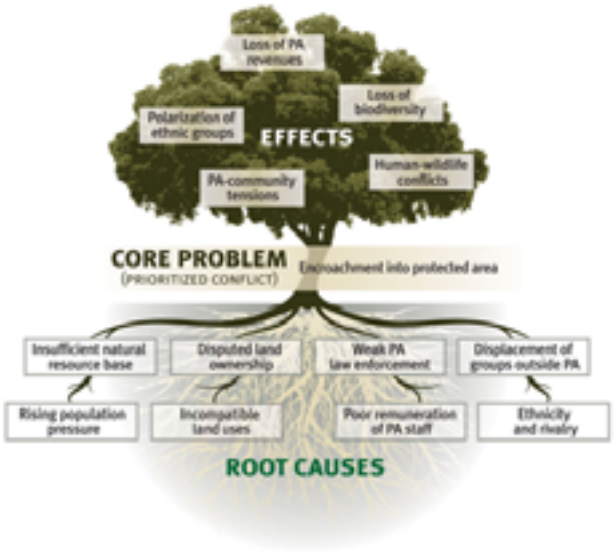
Therefore the first step in doing a governance analysis starts with defining the problem from the perspective of the problem owner.

What is the issue or problem, and who is your problem owner?

Asking the right question is the entry point to carry out a governance analysis: what is the problem, and who is the problem owner? This question is crucial, for two important reasons: first, your problem owner is likely the water utility and second, the water utility is probably not the only actor, or factor, influencing the problem. There will be many other actors, with various perceptions of the problem and some of them might even think there is not a problem at all. The governance analysis thus starts looking at the point at issue to define what the problem is, along with its causes and effects.

There are various tools available to develop a problem analysis. One of the most familiar tools is developing a problem tree, a causal map in which the core problem is stated at the stem of the tree, under this are the causes, or roots, of the problem, and above the effects, or branches, of the problem (see Figure 3. Example problem tree (Source: CDI, 2012)). To develop your own problem tree, follow the step-by-step in the text-box below.

Figure 3. Example problem tree (Source: CDI, 2012)



Box 1. Problem tree analysis (Source: CDI, 2012)

Problem tree analysis – Step by Step

Problem tree analysis is best carried out in a small focus group of about six to eight people using flip chart paper and coloured small pieces of paper. It is important that factors can be added as the conversation progresses.

Step 1: Discuss and agree on the problem or issue to be analysed. The problem can be broad, as the problem tree will help break it down. The problem or issue is written in the centre of the flip chart and becomes the 'trunk' of the tree. This becomes the 'focal problem'. The problem should be an actual issue everyone feels passionate about, described in general, key words.

Step 2: Identify the causes of the focal problem – these become the roots – and then the consequences, which become the branches. These causes and consequences can be created on post-it notes or cards, perhaps individually or in pairs, so that they can be arranged in a cause-and-effect logic.

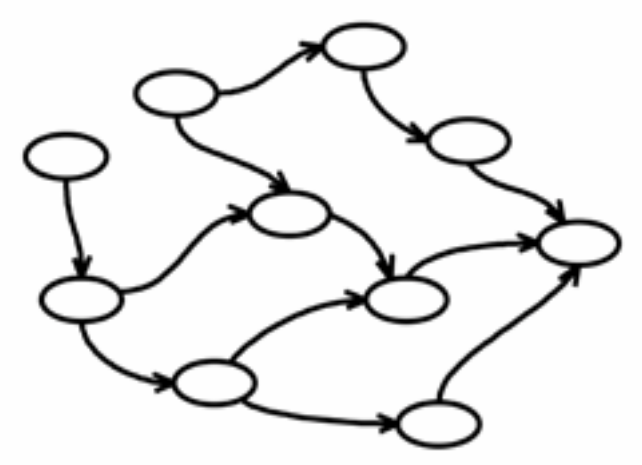
The heart of the exercise is the discussion, debate and dialogue generated in the process of creating the tree. Take time to allow people to explain their feelings and reasoning, and record-related ideas and points that come up on separate flip chart paper under titles such as 'solutions', 'concerns' and 'dilemmas'.

Discussion questions might include:

- Does this represent reality? Are the economic, political and socio-cultural dimensions to the problem considered?
- Which causes and consequences are getting better, which are getting worse and which are staying the same?
- What are the most severe consequences? Which are of most concern? What criteria are important to us in thinking about a way forward?
- Which causes are the easiest / most difficult to address? What possible solutions or options might there be? Where could a policy change help address a cause or consequence, or create a solution?
- What decisions have we made, and what actions have we agreed on?

The problem tree is useful for an initial characterization of the issue at hand. However, complex problems cannot always be simplified into a problem tree in which there are only one-way directional relations. Therefore it might be useful to develop a system diagram of (inter)related system elements.(Figure 4).

Figure 4. Causal mapping for a system analysis



When developing a system diagram, and discussing the relevancy of the elements to be placed in the system diagram it is important to do several rounds of cause-effect identification, and repeatedly ask what influences what? It is also important to make the causal relation clear, especially if the systems contain technical, infrastructure, biological and environmental, and social elements. Sometimes what appears to be a system element may be a means (things that the utility can do to influence the system behaviour), or an element may need to be expressed in more concrete terms. For example, "groundwater" might need to be expressed in more specific terms "Aquifer A" and "Well B". The installation of groundwater pumping stations may have different meanings due to resource needs (e.g. number of stations needed), and their capacity (e.g. resource yield, or ecological yield).

Developing causal system maps is especially relevant when you want to discuss the complexity of the system and to make clear how different system elements behave once you start making changes. For example, it might be the case that you need to consider the positive and negative effects of increasing the pumping capacity at a specific groundwater exploration site, or the likely consequences of implementing Managed Aquifer Recharge[3] measures. On the one hand, it will increase the water supply in the city. Still, on the other hand, it can also influence soil subsidence in the city and/or have negative impacts on the availability of groundwater to other users.

Actors: stakeholders, people and organizations

Developing a problem tree and possibly a related solution tree is sufficient if the problem owner has enough resources and capacity to actually solve the problem. However, in most cases the problem owner operates in a complex governance environment, where other actors are steering and influencing the problem (and the solution). Multiple and independent actors influence and steer the governance of water supply and sanitation issues. Due to this, it is useful to do an actor analysis to understand who is involved, what are their interests and motivations, and which resources and means do they possess to influence the issue.

3 Managed Aquifer Recharge: set of adaptation measures designed to reduce vulnerability to climate change and hydrological variability. They refer to actions needed to control over-abstraction, artificial aquifer recharge, improvement of groundwater quality, and others. More info here https://www.un-igrac.org/areas-expertise/managed-aquifer-recharge-mar

One of the first things you need to do when you analyze the governance of specific water supply and sanitation issues is to identify and characterize the actors related to the issue. Actors can be people and/or organizations. In some cases, they can be referred to as stakeholders, with a direct or indirect interest, like the public, clients, or water users; alongside ministries and line agencies regulating and controlling the operations of the utility. The term "actor" covers all the people and organizations in the governance network around the problem at hand.

There are many actor analysis approaches, it is a topic widely studied and reported. Most of actor analysis approaches are based on four core concepts (Enserink et al., 2010):

- Actor networks.
  Stable social interrelations between interdependent actors, highlighting the interdependencies of actors in governance networks
- Perceptions.
  The images and beliefs of different actors.
- Values, motivations and interests.
  The normative values defining and influencing the objectives of the actors in steering the governance process.
- Resources, capacities, and power.
  The practical abilities and means actors have to influence and steer the process towards their desired objectives.

The approach you choose to analyze the actors will depend on the characteristics of the problem you are addressing. Some approaches are available for different purposes (see Table 1).

Table 1. Overview of methods for actor analysis (Source: Enserink et al.**, 2010)**

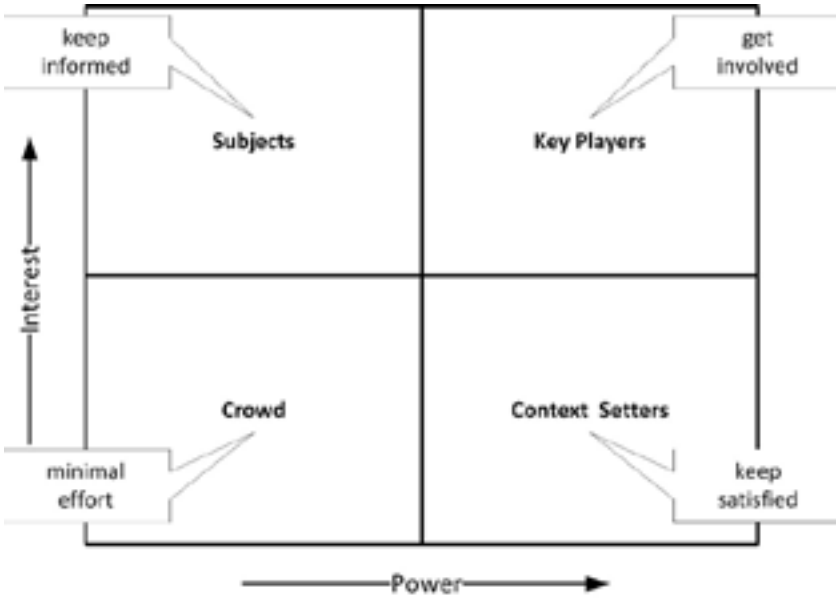
Method	Focus	References
Network analysis	Networks	
Social network analysis	Structural characteristics of actor networks	Kenis & Schneider, 1991; Scot, 1991
Stakeholder analysis	Resources and interdependencies	
Stakeholder analysis	Stakeholder environment to maximize cooperative potential and minimize threat of obstruction	Freeman, 1984; Bryson, 2004
Game theoretic models	Resources and interdependencies	
Meta-game analysis	Structure of policy 'game' to help identify stable outcomes and advise on strategies for negotiating and coalition building	Howard, 1971, 1989; Fraser & Hipel, 1984
Hyper-game analysis	Structure of policy 'game' and role of (mis)information and strategic surprise	Bennet et al., 1989
Transactional analysis	Resources and interdependencies	
Transactional process models	Potential for exchange of control between different actors, to facilitate policy process	Coleman, 1990; Timmermans, 2004
Vote-exchange models	Predicted shifts in actors' positions and outcomes of collective decision-making	Stokman, 1994; Thomson et al., 2003
Discourse analysis	Perceptions of groups of actors	
Argumentative analysis	Different chains of reasoning used in policy debate and underlying values and assumptions	Toulmin, 1958; Mitroff, 1983
Narrative policy analysis	Opposing views of controversial problems and possible meta-narratives to reformulate those problems	Roe, 1994; Van Eeten, 2006
Q-methodology	Groups of actors with shared perspectives and their underlying basis	McKeown & Thomas, 1988
Cognitive Mapping	Perceptions of individual actors	Axelrod, 1976
Self-Q interviews	Possibilities to address policy problems through actors' rationale	Bougon et al., 1990
Dynamic Actor Network Analysis (DANA)	Perceptions of actors to enable comparative analysis of agreement, conflict, etc.	Bots et al., 2000
Preference elicitation	Values of actors	
Analytic Hierarchy Process (AHP), multi-attribute assessment	Structure and hierarchy in various attributes and alternatives	Saaty, 1990; McDaniels & Thomas, 1999

Many of these actor analyses result in power-interest or support/opposition-power matrices (see Figure 5). These are useful to analyze the role these actors play in dealing with the problem, and to what level they need to be involved in implementing a solution.

Figure 5 shows a way to categorize power-interest analyses of the actors, based on their level of interest (e.g. how much they depend on or are influenced by the problem) and power (e.g. their ability to influence outcomes). For example, if an industry abstracts groundwater from the same resource as the water utility, both will have a high interest in the groundwater resource and its management. When establishing the level of power, we look at how much each actor influences the outcome of plans and successful implementation. For example, the Ministry of Natural Resources and Environment as the government body with the mandate of regulating and controlling the groundwater abstraction permits to large groundwater users, like industries and utilities.

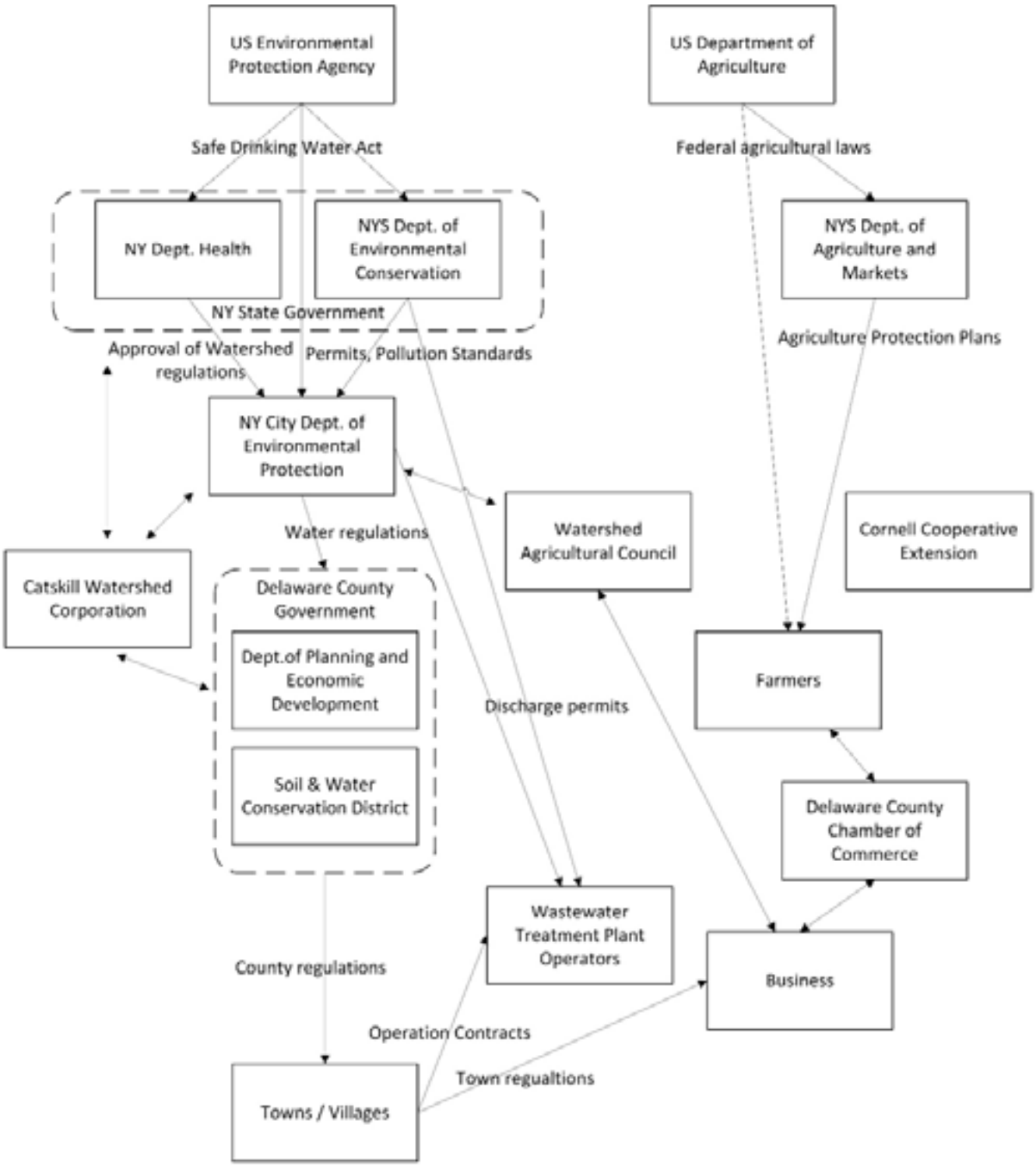
Figure 5 puts the actors with high interest and high power in the "key players" category, these are the actors actively involved in defining the problem and planning for implementing a solution. Actors with little interest, but high power need to be kept satisfied, as they can block the implementation. Actors with high interest and low power need to be kept informed, as these are the ones that have something to lose. For example, local users who make direct use of the groundwater source, or clients of the water utility. Local users might be able to find a connection to others with power, or appeal to decisions via the judiciary system.

Figure 5. Power – interest matrix (Source: Bryson, 2004)



Another option to analyse the actors is by developing networks to visualize the relations between the various actors. Similar to the power-interest matrix approach, the network actor analysis starts with the problem analysis. Followed by an inventory of the related actors. Then the actors are located on a map, in which you may highlight the formal relations between the actors. Figure 6 shows the actor map of the water pollution problem of drinking water in New York, the United States of America. It is of course not always possible nor necessary to highlight all formal relations in the map. But, be aware that all arrows in your map must be supported by research of the formal relation. The development of such an actor map can follow the guiding steps explained in Text box 2.

Figure 6. Formal chart of New York drinking water problem (Source: Enserink et al., 2010)



Box 2. Steps in actor analysis (Enserink et al., 2010)

Steps in Actor analysis

1. Problem formulation of the problem owner as a point of departure
2. Inventory of the actors involved
3. Mapping formal relations
4. Inventory of interests, objectives and perceptions
5. Interdependencies: resources and salience
6. Implications for problem formulation and client

Figure 6 shows that the US Environmental Protection Agency (US EPA) is 'on top' of the hierarchy, according to the Safe Drinking Water Act (SOWA). Based on this Act, US EPA determines whether or not New York City should filter its drinking water. The State agencies have some influence over NY City Department of Environmental Protection (NYCDEP), as their approval or permits are needed for some of NYCDEP's activities. NYCDEP and the NY State Department for Environmental Conservation are jointly responsible for permits and determining acceptable pollution loads. As a water supplier, NYCDEP is authorized to develop and implement rules and regulations to protect the water quality in the City's watershed, including those in Delaware County, provided that NY State Department of Health approves of these rules. This gives NYCDEP a strong position vis a vis the Delaware County agencies.

To protect New York City's reservoirs from pollution while maintaining the economic viability of the Catskill and Delaware Watershed region, an agreement was signed between New York City and the watershed communities. Several programs to support pollution reduction were created as part of this agreement. The Catskill Watershed Corporation (CWC) was established to administer and manage some of these programs. The CWC is a non-profit organization and its members consist of twelve representatives of West of Hudson communities (of which six are from Delaware County), two members appointed by the State Governor and one New York City employee. Since agriculture is the main economic activity and the main source of pollution in the New York City watersheds, specific arrangements were made concerning agriculture. This resulted in a Watershed Agricultural Program, which is implemented by the Watershed Agricultural Council (WAC), a farmer-led non-profit organization. Its board consists of farmers, agribusiness representatives and the Commissioner of NYCDEP. The WAC has contracted the local Soil and Water Conservation Districts (SWCD), the Cornell Cooperative Extension Association (CCE), and other parties to assist in implementing its program (note that these contractual relations are not depicted to maintain a certain level of clarity in the diagram).

Institutions: what are the laws and regulations influencing?

Commonly, actors and institutions are analysed indifferently. Keep in mind that institutions are both the formal (laws, regulations, policies and plans) and informal customary rules and institutions in any society. These two entities have the power to influence the issue at hand and the possible implementation of solutions.

It is helpful to follow the actor analysis to identify the related institutions, like those presented in Figure 6. In most cases, there is a national law, related to ministerial actors or state agencies responsible for implementing or enforcing these laws, and their associated regulations and policies. This is relatively similar for the actors involved at the provincial, district and municipal governmental levels. Usually, this is referred to as the policy environment. The review of the institutions should clarify the current legislation, rules, and regulations related to the governance problem. The analysis of governance issues for water and sanitation services commonly addresses the following elements (Locussol & Ginneken, 2010):

- Arrangement of responsibility of the water/sanitation service provider
  - Which level of government is the utility operating and accountable for,
  - What are the boundaries of the responsibilities, e.g. including on-site sanitation and drainage
  - Is the utility also responsible for other services, e.g. energy
- The key operational tasks/responsibilities of the utility:
  - Policy formulation, operation and management plans, asset management, financing /cost recovery of the service,
  - Mandates and contractual arrangements of the utility with others and outsources to third (private) parties.
- Water and sanitation standards
  - Responsibilities in setting norms for water and sanitation service standards, e.g. quality standards,
  - Which entity is responsible for controlling and inspecting compliance of standards,
  - Which entity is authorized to penalize the utility when standards are not met?
- Financial arrangements
  - How is the financing of the service arranged, e.g. based on polluter/benefiter pay principles and internal cost-recovery, subsidiarity principles.
- Water resources and environmental protection regulations
  - The institutions in place to secure and safeguard the water resources from the utility abstracts its water
  - The institutions in place to protect the environment from being harmed by pollution or over abstraction
- Substitutes to delivery of the services
  - Other water resources to be developed
- Enforcement, monitoring and inspection arrangements
  - What institutions and entities are in place to control, inspect, penalize, enforce, and evaluate the implementation of laws, rules and regulations?

At the same time, there might be informal institutions at play. For example, some users have customary rights to a water resource, or the utility created the customary policy of not disconnecting people when they are not able to pay their water bill.

Governance assessment

The governance assessment adds to the governance analysis in providing a set of approaches to compare the current governance scenario to external and predetermined criteria. Many of the analysis and assessment frameworks available focus on sustainable development criteria. Key perspectives of water (and other natural resources) governance assessment include (Wiek & Larson, 2012):

- *a systemic perspective* that sufficiently links ecological, social, economic, technical, legal, cultural and other aspects of the regional or local water system, which is critical for understanding the ubiquity and "wickedness" of water resource challenges and for developing robust governance strategies (Alley & Leake, 2004; Kallis, Kiparsky, Milman, & Ray, 2006; Lach, Rayner, & Ingram, 2005; Reed & Kasprzyk, 2009; Winz, Brierley, & Trowsdale, 2009).
- *a governance focus on social actors* that recognizes who is doing what with water and why (within the regional or local system), who is causing or contributing to the problems, and who is willing or ought to be doing what in order to mitigate and solve these problems (Braden et al., 2009; Lubell, Leach, & Sabatier, 2009).
- *a transparent and accessible discourse on values and goals* to specify, reveal, and negotiate tangible needs, preferences, and visions among regional or local stakeholders, along with the implications for water systems (Lebel, Garden, & Imamura, 2005; Ostrom, 2009).
- *a comprehensive perspective on water sustainability* that accounts for the richness of the sustainability paradigm, including social-ecological integrity, sufficient livelihoods, social justice, and intergenerational equity, while avoiding a path towards solutions for isolated problems that might be ineffective, inefficient, inequitable, or even counterproductive with respect to other problems (Kallis et al., 2006).

Water governance assessments often have multiple objectives, including (Jacobson, Meyer, Oia, Reddy, & Tropp, 2013):

- Comparing the state of water governance in different countries by making use of cross-country data to raise awareness at the regional and global levels and facilitate peer-to-peer learning.
- Benchmarking the performance of lower-level entities—such as municipalities or water utilities—and comparing one against another.
- Diagnosing an existing problem and its scope. Examples include water integrity assessments, which have been carried out in a number of countries to assess levels of water-related corruption.
- Informing programming for resource allocation, programme design, and assessing needs and opportunities, including risk assessments at the project or programme level.
- Reviewing and identifying trends and potential gaps in policy-reform implementation to fine-tune or change a chosen reform path.
- Monitoring water sector performance and change over time (if repeated).
- Bridging the supply and the demand side of governance by providing entry points for civic engagement and empowering citizens to demand better delivery of services and accountability by decision-makers.

Many international institutions have developed assessment frameworks and criteria or principles for good water governance. In the following pages we present the frameworks of the OECD (Akhmouch, Clavreul, & Glas, 2018; Akhmouch & Correia, 2016), World Bank (World Bank, 2010), and UNDP(Jacobson et al., 2013).

The OECD principles for water governance

Figure 7 presents the OECD principles for water governance (Akhmouch et al., 2018). These principles are articulated around three interrelated and complementary dimensions: (1) effectiveness, (2) efficiency, and (3) trust and engagement. In total 12 principles (with 25 sub-principles) are defined. However, the principles do not include clear measurable criteria for assessment.

Figure 7. The OECD Principles for Water Governance (Source: Akhmouch et al., 2018)

The World Bank Good Governance Framework

The good governance framework developed by the World Bank is shown in Figure 8. The World Bank developed Actionable Governance Indicators to support this governance assessment framework. Actionable governance indicators (AGIs) provide evidence on the characteristics and functioning of particular elements and sub-elements of the various dimensions of governance (World Bank, 2010). Key features of these Actionable Governance Indicators are presented in Text box 3.

Figure 8. World Bank Dimensions of Good Governance (Source: World Bank, 2010)

Box 3. World Bank Actionable Governance Indicators (World Bank, 2010)

Actionable Governance Indicators, they:

- Track impacts that can actually be detected within a relatively short time span.
- Capture the extent to which the immediate objectives of specific institutional reforms are being achieved.
- Are well defined (i.e., reasonable people can agree on precisely what a given AGI is measuring), while allowing that disagreement may exist regarding the empirical importance or normative implications of a given indicator.
- Are narrowly enough circumscribed and clearly enough defined that they facilitate deliberations about what sorts of actions might help improve the performance of a particular element of one of the above five governance dimensions.

Exclusions: What AGIs Are Not

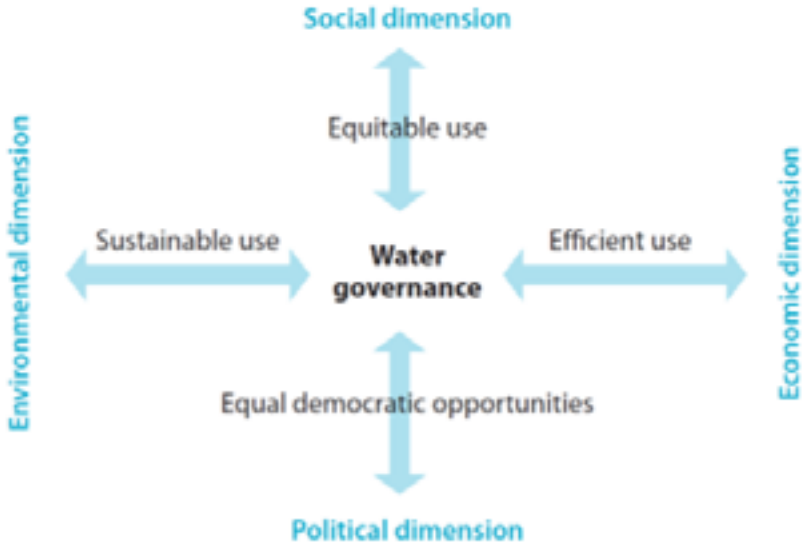
- They are not broad indicators of the quality of an entire dimension of governance.
- They are not unbundled, constituent elements of such broad indicators of governance.

UNDP Water Governance Framework

The UNDP Water Governance Framework has four dimensions (Jacobson et al., 2013). Since these dimensions usually hold complex dynamics, it is helpful to review them periodically (see Figure 9):

- *Social dimension,* focuses on equity of access to and use of water resources. This includes issues such as the equitable distribution of water resources and services among various social and economic groups and its effects on society.
- *Economic dimension,* highlights efficiency in water allocation and use.
- *Political dimension*, focuses on providing stakeholders with equal rights and opportunities to take part in various decision-making processes.
- *Environmental dimension,* which emphasizes sustainable use of water and related ecosystem services

Figure 9. The four UNDP dimensions of water governance (Source: Jacobson et al., 2013)



To define the scope of the assessment the UNDP framework suggests to include the following aspects (Jacobson et al., 2013):

- *Institutions and stakeholders*. This component provides a framework to assess and analyse particular water institutions and stakeholders, including their specific interests, capacities and power dynamics between them. Such an analysis helps build an understanding of how water governance fits within the wider context of governance and the political economy.
- *Governance principles*. This component focuses on *transparency*, *accountability* and *participation* and can be used to analyse institutional performance as well as how stakeholders behave and relate to each other.
- *Performance assessment*. Institutions, stakeholders and transparency, accountability, and participation analyses provide input into the assessment of the performance and impact of particular water-related functions, such as allocation, service delivery, planning and capacity development. This provides the basis for developing assessment indicators on water sector performance and impacts.

Conclusion: from analysis, assessment, principles and criteria to better practices and performance

In this water governance analysis and assessment guideline, we started with several questions and offered several approaches to address them. The goal is to come to better policies and practices by implementing these exercises.

Keep in mind that problems are not solved, and practices do not change by assessments and analysis alone. It requires dialogue and engagement of practitioners, researchers, policymakers and other key players in the governance system. Better practice relates in itself to dimensions like performance, effectiveness, efficiency, but equally relates to environmental sustainability, social equity, and justice.

Some of the difficulties in advising to address water governance issues are the problems that arise when implementing normative prescriptions on the organization of water and sanitation governance. Many local, regional, and global factors influence water governance issues, this is partly due to local historical events, culture, and political paradigms influencing local governance systems. For example, the World Bank good governance framework proposes decentralization as an approach to improve efficiency and effectiveness in water service provision. However, it is important to reflect on whether decentralization measures are applicable to the problem at hand and reflect how neoliberal notions will influence end-results.

Therefore we strongly advise to use this framework as a guide, full of potential discussion questions when working on the assessment and analysis of water and sanitation governance issues. We hope this framework encourages you to start developing dialogues within governance networks in order to improve the water supply and sanitation situation services.

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