OECD Studies on Water

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BETTER POLICIES FOR BETTER LIVES

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Foreword

The world is facing critical water challenges: how to manage too little, too much and too polluted water, both today and in the future. These challenges stem partly from the failure of climate-change adaptation, the increase in the world's population, and intensified competition among cities, farmers, industries, energy suppliers and ecosystems. Water crises can have devastating effects on food security, poverty alleviation, economic development and social stability. Decision makers will be forced to make tough choices about how to manage water for inclusive economic growth and environmental stability. Better engaging stakeholders both within and outside the water sector can help ensure that these choices are the right ones, and are implemented effectively.

At the 6th World Water Forum (12-17 March 2012, Marseille), the OECD was asked to conduct in-depth and evidence-based analysis of the main trends, drivers, obstacles, mechanisms, costs and benefits of stakeholder engagement in the water sector. This report is the result of a year-long multi-stakeholder policy dialogue, based on an extensive survey and a compendium of 69 case studies from around the world. The very process behind this project in terms of collecting data, discussing findings and building consensus on the ways forward illustrates OECD's increasing engagement with key stakeholder groups within the OECD Water Governance Initiative.

The report argues that there are many economic, environmental and social benefits to be gained from effectively engaging stakeholders in water policies and projects. Greater acceptance and trust are two of the main ones identified in the report. Others include cost savings, greater policy coherence and more synergy among projects. There are also less tangible benefits from better co-operation: knowledge development, conflict avoided, and social cohesion. If policy makers and the broad range of stakeholders choose to work only with their peers and within their spheres of activity, instead of with each other, they will fail to meet current and future water challenges.

This report comes at an important time. Opposition to the Sivens dam project in the south of France continues to make headlines, and trust in government is deteriorating in many OECD countries. It is now more vital than ever that decision makers adopt open government policies that focus on citizen engagement and access to information.

While current water trends paint a rather sobering picture for the future, there are reasons for optimism: increasing awareness overall of the problems, and eagerness to find new approaches to water governance that ensure this vital resource is managed wisely and responsibly.

This report highlights the importance of stakeholder engagement and provides proven solutions that can be adapted and replicated. In this way, it seeks to inspire policy makers to reform and modernise their water governance frameworks towards greater inclusiveness.

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The year-long project was spearheaded and managed by Aziza Akhmouch, Head of the OECD Water Governance Programme. The resulting report is a joint undertaking of the water team composed of Delphine Clavreul (main drafter), Oriana Romano (statistical analysis) and Shahnaaz Parker (stakeholder profiles), under the supervision of Aziza Akhmouch. The Secretariat is equally thankful to the members of the project's Task Force for their availability and involvement throughout the project: Joannie Leclerc (Suez Environnement); Alexandre Brailowsky, (GDF Suez); Joppe Cramwinckel and Julie Oesterlé (World Business Council for Sustainable Development).

The findings of this report stem from an OECD survey carried out across 215 stakeholders (see Annex F for a list of respondents) and 69 case studies, submitted on a voluntary basis (Annex E), which will be made available online. Two webinars were organised in 2014 (17 January and 2 July) to discuss the results and to collect feedback and comments on previous drafts; a side event was also held at the 3rd Istanbul International Water Forum on 27 May 2014 to present findings and to carry out broader consultation.

The report builds on an issues paper produced by the OECD Secretariat, which was based on the results of the survey and submitted for written procedure to Working Group members. A first draft of the report was circulated and discussed at a multi-stakeholder workshop in Paris (France) and during a session of the IWA World Water Congress in Lisbon (Portugal), both in September 2014. The draft report was peer reviewed at the 4th meeting of the OECD Water Governance Initiative.

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Acronyms and abbreviations

ANA	National Water Agency (Brazil)
APDA	Portuguese Association of Water and Wastewater Services
ATO	Optimal territorial area (Italy) *Ambito territoriale ottimale*
CILE	Inter-municipal water service provider of Liège (Belgium) *Compagnie Intercommunale Liégeoise des Eaux*
CONAGUA	National Water Commission (Mexico)
CWSA	Community Water and Sanitation Agency (Ghana)
DWS	Department of Water and Sanitation (South Africa)
ECI	European Citizen's Initiative
EDF	*Électricité de France*
EIA	European Irrigation Association
EIP	European Innovation Partnership on Water
EMAS	Municipal water and sanitation service provider of Beja (Portugal) *Empresa Municipal de Água e Saneamento de Beja*
EPSU	European Federation of Public Service Unions
ERSAR	Water and Waste Services Regulation Authority (Portugal) *Entidade Reguladora dos Serviços de Águas e Resíduos*
EU	European Union
GWP	Global Water Partnership
GWP-Med	Global Water Partnership – Mediterranean
ICT	Information and communication technology
IHA	International Hydropower Association
INBO	International Network of Basin Organisations
ISO	International Organisation for Standardisation
IUCN	International Union for Conservation of Nature
IWA	International Water Association
IWRM	Integrated water resources management
MENA	Middle East and North Africa

MPAP	Municipal priority action plans (South Africa)
MUSSA	Municipal Strategic Self-Assessment (South Africa)
NARBO	Network of Asian River Basin Organisations
NBA	Niger Basin Authority
NGO	Non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
OGP	Open Government Partnership
PPP	Public-private partnership
R&D	Research and development
RBO	River basin organisation
ReWab	Regional Water Governance Benchmarking Project
ROBVQ	Association of River Basin Organisations of Quebec (Canada) *Regroupement des organismes de bassins versants du Québec*
SIWI	Stockholm International Water Institute (Sweden)
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNESCO-IHE	United Nations Educational, Scientific and Cultural Organization – Institute for Water Education
US-EPA	United States Environmental Protection Agency
USAID	United States Agency for International Development
WBCSD	World Business Council for Sustainable Development
WEPA	Water Environmental Partnership in Asia
WFD	Water Framework Directive (European Union)
WIN	Water Integrity Network
WISE	Water Information System for Europe
WRRC	Water Resource Research Centre – University of Arizona
WWC	World Water Council
WWF	World Water Forum
WWF	World Wildlife Fund

Executive summary

Water is one of the most serious sustainability challenges facing the planet. The OECD projects that by 2050, over 40% of the world's population will be living in water-stressed areas and more than 240 million people will lack access to an improved water source. Given the size and nature of water challenges, tackling them requires a co-ordinated effort among policy makers and stakeholders: those who play a role in, and those who are affected by, actions and outcomes in the water sector.

The public sector is facing not only financial constraints but also increased demands from citizens to be more engaged in how public policy decisions are taken. In this environment, stakeholder engagement has emerged as an important principle in water governance and a decisive factor in the ability of governments to successfully address and overcome challenges in the supply and management of water.

A range of formal and informal stakeholder engagement mechanisms exist, and should be tailored to specific contexts, stakeholder categories, policy goals and local needs. The report argues that decision makers who take a systematic, inclusive approach are likely to get a better return on the time and resources they invest. They will also be better equipped to handle stakeholder issues and risks effectively. The report proposes the following principles for creating the necessary conditions for outcome-oriented, fit-for-target, anticipatory and adaptive stakeholder engagement:

1. Map all stakeholders who have a stake in the outcome or that are likely to be affected, as well as their responsibility, core motivations and interactions.
2. Define the ultimate line of decision making, the objectives of stakeholder engagement and the expected use of inputs.
3. Allocate proper financial and human resources and share needed information for result-oriented stakeholder engagement.
4. Regularly assess the process and outcomes of stakeholder engagement to learn, adjust and improve accordingly.
5. Embed engagement processes in clear legal and policy frameworks, organisational structures/principles and responsible authorities.
6. Customise the type and level of engagement to the needs and keep the process flexible to changing circumstances.

The report also suggests a *Checklist for Public Action* to support the implementation of the above principles. It consists of priority questions and indicators to help governments and stakeholders monitor the effectiveness of engagement processes and identify areas of improvement, using a "traffic light" monitoring system. The Checklist also provides links to international references to selected country practices and available tools.

Stakeholder engagement holds specific importance in water because this is a highly decentralised and fragmented sector, with multiple, interdependent players at different levels. The report makes a distinction between *core* stakeholders (governments, service providers, river basin organisations, business, civil society, farmers, legislators, and trade unions); "*newcomers*" in the water sector, which require special attention, such as property developers and long-term institutional investors; and *under-represented groups* (women, youth, poor, indigenous, nature and non-consumptive users).

Engagement processes vary across places and stakeholders, but common barriers can be identified. To ensure that water governance is truly inclusive, decision makers must put the six principles into practice to address the numerous obstacles that hinder stakeholder engagement, such as:

- "consultation fatigue", often due to a lack of clarity on how to use stakeholder inputs in decision making and implementation
- the absence of political will and leadership
- insufficient time, staff and funding
- weak supportive legal frameworks
- consultation "capture" from over-represented categories
- resistance to change and reluctance to relinquish power
- weak capacity
- the lack of public concern and awareness
- information asymmetry
- fragmented institutional settings
- the complexity of the issues.

Engaging with all stakeholders in the early stages of decision-making is critical to secure support for reforms, to raise awareness about water risks and costs, to increase water users' willingness to pay, and to handle conflicts. Governments have an important role to play in establishing an institutional environment that encourages exchange and more bottom-up decision-making processes.

Assessment and recommendations

This report assesses the main trends, drivers, obstacles, mechanisms, impacts, costs and benefits of stakeholder engagement and provides pragmatic policy guidance to decision makers and practitioners in the form of a set of principles, including a checklist for public action and tentative indicators. Findings rely on desk research, literature review, empirical data from an extensive survey carried out across 215 stakeholders within and outside the water sector, and 69 case studies collected. The objective is to provide better evidence on what works best, when and where, as well as the framework conditions that are needed to yield the short- and long-term benefits of stakeholder engagement.

In the last decade, the topic of stakeholder engagement has gained traction in the water sector as a principle of good governance. International law has spurred, through many declarations, binding conventions or other normative frameworks, a set of objectives related to inclusive decision making and implementation, transparency and accountability. Operationalising these objectives has become a quasi-prerequisite to bottom-up, place-based and inclusive policy making, and many case studies have multiplied rapidly across the globe to showcase on-the-ground experiences. Stakeholder engagement started moving from theory to practice.

Despite extensive research and case studies in recent years on the topic of stakeholder engagement, the lack of evidence-based assessment on how effective engagement processes have proven in reaching intended objectives of water governance is striking. Most evaluations carried out on stakeholder engagement fail to provide decision makers with the evidence they need to inform future engagement processes, rather calling for caution against generalising beyond the context of specific case studies (Abelson and Gauvin, 2006). There is therefore a need for better evidence on what works best, when and where for effective contribution of stakeholder engagement in water governance systems. In addition, mechanisms are needed to measure the short- and long-term benefits of stakeholder engagement and to create positive objectives without cultivating a tick-the-box mentality because of prescriptive requirements.

Assessing engagement approaches requires stepping back and drawing lessons from the last decade to better understand pressing and emerging issues. These include, amongst others, the shift of power across stakeholders, the arrival of new entrants that ought to be considered, the external and internal drivers that have triggered engagement processes, innovative tools that have emerged to manage the interface between multiple players, as well as the types of costs and benefits incurred by engagement at policy and project levels.

The intended goal of this report is to assess the impact of stakeholder engagement in water-related decision making and policy implementation, and to provide guidance to policy makers on how to set up the appropriate framework conditions for successful engagement. In practice, this means scaling up success stories (identified in this report

through selected case studies), learning from failures and implementing principles on the ground for improved outcomes of stakeholder engagement.

Stakeholder engagement is a rising topic in the water agenda

Governments and public governance are becoming increasingly open. As countries are still coping with the far-reaching consequences of the financial crisis, the public sector is facing acute challenges in terms of fiscal pressure with increased demands from citizens to be more engaged in how public policy decisions are taken. The general move from a "top-down, hierarchical model" exerting sovereign control over the people and groups making up civil society to gradual involvement of public, non-state actors such as private and not-for-profit organisations and sectors at different levels has characterised public policy since the 1990s.

The traditional role of "governments" as the single decision-making authority has gradually been replaced by multi-level, polycentric governance demonstrating that a plethora of stakeholders can contribute to and better guide decision making. Water is affected by numerous external drivers and influences many other policy areas that are critical for economic development and well-being, including health, agriculture, land-use and spatial planning, poverty alleviation and energy. These policy areas tend to work in silos and further improvement is often needed in terms of consultation, participation and co-ordination to engage stakeholders in a coherent, holistic and integrated way.

Recent years have seen a shift in water debates from the notion of "participation" to the concept of "engagement." Participation typically refers to the involvement of individuals and groups in the design, implementation and evaluation of a project or plan. Engagement is an "umbrella" term that broadly refers to an organisation's efforts to ensure that individuals, groups and organisations have the opportunity to take part in the decision-making processes and policy/project implementation that will affect them, or in which they have an interest. It embraces a broader range of inclusive processes, with different intentions and different inputs to the decision-making process. Therefore participation does not necessarily entail that those attending are contributing in any way to decision making and implementation, while engagement is characterised by meaningful inputs to the process. In other words, participation is a level of engagement, amongst others.

A distinction is also necessary between public participation and stakeholder engagement. The former encompasses a range of procedures and methods designed to consult, involve and inform local communities and citizens (i.e. the "public", essentially civil society and customers). The latter opens a broader perspective to different groups of actors, including levels of governments, the private sector, regulators, service providers, donor agencies, investors and other relevant constituencies, in addition to civil society in its different forms (e.g. non-governmental organisations, citizen movements, etc.).

Water supply and sanitation is lagging behind water resources management. Legislation on surface and groundwater quality and quantity and principles such as integrated water resources management (IWRM), encouraged the creation of river basin organisations and their fora, and the contribution of stakeholders to decisions related to planning. Engagement has been less systematic for water services and often restricted to handling customers' complaints despite the existence of consultation (more *ad hoc*) via shareholding, governing boards, regulatory policy and partnerships with citizens and users.

For a long period, stakeholder engagement in water governance remained mostly incidental, apart from some noticeable exceptions (e.g. the Polder approach in the Netherlands to build consensus). The flexibility associated with project- or issue-based stakeholder engagement has made it a preferred option for many decision makers rather than engaging in more systematic inclusive approaches. It consists in setting up *ad hoc* mechanisms such as workshops, hearings, panels or campaigns to gather stakeholders around a specific issue. But these engagement processes are often time bound, limited in scope and end conjunctly with the implementation or evaluation of the given project or policy. Stakeholder engagement processes have also been reactive rather than proactive. They tend to be a response to a need or an obligation, such as to comply with regulatory frameworks on the topic, or during crisis and emergencies (droughts, floods, economic crisis, etc.) rather than carried out on a voluntary basis.

However, there has been some progress to move towards more structural forms of stakeholder engagement in the water sector. New legislations, guidelines and standards at various levels (Aarhus Convention, EU Water Framework Directive, etc.) have spurred the emergence of more formalised forms of stakeholder engagement, embedded in organisations' overarching principles and policy to encourage greater information, co-operation, consultation or awareness raising into their operational rules and procedures. Shifting from an issue-based to a structural form of stakeholder engagement raises some challenges for decision makers. Formalising, or even institutionalising collective decision making related to water issues requires strong leadership commitment with clear objectives and strategies to prevent and manage risks of "capture." It also implies securing the needed financial and human resources at the appropriate levels to sustain the engagement process.

Because there are more and more actors in the water sector willing to take part in discussions to influence certain decisions, it is crucial to evaluate regularly the actual weight and value-added of stakeholder engagement in water-related decision making and policy or project implementation, and its contribution to better governance. The analytical framework suggested in this report is organised around five components: *i)* detecting drivers to understand the forces and levers for actions; *ii)* mapping stakeholders in terms of their roles, responsibilities, influence, motivations, level of connectivity and scale; *iii)* diagnosing obstacles and mitigating related risks to integrity, accountability and sustainability; *iv)* identifying mechanisms that are fit-for-purpose; *v)* fostering evaluation to point out areas of improvements and trade-offs needed.

Drivers of stakeholder engagement

The water outlook is not optimistic, and future economic, social, climate, urban and technological trends challenge water governance and the capacity of governments to address them, often calling for multi-stakeholder solutions. Pressure points over water allocation, infrastructure financing and disaster management require doing better with less money, less water and with more people willing to get on board. The future daunting picture for the water sector has triggered new emphasis on the role of stakeholder engagement across the public, private and non-profit sectors, combined with structural and conjunctural drivers that have pushed stakeholder engagement to develop along different rationales.

A range of long-term structural drivers have triggered a change in water governance paradigms to better cope with future challenges. They can be clustered into four broad categories: climate change will affect water availability and resilience of water

infrastructures, with different levels of impacts across the world; economic and demographic trends will drive water demand and in particular in cities, and affect the capacity of governments to respond (i.e. their ability to mobilise public funds); socio-political trends, such as the concept of IWRM; recent developments in European water-related policies; and the United Nations post-2015 Sustainable Development Goals will set new standards, regulations and aspirational goals paying greater attention to adaptive governance; and innovation and technologies will stimulate greater connectivity and new relationships, in particular related to web-based communication avenues.

Stakeholder engagement has also been triggered by conjunctural drivers and greatly influenced by changing circumstances and situations. Water-related disasters, policy reforms, big infrastructure projects, competing water demands and greater democratic pressure have pushed for more inclusiveness in water-related decision-making and policy/project implementation. Changes in organisational culture and incentives from donors have had less influence on stakeholder engagement. This suggests that technical assistance programmes aiming to encourage stakeholder engagement are still too anecdotic or that conditionalities on inclusive decision making do not have sufficiently stringent requirements. Similarly, the potential of stakeholder engagement in helping design new contacts, identifying new customers or securing new sources of revenue has not been clearly demonstrated in the survey results. But practical experiences on the ground testify to the increasing efforts, particularly from service providers and businesses, to invest more in stakeholder engagement for ensuring value for money. Thus, a business case for inclusive decision making and policy or project implementation, and for engaging further with partners, is needed to move towards engagement processes that deliver their full potential for meeting water challenges.

Mapping stakeholders

A first step to effectively engaging stakeholders is to identify who they are and to determine what motivates them. Knowing who is responsible for what and at which level is an essential starting point and can help identify redundancies and gaps in the institutional framework that affect policy coherence and sector performance. Stakeholder mapping can be used to identify the core stakeholder functions in the sector and to assess how effectively they are carried out. Such mapping also highlights the interaction with, and the impact of stakeholders on, other areas that influence the water sector.

Identifying stakeholders can be a politically charged responsibility. In some cases, there are internal and external pressures to expand or reduce the range of stakeholders involved in the process. Promoters of stakeholder engagement sometimes try to avoid involving the "usual suspects," which has become a term of denigration for actors with vested interests in water-related decisions (typically water service providers, farmers, etc.). It is equally detrimental to exclude stakeholders for being known opponents of a certain issue. Involving opponents can play an important role in reaching consensus by providing a sense of ownership and a stake in the process.

While it is essential to keep stakeholders informed throughout the engagement process, it is not necessary to involve them all at every stage. Engagement processes can be most effective when they include a careful and strategic selection of stakeholders that strikes a balance between comprehensive representation and a manageable number of participants. It is useful to determine ahead of time when stakeholders should participate (e.g. objective setting, development, implementation review), and it is important to consider and to discuss with stakeholders what they expect to get from the process, and

what barriers could prevent them from participating. If each stakeholder's motivations can be clarified at the start, it is likely there will be less confusion and consultation fatigue, and greater satisfaction with the outcomes.

Beyond the "traditional" actors, new players have gained interest and influence in water governance. While the role of the private sector tended to focus on companies delivering water supply and sanitation, businesses have paid increasing attention to water governance in their strategies, especially to cope with regulatory risks and secure water allocation. In parallel, citizens and users' associations have gained increasing influence over political decisions on water. As risks of floods intensify, property developers are also gaining influence, as spatial development generates long-term liabilities and financial implications in terms of water management, such as compensation for the loss of nature values, green areas and water amenities. They can play an important role in harnessing new sources of finance and contributing to the development of non-technical solutions to manage floods. Institutional investors (e.g. pension funds, insurance companies, mutual funds) have also begun to factor environmental, social and governance issues into their decision-making process, and they are investing more and more in water infrastructure and utilities.

Some categories of stakeholders are frequently excluded from the process. These include women (as the primary users of water in many parts of the world, for domestic consumption, subsistence agriculture and health), youth (as the future generation that will need to solve issues related to water), the rural and urban poor (as the main consumers in informal urban and rural settlements) and indigenous and aboriginal communities. Nature and other non-consumptive users are also often absent from engagement processes. Additional efforts and innovation are needed to contact and engage with these groups or individuals, who do not always come forward on their own. Including these minority or "less-vocal" stakeholders, beyond formal engagement channels, is important to obtaining a more balanced picture.

Stakeholders have different motivations, needs and interests. Engagement strategies related to the development of dam projects will, by definition, engage different stakeholders than those of a water tariff reform. Based on their core motivations, and often their mandate, stakeholders have different governance concerns that affect their willingness to contribute to water-related policies and projects as well as their degree of engagement. The way they interact can also vary from place to place. Understanding these dynamics is crucial to assessing the level of stakeholders' influence and engagement, and to clarifying issues related to communication, trust, consensus-building and solidarity.

A question of scale

Water issues and hydrological boundaries cut across administrative frontiers. Water governance and water resources management take place at various spatial scales, both in their ecological and political dimensions. Engagement processes range from local watershed groups negotiating over allocation practices to national committees debating priorities, or international meetings seeking consensus about the management of transboundary basins between sovereign states. The issue of scale also relates to questions of democratic legitimacy. The higher the level of decision making, the lower the possibilities for comprehensive participation of all relevant constituencies, and thus the higher the likelihood that conflicts may arise. Inversely, the lower the level of

government, the more difficult it is to effectively address water-related problems, in particular those that are not strictly local, without having the big picture.

Stakeholder engagement can provide platforms to address the mismatch between administrative and hydrological scales. Water-related projects and policies can be driven by local livelihoods tied to local ecosystems, or by energy producers making long-term production and investment choices at the national level. Thus, some stakeholders promote hydrological scales that correspond to manageable units in which they operate (e.g. river basin organisations). Others promote conventional administrative levels, arguing that this is where capacity, accountability and legitimacy already exist. Decisions taken at one level can positively or negatively affect decisions at another level (e.g. subsidies to farmers for irrigation at the national level can be detrimental to groundwater bodies at the aquifer level). Fitting stakeholder engagement to place-based needs can help reconcile decisions within and across spatial scales.

Stakeholder engagement obstacles

Engagement processes vary across places and stakeholders, but common barriers can be identified. The first category of obstacles includes those hindering the integration of the concept of stakeholder engagement into water policies and practice. They relate, for example, to political leaders' resistance to relinquish power to other stakeholders as well as the absence of a legal framework to embed stakeholder engagement in institutional practices. These obstacles restrict the ability to include principles of inclusive decision making and policy/project implementation into concrete projects and policy making. The second category of obstacles includes bottlenecks that impede the effective implementation of engagement processes. They concern those situations where the engagement process is not questioned *per se*, but weighted down by issues of process, logistics or conflicting goals.

The OECD Survey on Stakeholder Engagement for Effective Water Governance highlighted three major obstacles in the first category: the lack of political will, institutional fragmentation and poor legal frameworks. First, stakeholder engagement implies a shift in the balance of power including towards actors that may not share the same intentions, perspectives and interests. The greater the level of engagement (i.e. representation, partnerships, co-decision), the more the power-balance is equalised. The reluctance to relinquish power in the water sector is often justified by the fact that decision making should be left to experts who understand technical details and political realities. Second, responsibilities scattered across a multitude of actors creates fissures in water governance with sub-areas administered independently and limited co-ordination incentives leading to poor consultation and weak accountability. Last, the absence of a sound legal framework hampers stakeholder engagement, the application of standards for inclusive decision making and the capacity to assess the compliance of decision making with these requirements. Current progress towards more formalised and institutionalised forms of inclusive decision making should be accompanied by a change in rules and legislation towards a common set of standards and better monitoring of compliance.

The survey highlighted four main obstacles in the second category: the lack of clarity on the use of stakeholders' input, the lack of funding, information asymmetry and representativeness. First, if stakeholders with interest or influence do not understand how their input will contribute to decision making, they may feel misled or manipulated by the process and therefore lose interest. Satisfying all stakeholders' interests is a daunting task and implies the willingness to support the outcomes of the engagement process, even

when they fail to coincide with one's vested and partisan interests. Clarifying the engagement process is one way to secure support and buy-in. Second, insufficient or unstable revenues to sustain the engagement process, logistical expenses related to meeting venues or support material and the lack of competent and dedicated staff are common bottlenecks, especially when government funding has been slashed in times of economic and financial crisis. Third, uneasy access to quality information hinders the ability to study and analyse water-related issues and make informed contributions to decision-making processes. Lastly, the decision-making process can also be hindered by conflicts of interest or consultation "capture" especially when certain groups of actors and lobbies are better organised to voice their concerns.

One of the reasons why participation initiatives do not match up to expectations is the mismatch between what is expected (by stakeholders) or advertised (by promoters of stakeholder engagement) and what happens in practice. This gap between "rhetoric" and "practice" can stem from failures in the engagement process, limited capacity (individual or organisational) and/or a mismatch between the willingness to engage and the capacity or motivation to make change happen.

Decision makers need to carefully anticipate bottlenecks to the integration of stakeholder engagement in water policy and projects, and mitigate related risks. Different tools and procedures can help to achieve this. Translating existing standards for inclusive decision making into legislative frameworks can provide incentives to support the integration of stakeholder engagement. Defining strategies that make clear how stakeholder contributions will influence the final outcome can prevent frustration with regard to the influence stakeholders have over the process. Setting up information water systems and securing funds will also be critical to sustaining engagement processes in the long run. Engagement efforts should be allocated the same staffing and budget as other components of a water policy and project development process. Mechanisms such as "integrity pacts" and "social witnesses" can also help to reduce the likelihood of conflict of interest and consultation capture, while *ex post* surveys on motivations can investigate levels of interest on specific water issues to set up the right incentives.

Strengths and weaknesses of stakeholder engagement mechanisms

There is a wide variety of mechanisms for engaging stakeholders, but they work differently according to place, time and objectives. Navigating this diversity and selecting the right mechanism(s) for engagement can be a daunting task for decision makers. A tentative taxonomy of such instruments can help to select the right mechanism(s). The report identifies 24 mechanisms that can be classified into 2 types: formal mechanisms (tools that have institutional or legal ground, often stem from an official agreement, a contract between parties or charters with clear operating rules and priorities) and informal mechanisms (not institutionalised but rather can be implemented at the discretion of the convener of the engagement process).

Formal engagement mechanisms bring about some advantages and inconveniences. For example, water associations and river basin organisations are crucial partners to engage because they are often based on the principle of representative democracy, which confers them legitimacy. However, they can also be perceived as single-minded when they focus solely on pushing forward the agenda of a single group of stakeholders (e.g. association of irrigators). River basin organisations (as other umbrella organisations) can present challenges in terms of lobbying and consultation capture when discussions and decisions are "high-jacked" or monopolised by the interests of certain groups. It can also

generate principle-agent tensions by which the person sitting at the table voices his/her own concern rather than representing his/her broader constituency. This should be a key concern when selecting stakeholders to participate in advisory boards, working groups or assemblies.

Informal mechanisms for stakeholder engagement also present some advantages and disadvantages. For example, the relatively informal nature of meetings and workshops can foster both deliberation and build a sense of community. They provide an open atmosphere which makes participants generally more willing to discuss issues and maximises dialogues on issues that may not come to light through more structured mechanisms. For instance, meetings and workshops are flexible in terms of timeframe and scale (from community meetings to international conferences) and can apply to a wide range of issues (e.g. from discussing a municipal sewer project to debating on transboundary basin management agreements). They offer an opportunity for anyone to express concerns, access and share information, and gain a better understanding. However, if tools used to involve stakeholders do not have a minimal level of structure and mediation, outcomes may be difficult to incorporate into final decisions. Follow-up is also needed to turn views and concerns into actual contributions to decision making beyond information sharing.

Innovative mechanisms and decision tools are gaining traction because of technological advances as well as greater skill and openness in applying the tools to discussion. The practical deployment of new information and communication technologies (ICT) has become a driving force of customised Internet platforms and applications and the function of ICT platforms has taken new and varied dimensions as virtual meetings, Internet-based platforms (social media, chat rooms, online fora), and e-voting are used more frequently. Efforts are still needed to generalise digital tools in water decision-making and policy/project implementation, but in their various multi-lateral forms, ICTs are increasingly being used by governments to help stakeholders better understand what they do. Increased data transparency provides the basis for stakeholder engagement and collaboration in the creation of innovative projects and policies. Web-based tools can raise some challenge regarding the digital divide between developed and developing countries, rich and poor, and rural and urban areas.

The selection of stakeholder engagement mechanisms should be tailored to each context, stakeholders concerned, policy goals targeted and local needs. The different rationales that underlie inclusive approaches imply that stakeholder engagement can be a goal in itself (normative-democratic approach), a means to more efficient and legitimate water-related decision making and an instrument to fulfil objectives that go beyond the water sector (e.g. empowerment of marginalised groups). These objectives rely on different types of mechanisms and players. Decision makers should tailor existing mechanisms to specific categories of stakeholders. Young people, for instance, might be more receptive to Internet-based mechanisms such as social media and online discussion platforms to share their ideas, than to conferences that might require travel expenses. Careful attention to cultural habits, levels of education and material means is also needed to select the appropriate tool.

Assessing effectiveness, costs and benefits of stakeholder engagement

There has been little evaluation of the effectiveness, costs and benefits of stakeholder engagement in the water sector because this type of analyses is relatively new to the public sector. Evaluation has generally remained on an *ad hoc* basis, potentially because

stakeholder engagement has often been carried out as an "add-on" to conventional processes or has often consisted in a tick-the-box approach to comply with existing legislation and rules.

Assessing stakeholder engagement should not be considered as an end in itself but serve a broader purpose of improving the process and its outcomes. It can strengthen the accountability of decision makers, by measuring whether public and institutional resources, including stakeholders' time and effort, are properly used. Evaluation can help to determine whether the engagement process was successful and to inventory lessons learnt towards future improvement. A robust evaluation can also be an effective form of risk management. It can help to map out the different views at the start of a process and allow for recognition and awareness of the potential challenges that the process may face (e.g. divergent perspectives regarding flood defence measures between land planners, property owners and government authorities or regarding water resource allocation between farmers, industries and environmentalists).

Evaluating stakeholder engagement can raise some difficulties. First, there is a lack of comprehensive frameworks of agreed-upon evaluation methods and reliable measurement tools. Second, there is a wide variety in the design and goals of engagement processes; therefore, evaluation frameworks should be general enough to apply across different types of processes, yet specific enough to have value for learning and practice. Third, stakeholder engagement is an inherently complex and value-laden concept; hence there are no widely held criteria for judging the success and failure of engagement efforts both in terms of process and outcomes.

Stakeholder engagement promoters are increasingly using evaluation tools to measure the success of their engagement efforts. Multi-stakeholder meetings help to collect feedback on the level of performance of engagement processes; evaluation reports record the process (successes, failures, lessons learnt) and allow for analysis to improve future engagement processes. When publicly disclosed, these reports can shed light on how stakeholders' inputs were used, and whether engagement was worthwhile. Other tools can provide information for assessing the engagement process, such as levels of satisfaction, as it is the case of polls and surveys. Some categories of stakeholders (e.g. civil society) use evaluation mechanisms more often than others. There can be a perception that customer feedback on a given stakeholder engagement process, particularly in terms of complaints, should be avoided. However, complaints can be useful warning signs that the process can be improved.

Indicators are increasingly advocated as a tool for measuring the impact of stakeholder engagement. However, existing research calls for caution as they can be highly contentious, both in theory and in practice. It can be argued that complex processes of social change should not be reduced to simple metrics, and that the process of defining indicators and analysing the implications of the results can be highly complex and political. Some outcomes of engagement processes can be intangible (such as improved relationships or a sense of empowerment) and both quantitative and qualitative indicators should be employed to review the engagement process. At the same time, indicators can also be informative measurement of complex systems. Chapter 7 of this report suggests a set of indicators to assess the effectiveness of stakeholder engagement.

Transparent reporting to stakeholders on the results and outcomes of the engagement process is essential to build support and trust. Reporting gives feedback to the participants on how their inputs have influenced the final decision. As such, it serves as *ex post* tool for the promoters, and a mechanism to involve stakeholders. Reporting deserves

consideration not only at the end of an engagement process, but also throughout the process. It can cover the different stages of the water policy or project development in terms of *i)* how information is made accessible; *ii)* how stakeholders are targeted and involved; and *iii)* the amount of human and financial resources invested.

Evaluating the effectiveness of the engagement process and outcomes can shed light on the contribution of stakeholder engagement to better water governance. Measuring the impact of stakeholder engagement on the various aspects of water governance can help to identify where inclusive decision making is the most effective and helpful in reaching the intended objectives. Evaluations can shed light on the differentiated impacts of stakeholder engagement across categories of stakeholders. Depending on their interest, stakeholders perceive the benefit of engagement processes in different ways (e.g. support effective implementation of policy and project, raise awareness, develop knowledge, help opinion forming, build political acceptability, etc.).

The costs of stakeholder engagement also need to be carefully assessed. Discussions, consultation and exchange of opinions incur some costs (direct, indirect, monetary or non-monetary). They relate to the different phases of the engagement process and concern the production and disclosure of needed information, operational expenses (facilities, travel, staff, overtime, etc.) or opposition to the final decisions, as well as delays in decision making or implementation.

The process of engaging stakeholders may be more costly than the absence of consultation. However, dialogue and co-operation among stakeholders allows testing and refining policies and projects, and thus can yield short- and long-term benefits. Short-term benefits relate to the outcomes of engagement such as better quality decision making, increased willingness of stakeholders to collaborate to solve common water problems, or greater support for the implementation of a water project or policy. Long-term benefits relate to improved understanding and awareness of flood risks, more confidence in governments' decisions or capacity-building. Overall, benefits can be clustered into four types: acceptability and sustainability (e.g. effective implementation, proper enforcement of regulation, political acceptability, ownership of decision and outcomes); social equity and cohesion (e.g. trust, confidence, customer satisfaction, corporate social responsibility); capacity development (e.g. awareness raising, information sharing, opinion forming); and economic efficiency (e.g. cost saving, value for money, time saving, broader economic benefits as policy coherence, synergies across projects).

Conducting evaluations on the costs and benefits of stakeholder engagement can provide the evidence to effectively guide decision making and policy/project implementation with tangible data and analyses. Different costs and benefits accrue to different stakeholder groups at different times and require managing trade-offs to ensure successful engagement processes and outcomes. There is a dearth of knowledge on the distributional impacts of stakeholder engagement. The danger is the potentially inequitable distribution of the benefits of engagement.

To contribute to effective water policies and projects, an engagement process should deliver substantial benefits in the long term. Yet, any change that brings about benefits to the society as a whole but has negative consequences for certain groups may face opposition by the latter. If they have sufficient economic and political power and are well-organised, the "losers" may succeed in slowing down or blocking the change. Failure from decision makers to compensate the likely "losers" may reinforce opposition and increase costs, both monetary and non-monetary (delays, conflicts). Further, costs

and benefits should not be compared *stricto sensu*. The investments needed for stakeholder engagement are rarely proportional to the benefits it creates. Often, costs of stakeholder engagement are short term (e.g. early and operational costs), while benefits may arise during the engagement, immediately after or in the long term. Therefore, an engagement process considered as costly may still yield great long-term benefits and therefore be worth investing in and conducting.

The sustainability of stakeholder engagement will not only depend on the net difference between aggregate costs and benefits, but also on how they are distributed between stakeholders, and on stakeholders' willingness to bear them. Also, water policy reforms and large projects can induce important adjustment costs, especially in the short term, while the benefits of such initiatives may only arise in the long term. It is crucial to critically reflect upon the ratio of costs and benefits during engagement processes, and determine the appropriate trade-offs related to this dual temporality.

Setting up the enabling environment: Key principles for policy makers

For engagement processes to be relevant, a careful balance between what they try to achieve, the resources they require and whether they succeed in reaching the intended objectives is needed. Critical aspects of governance should guide stakeholder engagement frameworks. First, equity: fair access to engagement opportunities is key to ensure a balanced and representative process that takes into account diverse ideas and opinions. Second, transparency: being transparent and open about the ways to identify stakeholders, choose engagement mechanisms and define the objectives pursued can help to raise interests among stakeholders and to develop an understanding of and support for the final decisions. Third, accountability: it is not sufficient to provide platforms for stakeholders to share their ideas, their inputs need to be taken into account by decision makers. Procedural transparency is therefore critical to ensure the legitimacy of decision-making processes and their outcomes. Fourth, trust: engagement processes may bring together groups with opposing views and fears, who need to be assured that their views will be taken into account. Assuring participants that this is the intention of the process is important to ensure productive discussions and exchange of opinions.

Governments at all levels have a critical role to play in establishing the enabling environment for result-oriented, effective and impactful stakeholder engagement. Although engagement processes cannot be easily replicated from one context to another, the following principles can provide orientations to encourage governments to set up the proper framework conditions for result-oriented stakeholder engagement, and catalyse efforts for making good practices more visible.

1. **Inclusiveness and equity.** ***Map all stakeholders who have a stake in the outcome or that are likely to be affected, as well as their responsibility, core motivations and interactions.*** Stakeholder mappings should be done in relation to a specific issue and be updated on a regular basis. Such mapping should pay attention to newcomers, players outside the water sector and traditionally under-represented groups. This is critical to ensure that all stakeholders are identified and properly involved throughout the policy/project cycle. Finding the right balance between inclusiveness and empowerment of stakeholders is also important. Engagement processes (and related mechanisms) need to accommodate the needs of stakeholders with varying levels of interests and resources to ensure inclusivity and accessibility. Risks related to consultation capture from over-represented categories, to the detriment of unheard voices, as well as risks of

prejudice to a particular category of stakeholders deserve careful consideration. Equity between present and future generations in a perspective of sustainability should be promoted. Thus, disaggregated data on gender, age economic status and the level of impact of proposed policies and measures is crucial

2. **Clarity of goals, transparency and accountability.** ***Define the ultimate line of decision making, the objectives of stakeholder engagement and the expected use of inputs.*** Clarifying the goals and reasons for engagement is key to building mutual understanding and trust of how stakeholders may be involved in the process, and for informed stakeholders to provide quality contributions in line with expectations. Objectives of stakeholder engagement can contribute to the formulation of river basin plans at the watershed level, service delivery, awareness-raising (e.g. on water costs, risks, future trends), auditing, risk mapping, as well as performance monitoring. Similarly, the authority responsible for taking decisions, and its willingness to take stakeholders' ideas on board in doing so, should be clearly identified to enhance confidence in the value of the process. Transparency and accountability in how the engagement process is designed and implemented (e.g. stakeholder mapping methods, use of stakeholders' inputs) is crucial to improve credibility and legitimacy, and build trust among the stakeholders involved. Diligent work is necessary to ensure that the engagement process is fair and equitable and to reliably engage stakeholders.

3. **Capacity and information.** ***Allocate proper financial and human resources and share needed information for result-oriented stakeholder engagement.*** Improving the overall contribution to substantive discussions and decision making requires access to timely and understandable information (be it cultural, scientific, traditional, etc.), technical expertise, experience sharing and funding in the right format and sufficiently on time (planning) to realistically and effectively participate. Supporting two-way information sharing through consistent and appropriate communication channels, including web-based technologies when feasible, is key. Ensuring the financial affordability of the engagement process is also important, to ensure the effective engagement of all those that have a stake; convey accurate, trusted and accessible information to diverse sectors; foster opinion-forming within and across stakeholder groups; and build support to the process. The interpretation and application of these resources and information require competences and capability development at all levels to enable sustainable stakeholder engagement (e.g. skills, social learning).

4. **Efficiency and effectiveness.** ***Regularly assess the process and outcomes of stakeholder engagement to learn, adjust and improve accordingly.*** Such evaluation and monitoring can resort to fact-based and perception-based tools and indicators, and be carried out by targets, promoters and/or third parties. Results should be disclosed to increase accountability, provide insight on the success of the engagement process in reaching its intended objectives and learn from experience to improve practice in the future. Evaluation should not be limited to *ex ante* and *ex post* assessment but remain an ongoing process throughout the policy/project cycle. Stakeholder engagement can yield benefits in terms of resilience, sustainability, cohesion, acceptability, capacity and efficiency. But it can also delay decision making and implementation, and generate different types of (monetary and non-monetary) material, process, reputational and social costs. Assessing the costs and benefits of engagement processes can help to ensure that all interests, including under-represented stakeholders, are respected regarding the

distribution of impacts, compensation and benefits. Mitigation measures are needed to reduce costs and set the right incentives while managing the dual short-term/long-term temporality.

5. **Institutionalisation, structuring and integration.** ***Embed engagement processes in clear legal and policy frameworks, organisational structures/principles and responsible authorities.*** There is no water governance without governance at large. Similarly, there can be no effective stakeholder engagement without proper incentives for bottom-up and inclusive policy making. A clear set of rules, platforms and vehicles for doing so is critical to move from reactive to proactive and systematic stakeholder engagement in the water sector. But institutionalisation increases the risk of engagement "fatigue" and/or "capture" from over-represented categories to the detriment of unheard voices. It should be flexible to take into consideration place-based needs and changing circumstances while fostering a change in the "mindset", daily practices, professional skills and culture of decision making. Provisions for stakeholder engagement should be aligned coherently and holistically across the water chain and policy domains related to water.

6. **Adaptiveness.** ***Customise the type and level of engagement to the needs and keep the process flexible to changing circumstances.*** Stakeholder engagement tools and mechanisms work differently across places, times, objectives and stages of the policy/project cycle. They should be tailored to each context (geographic, socio-economic, cultural), type of stakeholder concerned, policy goal targeted and place-based needs to accommodate varying levels of interest and resources from stakeholders and consider other options as needs arise. Water governance systems are complex and in flux, where change is dynamic and often unpredictable. Engagement processes therefore need to enable multiple stakeholders to respond and adapt to uncertainty, and should remain flexible to manage risks and resilient to adapt to changing environments. Lessons can be learnt from failure in engagement approaches in terms of management of complexity and how to trigger fundamental change.

Structure of the report

This report is structured around eight chapters:

- Chapter 1 sets the scene in terms of: *i)* how the topic of stakeholder engagement has gained traction in the water agenda; *ii)* existing concepts and semantic discussions on terms related to stakeholder engagement; *iii)* the analytical framework used throughout the report.
- Chapter 2 identifies the critical factors driving stakeholder engagement in water governance, zooming on structural and conjunctural drivers specific or not to the water sector that have triggered new rationales for further engagement processes and inclusive decision making, and policy/project implementation.

- Chapter 3 maps traditional players, new entrants and under-represented stakeholders in water governance and their respective motivations, reflecting on the importance of a systemic approach in addressing connectivity and interrelations across stakeholders at the relevant scale.
- Chapter 4 diagnoses the obstacles hindering stakeholder engagement, looking particularly at the barriers to the integration of engagement principles in water policies and practices, as well as those impeding the effective implementation of engagement processes.
- Chapter 5 puts forth an inventory of mechanisms used to engage stakeholders in water policy and projects, be they formal or informal and assesses their strengths and weaknesses.
- Chapter 6 assesses costs, risks and benefits of stakeholder engagement.
- Chapter 7 proposes overarching principles, a Checklist for Public Action and indicators for policy makers at all levels of government to set up the enabling environment for impactful stakeholder engagement.
- Chapter 8 presents 11 stakeholder profiles based on the survey results to shed light on the distinctive perceptions and experiences across various categories of actors.

Based on the survey results, the perspectives of parliamentarians, agricultural actors, trade unions and the media are also provided in Annexes A, B, C and D respectively.

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Chapter 1

Stakeholder engagement and the water agenda

This chapter sets the scene for stakeholder engagement as an increasingly important topic in water governance. It sheds light on recent policy trends towards greater inclusiveness, transparency and accountability. It provides definitions of key terms as well as insights from the literature on the various concepts related to stakeholder engagement. The chapter proposes a typology of stakeholder engagement levels, depending on the process and the intention they pursue, and looks at stakeholders' roles as "targets" and/or "promoters" of engagement processes. The chapter presents the survey that was carried out to collect data analysed in the report, and concludes with a framework for analysing the stakeholder engagement cycle and its contribution to inclusive governance.

Introduction

Public policy making is trending away from the old "top-down hierarchical model", which exerts sovereign control over the people and civil society, to a more transparent and holistic model that involves public, non-state actors (private sector and not-for-profit organisations). The water sector has undergone this change; the traditional role of "governments" as the single decision-making authority has been replaced by multi-level, polycentric governance. This transition acknowledges the important role that stakeholders from different institutional settings can contribute to water management. This shift is demonstrated by the development and use of international hard and soft instruments for stakeholder engagement.

Understanding how stakeholder engagement has evolved, as well as the key concepts and definitions that underlie it, is crucial to identifying inherent challenges and policy solutions. This chapter gives the context of the OECD analysis by putting forth the broader policy trends and literature available on stakeholder engagement in the water sector. It also sets key definitions and terms, and puts forth an analytical framework for decision makers, which can serve as a diagnostic tool to improve the contribution of stakeholder engagement to effective water governance.

Stakeholder engagement gaining prominence in the water agenda

Water: A fragmented sector

The water sector is highly fragmented (OECD, 2011a); managing it involves a plethora of public, private and not-for-profit actors from local, (sub-) basin, regional, national to international levels. Governments, citizens, end users, private actors, donors and financial institutions, as well as infrastructure and service providers, all have a stake in the outcome of water policy and projects. In many countries, the allocation of roles and responsibilities in water policy making is scattered across levels of governance. Inherently, the multiplicity of actors and varying interests and concerns complicates decision making, and typically the power to control the course of policy making and projects, including relevant reform agendas, does not reside with any one single actor.

The over-segmentation of the sector requires engagement of all players to jointly share responsibility for water management and the adoption of effective co-ordination mechanisms. The process is further complicated by the varying interests across groups in policy problems, placing additional demands on the decision makers. This multi-actor complexity means taking into account the different perceptions with respect to the problems, interests and positions of the stakeholders, which can be addressed by involving stakeholders across the water chain, related sectors and levels of government in an iterative dialogue process. The adoption of effective policy instruments could also help to remedy this challenge.

The water sector is also affected by policies in other sectors as well as numerous external drivers. The water cycle generates important externalities in domains that are critical for development: health, agriculture, land-use and spatial planning, poverty alleviation and energy. Policy making in these areas tends to be done in silos; further improvement, therefore, is often needed to ensure coherent, holistic and integrated consultation, participation and co-ordination of stakeholders.

A paradigm shift towards "open" decision making and implementation

Governments and public governance are becoming increasingly open. As a consequence of the financial crisis, the public sector is facing increased demands from citizens to be more engaged in how public policy decisions are taken. This request stems from the belief that trust, openness, integrity and transparency are essential to achieving an effective and performance-driven public sector, which produces better and more cost-effective public services. The OECD defines open government as "the transparency of government actions, the accessibility of government services and information, and the responsiveness of government to new ideas, demands and needs" (OECD, 2005). These three building blocks are seen to support an improved evidence base for policy making, strengthened integrity, lower corruption and higher trust in government.

OECD countries are responding to public policy challenges by increasingly engaging with stakeholders to foster sustainable reforms. Trends have highlighted three strategies adopted by countries to facilitate policy implementation: mobilising citizens and customers, with special attention devoted to target groups (e.g. children, minorities, lower incomes); involving the private sector, civil society and academia in the provision of public services, experience sharing and innovative solutions; and engaging with public authorities at different levels, especially through partnerships with regional or local governments to guarantee quality service delivery (OECD, 2010).

The open government agenda is transforming how governments conduct their affairs. An increasing number of countries have adopted laws on access to information. Independent oversight and enforcement bodies, such as supreme audit institutions, Ombudsman offices or information commissioners, have also played an increased role in ensuring that public authorities comply with their duties in relation to transparency and accessibility. In this context, governments are searching for ways to make public services more responsive to public needs, through consultations and other forms of stakeholder engagement.

The topic of stakeholder engagement has also gained attention in the global arena in the water sector. For the past 20 years, all World Water Fora have highlighted the critical role of multi-actor partnerships (Marrakech, 1997); participatory approaches (The Hague, 2000); alliances, networks and dialogues (Kyoto, 2003); co-ordination across levels of government (Mexico, 2006); the critical role of vulnerable and marginalised groups (Istanbul, 2009); and the need for multi-stakeholder platforms to support the effective management of water resources and services (Marseille, 2012).[1]

In that context, international instruments, both hard and soft, have proliferated. They range from the 1992 Rio Declaration on Environment and Development, which introduced the emerging public involvement norms, to the *Agenda 21* that same year, which envisaged public involvement in developing, implementing and enforcing environmental laws and policies, including management of freshwaters. More legislation, at the regional level, has elaborated on these principles. The 1998 United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (the "Aarhus Convention") has become a guideline for its signatories.[2] It was followed by the adoption of other regulations which include similar participatory principles, notably at the European Union level (e.g. 2003/4/EC, 2003/35/EC and Article 14 of 2000/60/EC).[3]

The increasing attention to stakeholder engagement in the water sector has followed a general paradigm shift in public management and broader dynamics in development and governance (Mollinga, 2010). Since the 1980s, when citizens began to question the role

of the state, governance has become the backbone of effective policy making. This movement paved the way to greater democratisation, decentralisation and forms of polycentric governance. The methods were based on the premise that self-governed communities would seek out commonly acceptable solutions and participate in their implementation rather than rely solely on top-down or "command-and-control" governmental decisions.

Trends and trajectories more specific to the water sector have also influenced inclusive approaches to water governance (see Chapter 2). During the 1990s, the political agenda moved from "technical" supply-driven and infrastructure-led solutions towards greater water demand management. These solutions emphasised the crucial role of institutions as well as economic and social instruments for a mutually reinforcing "3Is" triangle (infrastructure, institutions and investment) (OECD, 2011a). The generalisation of the concept of integrated water resources management (IWRM) introduced the broader issue of co-ordination across different interests, sectors and levels.

Water governance cannot be achieved without proper governance at large. Similarly, there cannot be effective stakeholder engagement in the water sector without a broader framework for bottom-up and inclusive policy making outside of the sector. Water governance is a dynamic concept referring to who does/gets what, when and how. It encompasses political, institutional and administrative rules; practices and processes through which stakeholders articulate their interests and their concerns are considered; methods for making and implementing decisions; and a framework to hold decision makers accountable in the development and management of water resources and the delivery of water services (OECD, 2011a).

Key definitions and insights from the literature

The extent to which stakeholders participate in their own governance is a fundamental dimension of governance itself. The task of navigating systems shaped by social, economic and political power differentials makes engagement central to institutional experience. Elinor Ostrom's (2010) approach of institutional analysis demonstrates that solidarity-based economies are promising alternatives to traditional state-centred command-and-control economic solutions to pressing social and ecological problems. It identifies stakeholder engagement in institutional management as an important factor in determining whether institutions will be effective and enduring, in particular from an informational and problem-solving perspective. Hence, engagement processes provide information about the intentions and actions of other actors, which reduces uncertainties and contributes to co-ordination and building trust. Institutional analysis also considers that local knowledge provided by engagement at the community-level can lead to better-informed institutional design and economic solutions to solve community problems.

From public participation to stakeholder engagement

Recent years have seen an evolution in water debates from the notion of "participation" to the concept of "engagement." Participation typically refers to the involvement of individuals and groups in the design, implementation and evaluation of a project or plan (Brown and Wyckoff-Baird, 1992; Yee, 2010). Engagement is an "umbrella" term. It broadly refers to an organisation's efforts to ensure that individuals and groups and organisations have the opportunity to take part in the decision-making and implementation processes that affect them or in which they have an interest. It embraces a

broader range of inclusive processes, with different intentions and different inputs to the decision-making process. Participation does not necessarily ensure influence on the decision-making process, while engagement is characterised by meaningful inputs to the process. In other words, participation is a level of engagement, amongst others.

A distinction is also necessary between public participation and stakeholder engagement. According to Smith (1983), public participation encompasses a range of procedures and methods designed to consult, involve and inform local communities and citizens (i.e. the "public"). For example, in the water sector, the "public" would essentially encompass civil society (e.g. in the formulation of river basin management plans) and customers (e.g. in improving the quality and accountability of water and sanitation services). Stakeholder engagement goes beyond civil society and end users, and reaches out to other groups of actors within and outside the water sector in activities related to planning, decision making, implementation, and monitoring and evaluation. Stakeholder engagement therefore also encompasses different levels of governments (multi-level governance), the private sector (water stewardship), regulators, service providers, donor agencies, investors, civil society in its different forms (e.g. citizens, non-governmental organisations, users' movements, etc.) and other relevant constituencies.

Typologies of engagement

Literature insights

The literature reveals that the concept of stakeholder engagement means different things for water use, water management and water governance. For water use, engagement primarily refers to access (sufficient quantity and good quality); for water management, it entails involvement in operational, on-the-ground functions (distribution, infrastructure maintenance, quality monitoring); while for water governance, it refers to implementation, including the contribution to decision making. Water governance is found at all levels (international to local) and includes all types of stakeholders (governments, private sector, civil society). Philosophers and socio-political theorists have also investigated and forged founding concepts that relate to stakeholder engagement. Habermas (1989) points to institutional criteria that are preconditions for the emergence of public spheres, including inclusivity, common concerns and the disregard of social status. Mowday et al. (1979) worked on the measurement of organisational commitment, which he defined as the relative strength of an individual's identification with, and involvement in, a particular organisation. They found that this requires an active relationship with the organisation such that individuals are willing to personally contribute to the organisation's well-being.

Various typologies of engagement and participation have been discussed in the literature (Box 1.1). A well-known categorisation is the "ladder of citizen participation" developed by Arnstein (1969) which identifies eight levels or "rungs," ranging from manipulation (the lowest in the group of non-participation steps) to citizen control (the highest step and highest degree of citizen power). This range shows that there is a significant gradation of citizens' participation. Arnstein's work has now been deemed obsolete and debatable because it considered participation as an end in itself rather than as a means (Wehn, Rusca and Evers, 2014). Other typologies have emerged: Pretty (1995) "typologies of participation", Fung (2006) "democracy cube" and UNDP Water Governance Facility (2013) "levels of engagement."

Box 1.1. An overview of participation and engagement typologies

Since Arnstein (1969) proposed the "ladder of participation", which categorises participation according to the level of participants' involvement in the decision-making process, researchers have recognised that different levels of engagement exist, from passive (for example, receiving information) to active (for example, contributing to plans and decisions in various ways).

Pretty's typology (1995) suggests a normative classification of participation ranging from "bad" forms of participation – "manipulative" participation and "passive" participation subsequent to decisions that have already been taken – to "better" forms, such as participation by consultation. "Functional participation" captures the form of participation that is most often associated with "efficiency" arguments: people participate to meet project objectives more effectively and to reduce costs, after the main decisions have been taken by external agents.

Fung (2006) went further and described various approaches to participation through a "democracy cube" which is based on axes of authority and power, types of participants, and communication and decision mode. He suggests that it can be used to inform institutional design choices for public participation planning initiatives.

More recently, the User's Guide on Assessing Water Governance (UNDP Water Governance Facility, Stockholm International Water Institute and Water Integrity Network, 2013) provides a typology of five forms of engagements: *i)* owners of the initiative (i.e. stakeholders provide the necessary monitoring and evaluation); *ii)* partnerships (i.e. institutions, organisations and citizen fora collaborate in policy development and implementation); *iii)* representation (i.e. stakeholder preferences are represented in the management of the project); *iv)* consultation (i.e. institutions, organisations, citizens and stakeholders are engaged in dialogue and networking); and *v)* information and awareness (i.e. "participation" is minimal and mainly passive, in the form of educational initiatives, training of staff, etc.).

OECD terminology and typology of levels of engagement

In this report, stakeholder engagement is defined as the process by which any person or group who has an interest or stake in a water-related topic is involved in the related activities and decision-making and implementation processes (see key definition in Box 1.2). The person or group may be directly or indirectly affected by water policy and/or have the ability to influence the outcome positively or negatively. There are many forms of stakeholder engagement: some are self-organised by non-governmental groups or individuals; others are facilitated by decision makers/public authorities. This report deliberately focuses on those forms of stakeholder engagement where governments have a role to play in terms of setting the enabling environment and framework conditions.

The typology suggested in this report (Figure 1.1) distinguishes six levels of stakeholder engagement depending on the processes and the intentions they pursue. The first level is communication, which intends primarily to share information and raise awareness but implies that engagement is mostly passive, i.e. stakeholders are provided with information related to a water policy or project but not necessarily with the opportunity to influence final decisions. The typology incrementally progresses up to the level of co-production and co-decision, which correspond to more intensive decision making where stakeholders exercise direct authority over the decisions taken. Stakeholder engagement is therefore a multi-faceted exercise with various progressive levels that imply different forms and intensity of stakeholder engagement.

Box 1.2. **Key definitions**

Water governance: Water governance is about who does/gets what, when and how. It encompasses political, institutional and administrative rules, practices and processes (formal and informal) through which decisions are taken and implemented, stakeholders articulate their interests and have their concerns considered, and decision-makers are held accountable in the management of water resources and the delivery of water services.[1]

Stakeholder: Person, group or organisation who has an interest or stake in a water-related topic, may be directly or indirectly affected by water policy, and/or have the ability to influence the outcome positively or negatively.

Engagement: Process by which stakeholders are involved in the water-related policy/project processes and activities to ensure effective water governance. The engagement process can happen at different stages of an initiative (design/conception, development, implementation, evaluation, etc.) and can have different objectives, from information production and sharing to co-production and co-decision. Furthermore, engagement can take various forms depending on the degree of involvement of stakeholders.

Inclusiveness: Extent to which engagement processes involve stakeholders from diverse backgrounds and take into account their needs, assets and perspectives into the design and implementation of water policies and projects.

Promoters: Conveners and facilitators who set up engagement processes to gather stakeholders around a given project, reform or policy.

Targets: Institutions, groups or individuals for which decision makers set up engagement processes, with various intentions: to inform and educate them; to consult them for harnessing their knowledge and opinions; or to partner and co-decide with them in order to take joint decisions or actions.

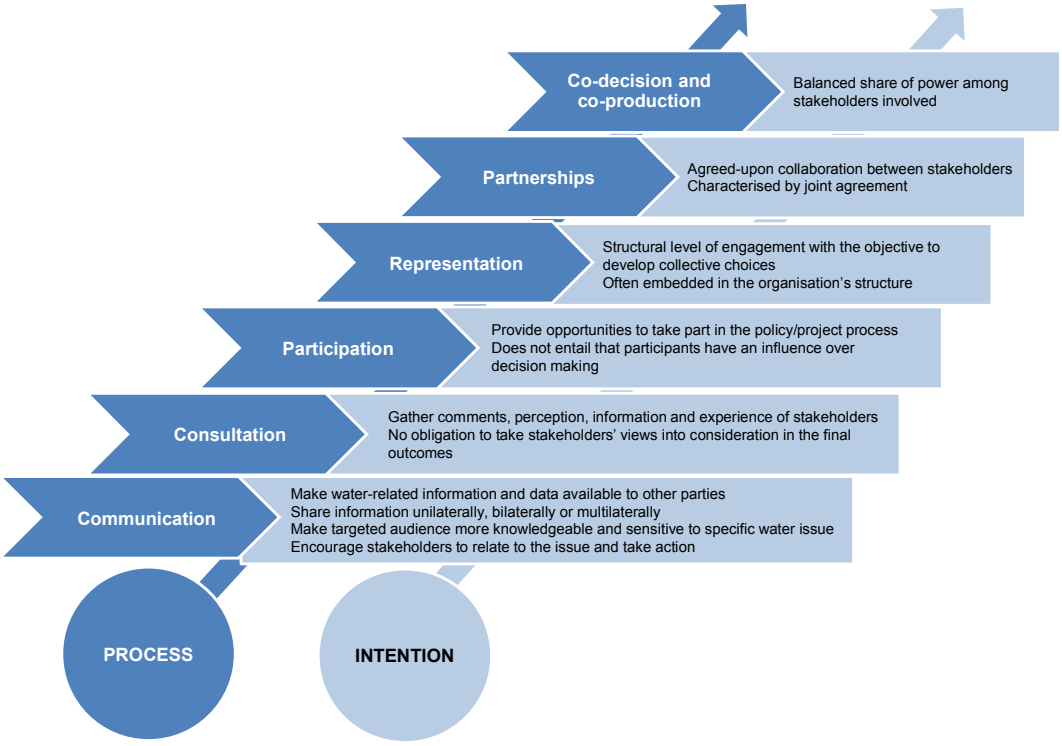
Note: 1. Recent attempts at defining water governance are much in line with this definition. For example, Megdal et al. (2014) define groundwater governance as the overarching framework of groundwater use laws, regulations and customs, as well as the processes of engaging the public sector, the private sector and civil society. It may involve co-ordinating administrative actions and decision making between and among different jurisdictional levels.

Communication

Communication represents the first level of engagement. It intends to make water-related information and data available to other parties. Sharing information can be done through a number of channels, from traditional and social media to meetings, workshops or platforms specific to the sector, such as water information systems. In the majority of cases, stakeholders who participate in engagement processes for information sharing do not put forward their own views. Instead, they participate as spectators who receive information about some policy or project.

Sharing information can be done unilaterally, with one organisation releasing water data to a number of receivers (e.g. through newspapers, websites, etc.); bilaterally, with two entities agreeing to mutually share information (e.g. two river basin organisations sharing data on neighbouring river basins or aquifers likely to affect one another); or multilaterally when different types of stakeholders (e.g. municipality, local service providers and consumers) come to an agreement to share data related to a common topic or issue (water service coverage, performance or tariffs).

Figure 1.1. **Levels of stakeholder engagement**



Source: OECD elaboration.

Communication also seeks to raise awareness. Generally, it consists of an organisation dialoguing with other entities with the goal to make the targeted audience more knowledgeable and sensitive to a specific issue, such as water quality or flood risk. In the majority of cases, awareness-raising starts with sharing information as tangible data, which is key to understanding the issue at hand and grasping its magnitude. Engagement processes for awareness-raising can take the form of public campaigns, educational initiatives or training of water professionals (Box 1.3).

Communication processes aiming to raise awareness can allow participating stakeholders to explore, develop and even transform their opinions, preferences and perspectives. These processes exert a communication influence on stakeholders who are moved by the reasons, conclusions or probity of the process itself (Fung, 2006). Awareness represents a further step from sharing information. It is what makes stakeholders relate to an issue, realise how it can be significant for them and therefore take action.

Consultation

Consultation aims at gathering stakeholders' comments, perceptions, information, advice, experiences and ideas. The process is often initiated by decision makers looking for insights and views from the stakeholders involved or who will likely be affected by the outcomes. Consultation often takes place during meetings where a given reform, policy or project is explained and institutions, organisations and citizens engage in a dialogue to share their opinions, but it can also take the form of written contributions (Box 1.4) or votes (e.g. referendum, surveys).

Box 1.3. **Stakeholder engagement for awareness-raising**

In the Netherlands, Dutch citizens face a critical awareness gap whereby they take current levels of safety for granted. This is explained by a high degree of trust in public authorities and the absence of a major flood disaster in the last 60 years (in a country that has 60% of its territory in floodable areas, of which a considerable part is below sea level). A symptom of this is the low voting turnout for the elections of Dutch water authorities every four years. Citizens have to elect officials of regional water authorities in charge of managing water, including for flood defence, while being unaware of their practical duties and roles. The resulting low participation levels during elections calls into question the legitimacy of elected officials. In order to get a better sense of how much the public knew about water issues, to fill-in existing gaps and to motivate a cultural shift across stakeholders, particularly the public, the regional water authority of Rijnland decided to design its new working programme and Policy Plan for 2015-21 jointly with stakeholders, including citizens, in the area. A survey was carried out specifically targeting citizens to assess their knowledge on water, their positions regarding certain water issues and their willingness to participate further in decision making. Results were used to set up an online participation platform to familiarise people with the roles and responsibilities of the regional water authorities, facilitate discussion on important issues and encourage new ideas. A large congress took place in June 2014 and gathered citizens as well as other stakeholders (e.g. environmental organisations, municipalities, etc.); the outcomes are currently being considered for inclusion in the draft policy plan.

In Portugal, the "Water Heroes" project aimed at raising awareness on efficient water use, in particular among students. The project started in 2012 in the Beja region and was led by the municipal water and sanitation service provider (EMAS). It aimed to foster environmental awareness through teaching materials tackling the description of the water cycle, information on water contaminants, consumption of treated water, tips for saving water, as well as the presentation of the environmental and economic value of water. To stimulate research among students, the project also launched two contests inviting new ideas and a pilot project on efficient water use to be submitted to encourage innovation, originality and applicability. Twenty-nine schools were targeted in the first year of implementation, reaching over 2 300 students. As the project enters its third year, the service provider continues to receive invitations to organise visits within and outside the school community.

In Uganda, a non-profit community based organisation named the Kirinda Youth Environmental Management and Poverty Alleviation Program has started a project in the Bukomansimbi district to raise awareness among farmers, community leaders and teachers on the degradation of a nearby dam. This organisation has held several meetings to provide information to community members on the trends and factors that have contributed to drying out the dam, as well as the benefits likely to come from its restoration. Recommendations, for instance on how to protect water resources from the dam, were provided to pastoralists as well as to farmers regarding the use of chemical fertilisers. The non-profit organisation is also building a resource centre that will provide trainings to students, teachers and farmers to contribute to awareness-raising on water management and governance. Workshops and conferences are also expected to target local leaders and elected representatives.

Sources: Based on case studies submitted by the Dutch water authority of Rijnland, EMAS and Kirinda Youth Environmental Management and Poverty Alleviation Program Uganda.

The use of information gathered during the consultation process often remains at the discretion of the entity that initiated it. In most cases, there is no obligation to take the views of the audience into consideration when amending plans, taking decisions or setting directions. Further, often little attempt is made to translate the views and preferences of stakeholders consulted into a collective decision. In most consultation meetings, decision makers commit only to receiving the testimony of participants and considering their views in their own deliberations.

Box 1.4. **Code of practice on written consultation for the EU WFD**

According to Article 14 of the EU Water Framework Directive (WFD), consultations with the public should be carried out throughout the different steps of development of the river basin management plans (e.g. timetable and work programme for the production of the plan, interim review of significant water management issues, draft plan, etc.).

The WFD specifies that documents, analyses and measures should be made available for written comments from the public (e.g. in paper form, by mail or via e-mail). Additionally, other ways of consultation can be considered such as interviews, workshops or conferences. During these meetings, major issues are presented and the invited stakeholders are asked to give their perception, knowledge and ideas on the specific issues.

Codes of practice on written consultation were developed as part of the WFD Common Implementation Strategy:

1. Timing for the organisation of consultation, apart from the dates mentioned by Article 14, should be built into the planning process for a policy or service from the start.
2. It should be clear who is being consulted, what is being asked, the timescale and the purpose.
3. The documents which are subject to consultation (timetable, work programme, draft copy of river basin management plan) should be as simple and concise as possible (including a two-page summary of the main questions being asked). Summaries for a broader audience should be prepared.
4. The documents should be made widely available, using electronic means to the fullest extent possible, targeting and drawing the attention of all interested groups and individuals.
5. Anyone with an interest has six months respond to the documents.
6. Responses should be carefully and open-mindedly analysed, and the results made widely available, with an account of the views expressed and reasons for final decisions taken.
7. Departments should monitor and evaluate consultations, designating a consultation co-ordinator who will ensure the lessons are disseminated.

Source: European Commission (2003), *Common Implementation Strategy for the Water Framework Directive (2000/60/EC)*, Guidance Document No 8, Public Participation in Relation to the Water Framework Directive, Working Group 2.9 – Public Participation, European Communities, Luxembourg.

Participation

Participation means that stakeholders are associated with the decision-making process and take part in discussions and activities. For promoters of participation, the aim is often to improve transparency in decision making and strengthen the foundation of the choices and decisions to be taken. However, the level of influence granted to stakeholders involved in a participation process varies from one situation to another, and they do not necessarily have a say over the final decisions.

Representation

Representation is a more structural and institutionalised level of engagement. It attempts to develop a collective choice by aggregating preferences from various stakeholders. It often consists in having stakeholders' perspectives and interests officially represented in the management of a project or of an organisation. Engagement through representation allows stakeholders to explore and deliberate between what they want as individuals and as a group, in order to find the best available alternative to advance their

joint preferences, i.e. preserving the quality of a water body or improving the performance of water services.

In the case of a water project, representation can take the form of a supervising committee or an advisory board composed of different types of stakeholders. Typically, they are involved in the various aspects of design, development, implementation and evaluation, and have a say in the strategic and operational orientations of the project. Representation can also be embedded in an organisation's structure, e.g. when a company board or an institution's steering committee includes representatives from various stakeholder categories. For instance, most river basin organisation councils are composed of representatives from the government, water users and civil society.

Partnerships

Partnerships are the next formalised level of engagement. They consist of agreed-upon collaboration between institutions, organisations or citizen fora to combine resources and competencies in relation to a common project or challenge to solve. Partnerships can take place at various scales, from inter-local partnerships between municipalities or service providers to make water service provision more efficient and sustainable, to more global partnerships aiming to bring innovation and leverage investment in water. Partnerships are often characterised by a joint agreement of the stakeholders involved to share the risks and the benefits (Box 1.5).

Box 1.5. **Public-public partnership for information sharing on drinking water quality**

Responding to the "right to water" call of the European Citizen Initiative, a memorandum of understanding was signed on 21 March 2014 between Gruppo Cap (the water service provider of the province of Milan), 132 municipalities (including Cernusco sul Naviglio, Ossona and Trezzo sull'Adda), the Province of Milan, the province's optimal territorial area or ATO (i.e. *Ambito Territoriale Ottimale* in Italian), as well as civil society organisations and citizens' committees to disseminate more information on water quality to the public. The aim of the partnership is to increase transparency and accountability regarding water service provision in the region.

All stakeholders involved had the opportunity to contribute to the choice of parameters to be published prior to launching the online database in July 2014. The system allows people to access the platform, select their municipality and access information on their city's water consumption, origin and quality (from well water or surface sources channelled through aqueducts), as well as the methodology used by the laboratory carrying out the quality analysis. It is also possible to compare all data with statutory requirements. In addition, they have access to information on the local geology, water treatment techniques and ecological status of neighbouring aquifers.

The platform is accessible on the websites of all stakeholders involved in the project; the data are periodically reviewed and updated.

Source: Based on a case study submitted by Gruppo CAP.

Co-production and co-decision

Co-production and co-decision are the ultimate levels of stakeholder engagement as they are characterised by a balanced share of power over the policy or project decision-making process. This form of engagement tends to challenge existing organisational values and practices in the sector, and can have positive implications for accountability (see Box 1.6). In OECD countries, it has been proven that co-decision and co-production in public services have led to cost reductions, better service quality and improved user satisfaction (OECD, 2011b).

Box 1.6. **Laying the foundations for co-management: The experience of Allwater Joint Venture in Adelaide**

In 2011, after a procurement process of over two years, the Allwater Joint Venture (Transfield Services, Suez Environnement and Degrémont) and SA Water, the South Australian government-owned water utility, entered a ten-year operations and maintenance alliance contract for the provision of water and wastewater services in the city of Adelaide.

This alliance contract was conceived as a co-operative model aiming to better align the objectives between the parties involved. Differing from a traditional public-private partnership (PPP) contract, it relies on an integrated governance and team. It is based on the principles of sharing risks, profits and losses (win/win – lose/lose contract), transparency/"open book", shared governance, no blame/no dispute, co-operation, and trust and co-construction upstream from the project. This reinforces the joint responsibility for delivering the works against predetermined performance targets.

The full benefits of an alliance can only be achieved with an adequate procurement process that stresses the alignment of objectives, co-construction, transparency, trust and cultural alignment, aimed at building acceptability and ownership of the project from the start. The procurement process emphasises leadership, and ownership plays an important role in the efficiency and success of the contract.

As a client, SA Water has reported its satisfaction with the relationship it has with Allwater, the value-added of initiatives undertaken by Allwater and the flexibility that the contract model has provided.

Alliance contracting is reported to foster good governance and ensures progress of key operational performance indicators as well as a good budgetary control. It introduces significant changes of culture based on collaborating by focusing more on responsibilities, developing collaborative working relationships and creating a culture focused on achievement to improve business performances.

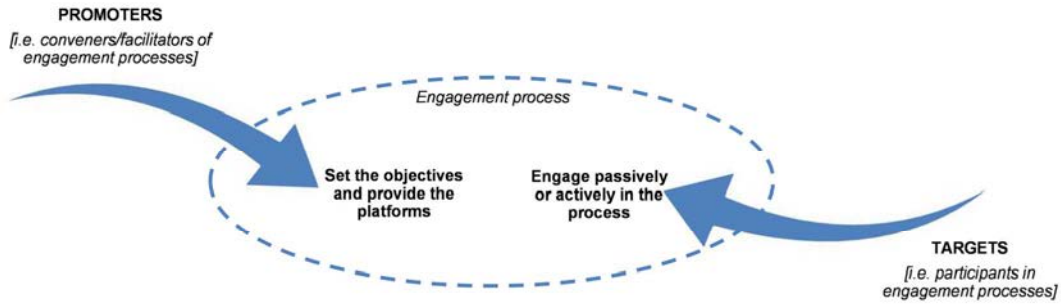
Source: Based on a case study submitted by the South Australian Water Corporation and Suez Environnement.

Co-production approaches can generate creative policy responses, enabling governments to provide better public services in times of fiscal constraints (OECD, 2011b). In water and sanitation services, for instance, co-production with customers can help tackle service failures and reduce costs for the public. Successful co-production and co-decision depend on having the right mix of leadership, capacity (e.g. technology, peer support) and incentives (e.g. recognition, awards) to ensure that all stakeholders buy into the change process, and to guarantee value for efforts. Co-production and co-decision transform the relationship between stakeholders, enabling each of them to take more control and ownership, and contributing to the alignment of policy or project outcomes with their aspirations and needs.

Targets and promoters of engagement

Roles and responsibilities vary when considering stakeholder engagement, as do judgments and perceptions. There is a distinction between the two possible roles that a given institution can play in engagement processes – "target" or "promoter" – knowing that in many cases institutions play both roles, sometimes at the same time (Figure 1.2).

Figure 1.2. **The dual role of stakeholders in engagement processes**



Source: OECD elaboration.

Targets are institutions, groups or individuals for which decision makers set up engagement processes, with various intentions: to inform and educate them; to consult them for harnessing their knowledge and opinions; or to partner and co-decide with them in order to take joint decisions or actions. Targets can be either passive – for instance when their contribution only consists in being targeted by an educational campaign on water issues – or active, when the engagement processes requires that they attend a meeting, take part in reflection and brainstorming, and share responsibility of the outcomes – for instance, when they are members of a river basin committee deciding over the river basin management plan.

Promoters are the conveners and facilitators who set up engagement processes to gather stakeholders around a given project, reform or policy. Promoters set the incentives and provide the platforms. They also determine the rationale for the engagement process, identify and target the stakeholders they wish to involve and provide the framework in which the engagement process takes place.

Considering the perspective of targets and promoters is crucial to fully assessing engagement processes. As promoters define the framework within which the others intervene, targets and promoters can pursue different objectives, encounter different bottlenecks, and require different mechanisms or different conditions to effectively contribute and/or set up inclusive decision making. Looking at both points of view can therefore help to better align the objectives and processes that targets and promoters aim to achieve and use. Because the OECD's ultimate goal is to advise governments to design and implement better policies for better lives, this report primarily investigates the perspective of promoters in stakeholder engagement. The goal is to provide them with guidance to set up the enabling conditions for outcome-oriented stakeholder engagement. The views of targets in stakeholder engagement, however, are also reflected throughout the report and in the results of the survey.

Structural vs. issue-based engagement

Inclusive decision making in the water sector can be limited to a one-off exercise for a particular policy process or project or can be part of a systematic inclusive governance approach by a government or organisation. The different degrees of "formality" that can exist in stakeholder engagement imply different requirements (e.g. resources, support, skills) and different results in terms of how effective engagement is in reaching the expected outcomes.

Overall, stakeholder engagement has remained mostly incidental in the water sector (i.e. water policies). The flexibility associated with project- or issue-based stakeholder engagement has made it a preferred option for many decision makers rather than engaging in more systematic inclusive approaches, apart from noticeable exceptions (e.g. "Polder approach" in the Netherlands for consensus-building). Incidental stakeholder engagement consists of setting up *ad hoc* mechanisms such as workshops, hearings, panels or campaigns to gather stakeholders around a specific issue. These engagement processes are often time-bound, limited in scope and related to the modalities of a specific water project or policy process. They require just enough human and financial resources to sustain the process but often end with the implementation or evaluation of the project or policy.

Stakeholder engagement processes have been reactive rather than proactive. They tend to be a response to a need or obligation, such as to comply with regulatory frameworks on stakeholder engagement, or to a crisis or emergency (droughts, floods, economic crisis, etc.), rather than a process carried out on a voluntary basis. Efforts are still needed to develop more systematic stakeholder engagement in decision making, including clear objectives for the engagement process, in order to more systematically integrate stakeholder engagement into water management.

The water sector is experiencing a movement towards more structural forms of stakeholder engagement. New legislations, guidelines and standards at various levels related to public participation and stakeholder involvement have spurred the emergence of more formalised forms of stakeholder engagement. Organisations are referring to such participation in their overarching principles and policy (Box 1.7). Increasingly, either because of legal requirements or on a voluntary basis, public authorities, service providers, regulators, basin organisations and donors have included requirements for co-operation, consultation or awareness-raising in their operational rules and procedures.

In the private sector in particular, more and more companies have embraced corporate social responsibility and have adopted formal ways of engaging stakeholders (OECD, 2001). Implementing social responsibility has been facilitated through standards and common codes of conduct. While businesses themselves have set guidelines on corporate social responsibility (Box 1.8), governments have also played a role in defining common rules on the topic. The OECD *Guidelines for Multinational Enterprises* (OECD, 2011c), first adopted in 1976 and revised in 2000, 2009 and 2011, comprise recommendations from 42 OECD and non-OECD governments to multinational corporations covering issues such as human rights and environmental protection. They give greater attention to consumers' rights and call on companies to provide accurate and clear information on their products and to effectively address consumer complaints.

Shifting from an issues-based to a structural form of stakeholder engagement raises some challenges for decision makers. Formalising, or even institutionalising, collective decision making related to water issues requires a strong leadership commitment with clear objectives and strategies (e.g. to prevent capture of engagement processes). It also implies securing the requisite financial and human resources at the appropriate levels to sustain the engagement process. Appropriate skills are necessary to set up and facilitate the process for formal stakeholder engagement and ensure its expected outcomes. This requires a dedicated staff trained in mediation, communication, use of technologies, etc.

Box 1.7. **Institutionalised stakeholder engagement in the Netherlands and the United States**

The Dutch Delta Programme

The Delta Programme is a joint endeavour between the Ministry of Infrastructure and Environment, provinces, municipal councils and regional water authorities, in close co-operation with social organisations and business. It was created in 2010 with two priority goals: *i)* protect the Netherlands against flooding; *ii)* ensure freshwater supply over the next 100 years. Stakeholder engagement within this programme has, for example, led to customisation in the strategies and the commitment of several parties at a regional (within the sub-programmes) and national level.

The implementation of the Delta Programme consists of a series of short- and long-term flexible projects to be carried out up to 2015 and beyond. Building on multi-stakeholder dialogue, and technical calculations and assumptions, the Delta Programme is governed by several decisions that instruct what measures should be taken for flood risk management (standards, strategies), freshwater strategy, water levels, protection of the delta and spatial adaptation.

The Delta Act on Flood Risk Management and Freshwater Supplies came into effect in January 2012 as an amendment to the Water Act. It is the backbone of the Delta Programme and mandates a government-appointed Delta Commissioner to lead the Delta Programme. The Commissioner is required to submit a yearly proposal for action to the Cabinet, in consultation with the relevant authorities, social organisations and the business community. An annual report provides an inventory of all measures, facilities, studies and ambitions related to flood risk management and freshwater supplies. The Delta Act also established a Delta Fund to finance the implementation of the Delta Programme and related projects and to monitor investments to ensure a proper balance is directed towards flood risk management and freshwater supply.

The fifth Delta Programme contains the final proposals for five Delta Decisions for improving flood protection and reducing water shortages. The Delta Decisions lead to a new working method in three areas: flood risk management, the availability of freshwater and water-robust spatial planning.

The Chesapeake Bay Program

The Chesapeake Bay Program was created in 1983 in the United States with the objective to reduce the amount of nutrients entering the Chesapeake Bay – primarily nitrogen and phosphorus. It operates under the supervision of the United States Environmental Protection Agency, which funds and co-ordinates the programme.

Partners involved in the programme include federal and state agencies, local governments, non-profit organisations and academic institutions. They operate under an agreement that sets out clear outcomes and time-bound and measurable targets to contribute to achieving restoration and protection of the bay watershed.

The programme is organised into committees, goal implementation teams, workgroups and action teams. The *ChesapeakeStat* website was created to foster co-ordination among partners and to improve government accountability. It reflects the bay programme's continuous process of analysing data to assess progress towards the set restoration goals, allows the visualisation of data, identifies priorities and reveals funding gaps.

The Chesapeake Bay Program's Executive Council and the Federal Leadership Committee for the Chesapeake Bay have called for an adaptive management strategy in co-ordinating and, where appropriate, integrating the goals, outcomes and actions of the programme with the goals, outcomes and actions described in the Executive Order Strategy. The Executive Council agreed in July 2011 to update the commitments of the Chesapeake 2000 Agreement. A stewardship funding was also set up and is a critical component to a comprehensive bay restoration strategy.

Sources: Based on case studies submitted by the Delta Programme Commissioner and by the United States Environmental Protection Agency.

Box 1.8. **Stakeholder engagement in corporate social responsibility in Brazil**

In 2010, Tractebel Energia, a large energy generator in Brazil, launched several projects throughout the country to protect river sources in regions where power plants are built (e.g. Chopinzinho and Rio Bonito do Iguaçu). The company's corporate social responsibility programme includes priorities in cultural development, social inclusion and environmental improvement. The Tractebel Energia stakeholder engagement policy established proceedings adopted by its representatives and affiliates as part of the development, implementation and operational stages of the power plants.

In the case of the river source protection projects, the company encourages stakeholders such as municipalities, youth associations and the Rotary Club to participate in fora at the company's headquarters and power plants. The objective is to build knowledge on river protection practices, water quality levels and standards. Stakeholders living or working near river sources can then be trained to operate river source protection systems and to obtain measurements of water quality parameters. These engagement efforts contribute to the sustainability of river source protection measures and have received international recognition: the American Commerce Chamber of Brazil Award and the Expressão Ecologia Magazine Award, both in 2013.

Source: Based on a case study submitted by Tractebel Energia S.A.

Progress in water resources vs. services management

Overall, more progress has been made in engaging stakeholders in water resources management than for water services delivery. Legislation on inclusive decision making enacted in the last decade mostly related to surface and groundwater quality and quantity. This translated into more formalised or institutionalised stakeholder engagement for managing water resources, for example through the creation of river basin organisations (RBOs) and their fora. These guidelines and legislation, against the backdrop of greater water scarcity and competing water demands, have triggered important reforms and incentivised stakeholder engagement as a key pillar for water resources decision making and planning.

Since the Dublin Principles,[4] stakeholder engagement related to water resources management has been enshrined in the concept of integrated water resources management (IWRM). In particular, Principle n°2 states that "water development and management should be based on a participatory approach, involving users, planners and policy makers at all levels." It introduced a transition from top-down approaches to stakeholder-driven approaches, from command-and-control to more co-operative and distributive forms of water governance (Rogers and Hall, 2003). The EU Water Framework Directive (WFD) also introduced prescriptions in terms of information, consultation and involvement of the public, including users in the implementation of the directive and development of river basin management plans (see Box 1.9).

Engagement in water and sanitation services has been more heterogeneous and non-systematic than for water resources management, often consisting of handling customers' complaints; but it does occur. In several countries, utilities have set up governing boards where shareholders have a say in strategic orientations, or advisory boards in which different categories of stakeholders take collective decisions. Partnerships with users and citizens also emerged as an important approach to innovate in service delivery, furthering some trends already underway in OECD countries related to client orientation or service personalisation (OECD, 2011b). It follows a change in service providers' mentality that services work better when designed and delivered in

partnership with citizens (Box 1.10). The process is still ongoing and requires further work to fully move away from competitive arrangements and targeting of consumers towards a collaborative approach to water and sanitation service delivery.

Box 1.9. Stakeholder engagement for integrated water resource management in select OECD countries

In **Germany**, the implementation of the Water Framework Directive (WFD) mandated river basin authorities to develop river basin management in consultation with the public and interested parties. The state of Baden-Württemberg took further measures to involve the public during the development of the first river basin management plans published in 2009. In the framework of an advisory board, information was shared with non-governmental organisations (NGOs), institutions and the industrial sector, and overarching concepts and strategies were discussed. Over 70 local events were organised prior to the production of the plans where participants were actively involved in formulating concrete measures. The process helped to identify significant problems, find appropriate solutions and secure high levels of public acceptance.

In **France**, stakeholder engagement has been a critical factor for the establishment of the river basin committees. Each of the seven basin committees is chaired by an elected local official and made up of representatives from local authorities (40% of seats); users and associations including industries, regional developers, farmers, fishermen, tourism and nautical activities, electricity producers and water suppliers (40%); and the central government (20%). As members of the basin committee, these stakeholders orientate the water policy priorities in their respective river basin. They prepare the master plan for water development and management (*Schéma directeur d'aménagement et de gestion des eaux* in French), which is then approved by the central government. The basin committee is also responsible for monitoring implementation of the master plan. It also formulates the priorities of each water agency and river basin institution, in particular regarding tax levies. The basin committee votes on the water agency's multi-year action programme, which sets the priorities and methods for financial assistance to fund the implementation of the river basin master plan. At the sub-basin level, the local water commissions are set up in certain cases to develop a water development and management plan that aims to adapt the basin master plan to local specificities. These commissions are composed of representatives of local authorities (50%), users (25%) and central government (25%).

Spain has also a long history of multi-stakeholder decision making for water resources management, which has been reinforced by the requirements of the WFD. The Júcar river basin authority promotes information, consultation and public participation in the process leading to the establishment of the river basin management plan, and supports the involvement of interested parties in achieving good status of the Mancha Oriental water body to build multi-stakeholder consensus on key water decisions. This led to the adoption by Royal Decree of the new Water Management Plan for the Júcar River Basin in July 2014, as required by the EU WFD, with monitoring and control tools for water bodies' quality and quantity; resource-saving actions; and measures to substitute water pumping practices. In addition, the revised Water Law (approved by Royal Decree in 2001) also set up formal participation bodies to ensure that decisions taken by the river basin authority are in accordance with water users in the basin, for example the Central Board of Irrigation in the Eastern Channel, which is represented in the governing board of the Júcar basin authority.

In the **Danube** river basin, public participation is pursued both nationally and basin wide under the umbrella of the International Commission for the Protection of the Danube River (which is made up of 15 contracting parties). There is active participation of accredited observers (currently 23) in all plenary as well as technical meetings. In addition, a designated expert group and staff member work exclusively on public participation. Most importantly, they set up public consultation activities for the development of management plans in line with WFD and the EU Floods Directive. To ensure good information sharing among stakeholders and the public, the Commission for the Protection of the Danube River also fosters educational and outreach initiatives such as the basin-wide river festival Danube Day.

Box 1.9. Stakeholder engagement for integrated water resource management in select OECD countries (*cont.*)

In **Quebec**, Canada, public, private, and not-for-profit actors sit at the same table to manage water resources at the basin level and jointly design the river basin management plan. The Association of River Basin Organisations of Quebec (ROBVQ) works with each basin organisation to foster stakeholder engagement as stated in their mandate. It offers various engagement mechanisms according to a "spectrum of citizen participation," which define five levels of engagement and related responsibilities, ranging from information sharing and empowerment to the autonomy of actors in taking informed decisions in water resources management.

Sources: Based on case studies submitted by the German Ministry of the Environment, Climate Protection and the Energy Sector; the International Network of Basin Organisations; the Spanish Ministry of Agriculture, Food and the Environment; the International Commission for the Protection of the Danube River; and the Association of River Basin Organisations of Quebec.

Box 1.10. Stakeholder engagement in setting tariffs and investment priorities: The case of France and the United Kingdom

In **France**, the water and sanitation service provider of the city of Grenoble (Eau de Grenoble) engages with consumer associations to co-decide water prices. In 1996, a committee of water and sanitation users was created following a citizen initiative led by the NGO "Eau Secours" which had criticised abnormal tariff evolution following the privatisation of water provision in 1989. Today, an agreement between the committee and the current public service provider stipulates the roles, responsibilities and modalities of the joint activities related to information sharing as well as deliberations on water tariffs and water quality. Amongst others, the utility provides the venue for the four to six annual meetings, the budget for specific experts when needed, as well as other logistical expenses. The committee plays the role of advisor to the Mayor on all measures concerning public water service provision, paying particular attention to issues related to the protection of the resource as well as fair prices for water. Every year, water managers and the committee of users discuss investments planned, the budget and the tariffs that would support needed infrastructure repairs in the network, while remaining affordable for all categories of users – domestic and industrial customers, social housing, business, etc.). The committee also has a seat at the managing board of the city's technical department for water which manages the annexed water budget.

In the **United Kingdom**, customers of privately owned water companies have been given power to set water prices and investment priorities for 2015-20. Within the OFWAT framework, water companies have worked to create opportunities for local ownership and leadership in water price setting to comply with expectations to engage and empower stakeholders. Each company has engaged with its customers, through robust research, to capture their views and priorities for water services and tariffs. Companies also carried out research on the "willingness of customers to pay" to understand customers' expectations for service improvements. A three-tier approach was set to enable customers to influence the price and service providers by water companies. It consists of: *i)* engaging directly with the water company on issues, including local services and tariffs; *ii)* joining one of the customer "challenge groups" to discuss and question the shape of their company's overall business plan; and *iii)* participating in the sector-wide customer advisory panel to influence and inform water companies' decisions. Each water company's customer challenge group provided an independent evaluation report on the participatory process that was sent to OFWAT. To date, this has been the largest consultation ever carried out by water companies in the United Kingdom. Both OFWAT and the companies found it useful to gain a greater understanding and connection with their customers and stakeholders. Water companies committed to use the information collected from the participatory processes in the next price cycle to meet customers' and stakeholders' demands and expectations.

Sources: Based on case studies submitted by Eau de Grenoble/Committee of Water and Sanitation Users of Grenoble; and Water UK.

In recent years, international guidelines on the quality of water services have highlighted the importance of trust and goodwill of consumers. The third edition of the World Health Organization's *Drinking Water Quality Guidelines* stresses that a lack of confidence in the quality of drinking water or the authorities may drive consumers to alternative, potentially less-safe sources. The guidelines also explain that consumers have an important role to play in assisting the authorities to ensure the quality of drinking water by carrying out the necessary measures at the household level (World Health Organization, 2008). The Bonn Charter for Safe Drinking Water aims to achieve the trust of customers in drinking water quality, which is both good and safe. The charter stipulates "[…] open, transparent and honest communication between all stakeholders to develop trust" (International Water Association, 2004). It is a key principle in the charter for the development of effective water supply systems.

Analytical framework

Many international organisations and research institutions have carried out work on inclusive approaches in the water sector. Some focused on a specific type of stakeholders (citizens, women) while others tackled aspects of the engagement processes (design, mechanisms). As a result, a plethora of good practices has also been showcased around the world. However, there has been a lack of evidenced-based analysis and policy tools to assess how these inclusive approaches ultimately contribute to the performance of water policies and projects. This report proposes an analytical framework to take stock of stakeholder engagement assessments and define framework conditions for engaging stakeholders effectively while scaling-up success stories for greater bench-learning.

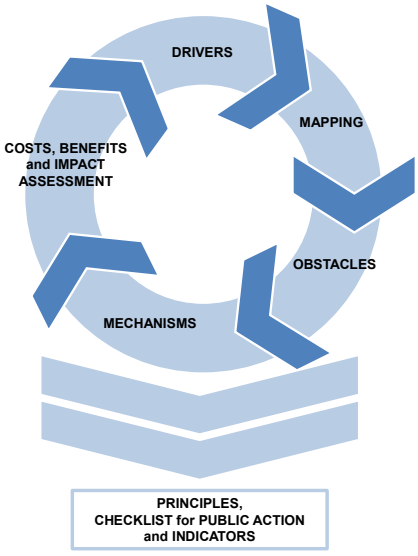
Because there are more and more actors in the water sector willing to mobilise and take part in discussions to influence certain decisions, it is crucial to evaluate the actual weight of stakeholder engagement in water-related decision making, and to what extent it contributes to making effective water governance happen. In a context of powers, counter-powers and sometimes resistance, and broader democratic debate, an understanding of how actors in the water sector come together to develop common solutions and how these solutions are articulated with the objectives of water policy is crucial. Before concrete actions can be taken, there is a need to identify the main obstacles to, as well as the mechanisms for, stakeholder engagement in the water sector.

The analytical framework for stakeholder engagement in water governance suggested in this report is organised around five components (Figure 1.3):

- Detecting drivers: Understanding the forces and levers for actions to ensure stakeholder engagement is outcome-oriented.
- Mapping stakeholders and scoping expectations: Identifying stakeholders and their roles, responsibilities, influence, motivations, level of connectivity[5] and scale of intervention to ensure stakeholder engagement is target-oriented at the relevant scale.
- Diagnosing obstacles: Diagnosing and foreseeing the bottlenecks and mitigating related risks to integrity, accountability and sustainability to ensure stakeholder engagement is anticipatory and resilient.
- Identifying mechanisms: Determining in a transparent way which instruments work best when and where in order to ensure that stakeholder engagement is fit-for-purpose.
- Fostering evaluation: Assessing the effectiveness of the engagement process and outcomes, the costs and the benefits (monetary or not) to point out areas for

improvement and trade-offs needed to ensure stakeholder engagement is adaptive and sustainable.

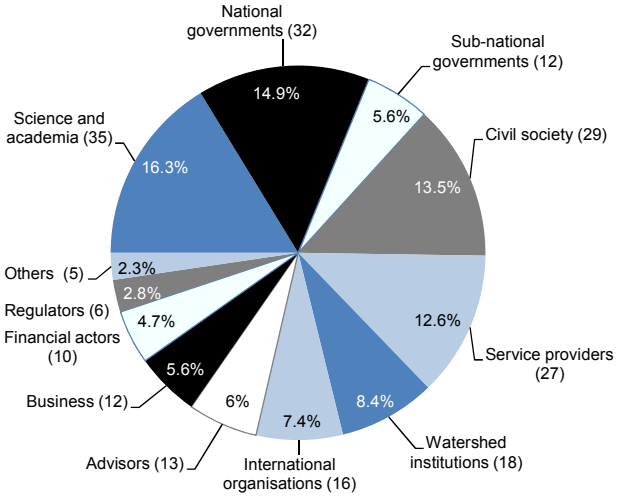
Figure 1.3. **Analytical framework of stakeholder engagement in water governance**



Source: OECD elaboration.

To support this analysis, an extensive online survey was undertaken in 2014. It set out to collect qualitative and quantitative data on stakeholder engagement to identify the trends, drivers and practices related to inclusive approaches for water resources and services management across a worldwide range of stakeholders, with various levels of interests and experience in the topic (see Figure 1.4 and Box 1.11). Although the results of the survey provide valuable insights and feedback on the reality of stakeholder engagement practices, they do not intend to be statistically comprehensive or reflect the multitude of views, arrangements and players in the field of water.

Figure 1.4. **Categories of stakeholders represented in the OECD survey sample**



Note: The figure presents the results of the respondent's self-categorisation based on a suggested typology of 15 overarching categories and 33 sub-categories of stakeholders.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Box 1.11. OECD Survey on Stakeholder Engagement for Effective Water Governance

Design

The survey was developed by the OECD Secretariat with the support of the members of the OECD Water Governance Initiative Working Group on Stakeholder Engagement. A pilot survey was conducted (in its Word version) with selected representatives from each stakeholder category as a means to seek practitioners' feedback. The survey was officially launched online on 1 April 2014, made available in three languages (English, French and Spanish), and kept open until 16 June 2014.

Dissemination

The survey was disseminated through personal invitations to 165 targeted stakeholders, mainly members of the OECD Water Governance Initiative, 63% of which responded to the questionnaire. Under the suggestion of the Working Group on Stakeholder Engagement, a broader invitation to participate was extended through different channels, e.g. existing networks of practitioners in the water sector (Aqua Publica Europea, GWP-Med, Turin School of Local Regulation, UNESCO-IHE Alumni, Water Youth Network, the World Business Council for Sustainable Development [WBCSD], the World Water Council [WWC] and the International Network of Basin Organisations [INBO]), online platforms (Governance Observer monthly newsletter, EIP-Water newsletter), and email-based distribution lists (e.g. Water L., OECD Water List, etc.). An additional 111 responses were received in response to this second dissemination effort.

Response sample

A total of 215 responses were collected. Respondents were asked to categorise themselves according to 34 sub-categories. For the purpose of data analysis, they were then clustered into 11 overarching categories: international organisations; governments (national, regional and local); service providers (public, private and public-private partnerships); watershed institutions (including RBOs); regulators (environmental and economic); business (depending primarily on water for their supply chain, their production and construction process or the use of their products by their customers); civil society organisations (including NGOs); financial actors (donors and financial institutions); science and academia (including research centres); and advisors (engineering and consulting firms).

Composition of clusters of respondents

215 respondents

Clusters	Categories of stakeholders represented
Governments (44 respondents)	– National governments (32 respondents) – Regional governments (7 respondents) – Local governments (5 respondents)
Service providers (27 respondents)	– Public utilities (15 respondents) – Network of service providers (10 respondents) – Public-private partnerships (1 respondent) – Private operators (1 respondent)
Watershed institutions (18 respondents)	– River basin organisations (10 respondents) – Network of watershed institutions (6 respondents) – Regional water authorities (2 respondents)
Regulators (6 respondents)	– Economic regulators (5 respondents) – Environmental regulator (1 respondent)
Business (12 respondents)	– Businesses using water in their production process (6 respondents) – Businesses using water in their supply chain (3 respondents) – Network of businesses (3 respondents)
Civil society (29 respondents)	– Non-governmental organisations (22 respondents) – Member-based organisations (4 respondents) – Community-based organisations (2 respondents) – Social movements (1 respondent)
Financial actors (10 respondents)	– Donor agencies (7 respondents) – Financial institutions (3 respondents)
Advisors (13 respondents)	– Engineering – consulting firms (13 respondents)
Others (5 respondents)	– Media (2 respondents) – Network of agricultural actors (1 respondent) – Parliamentarians (1 respondent) – Trade unions (1 respondent)

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Box 1.11. **OECD Survey on Stakeholder Engagement for Effective Water Governance** (*cont.*)

An umbrella category named "Other" gathers the limited number of responses on behalf of agricultural actors (1), trade unions and workers (1), media (2) and parliamentarians (1). When results are provided by categories of stakeholders, they are based on the respective share of respondents in each category.

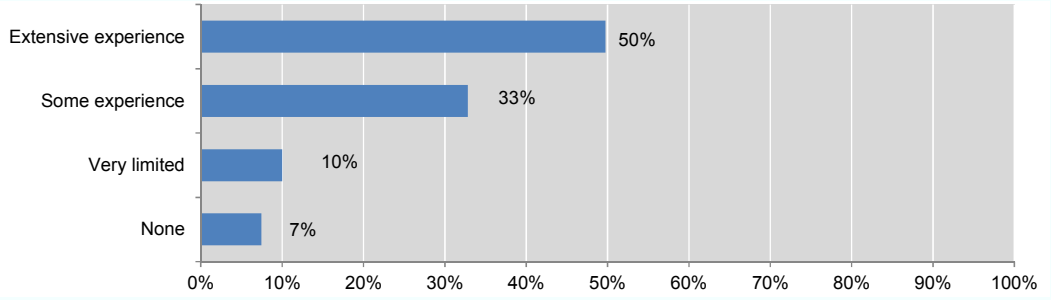
Thirty-two responses were received from central governments coming from ministries of environment (12), water resources (6), infrastructure (4), agriculture (2), territorial development (3), strategic affairs (1), interior (1), as well as of national water authorities (2) and national environmental authority (1).

Data analysis and relevance

Several questions in the survey asked respondents to answer from the perspective of a "target," a "promoter" or both. In some cases, the data was analysed considering the average between the two separate "populations."

Overall, half of the respondents considered their level of experience in terms of stakeholder engagement (either as targets or promoters) to be extensive, and around 33% reported having some experience.

Respondents' overall experience with stakeholder engagement



Note: The figure provides the average of the respective shares of responses provided from the perspective of targets and of promoters.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Conclusion

Environmental, institutional and social trends within and outside the water sector have called for more inclusive governance and spurred greater stakeholder engagement in water-related decision making. On paper (*de jure*), regulations such as the Aarhus Convention, the EU Water Framework Directive and the EU Flood Directive mandate public engagement. But in practice (*de facto*), the importance given to engagement, and the extent of its implementation, vary from one situation to another. This finding underscores the need to consider what effects inclusive approaches have on policy decisions.

Developing a common language represents one of the primary challenges to analysing the contribution of stakeholder engagement in the water sector. The process of involving stakeholders has changed and is progressively moving away from mere "participation". It is no longer restricted to "civil society" and project-based approaches, but attempts to address a broader range of actors in a more systematic way. This evolution should be taken into account in the existing variety of concepts and vocabulary associated with stakeholder engagement. Definitions of key terms and the typology of engagement levels suggested in this chapter provide the foundations for looking at stakeholder engagement

from different perspectives (targets and promoters), forms (formal and informal) and sub-sectors (water resources and water services).

Similarly, the analytical framework that lays out the five building blocks of engagement processes, i.e. drivers, stakeholder mappings, obstacles, mechanisms and evaluation, provides a reading template for decision makers to develop a comprehensive approach to engagement efforts where these mutually dependent components are considered holistically. The following chapters explore each of these components and provide policy guidance to ensure stakeholder engagement is outcome- and target-oriented, at the relevant scale, anticipatory and resilient, fit-for-purpose, and adaptive and sustainable.

Notes

1. See OECD (2012).
2. The Aarhus Convention emphasises 3 areas – transparency, participation and accountability – and requires its 39 signatory countries to incorporate minimum requirements for each area into their laws and institutions. The convention relies on enforceable rights of citizens, including procedural rights and the human right to a healthy environment.
3. For instance, EU Directive 2003/4/EC calls for public access to environmental information, while Directive 2003/35/EC mandates public participation for drawing up certain plans and programmes related to the environment and for amending public participation and access to justice. Similarly, Article 14 of the Water Framework Directive requires member countries to encourage the active involvement of interested parties in the implementation of the directive.
4. The Dublin Statement on Water and Sustainable Development, also known as the Dublin Principles, was a meeting of experts on water-related problems that took place on 31 January 1992 at the International Conference on Water and the Environment in Dublin, Ireland. The declaration sets out recommendations for action at local, national and international levels to reduce the scarcity of water, through the following four guiding principles: *i)* fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment; *ii)* water development and management should be based on a participatory approach, involving users, planners and policy makers at all levels; *iii)* women play a central part in the provision, management and safeguarding of water; and *iv)* water has an economic value in all its competing uses and should be recognised as an economic good (see: www.wmo.int/pages/prog/hwrp/documents/english/icwedece.html).
5. Connectivity refers to the number and intensity of interactions taking place among stakeholders. It encompasses all dynamic, changing sequences of social actions and exchanges taking place between individuals or groups and how they influence each of their actions and reactions.

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Chapter 2

Drivers of stakeholder engagement in the water sector

Two broad categories of factors affect the way stakeholders have been engaged in water-related decisions, projects and policies. Long-term structural drivers related to climate change, economic and demographic trends, socio-political trends illustrated by European policies, and innovation and technologies; and conjunctural drivers related to changing circumstances and situations, which include water-related disasters and policy reforms, social demand and competition for water resources. This chapter synthetises the challenges these drivers raise for water governance and the policy implications for stakeholder engagement practices.

Introduction

Structural and conjunctural drivers have pushed decision makers in the water sector to explore new policies and approaches that engage directly with stakeholders to solve water quality and quantity (floods, droughts) issues, impacts on ecosystems and competing needs for water (between urban development, energy production, nature conservation, irrigation, etc.). They have often translated into legislative changes to adopt mandatory measures for inclusive decision making, thus contributing to strengthened institutions and political will to support the engagement of stakeholders. These trends have also contributed to minimising path dependency and developing innovative and flexible approaches to water management. In this context, it is crucial to have a clear picture of the forces driving inclusive approaches in water policy and projects to understand why stakeholder engagement is taking place and for what purpose.

A gloomy picture, calling for a new governance climate

The water outlook is not optimistic, and future economic, social, climate, urban and technological trends challenge water governance and the capacity of governments to address them, often calling for multi-stakeholder solutions. By 2050, the world's population is projected to grow to around 9 billion people, with a major proportion living in urban areas. A total of 4 billion people will live in water-stressed areas, and water demand will increase by 55%, thus generating further competition among water users (especially domestic, hydropower and irrigation).

Pressure points over water allocation, infrastructure financing and disaster management will require doing better and more with more people willing to contribute to finding innovative solutions. The future gloomy picture for the water sector has triggered new emphasis on the role of stakeholder engagement across public, private and non-profit sectors, combined with structural and conjunctural drivers that have pushed stakeholder engagement to develop along different rationales.

Four main purposes for water decision makers to engage stakeholders have been identified in the literature: implement normative principles, improve the quality of decision outcomes, generate legitimacy in the process and solve water-related conflicts (Glucker et al., 2013). The first function is rooted in democratic principles and concerns engagement that derives from the people's right to be informed. Examples include informative meetings to raise awareness on specific water issues, such as drinking water standards, tariffs and aquifer depletion, without necessarily looking for inputs to decision making. The second function refers to situations where stakeholders may contribute by providing decision makers with key information and knowledge. The third case implies that through engagement, stakeholders develop a sense of ownership over the process and its outcomes, and tend to consider it more legitimate. The fourth case shows that inclusive approaches can also contribute to identifying and resolving water-related conflicts before final decisions are taken, and facilitating project and policy implementation.

Structural drivers

A range of long-term structural drivers have triggered a change in water governance paradigms to better cope with future challenges. They can be clustered into four broad categories: climate change will affect water availability and resilience of water infrastructures, with different levels of impacts across the world; economic and

demographic trends will drive water demand, particularly in cities, and affect the capacity of governments to respond (i.e. their ability to mobilise public funds); socio-political trends, such as recent developments in European water-related policies, and the forthcoming (2015) United Nations post-2015 Sustainable Development Goals, will set new standards, regulations and aspirational goals paying greater attention to adaptive governance; and innovation and technologies will stimulate greater connectivity and new relationships, in particular related to web-based communication avenues.

Climate change

Climate change is reshaping how water will be managed in the future. It aggravates existing strains and complicates future planning, management and investment in water infrastructure. More than 70% of the consequences of climate change manifest themselves in the water sector. More torrential rains, floods and droughts can be expected in many areas. Changing precipitation patterns are shifting rainy seasons and affecting the timing and quantity of melt water from snow pack and glaciers. Arid and semi-arid areas are also expected to face increasingly serious challenges related to residential migration of the elderly or mining development, putting more pressure on groundwater resources. In many cases, these impacts are making flood protection, water storage, urban drainage, water supply and treatment more costly (OECD, 2012). Reducing the adverse consequences and costs of climate change and tapping into any opportunities will require adaptive measures to adjust to new circumstances.

Climate change is a novel challenge that will test conventional approaches (see Box 2.1). It requires adaptive water governance and sound water policy to enhance resilience. Thus far, however, most water policy instruments have not been adaptive. Not all water risks can be avoided; but well-prepared, resilient water systems will be better able to adjust to new conditions at a lower cost, as well as bounce back from disasters more rapidly. Reforming and adjusting water governance systems takes time and political will, and requires the involvement of all stakeholders concerned. Countries that adapt their water governance systems now, and implement the needed policies to cope with the future, will be able to manage water crises in a proactive and less costly way.

Economic and demographic trends

The major advanced economies are finally gaining momentum and policy makers have more confidence about the future. The OECD *Economic Outlook 2014* shows that after years of financial weakness, investment and trade have started to rebound and private sector confidence is rebuilding. While unemployment remains unacceptably high, the labour market situation is improving in most countries – aggregate employment growth in the OECD area is projected to remain at around 1% per annum over the next two years – and has stopped deteriorating virtually throughout the advanced economies (OECD, 2014a). On the other hand, economic growth in the major emerging market economies has slowed.

After difficult years of low growth and fiscal stringency and consolidation since 2007,[1] policy makers are facing depleted political capital (OECD, 2014a). Countries are confronted with significant challenges to securing financially sustainable water management. They are struggling to put in place a proper system to take advantage of new opportunities, whether they are technical (hydrological forecasting or smart metering) or non-technical (innovative partnerships or customer involvement) to make water management more resilient – more robust to shock – and more inclusive in order to set water governance on a stronger and more sustainable footing. Making this transition is

critical to supporting confidence and trust, and has to be backed by structural policy actions, including the promotion of institutional frameworks that support stakeholder engagement both within and outside the water sector.

Box 2.1. **Climate change-driven stakeholder engagement in Arizona**

Arizona is acutely challenged by climate change, and stakeholder engagement supported by relevant information is needed to move towards better management of water scarcity and adaptation to increasingly extreme conditions. Various management options have been discussed, but relatively little guidance exists on how public utilities and agencies can evaluate the suitability and effectiveness of water-harvesting strategies to provide tangible and significant benefits to the community.

The Water Harvesting Assessment Toolbox was created over a two and a half year period beginning in August 2011 by the University of Arizona Water Resources Research Center (WRRC). This was in direct response to multiple requests from local residents for information on water harvesting and consensus among professionals that up-to-date information was too dispersed. The project developed guidance for assessing and planning water harvesting at multiple scales, to help meet the challenges of managing water resources under conditions of changing climate and increasing water demands. The toolbox was developed iteratively, in several stages, each involving various stakeholders. In the initial phase, group and individual input was provided by water harvesting, stormwater management and climate adaptation stakeholders on the state of knowledge, available information and data sources. In 2012, stakeholders from the public and private sectors participated in a facilitated workshop to identify research gaps. In subsequent phases, engagement with local stakeholders was conducted to ensure the toolbox's usefulness for potential users and the toolbox was tested on four occasions in various municipalities in the Tucson region, which provided additional insights on the development of the tool.

The toolbox was tested by a wide range of stakeholders from utilities, city departments, county government and businesses considering water harvesting. Participants had different motivations for using the toolbox: having an interest in water-harvesting practices, sharing information, developing decision guidance and producing information on water harvesting. The toolbox was successfully launched online for public use in May 2014.

In August 2012, the University of Arizona launched a similar project on "Incorporating Climate Information and Stakeholder Engagement in Groundwater Resources Planning and Management." This project uses a modelling framework related to climate change, surface water and groundwater, and extensive stakeholder interactions to achieve several goals:

- address climate uncertainties with a sophisticated modelling framework
- increase stakeholder capacity to adapt water planning and management to future trends
- establish the transferability of the modelling framework and capacity-building approach.

Stakeholder engagement occurred through a series of workshops in which project team members interacted with stakeholders to use the modelling framework when discussing practical questions and formulating regional goals. The possibility of carrying out similar experiences in other parts of Arizona and in Mexico is being explored to address new questions using the project methodology. The Water Resources Research Center considers outreach and engagement a key mission; it allocated a budget and skilled staff to support engagement of a range of stakeholders, i.e. inter-governmental organisations, authorities at different levels of government, service providers, regulators, civil society and academia. This had a positive impact on building lasting relationships with local actors, building capacity on technical issues, and ensuring that complex climate and hydrologic modelling information was mainstreamed and understood.

Source: Based on case studies submitted by the WRRC, http://wrrc.arizona.edu/GCASE.

In addition, the world's population is projected to grow to around 9 billion by 2050, with a rapidly increasing percentage living in urban areas (70% by 2050 according to

OECD [2012]). Many cities are located in river basins that are characterised as being under severe water stress. As a result, municipalities are faced with challenges to finance and supply water and sanitation services, replace and modernise existing water infrastructure, and maintain water quality. Rapid urbanisation is also putting pressure on land and space, calling for greater co-ordination between water policies and other sectors, such as spatial planning and nature conservation. Cities are major users in water management and play a key role as nodes between water actors at the local level. Their active contribution to national strategies and decision making related to water is therefore necessary to fit policies to places.

Socio-political trends

Political changes are also taking place calling for further stakeholder engagement. While constitutional duties to facilitate public participation and citizens' right to petition have been in place for a while in certain countries (e.g. South Africa, United States), new efforts in recent years have further enshrined principles of inclusive decision making in laws, strategies and practices. For instance, a Law on the Implementation of the Public Participation Principles was adopted in France in 2012, whereby individuals shall be informed of any decision-making process that may impact the environment. Similarly, a stakeholder engagement strategy was put in place in 2013 for the joint Australia-New Zealand food regulation system. Whether they relate to the water sector or not, these socio-political trends demonstrate new efforts in political practice and mentalities to open and change how decisions are taken.

Similar trends are observable at the EU level. For instance, several European directives (floods, water) have called upon governments to include citizens and other actors in the drawing up of flood and basin management plans. These directives have set new levels of ambition regarding stakeholder engagement in the water sector, which have resulted in changes to EU member countries' legislative frameworks in order to reflect these new requirements.

Technological drivers

Information technology and the Internet have become major drivers of research, innovation, interconnectedness, growth and social change (OECD, 2010). Data has never been transferred faster and communication has never been more sophisticated than it is now. Actors no longer have to wait for days to receive information thanks to websites, online databases, emails and chat platforms. Stakeholders are no longer obliged to attend meetings in person; long-distance exchange and online meetings have torn down geographical distance and barriers. The rapid development of information and communication technologies (ICTs) has brought actors in policy fields closer, including in the water sector.

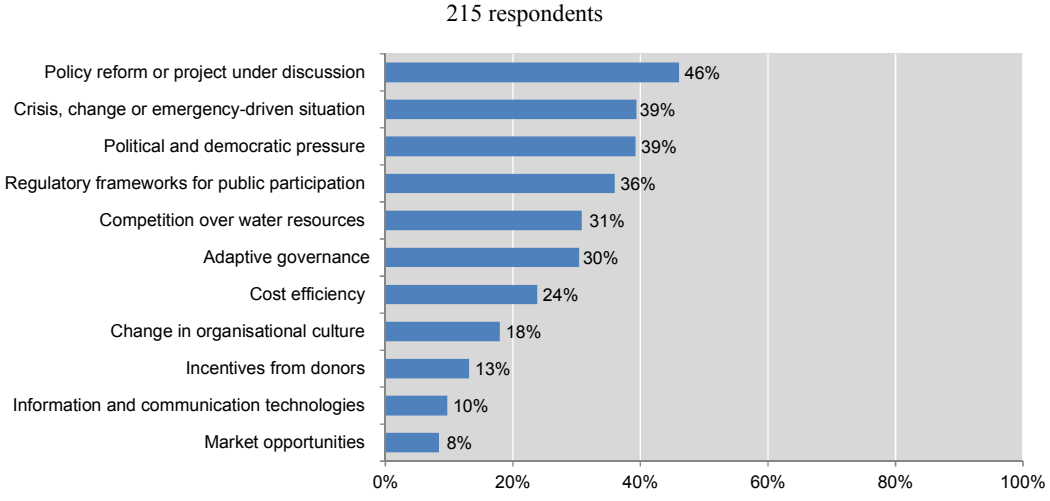
Technological innovation is also a driver for co-operation between governments, business, knowledge institutes and non-governmental organisations. As countries are developing more and more innovative solutions to address technological or non-technological water challenges, governments are reaching out to companies and research centres for their expertise, knowledge and investment capacities. This has resulted in a trend toward the development of new relationships across stakeholders.

Conjunctural drivers

Stakeholder engagement has also been triggered by conjunctural drivers and greatly influenced by changing circumstances and situations. Water-related disasters, policy reforms, big projects (e.g. dams, other infrastructure) and social demands for more inclusiveness in water-related decision making are among the key levers that have pushed decision makers towards greater stakeholder engagement. Less influential drivers are organisational culture and incentives from donors (Figure 2.1). This can be explained by the fact that technical assistance programmes fostering stakeholder involvement in water management are still too anecdotic or because donor conditionalities on inclusive decision making do not have stringent enough requirements.

There is still a lack of a business case for stakeholder engagement. Market opportunities (i.e. potential for new contracts, customers and sources of funding) do not appear as strong incentives for expanding stakeholder engagement. The OECD Survey on Stakeholder Engagement for Effective Water Governance did not demonstrate the potential of engagement processes in helping to design new contacts, identify new customers or secure new sources of revenue; but practical experiences show that there are increased efforts, particularly from service providers and business, to invest more in stakeholder engagement in search of value for money. A more customer-focused approach can mean better quality, faster delivery and greater flexibility. Customer involvement can also help co-ordinate across the supply chain (e.g. new technologies now allow companies to actively communicate with customers and make them partners in creating value and forecasting future demand). In both categories of business and service providers, 44% of respondents noted cost-efficiency as an important driver for stakeholder engagement. Further work is need to build a business case for inclusive water policy and projects and further engagement with partners in order to move towards engagement processes that deliver their full potential for meeting water challenges.

Figure 2.1. **Recent drivers for stakeholder engagement in the water sector**



Note: The figure considers the drivers ranked from 1 to 3 on a scale from 1 to 11.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Reforms, crises and democratic pressure

Stakeholder engagement is often reform- or crisis-driven. Forty-six percent of respondents suggested that the development of new policy, reform or projects was reported as the primary factor for encouraging stakeholders to take part in decision making. Thirty-nine percent ranked crisis and emergency situations (political, economic or environmental) and political and democratic pressure as the second most important factor. Regulatory frameworks for public participation came in third place with 36% of respondents flagging it as the main driver for stakeholder engagement.

Debates around water-related policy reforms and projects appear as the primary driver of stakeholder engagement. They often entail important change in stakeholders' activities and lives, such as new tariffs for water services, reforms on subsidies, more stringent environmental regulations (e.g. quality standards). Stakeholders are more prone to take part in discussions, decision making and implementation when it concerns new policies they will have to uphold. Inversely, decision makers look to consult and involve stakeholders likely to be impacted to ensure the acceptability and sustainability of the policies and projects to be implemented.

Crises, change or emergency-driven situations also have an impact on stakeholder engagement. These can include a wide range of situations such as droughts and floods that have devastating impacts on people's lives, or economic or environmental crises spurring social dissatisfaction and tensions. Crises shed light on the weaknesses of governments to properly assess the risks and call upon them to set up preventive measures to mitigate their impacts. As such, they are often windows of opportunity for new ideas to emerge, and create a social and political environment with a potential for developing partnerships.

Growing democratic pressure has called upon decision makers to improve accountability *vis-à-vis* their constituencies, including in the water sector. In Middle East and North Africa (MENA) countries, for instance, the aftermath of the Arab Spring and the resulting major political, economic and social changes have led to more demand from citizens to play a greater role in decision making related to basic services such as drinking water and sanitation. Pressure calling for greater transparency and accountability push decision makers to revisit their methods towards greater inclusiveness (Box 2.2).

Box 2.2. **Democratic pressure for stakeholder engagement in South Africa**

Since the 1980s, South Africa has experienced a vast transformation of policy, law and institutional arrangements related to water, against the backdrop of democratic political change. Democratic pressure was a key driver to reform imperatives for water reallocation and access. It altered the environment in which water-related governance takes place in South Africa and increasingly people have recognised that working together in conditions of increased transparency and integration is an urgent imperative. This shift materialised under the National Water Act of 1998, which promoted extensive dialogue and intensive negotiations across stakeholders from the public, private and not-for-profit sectors. According to the National Water Act, water users are supposed to pay a levy on water use as the primary source of funding for the engagement processes. However, delays in various administrative processes and water use licenses have led to the Department of Water and Sanitation funding catchment management agencies activities.

Source: Based on a case study submitted by the University of KwaZulu-Natal.

Binding and non-binding frameworks

Legal requirements on water-related stakeholder engagement have emerged in the last decade and boosted stakeholder engagement while triggering policy change (fourth driver for 36% of respondents). The EU Flood Directive requiring public participation mechanisms to ensure citizens' involvement in the flood management cycle is one example. In addition, more and more stakeholders have adopted requirements for stakeholder engagement (Figure 2.2), which are often voluntary as opposed to binding. They can take different forms, from overarching principles in a given organisation's policy (52%) to requirements for consultation (35%) (Figure 2.3). Examples of legal and voluntary requirements for stakeholder engagement are provided respectively in Boxes 2.3 and 2.4.

Box 2.3. **Legal requirements for stakeholder engagement: The case of Japan**

The Japan Water Agency is responsible for managing seven major river basins in Japan, which encompass more than 50% of the country's population and around 50% of the total amount of industrial production. The agency also develops infrastructure projects such as multi-purpose dams and canals. The Japan Water Agency carries out its activities under the Japan Water Agency Law, originally established in 1962 and revised in 2005.

The law requires that for all projects, the agency must review project proposals and management plans with prefectural governors and water users for the regions concerned. Governors themselves are asked to consult their prefectural assemblies to secure their approval over the projects. Once an agreement is reached with regional stakeholders, the Japan Water Agency seeks the approval of the national government that oversees its activities. Consultations are therefore carried out with the concerned ministries on the proposed projects. The Japan Water Agency Law also requires the agency to carry out stakeholder mapping as part of any project plan, as well as engagement processes (e.g. daily communication, information sharing and collaboration activities) to take their views into account.

As an incorporated administrative agency under Japanese law, the Japan Water Agency's achievements are evaluated yearly by an Assessment Committee established by its line ministry, looking, among other aspects, at stakeholder engagement activities such as information-sharing efforts in the context of water-related events; discussion with stakeholders on water charges; and collaboration at basin level between upstream and downstream residents. The committee assesses the achievements of each plan and discloses the results on the Japan Water Agency's website.

Mandatory stakeholder mapping and engagement has shown positive impacts on the Japan Water Agency's activities: reaching consensus on project proposals has saved time and money and has strengthened water users' acceptability and willingness to share the costs of project implementation and management after the construction. Information-sharing activities, including a questionnaire to stakeholders about the Japan Water Agency's procedures and activities, have led to a better understanding among stakeholders of the agency's role. Overall, the introduction of legal requirements for the Japan Water Agency to carry out stakeholder engagement activities has contributed to capacity building and to successfully meeting domestic water demand, thus yielding broader economic benefits.

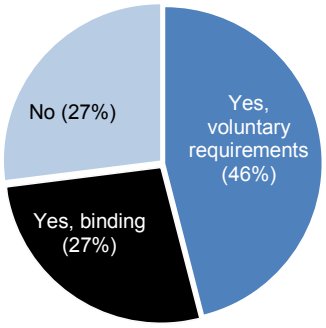
Source: Based on a case study submitted by the Japan Water Agency.

However, legal requirements and frameworks have not always led to optimal and quality outcomes of stakeholder engagement. When they require some form of engagement, without a clear mandate on the exact form and the matter concerned, it can lead to a "tick-the-box" approach promoting the minimum level of engagement required (e.g. information sharing) without making the maximum benefit from it. Also, governments are often unfamiliar or inexperienced with stakeholder engagement and lack the necessary human and financial resources to sustain extended forms of consultation

and manage risks related, for instance, to traditional powerful lobbying. For example, in many EU countries, the views of environmental groups were marginalised in discussions related to the implementation of the Water Framework Directive (WFD; e.g. to tackle water quality) as opposed to those of the agricultural sector, which spurred discontent and frustration regarding their supposed role in deliberative inputs beyond interest representation (OECD, 2014b).

Figure 2.2. **Existing requirements for stakeholder engagement in the water sector**

215 respondents

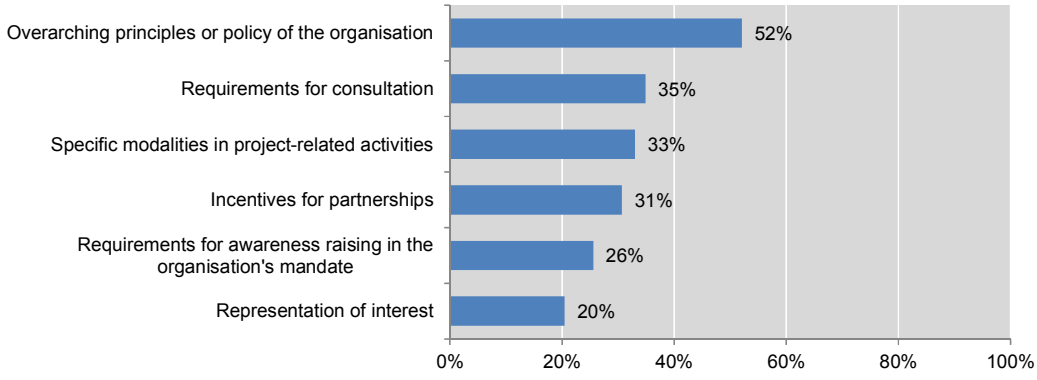


Note: The figure considers the respective share of responses as "no", "yes, binding requirements" and "yes, voluntary requirements" to the question whether their organisation is subject to requirements for stakeholder engagement, be they internal or external.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Figure 2.3. **Existing requirements subjecting organisations to stakeholder engagement in the water sector**

215 respondents



Note: The figure considers the respective share of responses that responded "yes" to the question "Specify the type of requirement".

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Box 2.4. Voluntary requirements for stakeholder engagement: The Aichi Canal Summit Declaration

In 1991, the Aichi Canal Summit took place in Japan with the objective to bring together stakeholders from various municipalities located upstream and downstream of the Aichi Canal Project which supplies water for domestic use as well as for industries, mainly Toyota Motor factories. At the close of the summit, stakeholders agreed on the Aichi Canal Summit Declaration, which committed signatories to invest efforts in better co-operation across citizens in upstream and downstream municipalities, as well as to jointly improve water usage and water quality, and to raise citizens' awareness regarding water issues.

The declaration has served as a non-legal binding framework to foster stakeholder engagement in the river basin. It has spurred the organisation of regular "exchange" events where stakeholders share information and knowledge on their water situation, and it has provided an incentive to develop joint activities between upstream and downstream actors such as to address the detrimental impact of deforestation on the watershed. For instance, in 2000, a foundation to conserve forests was established and is partly funded from water charges. In addition, an agreement for the development of forests to protect water resources was signed by upstream and downstream municipalities to foster forestation in the watershed. As a concrete result of the declaration, an Aichi Canal Council was created to co-ordinate the various stakeholders involved, with the support of the Japan Water Agency's regional office in the area.

The outcomes of the "exchange" events are reviewed every year in the framework of the Japan Water Agency Law and communicated online. These evaluations have shown that the Aichi Canal Summit Declaration has had a positive impact in committing municipalities to work together in the long term and to ensuring the sustainability of their joint activities. It also demonstrated that "exchange" events have contributed to building capacity and raising awareness among watershed stakeholders, in particular citizens, on the severe impact of deforestation on water resources. In light of these positive achievements, similar efforts are now taking place for the Toyogawa canal, located in a neighbouring river basin.

Source: Based on a case study submitted by the Japan Water Agency.

Water allocation

Competition over water resources is considered the fourth driver of stakeholder engagement by 31% of respondents surveyed. Water allocation and sharing can often be contentious because of conflicting needs (e.g. between irrigators, domestic users, the environment, etc.). Indeed, water resources serve multiple purposes and provide value to individuals, ecosystems, farms, firms and society in various ways. These range from ecological value provided by supporting key species, to socio-cultural value, to economic value derived from productive uses of water, to the existence value of iconic lakes or rivers. Key questions that directly affect the value that individuals and society place on water resources include: how much water is left in water bodies (rivers, streams, aquifers); how much is diverted for various uses; and who is able to use these resources, how, when and where.

Water resources allocation raises complex policy issues related to rivalry and excludability. These are related to the different types of uses, the extent to which the use is consumptive and the nature of return flows (how they have been transformed in terms of quality and transported or discharged in a new location). Growing pressures on water resources and intensifying competition to access and use water is therefore a critical challenge for stakeholders inside and outside the water sector in the future. Engaging all actors impacted (through structures such as watershed committees and boards) can

support continuing dialogue on competing needs to be balanced and necessary trade-offs (Box 2.5). Consultation in support of consensus-based decision making can therefore be a valuable solution when designing water allocation regimes to achieve economic efficiency, environmental sustainability and social equity.

Box 2.5. **Optimising the water-energy nexus in the Durance valley, France**

In 2003, a Water Saving Convention was signed between Électricité de France (EDF) and the two main irrigators in the Durance valley (France) to improve water efficiency and allocation through better local stakeholder engagement.

The objective was to optimise water allocation between energy generation and irrigation, and to develop appropriate incentives for water savings to restore financial margins and to answer future water demands. The Durance valley is host to a major dam and reservoir comprising 32 hydropower plants producing over 6 billion kWh of renewable energy, supplying drinking water and water for industrial purposes to the entire region, and irrigating 150 000 hectares of farmland.

As part of the process, EDF carried out an assessment of the monetary value of water savings from reduced abstraction for agricultural irrigation in the valley. The main business argument for the valuation study was to demonstrate the benefits of optimising water uses for each party (farmers, water institutions and energy producers). The two parties entered a win-win agreement whereby EDF was to optimise hydro-generation and benefit from further flexibility to generate electricity during daily peak periods when energy prices are higher, while irrigators were to benefit from remuneration by EDF based on the water savings they were able to make, and having more water stored in the reservoir to cope with drought periods. This agreement led to a reduction of agricultural water consumption from 325 million to 235 million cubic metres.

The convention was renewed in 2014 and plans to save a further 20-25 million cubic metres through an annual remuneration based on defined objectives. It allows irrigators to revise their objectives each year while knowing the economic consequences of their water consumption choices. The new convention also includes the Rhône-Méditerranée-Corse water agency, which expects to benefit from additional saved volumes of water for the environment in order to reduce water deficit in the river basin.

Source: Based on a case study submitted by Électricité de France.

Reform of water allocation regimes are technically, politically and legally challenging, and stakeholder engagement and public consultation are instrumental to facilitate the reform process. A significant number of countries are either currently reforming their allocation arrangements or have recently done so according to an OECD Survey on Water Resources Allocation (OECD, 2015). Experiences in water allocation reforms in Canada, Israel, South Africa, the United States as well as in England and Wales have shown that stakeholder engagement processes can be valuable to identify preferred options, gain a deeper understanding of the preferences of different water users and reveal what the proposed reform would mean for them.

Adaptive water governance

The call for adaptive water governance is another important driver for co-operative, long-term approaches in water decision making. For 30% of respondents, the need for flexible and resilient co-management mechanisms to deal with economic, political and ecological uncertainties also explains the renewed focus on stakeholder engagement in the last decade. State actors have increasingly realised that the uncertain future is too complex and daunting for governments to solve alone. Solutions to overcome these

challenges require broader support and collaboration to be effective, and governments have to find ways to interact with stakeholders across administrative, geographic and institutional boundaries (Box 2.6).

Adaptive governance also implies flexibility across time. Developments in water resources management take place at different timescales than political behaviour or social perception. Therefore, it is important to put in place flexible water governance frameworks so that future generations do not inherit poor decision making and policy/project implementation.

Box 2.6. **Stakeholder engagement for river basin adaptation to climate change**

Between 2012 and 2014 the South Saskatchewan River Basin Adaptation to Climate Variability Project brought together regional water systems experts looking for opportunities to enhance the resiliency of the Bow and Oldman-South Saskatchewan river basins in Southern Alberta, Canada.

The project supports the notion that adaptation to future climate uncertainties and other environmental changes is key to ensuring environmental, economic and social prosperity, growth and sustainability. It builds on, and integrates, existing data, tools, and water use and decision-maker expertise to improve the knowledge base and to explore options to manage the range of potential impacts of climate variability in the river basin.

Stakeholder engagement was conducted on a voluntary basis and was supported by mechanisms such as collaborative modelling processes, using sophisticated simulation for modelling water systems. The modelling sessions integrated computer techniques and included over 80 years of historic data on water management structures and demands. Together with developing performance measures, they allowed parties to set common objectives and collaborate effectively to identify practical and implementable solutions to improve resilience and to adapt to current and future water challenges. Stakeholders involved in the project included governments and regulators, water institutions, civil society, business and farmers who were interested in the reliability and quality of raw water supply. It also comprised scientists and researchers that ensured scientific rigor and made the best information available for the project, as well as parliamentarians and municipalities that ensured that municipal water needs were properly taken into account.

Since the completion of the project, stakeholder groups have been able to use the same model to discuss a series of flood mitigation options in the Bow river basin and the interactions between them with respect to water management in the basins.

In 2013, UNECE and OSCE projections on climate change adaptation in the Dniester river basin, in Ukraine, spurred the launch of a project that brings together the Ministry of Energy of Ukraine, the Dniester river basin authority, insurance companies and GWP-Ukraine. This project consists in building capacity of the basin's stakeholders regarding flood protection and drought management, and in providing decision support systems to manage trade-offs and to select the most effective alternative measures for reaching the targets set in the river basin management plan for the Dniester river basin.

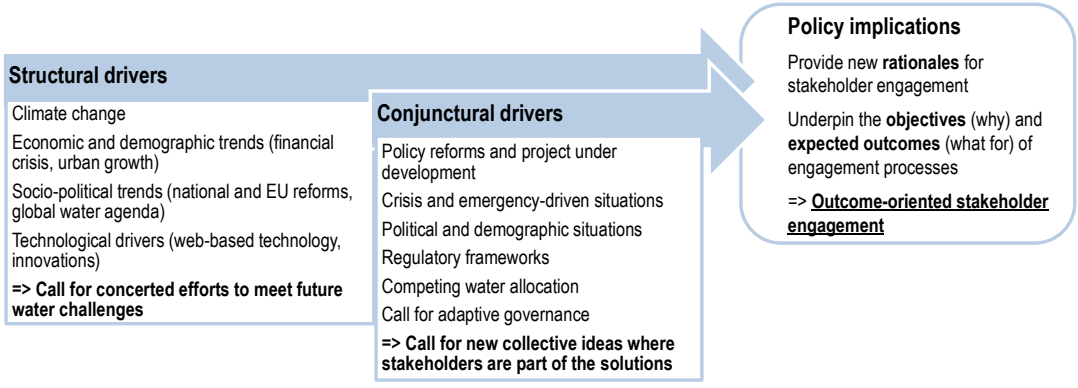
Sources: Based on case studies submitted by Alberta WaterSMART (http://albertawatersmart.com) and GWP-Ukraine.

Conclusion

Successful stakeholder engagement comes from a real understanding of the rationale that underlies it. In this chapter, two types of drivers were identified: structural and conjunctural, and call for new governance paradigms to develop collective and resilient solutions to future water challenges.

In terms of the policy implications, appraising the levers of action for stakeholder engagement is a critical step for decision makers to develop a clear rationale for engagement. Instruments such as strategic outlooks and forecasts can help foresee the likely impact of structural drivers (e.g. climate change), while perception-based assessment can be useful, for instance, regarding the influence of crises and reforms. Although it is not exhaustive, the typology of drivers identified in this chapter can provide decision makers with a reading grid to understand why engagement should/need to take place and for what outcomes. As a result, it helps to understand the implications for engagement processes as it points to the categories of stakeholders to be targeted; and pre-conditions to ensure the right mix of formal and informal engagement mechanisms (see Chapter 5). In turn, decision makers can define realistic and forward-looking policy objectives for stakeholder engagement and ensure that engagement processes are outcome-oriented (Figure 2.4).

Figure 2.4. **Towards outcome-oriented stakeholder engagement**



Source: OECD elaboration.

Note

1. The 2014 *OECD Economic Outlook* reports a pace of global growth at 3% over the past 7 years, which is more than 1 percentage point below the 2000-07 period (OECD, 2014a).

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Chapter 3

Mapping water-related stakeholders at all levels

Mapping water-related stakeholders is a stepping stone to effective engagement processes. This chapter provides an overview of the broad categories of stakeholders involved in water governance, including newcomers that play an increasing role in water governance, and actors who often remain unheard. The chapter analyses stakeholders' core motivations in water resources management, water services, water-related disasters or environmental protection, as well as their interactions. The issue of scale and the role of stakeholder engagement in coping with the multi-level complexity of water decision making and implementation are also addressed.

Introduction

A major governance gap often pointed out in the water sector is the high degree of fragmentation of players and decision makers with frequently unclear and overlapping roles and responsibilities. The type of actors contributing to decision-making and implementation processes varies largely across water governance functions from policy making to regulation, service delivery, water resources management and financing. This chapter aims to provide guidance on the critical steps needed to ensure the inclusiveness of stakeholder engagement processes, taking into account recent trends (newcomers) and the long-standing need to better engage "unheard voices".

Identifying who does what

Proper stakeholder engagement requires thorough identification of the actors to be engaged within and outside the water box, as well as a good understanding of their core motivations. Knowing who is responsible for what and at which level is a first step towards understanding the stakeholder "landscape" and identifying redundancies and gaps in the institutional framework that impact policy coherence and sector performance. A stakeholder mapping can be used to identify the core functions of stakeholders involved in the sector and to assess how effective they are in carrying them out. Such mappings also bring attention to the interaction with, and the impacts of, stakeholders in other areas that influence the water sector.

Mapping stakeholders

Stakeholder mapping is an exercise that relies on two important steps. The first step is the identification of stakeholders in relation to their involvement across the water chain (i.e. quality, quantity, drainage, drinking water supply, wastewater management, etc.) and the potential linkages with other sectors (land use, agriculture, planning, energy, etc.). It seeks to identify a range of players: *i)* primary decision maker; *ii)* who is influential in the area, community or organisation; *iii)* who has the power to obstruct decisions; *iv)* who has been involved in the issue in the past. Mapping should include stakeholders who have a formal responsibility and who have an impact on the decision-making process, as well as stakeholders with a material interest or who might be impacted by the project/policy process or its outcomes.

The second step aims to assess the potential of stakeholders to contribute to or hinder decision-making and implementation processes on water policies/projects. The mapping exercise can help: *i)* show the core governance functions of identified stakeholders (i.e. policy making, regulation, financing, service delivery, water resources management, etc.); *ii)* track their interactions (co-ordination, partnership, consultation, information sharing, etc.); *iii)* assess their interests in the issue at hand (from low [status quo] to high [committed to the process]). It can shed light on the stakeholders who have the most influence or power over the process, for instance when they have control over decisions or how they are implemented. It also helps identify possible gaps and overlaps, and to look beyond the "usual suspects" to reflect the actual diversity of actors.

The identification of stakeholders is intensive, time-consuming and can be a politically charged responsibility. There can be internal and external pressure to expand or reduce the spectrum of stakeholders to be engaged. Promoters of stakeholder engagement sometimes try to avoid involving the "usual suspects", which has become a term of denigration for actors with vast interests in water-related decisions (typically water service providers, farmers, etc.). Describing stakeholders as "usual suspects"

should not be grounds to exclude them from the engagement process, any more that it should be grounds for including them (Involve, 2005). Stakeholders should be involved because they are the relevant actors to the decision-making process in question. Similarly, it is equally detrimental to exclude stakeholders for being known opponents of the issue at hand; involving them can trigger some ownership and increase the likelihood that they support the final decisions. If they are excluded from the decision-making process they could be more prone to undermining the decision.

All stakeholders need to be informed of the various stages and outcomes of policy and project processes, but they do not need to be involved at each stage of the water project or policy. Engagement processes can be most effective when they include a careful and strategic selection of stakeholders that strikes a balance between comprehensive representation and a manageable number of participants. It is also important to take into consideration the timing of participation. Some stages of the process may be more suitable to certain stakeholder groups than to others. For example, non-governmental organisations are regularly asked to be involved in engagement processes, but they do not always see their participation as the most effective use of their limited resources. There are also instances when the engagement process conflicts with a primary mandate, e.g. a nature conservation group sitting at a negotiation table with a major industrial group to discuss a specific water-related project that is likely to impact the environment. In this case, both parties may have to reach an agreement that does not fully align with either of their core purposes for the sake of reaching a consensus. Careful consideration of when stakeholders participate, i.e. which stage of the policy/project cycle (e.g. objective setting, development, implementation review) can help avoid these issues.

It is important to consider and discuss with stakeholders what they expect from the engagement process, and what could prevent them from participating. If each stakeholder's motivations are clarified from the start, the risk of confusion is reduced and the chance of greater satisfaction with the outcomes is increased. This is especially important for certain water issues that are particularly sensitive to consultation fatigue. Strategic planning can help to identify which actors should be involved and when. Representation (see definition in Chapter 1) can be one option to take into account stakeholders' perspectives and interests while limiting the number of actors involved in the engagement process. In principal, having fewer stakeholders leads to each actor having a larger voice. While it is important to include all of the relevant actors, this may come at an expense. Engaging a large number of stakeholders can overwhelm the process, and all participants may not have the opportunity to contribute and to influence the outcome (e.g. for a lack of time, resources, etc.). Targeting a smaller audience can allow each stakeholder to express his/her views, and have more impact. It is important to find the appropriate balance between inclusiveness and empowerment of participants. Therefore, methods and processes adopted to identify who should be involved must be based on a clear understanding of the advantage and inconvenience of involving a large or small number of stakeholders with clear reasons for selection, and be as transparent as possible.

A range of tools for stakeholder mapping exist in the water sector and should be further applied. For example, USAID developed a Regional Water Governance Benchmarking Project for Middle East and North Africa (MENA) countries – "ReWab" – to map stakeholders in the water sector. It consists of a matrix that analyses water-relevant organisations depending on their level of influence over five standard functions (organisations; organising and building capacity; planning and allocating water strategically; developing and managing water resources; and regulating water resources

and services). "Net-Map" is an example of an interview-based mapping tool that primarily targets citizens and helps them to understand, visualise, discuss and improve situations in which many different stakeholders influence outcomes.[1] Suez Environnement also has a methodology and software to help its utility managers build stakeholder dialogue "road maps" and design action-oriented strategies that fit both with the operator's and stakeholders' expectations. The tool provides a map based on each local context that identifies which issues to address and which stakeholders to include in the process by specific issue (operation, communication, philanthropy programmes, etc.). The methodology gives a clearer view of local expectations and ensures more informed choices in various fields (Box 3.1).

Box 3.1. **A Stakeholder Engagement Toolkit for water utility managers by Suez Environnement**

Suez Environnement has been advocating stakeholder engagement not only as a driver for better reputation and license to operate but also as a component for the successful operation of water and sanitation utilities. The company has developed a methodology and software to help its water managers build stakeholder dialogue road maps.

Until now, the toolkit has been implemented in France (Bordeaux, Lyon), Mexico (Cancun) and Jordan (Samra). While analysing the local context, the tool guides managers to identify priority topics and critical stakeholders to engage, in co-operation with all departments and functions of the utility. It is organised in six steps: *i)* identifying stakeholders; *ii)* analysing the context and external perceptions; *iii)* identifying and ranking issues; *iv)* mapping stakeholders according to these specific issues; *v)* building action plans; *vi)* ensuring monitoring and reporting.

Key outputs from the toolkit have included better understanding and co-ordination between departments, more solid argumentation of choices to inform stakeholders, and better return on investment for communication efforts and corporate social responsibility programmes. The methodology is now being implemented within all the company's business units, and has also been shared outside the water sector with companies interested in transposing the methodology to their own activities.

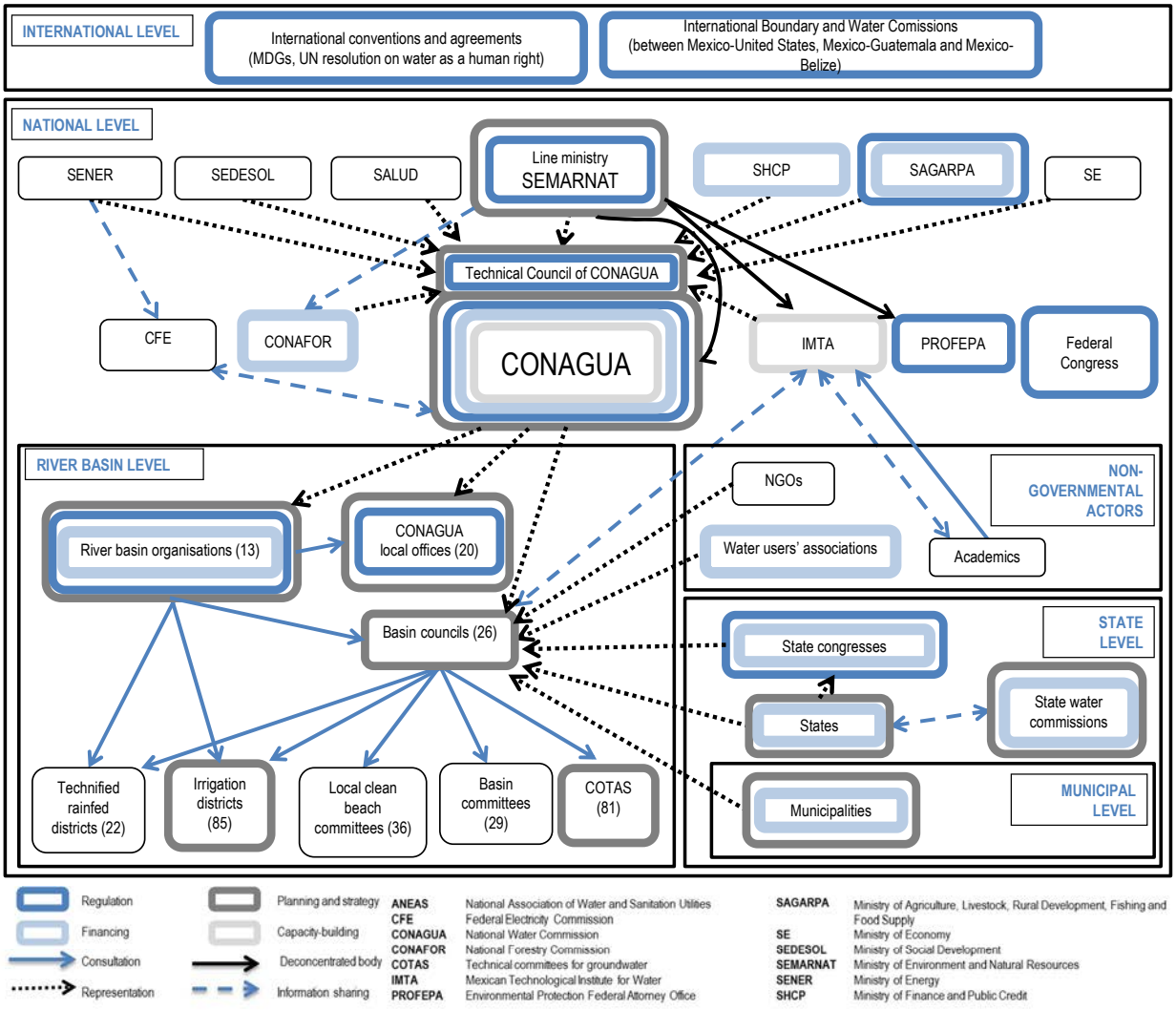
Source: OECD (2012), "Condition for success 1 'Good governance'", Synthesis report of Target 1 Stakeholders' engagement for effective water policy and management as prepared by the Good Governance core group for the 6th World Water Forum, 12-17 March 2012, Marseille (France), available at: http://www.worldwaterforum6.org/uploads/tx_amswwf/CS1.1__Stakeholder__s_engagement_for_effective_water_policy_and_management_Report.pdf.

Institutional mappings can also shed light on multi-level governance gaps to be addressed and provide policy guidance. The institutional mapping exercises carried out as part of OECD policy dialogues in support of water reform in selected countries have proven useful to diagnose inconsistencies in the interaction across stakeholders. For example, the mapping of water institutions in Mexico shed light on the cumulative functions of the National Water Commission (CONAGUA) in terms of policy making, financing, regulation, service provision and capacity building (OECD, 2013a). A corresponding policy recommendation consisted in recalling the need for a clear-cut separation of service delivery, policy making and regulatory powers in Mexico's water sector, some of which could be discharged to other authorities (Figure 3.1).

Similarly, mapping who does what across the wastewater chain in the Netherlands (OECD, 2014a) reveals a unique arrangement whereby (408) municipalities are in charge of sewage collection and (23) regional water authorities deal with wastewater treatment. Co-ordinated efforts are spurred through multi-level governance contracts towards greater efficiency gains. However, the institutional mapping provides a tangible basis to make the

point that if regional water authorities were to retain wastewater treatment function, it should be under a different governance setting (i.e. not as functional democracies) and financing frameworks (i.e. without specific taxation powers) (Figure 3.2).

Figure 3.1. **Institutional mapping of roles and responsibilities for water resources management in Mexico**



Source: OECD (2013a), *Making Water Reform Happen in Mexico*, OECD Studies on Water, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264187894-en.

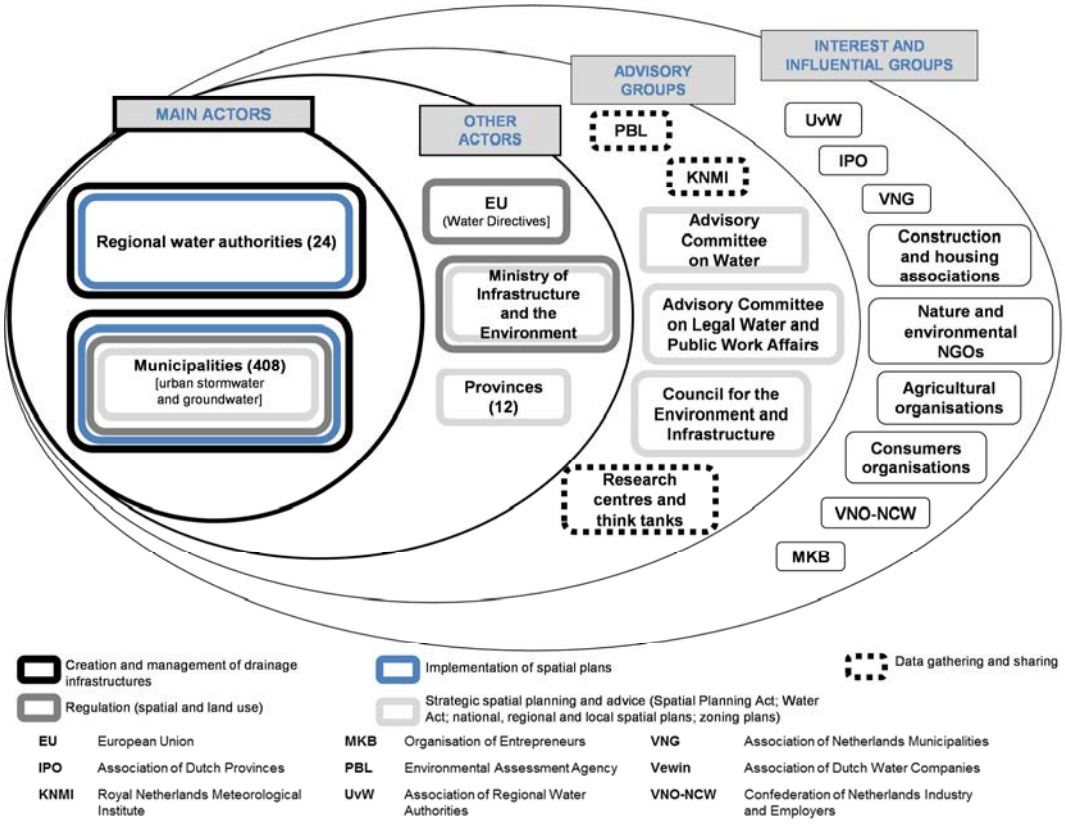
Typology of stakeholders

Mapping exercises highlight the range of stakeholders that play a role in managing water, in terms of strategic planning, priority setting, allocation of uses, economic and environmental regulation, information, monitoring, evaluation and level (from local to global). A typology of stakeholders can help clarify who they are, while a typology of water management function can help categorise what they do.

At the central government level, there is a wide diversity of policy areas related to water policy making (e.g. energy, agriculture, territorial development, health, public works/infrastructure, economy, finance, etc.). Because of the sectoral fragmentation of

water-related tasks across ministries and public agencies, policy makers constantly face conflicting objectives and the temptation of retreating into silo approaches. At the sub-national government level, a diversity of "local" actors are involved in water policy making, be they decentralised or deconcentrated entities (municipalities, inter-municipal bodies, regions, river basin authorities, regional development agencies, water users' associations, etc.). This may generate obstacles in managing the interface between different local actors and building capacity at the sub-national level. Finally, because most OECD countries have decentralised their water policy making, joint action is required between the central government and sub-national actors in the design, regulation and implementation stages of water policy. This requires overcoming obstacles related to co-ordination across levels of government.

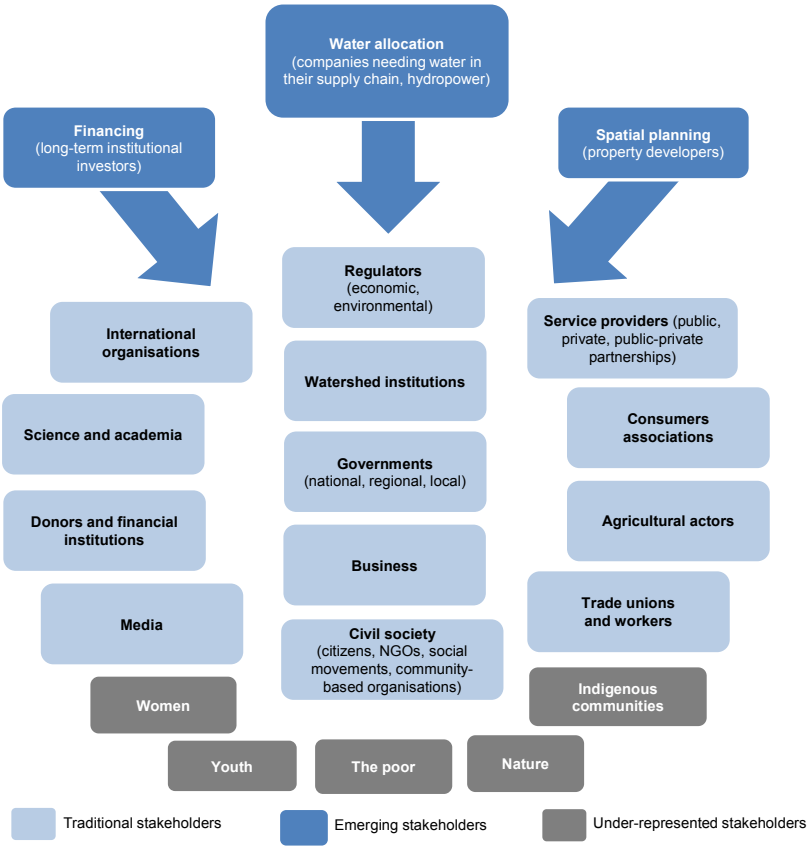
Figure 3.2. **Institutional mapping for wastewater treatment in the Netherlands**



Source: OECD (2014a), *Water Governance in the Netherlands: Fit for the Future?*, OECD Studies on Water, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264102637-en.

The number of public, private and not-for-profit organisations and their responsibilities in water management differ from country to country but common institutions and stakeholders with recurrent roles can be identified (see Figure 3.3). The typology provides for a categorisation of the main actors who most often intervene in the water sector. The number of actors, and the degree to which they are active/passive in water management, is context specific. Identifying stakeholders requires a holistic approach because they can be interdependent and can influence each other depending on the water function they carry out.

Figure 3.3. **Traditional, new and under-represented stakeholders in the water sector**

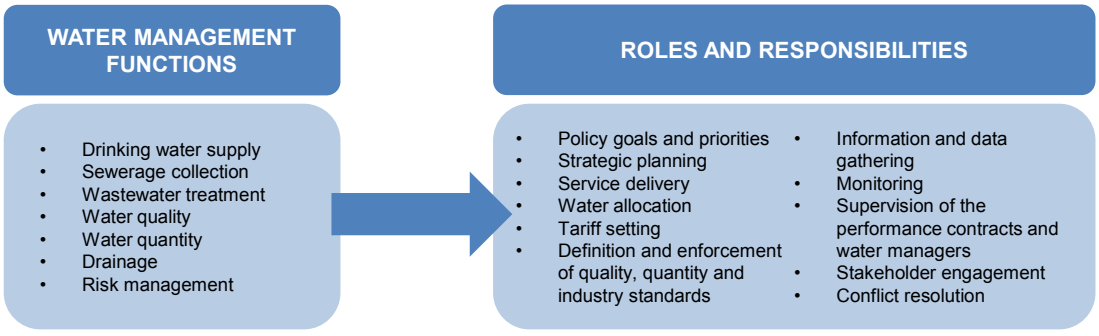


Source: OECD elaboration.

Typology of water management functions

Water functions refer to the range of governance activities covering different areas of water policy: water quantity and quality management, drinking water supply, sewerage collection and wastewater treatment), flood defence, drainage and risk management. Particular water reforms, such as decentralisation, have affected how these functions are carried out and by whom (Figure 3.4).

Figure 3.4. **Functions, roles and responsibilities in the water sector**



Source: OECD elaboration.

A number of governance roles and responsibilities can be associated with carrying out these water functions: policy goals and priorities; strategic planning; service delivery, water allocation, tariff setting; standard definition and enforcement; information and data gathering; monitoring; supervision; stakeholder engagement; and conflict resolution.

Functions, roles and responsibilities in the water sector can be organised and allocated in multiple ways, depending on the institutional setting in place, which can raise some co-ordination challenges. The type of governance system strongly influences how water functions are carried out between national and sub-national authorities, across levels of government, and among formal and informal actors. It has policy implications for decision makers, including implementing an integrated and place-based approach[2] at the territorial level, integrating the involvement of different actors at the central and sub-national levels, as well as integrating multi-sectoral and territorial specificities at the central level.

Emerging stakeholders and new players

Beyond the "traditional" actors, some stakeholders have gained increasing influence in the decision-making and implementation processes related to water. Strong monopolies, and at times oligopolistic markets, have characterised the water sector and decision-making processes can be in the hands of a close group of stakeholders, in addition to governments. Economic, social and environmental trends are raising new challenges: ageing and obsolete infrastructures require investments to be renewed; increasing risks of extreme events need to be managed and mitigated; and innovative and adaptive solutions need to be developed. Addressing these pressing challenges has motivated new stakeholders to enter the stage to develop solutions for the future.

Business

While the role of the private sector in water has long focused on companies delivering water supply and sanitation, businesses – within and outside the water sector (e.g. energy, agri-food, construction, etc.) – have been paying increasing attention to water governance in their strategies, especially to cope with regulatory risks and secure water allocation (CEO Water Mandate, Pacific Institute, WWF, 2014). Companies recognise more and more the risk that water scarcity, pollution and weak water governance raise for their core business. They are increasingly acknowledging the need to manage water as a key input to production and to better address the ways in which their water use and wastewater discharge can affect nearby ecosystems and communities. Investors, governments and non-governmental organisations all have increased expectations for corporate sustainability around water issues. Perhaps even more important to business, consumers consider more and more companies' water sustainability performance in their purchasing decisions.

The role and process of stakeholder engagement in companies have evolved over the past decades. Historically, companies engaged local community members and other organisations to meet regulatory requirements and to secure permits for projects in specific locations. As companies began to realise the benefits of regular dialogue with key constituency groups, engagement transitioned from a process largely focused on compliance conditions to one that was about identifying and managing a wider range of risks. Such stakeholder engagement can prove invaluable as a way of working through issues in the wake of incidents or conflicts. Focus groups, one-off meetings and ongoing engagements also help companies to understand reputational risks. Companies are now

increasingly seeing the connection between engagement, disclosure and corporate performance, recognising that listening to stakeholders' insights can foster innovation, including the development of new business practices, products and services. Investors are also beginning to recognise that companies that routinely engage stakeholders on sustainability issues are typically leaders in risk management and innovation (Ceres, 2010).

Corporate water stewardships can help to identify and manage water-related risks alongside governments and civil society organisations. Business also engages more and more with universities and research centres for technical and non-technical innovation. Stewardship approaches can result in companies improving water efficiency within their own operations, encouraging good practice throughout their supply chain and collaborating with others to advance sustainable water management. In particular, assessing water stewardships can provide business with valuable lessons to manage risks and improve their activities. The CEO Water Mandate and the Water Integrity Network carried out such an evaluation to measure the severity of integrity risks and the frequency with which they occur in water stewardship initiatives. The resulting "risk score" provides stewardship participants with an indication of the nature of risk area (e.g. partner representation, planning and design, imbalanced stakeholder engagement, etc.) and it can help to mitigate hazards and reduce risks. Recently, the CEO Water Mandate has contributed to redefining the way business responds to water challenges and to fostering the responsible engagement of companies in water policy and management. A set of guidelines and standards were developed to support responsible business engagement and effective stewardships in water policies and projects (Box 3.2).

Box 3.2. **Guidelines and standards for responsible business engagement and effective stewardships in the water sector**

The *Guide to Responsible Business Engagement with Water Policy* developed by the CEO Water Mandate and published in 2010 aims to make a compelling case for responsible water policy engagement supported by insights, strategies and tactics needed to do so effectively. The guide provides a way for companies to address risk and capture opportunities stemming from external conditions that cannot be achieved through changes in internal management alone. It equates effective water policy engagement – that which integrates environmentally sustainable, economically viable and socially equitable water management approaches – with responsible engagement.

The guide is centred on five aspirational principles that underpin responsible engagement:

- **Advance sustainable water management.** Responsible corporate engagement in water policy must be motivated by a genuine interest in furthering efficient, equitable and ecologically sustainable water management.
- **Respect public and private roles.** Responsible corporate engagement in water policy entails ensuring that activities do not infringe upon, but rather support, the government's mandate and responsibilities to develop and implement water policy. Acting consistently with this principle includes business commitment to work within a well-regulated (and enforced) environment.
- **Strive for inclusiveness and partnerships.** Responsible engagement in water policy promotes inclusiveness and equitable, genuine and meaningful partnerships across a wide range of interests.
- **Be pragmatic and consider integrated engagement.** Responsible engagement in water policy proceeds in a coherent manner that recognises the interconnectedness between water and many other policy arenas. It is a proactive approach, rather than responsive to events, and is cognizant of, and sensitive to, the environmental, social, cultural and political contexts within which it takes place.

Box 3.2. Existing guidelines and standards for responsible business engagement and effective stewardships in the water sector (*cont.*)

- **Be accountable and transparent.** Companies engaged in responsible water policy are fully transparent and accountable for their role in a way that ensures alignment with sustainable water management and promotes trust among stakeholders.

The guide also suggests practical steps of engagement and identifies potential pitfalls and how to avoid them. It also explicitly addresses concerns about potential policy capture and other unforeseen negative outcomes, including concerns that: *i)* companies will not co-operate with government in good faith to reach equitable and sustainable water management; *ii)* private sector involvement inevitably leads to other voices being drowned out; or *iii)* for-profit companies fundamentally have no role in the governance of water resources that belong to the commons. The guide rejects and discourages any type of engagement that could be construed as inequitable or non-inclusive, asserting that inclusive and sustainable water management is the most effective way to mitigate long-term risks.

The *Alliance for Water Stewardship Standard* issued in January 2014 defines water stewardship as the use of water that is socially equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that involves site- and catchment-based actions. The standard provides a global framework for sites to undertake responsible water stewardship in a manner that is transparent and stakeholder-inclusive. Specifically, the standard is designed to achieve four water stewardship outcomes: *i)* good water governance; *ii)* sustainable water balance; *iii)* good water quality status; *iv)* healthy status of important water-related areas. It can be implemented by all entities across sectors (public and private) worldwide and is organised around six steps:

1. Commit to being a responsible water steward.
2. Gather data to understand shared water challenges and water-related risks, impacts and opportunities.
3. Develop a water stewardship plan.
4. Implement the site's stewardship plan and improve impacts.
5. Evaluate the site's performance.
6. Communicate about water stewardship and disclose the site's stewardship efforts.

Sources: CEO Water Mandate (2010), *Guide to Responsible Business Engagement with Water Policy*, United Nations Global Compact, Pacific Institute, November; Alliance for Water Stewardship (2014), *The AWS International Water Stewardship Standard*, Alliance for Stewardship, available at: http://assets.worldwildlife.org/publications/746/files/original/AWS-Standard-v-1-Abbreviated-print_(1).pdf?1418140260.

Long-term institutional investors

The financial sector plays an essential role in providing and channelling financing for investment, including in the water sector. Beyond providing short-term finance for businesses' day-to-day operations and other temporary cash requirements, financial institutions, capital markets and institutional investors are also sources of long-term finance. Over the last decades, public capital investment in infrastructure has, on average, declined in OECD countries (OECD, 2013b). Public provision of infrastructure has sometimes failed to deliver efficient investment with misallocation across sectors, regions or time due to political considerations. Constraints on public finance and recognised limitations on the public sector's effectiveness in managing projects have led to a reconsideration of the role of the state in infrastructure provision, including water-related projects.

Today, institutional investors, particularly pension funds, insurance companies and mutual funds, are increasingly important players. Institutional investment has emerged as

a new source for funding water projects, in particular infrastructure projects. An increasing number of pension funds and private equity firms have begun to factor environmental, social and governance issues into their decision-making processes and recognise their unique position to play a role in driving the transition to a more sustainable financial system. Water infrastructure and projects require high initial capital costs, but have relatively long operating lifecycles, low expenses and high potential returns. As such, they offer institutional investors long-term cash flow and attractive payback periods. Pension funds and private equity invest more and more in water infrastructure and utilities through debt financing when they lend to the owners or operators of the infrastructure. Investment in water supply and sewage is thus receiving increasing attention as an opportunity for institutional investors to diversify their portfolio and make a difference socially and environmentally (see the example in the United States in Box 3.3).[3]

Box 3.3. **Innovative business model attracting long-term investment in water and sanitation in the United States**

A large portion of infrastructure in the United States is obsolete and in need of improvement in order to provide consumers with quality drinking water. Some municipalities, however, cannot fund these projects because of debt incurred during the economic crisis. According to the American Water Works Association, drinking water infrastructure in the United States earned a D grade from the American Society of Engineers in its 2013 Report Card for America's Infrastructure, estimating the cost of repair at more than USD 1 trillion over the next 25 years.

In that context, United Water, a Suez Environnement subsidiary, has developed a new business model, called SOLUTION[SM], which provides a way for local authorities to clear millions of dollars of accumulated debt, create a cleaner environment and ensure that ownership and stewardship of the water system never leaves public hands. SOLUTION[SM] was first implemented in 2012 in the city of Bayonne, New Jersey. It was created by a joint venture (90% Kohlberg Kravis Roberts & Co, 10% United Water); and the two partners act as a concessionaire to the Bayonne Municipal Utilities Authority.

SOLUTION[SM] separates the asset management and operating activities, with the distinctive feature being that the city has retained ownership of the infrastructures. United Water and KKR provide an upfront payment of over USD 150 million, allowing the Bayonne Municipality Utilities Authority to pay off a large majority of its debt. USD 107 million will be invested over the contract in order to manage, repair and renovate the networks. The other distinctive feature is the length of the contract: working as an operating contract, the Bayonne contract was granted for a period of 40 years. The arrangement minimises the impact of the rates increases needed to support the capital improvement programme (+8.5% in 2012, no increase in 2013-14, and +3.5% per year as of 2015, linked with the inflation index). Efficiency savings and new revenues are expected to come from private operating efficiencies but also from re-metering to capture unbilled water: USD 7 million will thus be invested in the first three years to replace meters and upgrade billing and collection.

Three months after the project began, Moody's Investor's Service upgraded the city of Bayonne's bond rating from Baa1 with a negative outlook to Baa1 with a positive outlook. In addition to receiving the New Jersey Alliance for Action's Distinguished Engineering Award, United Water's SOLUTION[SM] business model is part of a Commitment to Action made by United Water at the Clinton Global Initiative 2012 Meeting in New York. United Water also received the Partnership Performance of the Year Award at the 2012 American Water Summit in Chicago for this contractual approach. Another SOLUTION[SM] contract was signed in October 2014 by United Water, KKR and the municipality of Middletown, Pennsylvania. The water and wastewater concession has a total value worth over USD 285 million over its 50-year life.

Source: Based on a case study submitted by Suez Environnement.

Property developers

As risks of floods intensify in some parts of the world, property developers can gain influence over decisions related to land use and water management. Indeed, spatial development can generate long-term liabilities and financial implications in terms of water management, such as compensations for the loss of nature values, green areas and water amenities. Up to now, however, in many cases disaster risk reduction related to flooding has been mainly driven by politicians and emergency planning professionals with little discussion with city planners, urban designers and other professionals in the field of built environment (i.e. human-made surroundings such as buildings, green space, supporting infrastructure). Property developers who build in flood-prone areas generate liabilities with regard to water management and must bear the associated costs. Thus, they can play an important role in harnessing new sources of finance and contributing to the development of non-technical solutions to manage floods (see example in Box 3.4).

Box 3.4. **Co-decision making with spatial planners in the Netherlands**

Westergouwe, which is located in the Zuidplaspolder in the western part of the Netherlands, lies more than six metres below sea level, which makes it one of the deepest polders of the country (i.e. low-lying tracts of land enclosed by dikes that form an artificial hydrological entity). It is also a polder characterised by weak peaty soils and water seepage, thus providing poor conditions for urban development. Nevertheless, in the early 2000s, the municipality of Gouda planned the construction of about 4 000 new homes, by designating this polder as an urban extension area. At the time, the consequences of possible floods were practically disregarded in the urban planning process and the municipality did not consider flood defence to be its responsibility. The responsibility was passed on to the regional water authorities, the province of South Holland and project developers. As a consequence, the urban development project was not adapted to the climatic conditions, and the initial plans did not include any measures for reducing possible risks of flood or of deterioration of the water system.

Despite negative feedback from regional water authority in the area, the proposed Westergouwe development was accepted by the province. However, following this decision, regional water authorities got further involved in the process and proposed requirements for the execution of the project to ensure housing would be safe from flooding (e.g. minimum flood levels, water retention standards) and to ensure the sustainability of ecosystems.

This "water assessment", requested by the regional water authority, provided an opportunity for water managers and spatial planners to work together to manage the mutual impact of water and spatial development, to help discourage urban development in unfavourable locations and, in the case of Westergrouwe, to steer the project towards a more sustainable and resilient development. It was also used as a communication mechanism whereby both parties advised each other to limit negative outcomes. The "water assessment" contributed to changing path dependency in decisions about spatial development, opening up the way for long-term horizons that also consider the costs incurred for the next generations, which is crucial for the financial sustainability in the water sector.

Source: Based on a case study submitted by the Dutch water authority of Schieland en de Krimpenerwaard.

Today, strategies to help attain improved social, physical and institutional resilience to flooding are likely to include revision of building codes, planning policy and developing good practice guidance on a number of measures (e.g. flood-affected buildings, flood-prone areas, etc.). It is therefore important that the wide range of built environment professionals be actively involved in these adaptation measures to make place for resilience in the face of increasing flood risks.

Unheard stakeholders

Some categories of stakeholders often get omitted and remain unheard. These include women (as the primary users of water in many parts of the world, for domestic consumption, subsistence agriculture and health), youth (as the future generation that will need to solve issues related to water), the rural and urban poor (as the main consumers in informal urban and rural settlements) and indigenous and aboriginal communities (see Box 3.5 on engaging under-represented stakeholders in Cameroon).

Box 3.5. **Engaging with under-represented groups**

In the eastern rural region of Diang, Cameroon, the association Aide aux Familles et Victimes des Migrations Clandestines engages with local authorities, associations of women and young people, diggers and water users as part of training activities on groundwater management. In a region where access to drinking water is very limited, it has become critical to better inform rural population about distribution practices for groundwater resources as well as water supply technology such as traditional hand-dug wells.

These trainings take place in villages where a new well is envisaged, or an existing one needs to be renovated. Local stakeholders such as builders and community leaders are trained, and following the construction of the well they (e.g. students, women, patriarchs, etc.) monitor water management. These trainings have contributed to increased information sharing across a broad range of actors at local level (e.g. public authorities, farmers, local media, donors, etc.) regarding water resources management, safety measures for building wells and hygiene.

Source: Based on a case study submitted by the Association Aide aux Familles et Victimes des Migrations Clandestines.

Women play a central part in the provision, management and safeguarding of water for domestic purposes and agricultural use. At the same time, women often play a less powerful role than men in the management, problem analysis and decision making related to water. There is an important link between gender equality and sustainable water management.

Young people constitute a vital force and a critical age group capable of contributing actively to water-related decision making and implementation. However, they often struggle to find a voice and remain on the margin. Current water management generates important liabilities related to surface and groundwater abstraction, pollution discharge into water resources, etc., and today's youth will have to bear the related future costs. In the face of growing water challenges and uncertainties, intergenerational dialogue and training the next generation of water professionals need to be involved in the development of solutions to address such challenges and uncertainties (see Box 3.6).

The poor lacking access to safe water and sanitation represent an important share of the world's population, but they remain largely unheard in water-related decision-making processes. Their knowledge of on-the-ground realities could help guide decision making and implementation to tailor strategies to the needs, but large informal surroundings make it difficult for them to get organised effectively (Box 3.7).

Indigenous and aboriginal peoples are seldom recognised as legitimate stakeholders in water-related policy decisions at national and international levels. Moreover, they often lack the institutional structures and capacities to promote their water interests outside

Box 3.6. **The Water Youth Network**

The Water Youth Network is a global platform that connects and empowers young people, ranging from students to young professionals, to become agents of change in the water sector, while promoting North-South collaboration. Founded in 2012, it relies on an advisory board and 4 working groups encompassing 300 active members around the world, all volunteers between 15- and 30-years old.

The Water Youth Network contributes to continuity and coherence across different youth initiatives in the water sector. For instance, it created the "Water Youth Continuity Plan" to register existing youth groups, foster experience sharing and bench-learning and build momentum. It also encourages innovation with, for example, the launch of an online platform for young people to share ideas on water and better share information, especially with under-represented groups. It also facilitates meaningful youth participation in major water events such as the Budapest Water Summit where it contributed to drafting the final statement, or the Young Water Leadership Forum at the Singapore International Water Week.

Source: Based on a case study submitted by the Water Youth Network.

Box 3.7. **Stakeholder engagement to support rural water system change in Ghana**

Stemming from the recognition that rural water systems were failing and falling apart at an alarming rate in Ghana despite new investments, the non-governmental organisation International Water and Sanitation Centre (IRC) launched the Sustainable Services at Scale ("Triple-S") initiative in 2009 to foster new thinking, policy and practice among key stakeholders in Ghana's rural water sector.

The IRC has worked with the Community Water and Sanitation Agency (CWSA), the government body responsible for overseeing the community water sub-sector in rural Ghana. This collaboration sparked the transformation of the organisation; it went from an organisation largely driven by divergent donor practices in infrastructure coverage to an organisation that is championing sustainable water service delivery. These changes occurred against the complex and challenging environment in Ghana, and rely on a collaborative process of action research, reflection and ongoing learning.

The "Triple-S" initiative comprises three phases:

- Phase 1 corresponds to an initial period of building partnerships, obtaining a common recognition of the problem (poor functionality of rural water systems) and creating a shared vision of the future or ideal end state.
- Phase 2 is the central phase of learning, testing and searching for practical, actionable solutions to long-term, underlying problems that have prevented the sector from moving towards its ideal end state.
- Phase 3 is the stage where outputs of the change process are starting to materialise through the impacts of systemic improvements to both policy and practice and the adoption and replication of good practice through a holistic work approach as opposed to focusing only on very selected parts of the problem and/or solutions.

A number of legal and policy frameworks were modified during the course of this system change process, which were critical to cementing the transition towards a more service delivery orientated way of working in Ghana. These were made possible by government support and public recognition of the initiative in April 2012 by the Minister for Finance and Economic Planning at the Sanitation and Water for All High Level Meeting, in Washington, DC. This political commitment allowed for a number of important policy and strategy changes, including new legislation to operationalise the regulatory role of the CWSA under the act of its establishment (Act 564 of 1998). The subsequent passage of the CWSA Regulations Legislative Instrument (LI 2007) in March 2013 strengthened the CWSA with a legal mandate to regulate the sector. The key sector standards and benchmarks are all itemised in the legislative instrument and its schedules.

Source: Based on a case study submitted by IRC.

their communities. They are critical actors to consider as water is often central to their cultural and physical well-being. Bringing indigenous peoples into water policy

discussions requires active interest and commitment to better understand indigenous cultural and spiritual understandings about water, and the recognition of the customary access and rights to water (Box 3.8).

Box 3.8. **Engaging indigenous communities in integrated catchment management in New Zealand**

The Canterbury Regional Council launched an engagement process with district councils and the Māori tribal authority to develop and implement the new Canterbury Water Management Strategy. It aims to: *i)* deliver environmental, economic, cultural and social outcomes together; *ii)* shift from individual effect-based management to integrated catchment management; *iii)* develop a collaborative governance framework whereby "local people plan locally."

Identification of tribal, and in particular sub-tribe members, as legitimate stakeholders was a fundamental aspect of the governance framework The region was divided into ten areas with a dedicated committee in each zone, made up of representatives from district and regional councils, the local community and local *runanga* (i.e. sub-tribe). The *runanga* representation on these committees depended on their definition of their *rohe* (sphere of responsibility). Most committees have, on average, 13 members with the number of *runanga* representatives varying from 1 to 6, depending on *rohe*.

Each committee is tasked with developing solutions to deliver on the strategy targets by 2040, and developing an implementation programme and recommendations related to drinking water, irrigation, ecosystem health, water-use efficiency, energy security, etc. By involving indigenous communities, the engagement process aims to improve water management that meets their aspirations as well as social and cultural cohesiveness. It also aspires to develop a new collaborative approach to decision making in which people from a variety of interests in water come together and develop solutions that meet all expectations. For example, one of the strategy's targets is *Kaitiakitanga,* which requires both a role in decision making and the achievement of environmental outcomes. Thus, for indigenous people, it is about "having a seat at the table" (i.e. related to the governance) and delivering "tangible improvements in water quality" (i.e. related to the outcomes). Capacity remains an issue, with a small number of indigenous people having a large workload and responsibility. The Canterbury Regional Council has employed a specific *tangata whenua* (people of the land) facilitator to work with the *runanga* representatives to assist them in contributing and participating. Also, the tribal authority organises bimonthly sessions for all the representatives across the region to share their experiences and strengthen their capacity.

In four of the water management zones, a comprehensive integrated "Zone Committee Solution Package" has been developed as a basis for water quantity and quality regulation. For instance, in the case of the Selwyn Waihora Zone Committee, the package was developed based on the feedback from 13 different focus groups, which included between 4 and 10 participants, and which met 14 times throughout the decision-making process.

Participatory decision making is monitored in a number of ways. Central government observers participate in regional committees and provide feedback at national level. The mayoral forum receives regular reports from the regional council. Within the regional council, the facilitation team receives regular reviews of its work. Finally, zone committees exchange views on the effectiveness of the different engagement mechanisms they used and share lessons learnt. This comprehensive evaluation has shown that participatory decision making had very positive consequences on the sustainability and resilience of water management in the region. This has enabled indigenous people to be recognised as legitimate stakeholders in water decision making, and has led to better community understanding of cultural values, and better outcomes for water management.

Source: Based on a case study submitted by the Canterbury Regional Council.

Nature's needs are often defended by environmental groups, and they are frequently omitted from the engagement processes. For instance, water needs to ensure environmental flows are seldom considered as an interest to consider when weighing in the expectations of various categories of stakeholders. However, better knowledge about

biodiversity and ecosystems, the threats they face and the conservation measures that can be taken can help drive policy actions on water.

Additional efforts and innovation are needed to contact and engage with these groups or individuals, who do not always come forward on their own. Including these minority or "less-vocal" stakeholders is important to obtaining a more balanced picture from the engagement process. Stakeholder strategies need to go beyond the "usual suspects" represented in the formal engagement channels to pay greater attention to the "unheard voices" that are likely to sway over future strategies. Looking towards the future, some optimistic initiatives emerge to foster the involvement of under-represented groups in the water sector (Box 3.9).

Box 3.9. **Fostering women and youth involvement in the water sector in Portugal**

In October 2013, the Portuguese Association of Water and Wastewater Services (APDA) founded the "Women for Water" group to:

- contribute to quantifying the presence of women in various areas of intervention
- assess women's participation in terms of age, the positions/functions performed, seniority, academic and professional qualifications, etc.
- share knowledge, experiences and best practices and benefit from participation in a group of excellence
- establish relationships and partnerships with similar groups that are or could be created at the international level, in particular those from Portuguese-speaking countries and international organisations.

That same year, the APDA also launched the "Young Water Professionals" group with the aim to develop the capacities of young professionals under the age of 35, with the objectives to:

- train young professionals and prepare future generations of leaders and technicians in various fields of knowledge, helping them to meet the growing challenges facing the water sector at present and in the future
- transfer new approaches to the problems of the sector to a wide range of professional, academic and geographic diversity
- share knowledge, experiences and best practices.

Source: Based on case studies submitted by the APDA.

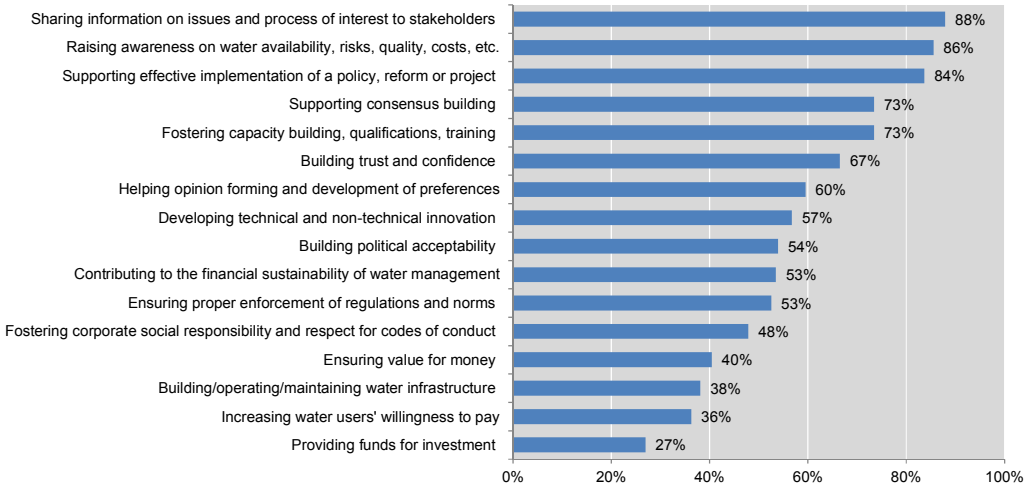
What matters for whom: Different motivations for different stakeholders

Stakeholders have different motivations, needs and interests. They aspire to different goals when it comes to water governance, which in turn affects what they expect to obtain from engagement processes. Engagement strategies related to the development of dam projects will, by definition, engage different stakeholders than those of a water tariffs reform. Based on their core motivations, and often their mandate, stakeholders have different governance concerns. The way stakeholders contribute to water governance can influence their expectations of the engagement process and their willingness to engage, e.g. improving how water resources or services are managed, ensuring readiness in the face of water-related disasters or protecting the environment.

Stakeholders' contribution to water governance

Stakeholders contribute to water governance in different ways, and pursue different objectives. The OECD Survey on Stakeholder Engagement for Effective Water Governance results show that stakeholders' contribution to better governance covers a variety of activities (Figure 3.5). The majority contributes to improving water governance through information sharing (88% of respondents surveyed); by raising awareness on water availability, risks, quality and costs, as well as by supporting the effective implementation of water policy, reform or projects (86% and 84%). Supporting consensus building and capacity building is considered as an equally important contribution (73%). Less so are increasing water users' willingness to pay (36%) and providing funds for investment (27%).

Figure 3.5. **How stakeholders contribute to better water governance**



Note: The figure considers the answers "yes" provided by respondents to the question: "How does your organisation contribute to better water governance?"

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Key words most often associated with engagement processes among categories of stakeholders also highlight differences in perceptions. A majority of actors, including international organisations, sub-national governments, service providers, watershed institutions and business, primarily perceived good governance as closely linked to stakeholder engagement (see word clouds in Chapter 8). In the case of national governments, the word "law" stands out and underlines the important legal dimension they associate with stakeholder engagement. For civil society, stakeholder engagement resonates with the multitude of "actors" in the water sector, while for financial actors and donors, "information" to be shared, for instance in a critical dimension of engagement processes, is important; and for regulators, "consultation" stands out primarily.

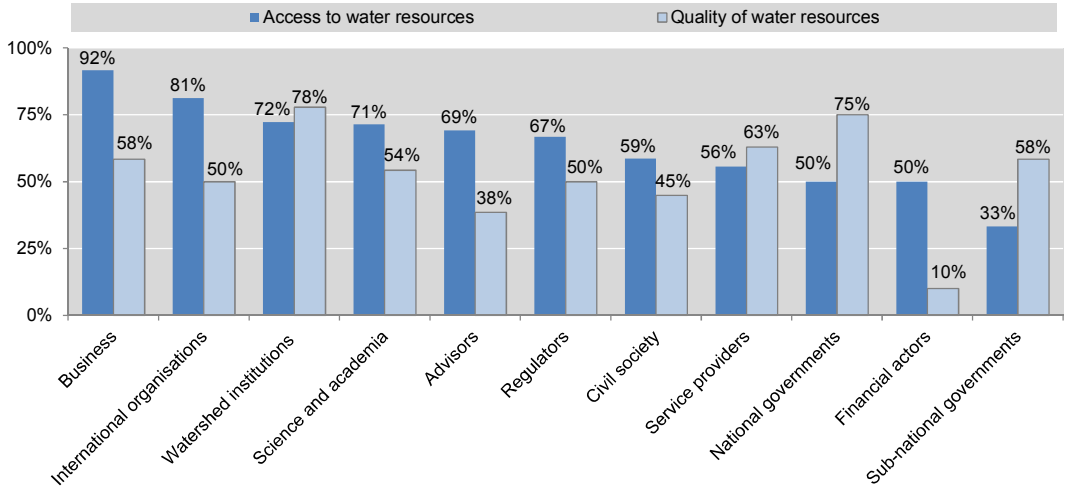
Water resources management

Access to water resources is a high priority for 92% of businesses surveyed. It can be explained by the fact that most companies depend on water for their supply chain (e.g. beverage company); production process (e.g. gas extraction through fracking techniques) or the use of their products by customers (e.g. dissolvable products such as

soap). Also, 81% of international organisations and 72% of watershed institutions surveyed consider it as a key area of interest (Figure 3.6).

Figure 3.6. **Importance of water resources management across stakeholders**

210 respondents considered[1]



Note: The figure considers the areas of interest rated between 1 and 3 on a scale from 1 to 6, by each category of stakeholders. 1. See table in Box 1.11 for more details on the respondents.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

The quality of water resources is a main area of concern for watershed institutions (78% of all surveyed) – whose core mandate is ensuring the sustainability of water bodies – and for national governments (75%). Identifying the interested parties in decision making related to access to, and quality of, water resources is important when dealing with water resources management since it often implies negotiations and consensus-building (Box 3.10). Decisions related to drawing up river basin management plans or designing water allocation regimes can be sensitive as they entail managing trade-offs between different water users' needs. An interest-based stakeholder engagement process can help to align views, reach consensus and also serve as an early-warning tool to anticipate some conflicts.

The key words most often associated with water resources management by the participants surveyed can also shed light on common concerns across stakeholders. The word cloud (Figure 3.7) reveals that beyond a general consideration for good governance, stakeholders refer to co-operation, partnerships, shared understanding and consensus as important terms related to the access and quality of water resources. It resonates with the concept of integrated water resources management (IWRM), which promotes the co-ordinated development and management of water, land and related resources, in an equitable manner.

Box 3.10. **Stakeholder engagement for better water quality in Portugal**

The intensive textile industry in the North Region (*Norte*) of Portugal has greatly contributed to the economic and social development of the area. However, in the Ave valley, multiple untreated discharges led to important degradation of the quality of surface water, which became unfit for public supply, aquatic ecosystems, irrigation or recreational areas.

As a response, in 1975, a working group was formed by the association of municipalities of the Ave valley, the state authority and the licensing authority on water resources with the objective to test a model of integrated water management. It led to the creation in 1985 of a Commission for the Integrated Management of the Ave River Basin which also included academics and representatives of the industrial sector. The commission was in charge of designing multi-phase management plans, which included solutions at the river basin scale: *i)* integrated drainage and treatment measures for domestic and industrial wastewater treatment measures, with the construction of treatment plans; *ii)* the establishment of wastewater dischargers regulation; *iii)* the polluter-pays principle.

The implementation of the management plans was partly financed by the European Cohesion Fund, as well as by the national and municipal authorities. As a result, ten wastewater treatment plants were built and treat about 45 million cubic metres of sewerage water yearly. New leisure areas were recently created along the river, encouraging more tourism and broader economic development (navigation, fishing, etc.).

Source: Based on a case study submitted by Aguas de Noroeste S.A.

Figure 3.7. **Stakeholder engagement keywords in water resources management**

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5, out of a list of 50 suggested in the questionnaire.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

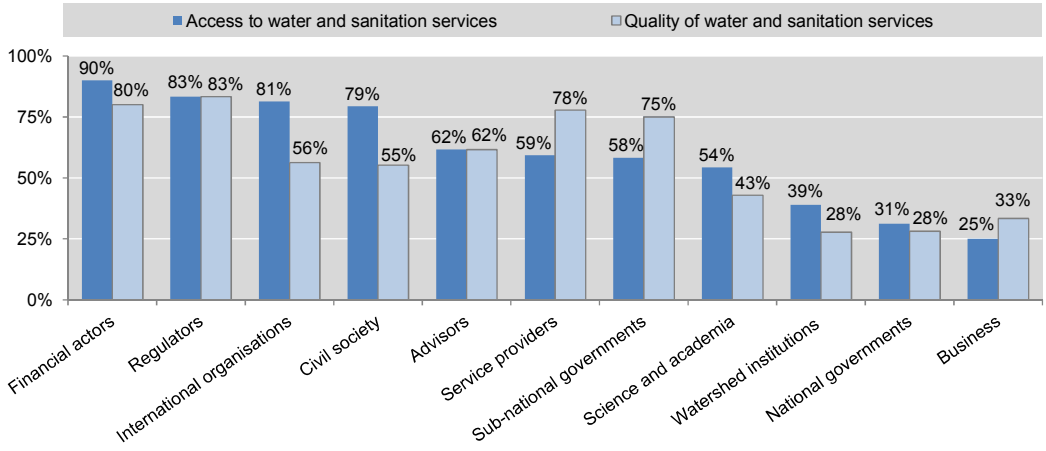
Water supply and sanitation

Access to water and sanitation services is the primary motivation reported by 90% of financial actors and regulators (83%) (Figure 3.8). For regulators, interests in water and sanitation services relate to setting tariffs, quality standards for drinking water and wastewater treatment, defining public service obligations and technical industry standards. Their activities also concern analysing water utilities' investment plans and monitoring service delivery performance. In some cases, they supervise contracts with private actors and handle consumer protection and dispute resolution. Financial actors are also highly interested in water supply and sanitation (80%). Many donors, philanthropic foundations, grants, development programmes and financial aid flows, commit to alleviate poor access to safe water and sanitation. National development agencies also

have initiatives aiming to expand water supply and sanitation to promote better hygiene and fight preventable disease, especially to vulnerable communities. Box 3.11 provides an example of customer involvement in water supply and sanitation to contribute to price setting in Scotland.

Figure 3.8. **Importance of water and sanitation services across stakeholders**

210 respondents considered[1]



Note: The figure considers the areas of interest rated between 1 and 3 on a scale from 1 to 6, by each stakeholder category. 1. See table in Box 1.11 for more details on the respondents.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Box 3.11. **Customer engagement in setting water prices and investment priorities in Scotland**

In Scotland, a Customer Forum was launched in September 2011 in an effort to give water customers a voice in setting water prices and service performance levels with Scottish Water. In particular, the forum was created in the midst of negotiations regarding the 2015-21 business plan of Scottish Water, the publicly owned water and wastewater corporation that serves 5 million inhabitants. Indeed, the service provider was determined to include detailed customer inputs into the price-setting process and investment priorities.

Throughout 2012-13, the Customer Forum met on a regular basis with the support of the service supplier to discuss information from a range of sources and to share their views and priorities across a wide range of expertise. The engagement process culminated in January 2014 when the forum and Scottish Water reached an agreement on a business plan, which was followed by a statement from the Water Industry Commission for Scotland (the regulatory authority in the sector) in support of this plan and all the customer input it contained.

The agreement over Scottish Water marked the completion of the first cycle of engagement for the Customer Forum. An assessment of the overall engagement process was presented in an academic report to guide decision makers on whether it would be beneficial to include customer involvement in performance monitoring processes to ensure that customer demands are met.

The Customer Forum is a temporary body created to contribute to setting water prices and investment priorities. It is currently being assessed by the Scottish government and regulator to decide whether it can stand the test of time or whether it can only work as a time-limited tool introduced to influence particular events or strategies.

Source: Based on a case study provided by the Scottish government.

Key words most often associated with water service provision are "efficiency" and "customers" as well as "capacity", in addition to "good governance". They relate to the

concern of providing high-performing services and ensuring customer satisfaction. "Right" is also a term often selected which resonates with the human right to water and sanitation (Figure 3.9).

Figure 3.9. **Stakeholder engagement keywords in water and sanitation services**

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5 out of a list of 50 suggested in the questionnaire.

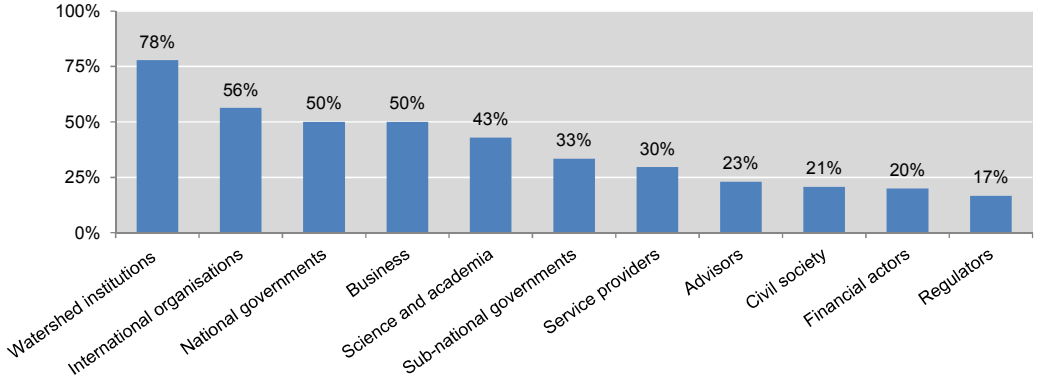
Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Water disaster management and environmental protection

Protection against water-related disasters is a primary concern for 78% of watershed institutions, 56% of international organisations as well as business (50%) and national governments (50%) surveyed (Figure 3.10). In many countries, legislations in place require institutions and companies to draw-up flood management plans and strategies to assess and manage the risks related to water disasters, such as the 2010 Flood and Water Management in the United Kingdom, the Flood Control Act in the United States, or the EU Flood Directive. Water-related disasters, which have occurred with greater frequency and magnitude in recent years, such as the Millennium drought in Australia, damaging floods in the United Kingdom and hurricanes in the United States (e.g. Sandy in 2012, Katrina in 2005) have triggered a massive wake-up call for awareness-raising and early warning systems (Box 3.12).

Figure 3.10. **Importance of protection against water-related disasters across stakeholders**

210 respondents considered[1]



Note: The figure considers the areas of interest rated between 1 and 3 on a scale from 1 to 6, by each category of stakeholders. 1. See table in Box 1.11 for more details on the respondents.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Box 3.12. Community engagement for post-disaster recovery in the United States

Founded as a response to Hurricane Sandy's devastation, Rebuild by Design has been dedicated to creating innovative community- and policy-based solutions to protect American cities that are most vulnerable to increasingly intense weather events and future uncertainties. Initiated by the Presidential Hurricane Sandy Rebuilding Task Force and a partnership between US Housing and Urban Development and the Rockefeller Foundation, Rebuild by Design's aim was to connect the talented researchers and designers with the Sandy-affected area's active businesses, policy makers and local groups to better understand how to redevelop their communities in environmentally and economically healthier ways, and to be better prepared for the next storm.

The Rebuild by Design competition spanned from June 2013 to June 2014 and addressed the structural and environmental vulnerabilities that Hurricane Sandy exposed in communities throughout the region. It also developed solutions to better protect residents from the dangers posed by future climate events. Due to the enormity of this challenge, the Rebuild by Design process was developed to find better ways of implementing designs and informing policy. The competition included a year of thoughtful engagement by the design teams who formed strong local coalitions, tailored to specific geographies, to develop fundable, implementable solutions that will inform new policies on every level. These coalitions, comprised of local and state government officials, government agencies, businesses, community members, advocates, etc. worked intensively with each team to develop their final design proposals but also continued to convene and connect beyond the design competition timeline, developing local resiliency networks that continue today.

Beyond developing strategic partnerships in their communities, design teams were required to host public workshops to ensure they were designing solutions that were embraced by their constituents. Considering the differences in projects, communities and designers, Rebuild by Design partners did not set a specific format for how these workshops should be implemented. Instead, design teams were asked to work with local community partners in order to develop workshops or public programmes that would attract the broadest audience, and allow for the greatest participation.

During the competition, the Urban Institute completed a rigorous evaluation of the entirety of the competition, including the engagement process. The evaluation process consisted of interviewing over 100 individuals involved in the competition year, from the teams to community stakeholders and funders. The evaluation showed that stakeholder coalitions and groups on the ground have taken ownership of the project. The model created a network of hundreds of leaders who are invested in the outcome of these projects and are now working to ensure the government implements the projects with the same level of innovation and community-based design. The 535 organisations throughout the Sandy-affected region, 64 communities, 141 neighbourhoods and cities, and 181 government agencies were involved, have become educated and are now owners and advocates of the implementation.

Rebuild by Design and its partners have demonstrated that by working together in this regional design process, ambitious, realistic, more resilient standards of development and infrastructure can be set and respond to communities' needs within a new, changing world.

Source: Based on a case study submitted by Rebuild by Design.

However, progress is still needed to interest the public in issues such as flood defence. Indeed, only 21% of civil society reported being primarily concerned by water-related disasters overall. While this figure may be higher in cases of coastal communities, it still denotes an "awareness gap" whereby citizens take current levels of water security for granted and tend to be less involved in water policy debates. Positive developments are taking place in the Netherlands for instance, where a national campaign through media and public debates will aim to educate citizens on the need for evacuation policies and investments (Boxes 3.13 and 3.14).

Box 3.13. **Consultation for the development of flood defence infrastructure in the Netherlands**

Following damaging floods in the early 1990s, the Dutch government conducted studies to improve river flood defence and adapt water management to climate change. The programme "Room for the River" included 34 planning projects for flood safety and spatial quality for rivers, to be implemented by regional water authorities, provinces and municipalities with the support of central government. To gain support and acceptability from stakeholders likely to be impacted by the various projects, a wide range of actors (e.g. residents, farmers, etc.) were invited to participate in discussions during the design stage, as part of workshops and "design tables", in order to develop acceptable options and compensations measures. Stakeholders were also involved during the development and realisation stages, which fostered a sense of co-design and co-responsibility among the various actors. As a result, only a small number of legal procedures were started, while overall stakeholders accepted the various projects and measures related to deepening floodplains, digging side channels and lowering dikes to build polders where necessary.

Also in the Netherlands, an "Ambition Agreement" was signed in 2008 between representatives from the Ministry of Infrastructure and the Environment, the Ministry of Agriculture, Nature and Food Safety, the province of South Holland, several municipalities, the regional water authority, an environmental NGO, research centres (Deltares and the Ecoshape Innovation Programme), academia (Delft University of Technology) and consultancy firms. The objective of the agreement was to work on the realisation of the "Sand Motor," a multi-functional and large-scale sand nourishment infrastructure project aiming to protect the area from flood by compensating for sand losses from coastline erosion, to create recreational and natural areas, and to contribute to natural dune formation.

The project was co-designed by the signatories throughout workshops and its location was commonly decided to avoid any negative impact on the stakeholders engaged. Beyond the parties to the agreement, civil society was also consulted and had the possibility to ask questions and formally object through legal procedures, especially during the planning phase. The agreement for the implementation of the Sand Motor had agreed-upon goals and ambitions and led to broad commitment across stakeholders, without any delays and additional expenditures. The Sand Motor was successfully completed in 2011 following close monitoring and resulting in a positive nourishment of adjacent coasts.

Source: Based on case studies by submitted the Dutch Ministry of Infrastructure and Environment and Deltares.

Box 3.14. **Engaging with farmers to manage risks of floods, droughts and water pollution**

In the Netherlands, 34 projects have been carried as part of the "Room for the River" programme. The programme includes the Overdiepse Polder where in 2000 farmers actively took part in decision making related to flood defence. As public authorities (mainly the national agency Rijkswaterstaat, the Dutch water authority of Brabantse Delta, the Noord Brabant province and several municipalities) were envisaging flood management measures, farmers decided to form an association, supported by an official representative, to take part in discussions that would greatly impact their activities. Informal meetings took place between project managers and farmers to discuss arising issues; a working committee comprising representatives from the national government, the province, the regional water authority, municipalities and the farmer association met four times per year and a steering committee with a similar structure that gathered twice a year. By structuring their involvement and agreeing on common expectations, farmers came to an agreement on a proposal, which they submitted to policy makers, suggesting that they build their farms on dwelling mounds so they would be protected from high water levels, or that they voluntarily leave the designated flood area following financial compensation. All propositions were accepted by the authorities, and the project will be completed in 2015/16.

Box 3.14. **Engaging with farmers to manage risks of floods, droughts and water pollution** (*cont.*)

In the same area of the Netherlands (Noord Brabant), the Dutch water authority of Brabantse Delta undertook a pilot project in the Rietkreek (Reed Creek) in 2010 to restore creek watersheds that played a crucial role in supplying freshwater to farmers, as well as holding water in times of drought. It required working hand in hand with local farmers and the Dutch Federation of Agriculture and Horticulture to discuss issues of freshwater conservation in the polder area. Large and small-scale meetings took place early in the process between the regional water authority, farmers as well as the federation, which played an important role of mediator to ensure that the farmers' interests were well-included in the project. Clear objectives for engagement were formulated at the beginning of the process with the intention to jointly decide what activities the farmers would take on to contribute to water conservation activities such as providing lands, installing pumps and contributing to managing water levels. Although communication on the responsibilities of farmers was considered somewhat insufficient during the pilot phase, resulting in some farmers under-estimating their contribution, overall farmers accepted their role and the costs associated with conservation activities as long as they benefited from the project outcomes, i.e. guaranteed water supply during dry periods and security against the risk of high water levels.

In Thailand, the Sai Na Wang community of the Kalasin province is located in one of the driest region in the country. A project was designed to develop adaptation activities to cope with water scarcity affecting farming and to design an alternative and resilient farming system in a context of severe droughts. The project, led by the Chi River Basin Committee, engaged local farmer groups to co-design such an adaptive system. The first completed phase of the project (2011-13) aimed to find strategies and practical ways for farmers to cope with and adapt to dry climate. Study results showed that during this first stage, some farmers, called "climate champions," successfully moved away from mono-crop culture to integrated farming with mixed plants and animals, and built a water pond. The second phase of the project (2014-15) consists of scaling-up these results, exploring ways to mainstream climate agriculture-based adaptation practices into local government policy and planning framework, and establishing and delivering adaptation activities at the local climate adaptation Knowledge Sharing Centre. The centre has the potential to act as a market place for exchanging ideas, sharing experiences and learning between farmers.

In Belgium, the inter-municipal water service provider of Liège (CILE in its French acronym) has been working with farmers on the Crétacé de Hesbaye aquifer, which is crucial for the supply of drinking water to the city of Liège and its surroundings, to prevent groundwater pollution risks (nitrate). The approach stems from the establishment of Nitrawal, a management structure that shares a joint strategy defined by water suppliers and the farming community, in close co-operation with competent authorities of the region of Wallonia and with the support of scientists from the Universities of Liège and Louvain-La-Neuve. Nitrawal agronomists provide on-the-ground assistance and capacity development to farmers to advise on legal requirements and to promote good practices for the sustainable use of fertilisers among farmers. CILE provides farmers with monitoring and evaluation results of nitrogen levels so they can assess their own performance, and also communicates results to public authorities to support prevention programmes and foresee changes in long-term contamination levels of groundwater.

Sources: Based on case studies submitted by the Brabantse Delta river basin authority; the Chi River Basin Committee and the Compagnie Intercommunale Liégeoise des Eaux (CILE)/Société Publique de Gestion de l'Eau/Nitrawal.

Key words such as "awareness", "information" and "co-ordination" stand out pre-eminently in water disaster management (Figure 3.11). These terms echo the generally low perception of water risks, especially among citizens who are not aware of the risks to water security.

Environmental protection was ranked as a high priority by central governments (63%), considering that responses from central governments to the questionnaire came in large majority from ministries and central agencies on environment and sustainable development (see stakeholder profile for national governments in Chapter 8). For 58% of business companies surveyed, environmental protection is a central issue as well (Figure 3.12). They are often under legal obligation to follow environmental laws and should submit environmental impact assessments. Environmental impact assessments

should be carried out upstream in project planning and identify and review the possible impacts (both good and bad) of a company's project on the environment. They can have high financial stakes for business as they can lead to important delays if their results are not satisfactory, or to costly mitigation measures. Box 3.15 provides an example in the United States on the contribution of stakeholder engagement in environmental restoration.

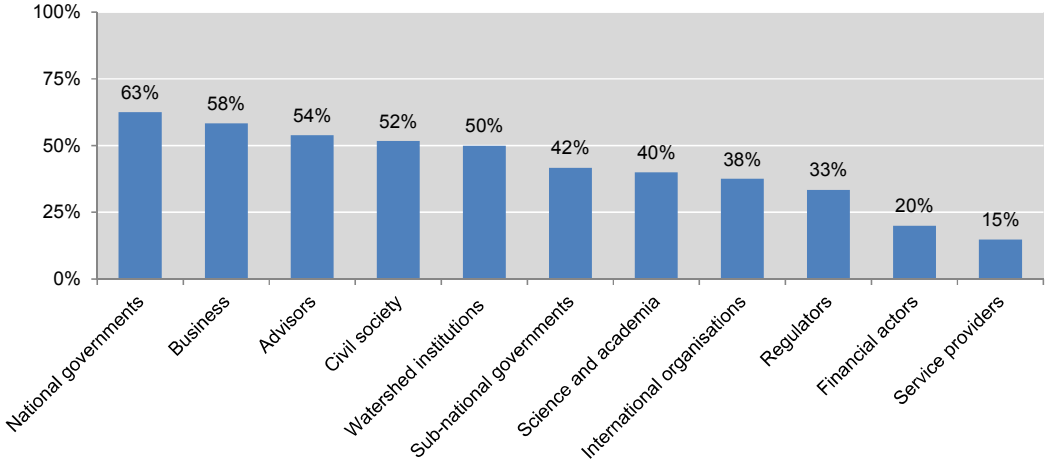
Figure 3.11. **Stakeholder engagement keywords in water-related disasters**

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5, out of a list of 50 suggested in the questionnaire.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Figure 3.12. **Importance of environmental protection across categories of stakeholders**

210 respondents considered[1]



Note: The figure considers the areas of interest rated between 1 and 3 on a scale from 1 to 6, by each category of stakeholders. 1. See table in Box 1.11 for more details on the respondents.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Box 3.15. Stakeholder engagement for environmental restoration and sustainability: Experiences in the United States and Spain

The South Bay Salt Pond Restoration project, located in the southern region of San Francisco, **United States**, was initiated in March 2003 by the California Department of Fish Game, the United States Fish and Wildlife Service and the California State Coastal Conservancy. It is one of the largest wetland restoration projects in the United States, and works toward restoring former industrial salt ponds to nature, while providing flood control and public access. The project provided an opportunity for a variety of actors (below) to engage in decision making.

- local businesses with a commercial interest in the development of the project
- environmental organisations working for the protection and defence of the local environment and habitat
- flood management and public health/public works districts that have a stake with regard to flood protection and water quality issues.

Through formal bodies such as local government groups, regional working groups and annual Stakeholder Forum meetings, a wide range of actors provided feedback on the progress of the restoration project and contributed to building a sense of openness, honesty and accountability with regards to the project benefits and implications.

In **Spain**, the city of Sabadell committed to improve its environmental sustainability and partnered with Samcla, a company specialised in the field of remote irrigation network to optimise the use of water resources and improve water and energy efficiency in public parks. Together, they developed a remote irrigation management system that uses online control software and communications equipment (GPS) to monitor water consumption at any given point in the irrigation network to detect and manage possible leaks in real time.

Since its implementation in 2008, Sabadell's remote irrigation system has been the subject of a technical article and a presentation at a national and international conference (e.g. Smart City Congress) to highlight the positive impact this approach has had on the city's water consumption for public parks, namely up to 56% of water saving while return on investment was estimated to three to four years. The remote system has also contributed to saving time previously allocated to public park maintenance.

Source: Based on a case study submitted by Deltares (Chatzidimopoulou and Seijger, 2014), www.southbayrestoration.org and Samcla, SL.

Managing stakeholders' expectations

Managing stakeholder expectations is a critical part of engagement processes. Because they pursue different aspirations for water governance, and have different interests, stakeholders do not always expect to have the same contribution or attain the same results from the engagement process. Stakeholders might engage in decision making and policy/project implementation thinking they are entitled to a certain degree of influence over the policy or project under development, which does not always match what the promoters of the process have planned. Also, stakeholders might get involved hoping to reach certain outcomes at the close of the engagement process, which do not necessarily meet the promoters' objectives.

Misplaced expectations can lead to frustration, disappointment and demotivation. By providing opportunities for stakeholders to take part in decision making, engagement processes inevitably create expectations, whether they concern the degree of influence stakeholders may have over decisions or the expected outcomes. There is the possibility that gaps appear between what stakeholders perceive they will get from the engagement

process and what decision makers expects to get from stakeholders' involvement. In turn, it may lead to frustration and demotivation, therefore making the process of engaging similar stakeholders in a new process more difficult.

One of the reasons why participation initiatives do not match up to expectations is the mismatch between what is expected (by stakeholders) or advertised (by promoters of stakeholder engagement) and what happens in practice. This gap between "rhetoric" and "practice" stem from failures in the engagement process, limited (individual or organisation) capacity and/or a mismatch between the willingness to engage and actual capacity or motivation to make change happen.

By accurately mapping stakeholders' expectations from the outset, the chances for a more effective engagement process are greater. Making sure that stakeholders' expectations fit promoters' expectations is a fundamental facet of stakeholder engagement. It can be achieved, for instance, by facilitating meetings of stakeholders concerned by a policy or project, where practical, to discuss and come to mutually satisfying agreements of what is to be expected. Taking the needed time to evaluate stakeholders' expectations at the start of the engagement process also helps to adopt appropriate and flexible engagement mechanisms early on.

The importance of connectivity

Understanding how stakeholders interact and the connectivity[4] dynamics is important to assess their level of influence and engagement in water-related decision making and implementation. Highly connected people exert a certain influence over one another. More connections often mean that stakeholders are exposed to more and more diverse information which can spread more quickly. More connected stakeholders are better able to mobilise their resources (financial, human) and bring multiple and diverse perspectives to solve water problems. The level of connection between stakeholders can vary from place to place, and such differences can help understand questions related to the diffusion of information, trust, consensus-building and solidarity. The closer stakeholders are, either through interactions in person (e.g. via regular meetings) or through regular communication channels (e.g. online discussion platform), the more likely information will flow easily among them. Similarly, proximity among actors can foster a sense of community that is favourable to negotiations and the collective solution forming.

Stakeholders' interactions

Stakeholders cannot be viewed in isolation but as embedded in webs of interrelations. They operate in formal and informal settings, with interactions of different nature, degree and frequency. Depending on their responsibilities and interests, stakeholders interact more or less often with one another.

Social network analysis can provide a reading template to understand interactions between water actors. It consists in applying network theory to analyse social networks. It views relationships in terms of nodes, representing each stakeholder within the network, and ties, which represent their interrelation. Social network analysis can help to evaluate the location of stakeholders in a network to find the centrality of each actor (i.e. the degree to which stakeholders are located close to the centre of the social network thus the extent to which they are well-connected). As such, it can provide insight into the various roles and groupings of stakeholders in the water sector: which actors are "leading," which actors are "connecting" and which actors are "isolated." It can also identify clusters of

stakeholders, and who is in them, as well as which actors are in the core of the network and which are on the periphery.

In the United States, sociometric analysis has been used to analyse the critical role that channels of exchange among peers and opinion leaders play in the process of innovation diffusion and knowledge sharing in municipal water industry (Box 3.16). As an innovative and evolving field of management practice, sociometric network analysis has allowed organisations to leverage seemingly invisible networks for the harnessing of knowledge, dissemination of new and forward-thinking ideas, and acceleration of performance impact. In Quebec, the Association of Basin Organisations partnered with academics to develop a manual to train local NGOs working on water how to use social network analysis tools for identifying network of actors relevant to their activities.

Box 3.16. **An example of sociometric network analysis of American water utility professionals**

In *The Water Resources Utility of the Future: A Blueprint for Action*, the US National Association of Clean Water Agencies, the Water Environment Research Foundation and the Water Environment Federation make the case for a paradigm shift in the American water industry. Utility professionals are acknowledged to be experiencing a transformative change in how they view themselves – from the manager of a technical engineering entity to the manager of a progressive water resources system – fully integrating the delivery of economic, environmental and social benefits to a local, regional and national audience.

In this context, researchers and academics from the University of Pennsylvania carried out primary sociometric research focusing on water industry executives from the 200 largest cities in the United States with the objective to determine the characteristics of peer communication networks, peer leadership and knowledge-sharing pathways of the largest American public water systems. The research also examined sources of acquisition of information and knowledge available to water managers.

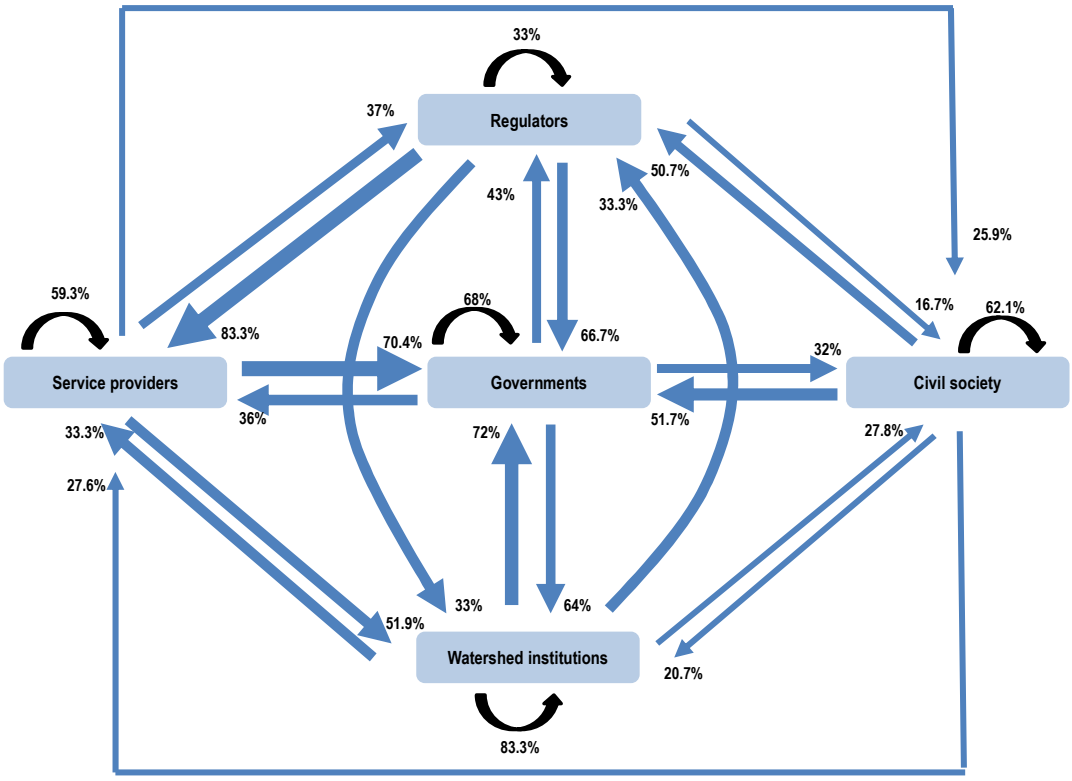
Research results indicate that the most valued sources of information and knowledge across all water professionals surveyed are on-the-job experience and peer interactions. The preference for peer-to-peer learning suggests the advisability of strengthening industry-wide and organisation-wide opportunities for peer information exchange.

The conclusion of the sociometric analysis recommends a focus on building, analysing and leveraging organisational network data in order to drive change, diffuse innovation and respond to current challenges faced by the American water industry. The underlying hypothesis for this recommendation is the notion that a more connected water management community will be better able to meet the shared challenges the industry must address.

Source: Based on a case study submitted by the University of Pennsylvania and H2OGo, LLC.

The examination of interactions among stakeholders helps to identify collaboration pathways and communication preferences in the water sector. Results from the survey show important variations in how frequently categories of stakeholders interact with one another in the water sector (Figure 3.13). For example, government officials are most frequently in contact with watershed institutions in policy implementation, strategic planning and financing. Regulators primarily interact with service providers, for instance, to ensure compliance with service standards, as well as with governments, such as for the development of new laws and legal requirements.

Figure 3.13. **Most frequent interactions across stakeholders in the water sector**



Note: The figure shows the interactions across governments (national, regional, local), service providers, watershed institutions, regulators and civil society considered as "very frequent." The blue arrows represent interactions between the categories of stakeholders and the black arrows represent interactions within each category of stakeholders.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Interactions among stakeholders also reveal that they tend to take place in silos, relying essentially on peer-to-peer exchanges. Indeed, results from the survey interestingly show that stakeholders in the water sector mostly interact with actors belonging to their own category, as it is the case for governments, watershed institutions, civil society, as well as business and academics. They often prefer collaborating with their own peers to share information (Box 3.17) before reaching out to other types of actors.

Interaction gaps

There are some interaction gaps among certain categories of stakeholders. While the analysis of interrelations between actors reveals the most frequent interactions, it also sheds light on the limited, or absence of, contact among certain categories of stakeholders. For instance, a very low proportion (16.7%) of regulators surveyed interacts frequently with civil society on water-related issues. Similarly, 20.7% of civil society organisations surveyed are in frequent contact with watershed institutions.

Some categories of stakeholders are considered more difficult with respect to interaction. Survey respondents pointed out that certain actors are harder to collaborate with or engage. Agricultural actors are considered as pursing economic interests

(i.e. profitability of the activities) rather than protecting water resources, which often puts them at odds with other stakeholders such as environmental NGOs. Civil society can also be challenging to engage as a broad and not always structured audience which can lack awareness and knowledge on water-related issues.

Box 3.17. **Information sharing on water among policy makers**

In Asia, water resources quality and quantity have deteriorated due to the increasing demand on water and polluted water resources caused by inadequate management. Rooted in the belief that information sharing among policy makers dealing with similar challenges is vital to learn from similar experiences and scale-up good practices, the Water Environmental Partnership in Asia (WEPA) was launched in 2004 as a commitment from the government of Japan (Ministry of Environment) following the Third World Water Forum (2003, Kyoto).

The WEPA is managed by the Institute for Global Environmental Strategies and aims to facilitate peer-to-peer information sharing among policy makers dealing with water environmental management in Asian countries. The three-step programme: *i)* encourages knowledge sharing to strengthen water environmental governance; *ii)* fosters water solution information platforms through workshops and dialogues; *iii)* creates policy makers' networks for the improvement of water environmental governance. The WEPA contributes to facilitate mutual understanding on water issues between 13 member countries, each appointing a focal point who discusses solutions for environmental management challenges. The current members are Cambodia, the People's Republic of China, Indonesia, Japan, Korea, Lao People's Democratic Republic, Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand and Viet Nam.

In 2013, evaluation surveys showed that WEPA workshops and meetings were considered as beneficial by participants. They also suggested the importance of maintaining an up-to-date database on existing water regulation.

Source: Based on a case study submitted by the Institute for Global Environmental Strategies, www.wepa-db.net.

Parliamentarians are also considered to be little interested in water-related issues, or lacking some knowledge and specialisation. To improve their understanding of the sector, the World Water Council is currently working on the creation of a Parliamentarians Helpdesk to provide specialised technical services on water legislation and budget allocation; enable knowledge sharing between parliamentarians from different countries, and with water legislation experts; and develop a community of practices around water legislation.[5] The Helpdesk builds directly on the parliamentarian process of the World Water Forum since 2009 and responds to a demand for greater awareness of members of parliament on water issues and related environmental and economic challenges. The 6th WWF (2012) provided an opportunity to share views and to discuss with peers, scientists and experts from across the world and to help bridge the gaps between these actors. Further efforts are needed to engage parliamentarians at an early stage and over the long run. Considering parliamentarians' time-limited mandates, this implies building strong relationships and setting appropriate mechanisms.

There is a communication gap between policy makers and scientists on water-related issues. Among the categories of stakeholders considered difficult to interact with, survey respondents identified researchers and academics, mentioning differences in vocabulary, level of technicality and expectations. While there is little debate that project management and policy making are most effective when informed by science, the water sector – similar to other policy fields – still suffers from a divide between science producers and science users, such as project managers and decision makers. Potential remedies for bridging this gap exist but need to be put into action. For instance, science knowledge

should be customised and targeted to the preferences of user audiences to improve uptake and use in taking decisions. Also, mechanisms should be developed to sustain interactions between the two groups to ensure both a push of science knowledge and opportunities for policies to inform the research agenda.

Co-ordinators can help to facilitate collaboration between different stakeholders, and as such contribute to bridging interaction gaps. Some institutions in the water sector play a "co-ordinator" role in bringing different types of actors together to deepen mutual understanding. Umbrella organisations such as networks of river basin organisations (RBOs), federations of water utilities, as well as national water agencies or councils (Brazil, France, Japan, Mexico, etc.) play an important role in fostering interactions and information sharing between various stakeholders, (local authorities, government agencies, irrigation users, domestic users, industrial users, power producers, watershed institutions, etc.).

Mapping networks of communication and co-operation in the water sector can help stakeholders to understand the frameworks within which engagement initiatives are to be accomplished. Examining the state of interactions among actors can reveal specific network connectivity and permits a realistic analysis of collaboration pathways and the existing "climate" of stakeholder engagement for a given water policy or project process. Understanding who frequently communicates with whom can also help to identify optimal ways of disseminating knowledge, information and innovation, and foster the engagement of stakeholders across levels of governments and related sectors.

Getting the scale right

Water is a field particularly sensitive to issues of scale. Water logics and hydrological boundaries cut across administrative frontiers and perimeters. Water governance and water resources management takes place at various spatial scales, both in their ecological and political dimensions. First, the hydrological system with its different levels from small catchments to large river basins plays a prominent role, from the individual water body to the global climate. Second, competencies of political interventions have shifted both towards the national and supranational levels in the form of international agreements or the growing influence of the European Union; and towards the regional and local levels, in the form of decentralisation of water decision making and implementation involving a diversity of local non-state actors.

The multi-level nature of water governance

Water governance is inextricably linked to territorial considerations and scale issues. Decentralisation of water policies in the past decades has resulted in a dynamic relationship between actors at all levels of government. Complex and resource-intensive competences were allocated to lower levels of government while sub-national actors do not always have the authority over the financial allocation required to meet these needs. At the same time, central governments may be constrained when promoting and assessing water resources and services strategies if they do not obtain information from sub-national governments. This kind of mutual dependence requires ways to facilitate multi-level relationships.

Effective co-ordination and implementation of water policies is compromised by multi-level governance gaps. The OECD Multi-level Governance Framework "Mind the Gaps – Bridge the Gaps" (OECD, 2011) offers a framework to diagnose vertical and horizontal co-ordination bottlenecks between levels of government, across policy areas

and between local and regional actors at the sub-national level (Figure 3.14). It provides guidance for decision makers to diagnose and bridge gaps in a systemic way as they are strongly interrelated and may reinforce each other.

Figure 3.14. **The OECD Multi-Level Governance Framework: Mind the Gaps – Bridge the Gaps**

Source: OECD (2011), *Water Governance in OECD Countries: A Multi-Level Approach*, OECD Studies on Water, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264119284-en.

Defining the appropriate scale for stakeholder engagement

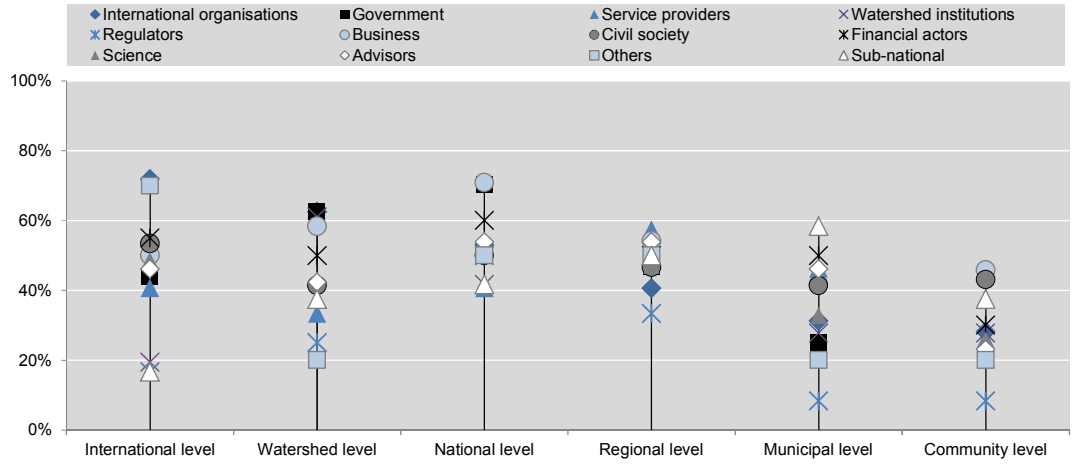
Assessing the effectiveness of stakeholder engagement raises the question of scale in decision making. Engagement processes range from local watershed groups negotiating about allocation practices to national committees debating priorities, or international meetings seeking consensus about the management of transboundary basins between sovereign states. The issue of scale also relates to questions of democratic legitimacy. The higher the level of decision making is, the lower the possibilities for comprehensive participation of all the relevant constituencies are and thus the more likely conflicts may arise (Moss and Newig, 2010). Inversely, the lower the level of government, the more difficult it is to effectively address water-related problems, in particular those that are not strictly local, without having the big picture. The literature refers to this scale trade-offs as a democratic dilemma between "inclusive participation" and "system effectiveness" (Dahl, 1994).

Different stakeholders intervene at different territorial scales depending on their activities and mandates. For instance, as their scope entails, international organisations are mostly active at the global level, central governments primarily carry out their activities at the national level. Regional and municipal scales are the primary fields of action of service providers, and the basin unit is the primary level of intervention of watershed institutions (Figure 3.15).

Stakeholder engagement can provide platforms to address the mismatch between administrative and hydrological scales. Water-related projects and policies can be driven by local livelihoods tied to local ecosystems, or by energy producers making long-term

production and investment choices at the national level. Thus, some stakeholders promote hydrological scales that correspond to manageable units in which they operate (e.g. RBOs). Others promote conventional administrative levels, arguing that this is where capacity, accountability and legitimacy already exist (Dore and Lebel, 2010). An example can be found in the interpretation of sovereign rights to develop national waters that collides with shared responsibilities across transboundary river basins (Box 3.18).

Figure 3.15. **Most frequent territorial scale of intervention**



Note: The figure considers the average rate of responses as "yes" to the question "At which territorial scale does your organisation primarily intervene?"

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Box 3.18. **Transboundary participatory management in the Niger, Senegal and Congo rivers**

The **Niger** Basin Authority (NBA) was established in 1964 by the nine states sharing the Niger river basin: Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Guinea, Mali, Niger and Nigeria. In 2005, the authority initiated a dialogue with regional organisations and associations from riparian states to discuss the participation of civil society in developing a shared vision for the management of the basin. All parties worked to identify and involve non-state stakeholders such as farmers and irrigators as well as unorganised water users in decision making. As a result, the Niger Basin Authority adopted in 2008 an Action Plan for Sustainable Development and a Water Charter to better manage the river.

The Organisation for the Development of the **Senegal** River was created in 1972 and gathers Guinea, Mali, Mauritania and Senegal around common goals, including food self-sufficiency for the basin people, economic development of the member countries and preservation of the ecosystems balance in the region. The Master Plan for Water Development and Management of the Senegal River was drafted in a participatory manner, through knowledge sharing and meetings with key stakeholders, including illiterate people using illustrated informative guides. It led to the adoption of a Water Charter.

The International Commission of the **Congo** – Ubangi – Sangha Basin was established in 1999 across the states of Cameroon, Central African Republic, Republic of the Congo, the Democratic Republic of Congo and Gabon. It has responsibilities in inland navigation and integrated water resources management. In 2013, the commission started some activities to raise awareness among partners and discuss the involvement of non-state stakeholders in future activities and mobilise the support needed to encourage stakeholder participation in the development of the river master plan.

Source: Based on a case study submitted by the International Network of Basin Organisations.

Stakeholder engagement at the relevant territorial level has the potential to address the issue of scale more efficiently. Stakeholder views and interests are shaped by their roles in organisations at various levels, from sub-basin to international. Decisions taken at one level can positively or negatively affect decisions at another level (e.g. subsidies to farmers for irrigation at national level can be detrimental to groundwater bodies at the aquifer level). Stakeholder engagement can help build consensus on how to reconcile different views and manage associated trade-offs to trigger policy and behavioural change and reconcile decisions within and across spatial scales (Box 3.19).

Stakeholder engagement that is sensitive to multi-level interests is a critical way for coping with the multi-scalar complexity of water decision making and policy/project implementation. It can ensure that multi-level perspectives are heard and opposing views are examined, but this implies a clear authority taking the decision and committing to action. The emergence of multi-level approaches to decision making can create new opportunities for actors, particularly at the local level, to become actively involved in the decision-making processes and can contribute to reinforcing local power and local opportunities (Majoor and Salet, 2008). Box 3.20 provides an example of multi-level stakeholder engagement in Canada.

Box 3.19. **Stakeholder engagement at the watershed level**

Tecocomulco lagoon is considered a natural relic of the ancient lake ecosystem which prevailed in the Mexico Valley river basin and contributed to regulating water levels and recharging aquifers in the basin. However, it is facing storage capacity challenges and high levels of sedimentation related to different production systems and accelerated erosion in the basin. The River Basin Commission of the Tecocomulco Lagoon was created in 2005 as an auxiliary structure of the Mexico Valley River Basin Council with the objective to reverse these serious risks of deterioration. It is composed of representatives from different levels of government (federal, state, municipal), water users and civil society organisations. It has responsibilities in land and water conservation, as well as sanitation and training activities to foster integrated water resources management (IWRM) and water conflict resolution in the lagoon. The commission builds on constructive dialogues across sectors that had been historically antagonistic. Regular and dynamic meetings as well as monitoring agreements since its creation have positioned the commission as an instance of trusted social participation. It is taken as a reference by consulting regional governments for the implementation of their development programmes at basin level.

In England, since 2011, the UK government, the Environment Agency and a variety of other organisations have been experimenting with the development of a new catchment-based approach. It aims to better engage river catchment stakeholders; establish common ownership of problems and their solutions; build partnerships that balance environmental, economic and social demands; and align funding and actions within river catchments to bring about long-term improvements. The purpose of the new approach three-fold: *i)* generate more co-ordinated "on-ground" local action; *ii)* generate more evidence for buy-in to problems; *iii)* look for innovative, more cost-effective solutions. Following a 12-month pilot phase in 2012, a formal independent evaluation of the 25 catchment scale trials across England was carried out to assess how catchment-level planning and collaboration can better inform planning and delivery of the EU Water Framework Directive. The UK government formerly announced the launch of the catchment-based approach in June 2013.

Since then, the Environment Agency has worked with public, private and not-for-profit sectors to set up over 100 collaborative "catchment partnerships" in the 87 management catchments across England (plus 6 cross-border catchments with Scotland and Wales). The Environment Agency now employs over 60 dedicated "catchment co-ordinators" to support these independently-led groups and enhance engagement and partnerships for effective catchment governance across England. A *Guide for Catchment Management* has also been developed as a "how to" handbook to translate lessons learnt from the pilot phase into useful guidance and reference materials. A national support group has also been established to help transition and mainstream the approach in England.

Box 3.19. **Stakeholder engagement at the watershed level** (*cont.*)

In South Africa, the Inkomati Catchment Management Agency was established in 2006 as part of the National Water Act to implement operational and participative IWRM. Between January and March 2010, the Catchment Management Agency engaged in extensive stakeholder participation (including business, farmers, mining companies, municipalities, civil society, etc.), on a very limited budget (ZAR 500 000), to draft a broadly accepted catchment management strategy. The strategy was then submitted, with full stakeholder acceptance, to the Department of Water Affairs for the minister's approval. Following this approval, implementation started in 2011 at the catchment scale, mostly through the work of five sub-catchment management fora which are currently the main platforms for stakeholder engagement. Each falls under the mandate of a specific community officer who is also responsible for public awareness (e.g. in schools and community groups). There are also river operations committees that meet regularly to decide on the management and allocation of water flows. Finally, an annual report by the governing board of the Catchment Management Authority is sent to all stakeholders involved to inform on the progress achieved towards IWRM in the river basin.

Sources: Based on case studies submitted by the National Water Commission of Mexico; the UK Environment Agency and UK Water; and the University of Witwatesrand.

Box 3.20. **Multi-level stakeholder engagement in the Great Lakes region**

The deteriorating ecosystems in the Great Lakes, under the pressure of growing population, changing climate and new invasive species, have spurred a call from concerned scientists and citizens to engage in decision-making processes related to the management of water resources in the area. In response, the Ontario's Great Lakes Strategy was established as a commitment from many provincial ministries to support the long-term protection of the lakes. This strategy has included an engagement process across the various stakeholders in the region at different levels.

At the Great Lakes level, the engagement has involved longer term, moderately paced processes. The Great Lakes encompass a large geographic scale with many different environmental pressures that need to be addressed, and includes a wide diversity of stakeholders (i.e. rural and large urban municipalities; non-governmental organisations; industrial and commercial sectors) as well as First Nations and Métis communities that are partners in protecting the lakes.

At the local watershed level of Lake Simcoe, within the Great Lakes basin, stakeholders actively participated in an intense engagement process to develop the Lake Simcoe Protection Act and the Lake Simcoe Protection Plan, and remain actively involved in implementing them.

This Great Lakes basin multi-level engagement process has proven to be an appropriate mechanism to set policy direction and inform the development of a long-term strategy for water protection on a large geographic scale. The more intense process demonstrated in Lake Simcoe shows how a deeper level of engagement on focused issues enables decision makers to further develop protection policies and programmes, as well as implementation partnerships within a watershed. Engagement processes with First Nation and Métis communities and stakeholders have developed strong relationships and partnerships for protecting watersheds over the longer term.

Source: Based on a case study submitted by the government of Ontario.

The emergence of transcalarity

An increasing number of stakeholders have engaged in decision making and in policy implementation across levels of governments. This concerns the practice of transcalarity, which has largely spread in many international social and political movements. Transcalarity refers to a shift from a scalar system made up of different layers, nested together into one another, to a transcalar system that connects different layers of different scalar systems, regardless of their internal hierarchy (Garibaldo and Telljohann, 2010). It relates to whether it is possible for local-level stakeholders in the water sector to benefit

from transcalarity to promote their views and strategies, for example at the supra-national level, by "skipping" the usual intermediate levels of their own scalar system (i.e. national level).

An important characteristic of multiscalar approaches is that local stakeholders are not obliged to move through a set of scalar levels, one within the other, from local to international, but they can directly access other similar local stakeholders across borders. For instance, associations and federations in the water sector (of service providers, irrigators, RBOs, etc.) are made up of local actors and aim to influence international water policy making. As such, they play a role in by-passing intermediate levels of governance and government. Similarly, grassroots movements mostly act at the local level, but can have the capacity to reach out to international institutions. For instance, European Citizens' Initiatives (ECI), available since April 2012, are new tools for participatory democracy in Europe that foster transcalar engagement approaches. Citizens can put an issue on the European political agenda by means of an ECI, which involves collecting 1 million signatures from at least 7 different EU member countries. The first successful ECI, Right2Water, collected 1.68 million signatures, passing minimum thresholds in 13 member countries – far above the legally required minimum. Altogether, more than 5 million EU citizens have now signed up to more than 20 different initiatives.

Conclusion

Stakeholder mapping is a stepping stone to understand how the water sector is organised in terms of functions and responsibilities and appropriately determine who should be engaged in decision making and implementation. Identifying stakeholders, the role they play and the influence they can have over water policies and projects processes is important to see beyond the traditional and, at times superficial, picture. An effective stakeholder mapping should help decision makers to investigate how roles are distributed, who are the key stakeholder categories, which one is pushing for what, and which ones are not being "heard"? In turn, it can support reflections on new ways to broaden the audience of engagement processes. In addition, it should not be assumed that all actors within one category are homogenous in their perceptions. Such perceptions depend on many factors – which need to be explored through the analysis – and each situation should be considered afresh rather than jumping to conclusions about the stand that different stakeholders are likely to take.

Stakeholder engagement processes tend to be issue-centred, and so are related stakeholder mappings. Indeed, in many cases, stakeholders are involved on specific issues in which they have a stake, on which they have specific knowledge or to which they may contribute funding. Therefore, as stakeholders' interests and expectations may change from one situation to another, it is important to keep in mind that stakeholder mappings provide only a static snapshot at a particular time and need to be considered in a dynamic way.

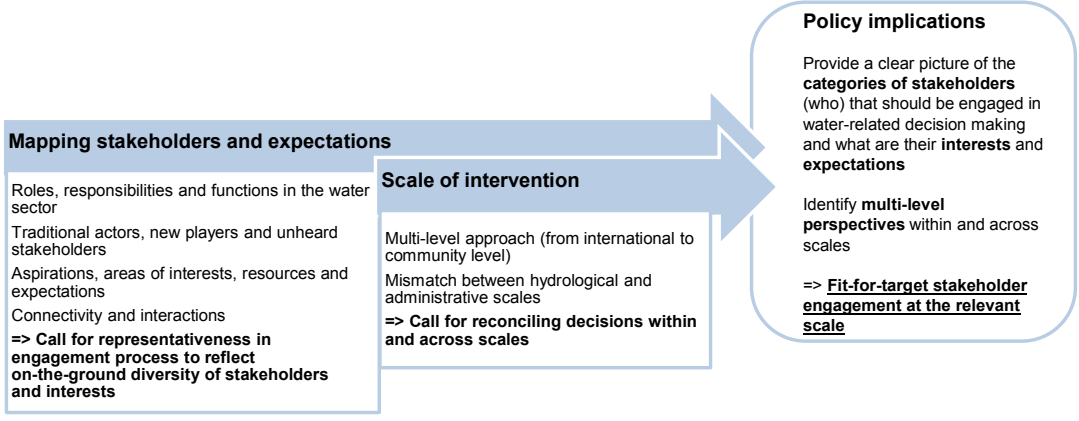
A deeper understanding of stakeholders' aspirations in water governance can help manage their expectations of engagement processes. Identifying how different categories of stakeholders are contributing to improving water governance can shed light on why they should or wish to be involved in decision making and implementation, and with what level of expectations. In turn, it supports decision makers in managing stakeholders' expectations to avoid misunderstanding on the extent of influence stakeholders have over the decision-making process; and limit disappointment.

Analysing who interacts with whom can also help to draw a clear picture of how different stakeholders are connected. Decision makers should analyse the networks within which actors are embedded to understand their interrelations, assess the degree of cohesion among them, as well as determine who are the "integrators" and the "dividers," and who remains secluded. In turn, it provides some indication as to their degree of influence on one another. Stakeholder mapping is therefore a strategic tool for decision makers to assess the full range of actors at play and to design fit-for-target stakeholder engagement processes.

Finally, beyond the who does what, engagement processes should also take into account at which level stakeholders intervene. For stakeholder engagement to truly reflect the inherent multi-level nature of water management, it is critical for decision makers to assess at which scale stakeholders are carrying out their roles and responsibilities and diagnose key governance gaps hindering their effective co-ordination. It turn, it should then guide the design of inclusive approaches that involve actors within and across different scales, from international and national to sub-basin and community, according to the issue at hand. Transcalar approaches also need to be considered when identifying the "right" scale for stakeholder engagement as they can challenge the usual conception of levels of governance and governments and shed light on stakeholders that are active alternatively at different scales. As a result, it can contribute to making stakeholder engagement more inclusive and implemented at the relevant scale so it effectively contributes to formulating sustainable water policies and projects.

Mapping stakeholders, aspirations, interactions and scales is a critical diagnosis tool for policy makers to identify potential overlaps, duplications, grey areas or multi-level governance gaps, and thus a stepping stone to set the foundations for engagement processes. But mappings are specific to given places and times, across which targets change and adapt. Such exercises should therefore be iterative, transparent, regularly assessed and adjusted each time targets change to allow actors to leave, and new ones to join, including from outside the water sector. Therefore, formulating rules on how to ascertain that engagement processes remain "fit-for-target" is important to guide decision making and implementation (Figure 3.16).

Figure 3.16. **Towards fit-for-target engagement at the relevant scale**



Source: OECD elaboration.

Notes

1. See: https://netmap.wordpress.com/about.
2. Place-based approaches are those that take the spatial or territorial dimensions into account" (OECD, 2009a, 2009b).
3. For example, Goldman Sachs invests in smart water solutions, storm water management, as well as treatment systems for small communities. Similarly, the Swiss private bank Pictet Asset Management has financed activities in water reuse and recycling, smart water grids, storm water management and decentralised integrated systems such as rainwater harvesting.
4. Connectivity refers to the number and intensity of interactions taking place among stakeholders. It encompasses all dynamic, changing sequence of social actions and exchanges taking place between individuals or groups and how they influence each of their actions and reactions.
5. The World Water Council Water Legislation Parliamentarian Support Survey is available at: https://docs.google.com/forms/d/1f9FWszmBEWEeKpCnoivJeFRuKAK7DVw5Za9dL3cKP6w/viewform. The Parliamentarian Helpdesk is to be launched at the 7th World Water Forum (April 2015, Korea).

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Chapter 4

Obstacles to engaging stakeholders in the water sector

The chapter identifies the main obstacles faced by decision-makers to engaging stakeholders in the water sector. It examines the extent to which the lack of political will, institutional fragmentation and weak legal frameworks are hindering the integration of stakeholder engagement in water policies and practices. It also identifies barriers to the effective implementation of engagement processes on the ground, including the lack of clarity on how to use stakeholders' inputs, and the lack of funding. The chapter suggests ways to overcome these obstacles and build anticipatory and resilient stakeholder engagement processes.

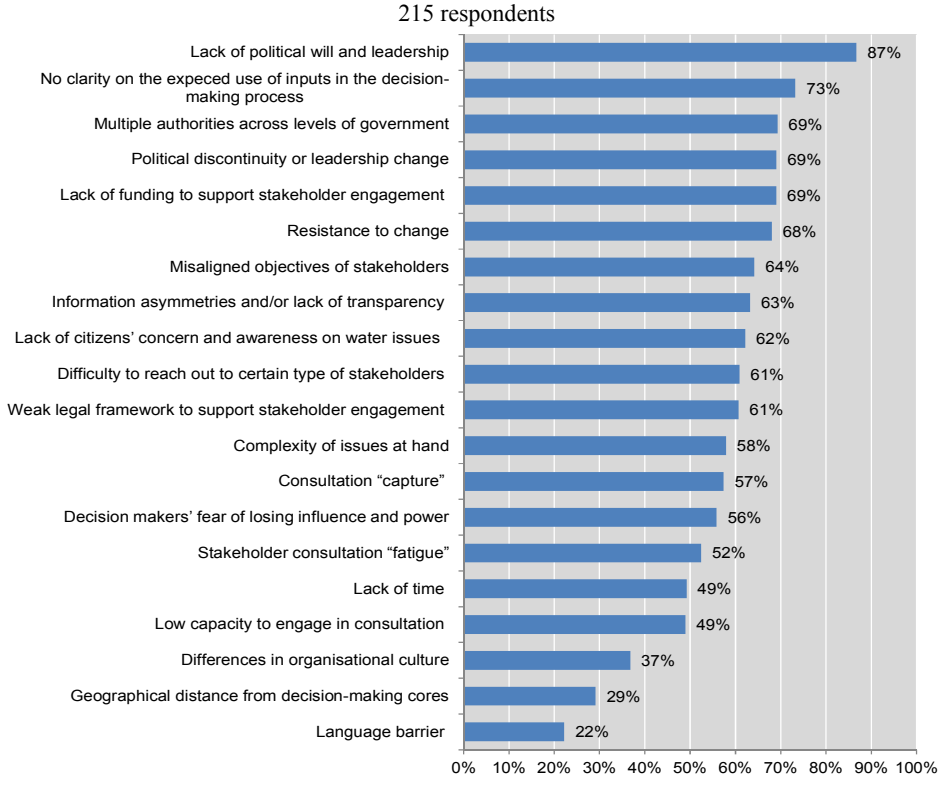
Introduction

Engagement processes vary across places and stakeholders but common barriers can be identified. Depending on the issue at hand, the stakeholders involved and the level of intervention, obstacles to inclusive decision making and implementation can take several forms. Identifying these barriers and categories of stakeholders facing similar challenges can help to mediate their effect and facilitate peer learning when developing solutions to overcome them. This chapter provides insights and examples of such obstacles to pave the way for more in-depth analysis of mechanisms that can address them (Chapter 5).

Highlights from the survey

Mainly, the OECD Survey on Stakeholder Engagement for Effective Water Governance (see Box 1.11 in Chapter 1) identified two categories of obstacles. The first category includes those hindering the integration of the concept and approaches of stakeholder engagement into water policies and practices. They relate to political leaders' resistance to relinquish power over other stakeholders, as well as the absence of legal frameworks to embed stakeholder engagement in institutional practices. These obstacles restrict adopting principles of inclusive decision making. The second category of obstacles includes bottlenecks that impede the effective implementation of the engagement processes. They concern the lack of clarity on the use of stakeholders' inputs, the lack of funding, misaligned objectives as well as the lack of transparency (Figure 4.1).

Figure 4.1. **Major obstacles to stakeholder engagement in the water sector**



Note: The graph considers the average response from the perspective of both targets and promoters for obstacles diagnosed as "critical" and "important", on a range from "critical" to "important", "somewhat important" and "not important", to the question "which obstacles does your organisation face when taking part in or promoting stakeholder engagement?".

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Obstacles to the integration of stakeholder engagement in water policies and practices

The lack of political will and the shift of power

For nearly 90% of the participants surveyed, the lack of political will and leadership is the primary barrier to effective stakeholder engagement in the water sector. Political will broadly refers to the sustained commitment of politicians and administrators to invest the necessary resources to achieve specific objectives and their willingness to make and implement policy despite opposition. The determination of political actors to adopt and enforce engagement principles is an important factor to introduce the concept of stakeholder engagement in water-related decision making and implementation. Leaders can help create incentives to persuade other actors, political or not, to pursue stakeholder engagement, even if they do not always share the same willingness. However, elected officials may perceive that they have been mandated to do what they feel is appropriate, as they were elected by the people, and thus there might not be a need for consultation with other actors.

Stakeholder engagement implies a shift in the balance of power. Rich engagement processes mean that more political power is transferred to stakeholders and imply some trade-offs for decision makers who may be reluctant to relinquish power. Engaging stakeholders in water decision-making and implementation processes empowers them. It implies providing an opportunity for them to influence the outcomes, thus transferring some power away from decision makers and placing it into the hands of actors that may not share the same intentions, perspectives and interests. The greater the level of engagement (i.e. representation, partnerships, co-decision), the more the power balance is equalised. Mutual relationship and power sharing between promoter and targets is an important factor for a successful engagement process. The challenge is therefore to strike a balance between maintaining government's leadership in water policy design and implementation while releasing some power to other stakeholders to allow them to contribute to the process as well. Therefore, the correlation between political will and stakeholder engagement is a two-way process whereby engagement processes can help to promote and strengthen policy makers' commitment to set up more inclusive governance frameworks in the water sector.

In technical sectors such as water, it can be assumed that decision making and policy/project implementation are best left to experts who understand technical details and political realities. The model of the expert-led democracy advocates "efficient" democracies which work by limiting the involvement of other parties, such as the public, to the act of voting, enabling experts to get on with the work of government (Involve, 2005). Today's societies are more educated and less deferential, and therefore "non-professionals" can be viewed as experts on specific water issues, especially at the local level where they are best placed to understand the specific context and needs. Expertise remains essential but the role of "professionals" and "experts" is changing, and a much wider range of stakeholders is called upon to provide expertise on water issues. This implies managing different forms of knowledge (e.g. on-the-ground experience, formal education) while making sure they all remain rigorous and useful.

Although political will can be a key force in driving greater stakeholder engagement in the water sector, it is not the sole factor for change. When national and sub-national political wills are directed towards the same goal, they can be mutually reinforcing. However, when multiple local political wills are moving against the outcomes promoted

at the national level, they can be neutralising or even undermine it. Careful consideration of political will at the national and local level is needed to secure the necessary support for instilling the concept of stakeholder engagement in water policy and projects. Therefore, ensuring that policy makers at different levels are well-involved early on in water policy or projects is key to ensuring that they support the process and the implementation of its outcomes.

Institutional fragmentation

Institutional fragmentation across levels of government is also a challenge to implementing the concept of stakeholder engagement. It was identified as a main obstacle by 69% of respondents surveyed. It creates fissures in water governance with sub-areas administered independently or responsibilities scattered across a multitude of actors. Ministries tend to act within their area of expertise without co-ordinating water policy initiatives, potentially without adequate consultation on the needs of other related sectors, or sub-national levels. The impact of institutional fragmentation is therefore often played out at the sub-national level, with overlapping responsibility and little accountability. Mapping stakeholders under these conditions can be complicated and result in more complexities and potential delay in policy or project calendars.

Institutional fragmentation precludes the efficiencies and synergies that can be obtained through co-operation across authorities, water-related sectors and scales (OECD, 2013). It can lead to policy outcomes focused on a specific issue or territorial area with little spill-over effect than can benefit the broader water sector. It also makes the identification of the appropriate interlocutor more difficult and can lead to incoherence, for instance, between sub-national policy needs and national initiatives (OECD, 2011).

Weak legal frameworks

The absence of a sound legal framework hampers stakeholder engagement in water policy and management. Weak legal frameworks were ranked 1st in terms of obstacles to stakeholder engagement by regulators surveyed, and 11th by stakeholders on average. The lack of sound regulation for stakeholder engagement was often pointed out as a brake to regulatory agencies' capacity to apply standards for inclusive decision making and to assess the compliance of decision making with these requirements.

As noted in Chapter 1, stakeholder engagement in the water sector has been carried out largely on an incidental basis, rather than as an obligation mandated by law. However, current efforts show some progress towards more formalised and institutionalised forms of inclusive decision making. This is likely to be accompanied by a change in rules and legislation to introduce new requirements for engaging stakeholders in decision making related to water resources management (e.g. in river basin organisations, RBOs); water service provision (e.g. to define strategic orientations, consult customers on tariff setting, etc.); and water-related disasters (e.g. consultation for drawing up flood management plans). It would facilitate the development of a common set of minimum standards and procedures in watershed institutions and water utilities, and help to better monitor compliance and how institutions are performing in this regard.

Obstacles hindering the effective implementation of engagement processes

Lack of clarity on the use of engagement processes' input

The lack of clarity on the use of stakeholders' inputs is the second obstacle hindering effective engagement (73%). It can be counteractive to the engagement process and result

in mistrust on the part of involved stakeholders. This is generally the case when stakeholders lack an understanding of how their inputs will be used or contribute to shaping a water policy or project. Stakeholders may feel misled or manipulated, and tend to lose interest and their motivations deflate, resulting in a sort of "consultation fatigue."

Satisfying all stakeholders' interests is a daunting task. While stakeholders seek the legitimate right to take part in decision making on water issues, they are not always willing to assume joint responsibility for the resulting action (Tortajada, 2007). Therefore, a critical challenge is to commit to making constructive contributions while being willing to support the outcomes of the engagement process, even when they fail to coincide with vested and partisan interests.

Clarifying the engagement process is one way to secure support and buy in. Defining clear objectives can help to establish a commitment to change from the start by recognising that new responses are needed to solve or address a specific water issue. It can also ensure that mechanisms are in place to deal with the outcomes from the engagement process, and that these outcomes can be dealt with effectively and within a given timeline.

Lack of funding

The lack of funding can impede the implementation of engagement processes. Insufficient or unstable revenues to implement engagement processes were ranked as the fifth most important challenge among all stakeholders surveyed. It often concerns a mismatch between the revenues of stakeholders and the expenditures required to set up engagement practices. Logistical expenses related to meeting venues or support material (e.g. publication of brochures, launch of online platforms, etc.) can be a particular challenge. Implementing engagement processes also often requires hiring dedicated and competent staff. Some engagement processes may be one-off (e.g. expert panel, consultation workshop) while others may run longer (e.g. lengthy water reform process or large infrastructural project). Therefore, securing funding is also important to sustain engagement processes in the long term. The lack of funding was considered the primary bottleneck to stakeholder engagement by civil society, which is often solicited to take part in engagement efforts but has limited operational and development capabilities to secure the needed funds, staff and time.

Information asymmetry

The information gap between stakeholders is ranked as the second most important obstacle by science and academia (71%), while it is considered as eighth by all stakeholders surveyed. This uneasy access to quality information hinders stakeholders' ability to study and analyse water-related issues and make informed contributions to decision-making processes.

Information asymmetries occur when one or several categories of stakeholders have more or better information than the others. Government authorities, service providers as well as researchers all dedicate significant resources to collect and produce data on water resources (quality, quantity, etc.), water services (service performance, state of infrastructures, etc.) and risks of water disasters (meteorological projections, etc.). However, compiling and sharing meaningful and consistent information at various levels can be problematic for several reasons. For instance, the use of different and sometimes incompatible data-collection and analysis methods can prevent certain stakeholders from using the data produced by others. Also, the quality of the data is sometimes questionable if the necessary control mechanisms are not integrated into monitoring programmes, or if

the information is not well documented. Without giving due attention to these areas, stakeholders cannot optimise the use of the information, resulting in duplication of efforts and an underutilisation of available water knowledge.

Overcoming information asymmetries can help to bridge the gap between science, policy and action. Overall, policy makers rarely use the research results; and the science-policy interface remains rather weak in terms of guiding decision making and implementation. Both types of stakeholders often have different goals, different ways of working and different languages. This can create a gap between policy and science, and threatens to render scientific inputs in decision making and policy/project implementation irrelevant. Focusing efforts towards more adequately generating and sharing information between decision makers and scientists can contribute to better alignment of science contributions and policy aspirations in decision-making arenas, providing a robust foundation for evidence-based decision making.

Too many or too few voices

Conflict of interest and capture of the process by certain groups of actors and lobbies within and outside the water sector represent a critical or important obstacle to stakeholder engagement (57%). Consultation capture by often better-organised groups (e.g. irrigators and their associations, large hydro-electric companies, etc.) with high financial stakes and political ramifications can sometimes influence decision-making and implementation processes. Some stakeholders may influence the formulation of a water allocation regime so it is more advantageous to secure the volumes of water they need. Other stakeholders may influence the definition of water quality standards so these are not too strict or detrimental to their own activities. In some EU countries such as the Netherlands, farmers overrode engagement initiatives related to the implementation of the EU Water Framework Directive to protect their interests, leaving insufficient water for the environment (OECD, 2014).

Stakeholder engagement can also be subject to unethical practices. Stakeholder engagement processes might be set up to create the appearance of inclusiveness. In practice, however, there are situations where underlying incentives are for personal economic or political gain. For instance, candidates running for office may organise consultations on key water issues (e.g. improving the provision of water services and tariffs, building new infrastructures) to secure support for their own political agendas. Companies may invest in improving water-use efficiency or facilitating aquifer recharge schemes to benefit by appearing to be environmentally friendly (also known as "greenwash"). Related benefits might take the form of higher stock market, more customers or favoured partnerships with green environmental organisations.

The growth of inclusive decision making may also be seen as a threat to the role of elected representatives. There are various theories about how stakeholder engagement can supplement or fundamentally change representative democracy, such as "empowered participatory governance," with new roles for governments and civil society (Involve, 2005). There may also be a sense that the decision-making process is only legitimate if it involves formally elected representatives. This can be explained by the lack of clear systems to link engagement activities and representative democracy. Stakeholder engagement should be seen as a complement, not a replacement for representative democracy.

Lack of interest and concern

Stakeholders also have to confront their own lack of interest in seizing the engagement opportunities available to them. Setting up avenues to involve different actors in water policy and projects does not necessarily ensure engagement. Not all stakeholders may be in a position to, or interested in, contributing to water-related decision making or implementation. This can be explained, amongst others, by a frequent awareness gap affecting stakeholders' motivations to participate, as pointed out by 62% of the responses. More particularly, the lack of citizen concern for water was flagged as the primary challenge to stakeholder engagement by 82% of national governments surveyed.

With a growing number of issues subject to engagement processes and lack of stakeholder interest, stakeholder fatigue is a concern. In addition, stakeholders may have limited resources (time, people and money) to engage, and there may be competition between institutions for stakeholders' time. Also, there can be situations where stakeholders are not concerned about water issues because they consider that they are already well managed. These factors can result in low engagement rates and contribute to engagement fatigue.

Measures can be taken to avoid and overcome stakeholders' lack of interest and fatigue. To ensure that engagement opportunities are seized, and that stakeholders take part in dialogues, even "excellence" debates, on water, decision makers must take action. This places greater importance on good delivery of concise and accurate information regarding policies and projects, and to bridge the awareness gap on water issues among certain stakeholders. Being aware of the stakeholder resource constraints and ensuring that flexibility (in time and approach) is built into the engagement strategy are ways to avoid engagement fatigue. Co-ordinating the timing of engagement initiatives with other institutions working on similar water issues can also avoid duplicating stakeholders' efforts to contribute. Therefore, it is essential to gauge the level of engagement needed, and to ensure that stakeholders are engaged on relevant issues. It is in the interest of the institution leading the engagement process to fully benefit from stakeholder involvement to prevent unexpected objections and gain trust and support. When stakeholders are not adequately involved, there is a risk that a false sense of support and acceptance will ensue. Therefore, demonstrating to stakeholders that engagement was worthwhile is important to prevent fatigue; it calls for careful evaluation of the process and its outcomes (see Chapter 6).

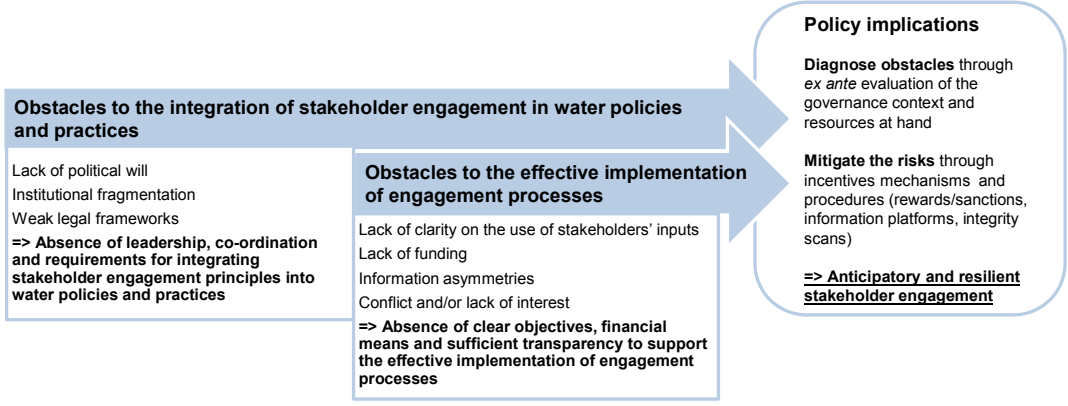
Conclusion

Decision makers need to carefully anticipate bottlenecks to the integration of stakeholder engagement in water policy and projects, and mitigate related risks. Different tools and procedures can help to achieve this. Translating existing standards for inclusive decision making into legislative frameworks can contribute to developing legal requirements for stakeholder engagement in the water sector. In turn, it can provide some incentives for policy makers and leaders to support the integration of stakeholder engagement into water policy and practices. Setting up co-ordination mechanisms, such as inter-ministerial bodies or contractual arrangements between authorities, can help to address institutional fragmentation. These mechanisms should be envisaged and carefully tailored while considering the specificities and engagement needs of each context and country.

Regarding obstacles to the effective implementation of engagement processes, decision makers should define upstream strategies that set out clear rationale of how to use the contribution of stakeholders for the final outcome. These strategies should be made available to all participants, along with all relevant information needed to effectively engage in discussions. Setting up information water systems and platforms can be a useful option in that direction. Properly securing funds will also be critical to sustaining engagement processes in the long run. Staff members and funding should be allocated to engagement processes within water policies or projects, as they are allocated to other aspects such as monitoring and data gathering. Integrity pacts and social witnesses can also help to reduce the likelihood of conflict of interest and consultation capture, while *ex post* surveys on motivations can investigate levels of interest on specific water issues to set up the right incentives.

Understanding and overcoming obstacles to stakeholder engagement requires a holistic approach as challenges facing inclusive decision-making processes are often interrelated and can exacerbate each other. For instance, a context where roles and responsibilities are fragmented across multiple agencies and organisations at different levels of governments may also suffer from the unclear strategy of how to use the inputs from engagement processes between these multiple authorities. Because of unclear objectives, policy makers may not support the engagement process. Therefore, there is a need to understand interdependencies between obstacles and to devise appropriate solutions so that stakeholder engagement processes are anticipatory and resilient (Figure 4.2).

Figure 4.2. **Towards anticipatory and resilient stakeholder engagement**



Source: OECD elaboration.

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Chapter 5

Stakeholder engagement mechanisms in the water sector

The chapter provides a taxonomy of formal and informal mechanisms used to engage stakeholders in the water sector, including a focus on web-based instruments. Taking a closer look at each tool, the chapter reviews their strengths and their shortcomings, and provides practical examples. The chapter concludes with guidance to fit stakeholder engagement mechanisms to the right policy stage – from design to implementation; to the intended objectives; to types of stakeholder; and to the level of governance (from local to international).

Introduction

There is a wide variety of mechanisms for engaging stakeholders, but they work differently according to place, time and objectives. Dozens of different "techniques" have been inventoried in the literature, from structured procedures such as taskforces, workshops and citizens' referenda, to broader concepts such as public information programmes and mechanisms that may be uniquely applied by particular organisations. Navigating this diversity and selecting the right mechanism(s) for the engagement process can be a daunting task for decision makers and a tentative taxonomy of such instruments can provide some guidance.

A tentative taxonomy

The OECD Survey on Stakeholder Engagement for Effective Water Governance (see Box 1.11 in Chapter 1) has inventoried 24 mechanisms for stakeholder engagement in water governance. These mechanisms can be classified into two types. On the one hand, formal mechanisms refer to tools that have institutional or legal ground. They often stem from an official agreement or contract between parties, or charters with clear operating rules and priorities. On the other hand, informal mechanisms are not institutionalised but rather can be implemented for a large variety of issues and at the discretion of the convener of the engagement process (see Table 5.1). Both formal and informal mechanisms have advantages and disadvantages that need to be carefully weighed prior to selection of the most relevant mechanism.[1]

Table 5.1. **Typology of mechanisms identified in the OECD survey**

Definition	Example
Formal mechanisms	
Citizen committee: Group of representatives from a particular community or set of interests appointed to provide comments and advice on an issue.	Tucson Citizens' Water Advisory advises the Mayor and Council regarding water system planning, water resource planning, water rates and fees.
Consensus conference: Public meeting, which allows ordinary citizens to be involved in assessing an issue or proposal. The conference is a dialogue between experts and citizens.	In 2009, the city of Paris organised a consensus conference to decide upon the future of its non-potable water supply system.
Decentralised assemblies: Group of representatives from local authorities and civil society with discretionary powers in the management of affairs.	In Ghana, district assemblies are, by law, solely responsible for the delivery of water and sanitation services at the local level. Their functions include the promotion of development opportunities, facilitating public participation, information sharing, and mobilising human and physical resources.
Stakeholder democracies: Stakeholders are elected by their peers to represent their interest in boards of water institutions.	In the Netherlands, stakeholders (domestic users, farmers, companies and managers of nature reserves) are directly and indirectly elected every four years to compose the assembly of regional water authorities, with a fixed number of seats per stakeholder category.
Innovative contracts and partnerships: Formal agreements between different parties to produce agreed-upon outcomes.	In 2011, SA Water signed an innovative operation and management (O&M) Alliance contract with Suez Environnement, Degrémont and Transfield Services to supply water and wastewater services to the city of Adelaide. The contract is a co-operative model characterised by risk sharing with definition of target performance to drive pain-share/gain-share mechanism; no-blame/no dispute principle; and unanimous principle-based decision making on all key project issues.
Interest-pay-say principle: Principle according to which the beneficiaries pay for water management and have a say in the local water authority (e.g. Dutch water authorities' board assembly).	Local water management in the Netherlands has been organised on the basis of those who have interest (stakeholders) pay for water management and have a say in the local water authority (water authority assembly).
Polls/survey: Methods used to collect information from a specific population. Surveys and polls are used to gauge the level of public information about an issue and provide a "snapshot" of attitudes and ideas at a particular time. They can be used to determine community attitudes or target a particular group.	In California, a 2014 poll was conducted on the issue of water management and drought and revealed strong public support for the use of state water bonds.

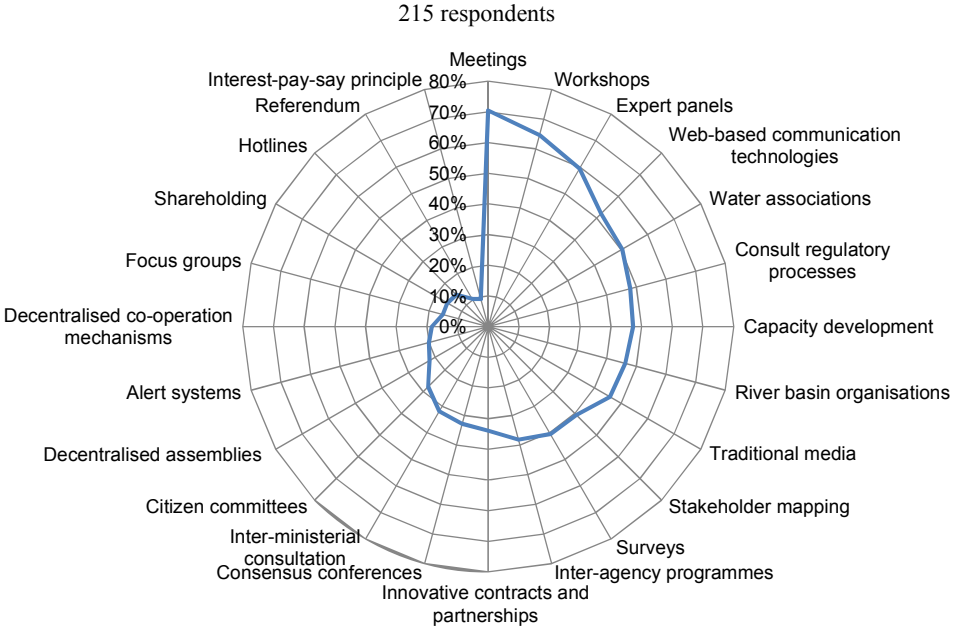
Table 5.1. **Typology of mechanisms identified in the OECD survey** (*cont.*)

Definition	Example
Referendum: Direct vote in which an entire electorate is asked to vote on a particular proposal.	In Italy, a national referendum was held on 12-13 June 2011 regarding the participation of the private sector in water management.
River basin organisations/councils: Specialised organisations set up by political authorities, or in response to stakeholder demands to deal with the water resources management issues in a river basin, a lake basin or across an important aquifer.	A large number of OECD countries has set up a form of watershed institutions (river basin organisations, councils, agencies, etc.), in particular EU member countries who are to comply with the requirements of the Water Framework Directive.
Shareholding: Shareholders or stockholders are individuals or institutions that legally own a share of stock in a public or private corporation.	An Alliance contract exists between the State of Australia, Suez Environnement subsidiary Degrémont in partnership with Transfield services in order to manage the water network. Both parties share the benefits and risks, joint decision making, and all members are integrated in the decision-making process.
Water associations: Member-based groups of stakeholders invested in similar activities (e.g. association of water utilities, network of water researchers, association of water regulators).	In the water sector, associations can concern utilities (e.g. Aqua Publica Europea, EUREAU, AquaFed), irrigators (European Irrigation Association) as well as watershed institutions (INBO, NARBO, Association of Dutch Water Authorities, etc.).
Informal mechanisms	
Meetings/workshops/fora: Coming together of people for a specific purpose/structured forum where people are invited to work together in a group (or groups) on a common problem or task.	Examples of large fora are the World Water Forum, the Stockholm World Water Week or the IWA World Water Congress. Examples of smaller meetings and workshops are regional and national meetings on issues such as water security, water-energy-food nexus, etc.
Web-based technologies: Internet tools and platforms can contain project/policy information, announcements and documents. The array of web-based technologies can be used as an information source, forum for public input or electronic democracy.	Water information systems such as WISE (Water Information System for Europe).
Traditional media (press release, newspaper inserts): Media releases circulate project or policy information to various media outlets.	National and local newspapers, TV and radio programmes, etc.
Focus group: Used for exploratory studies. The issues that emerge from the focus group may be developed into a questionnaire or other form of survey to verify the findings.	In June 2013, the UN International Telecommunication Union organised a Focus Group on Smart Water Management.
Expert panel: Engaged when highly specialised input and opinion is required for a project. Generally, a variety of experts are engaged based on various fields of expertise to debate and discuss various courses of action and make recommendations.	In the United Kingdom, the Institution of Civil Engineers has set up an expert panel on water that provides the technical expertise and knowledge which underpins the institution's activity in the water sector.
Stakeholder mapping: Exercise that helps to identify stakeholders depending on their degree of influence, power, legitimacy and collaboration.	The OECD conducts stakeholder mappings as part of national policy dialogues on water (e.g. Brazil, Mexico, Netherlands).
Information hotlines: Offer information on a project via telephone and/or access to project team staff members who can answer questions or provide additional information and assistance.	The US Environmental Protection Agency has set up the Safe Drinking Water Hotline which provides the general public, regulators, medical and water professionals, academia and media, with information about drinking water and ground water programmes authorised under the Safe Drinking Water Act.

Source: OECD elaboration.

Stakeholders use some mechanisms more often than others. Meetings, workshops and expert panels were identified as the three most often used mechanisms by respectively 71%, 65% and 60% of respondents surveyed (Figure 5.1). Innovative web-based instruments, such as information and communications technology (ICT) tools, are becoming a regular option, and are the preferred choice for 52% of respondents along with water associations and networks (51%). Stakeholder consultation as part of regulatory processes is used by 48% of respondents as a means of contributing to improve the design of regulation. River basin organisations (RBOs) are also a considerable platform for engaging stakeholders through their consultative or deliberative bodies for 46% of respondents.

Figure 5.1. **Use of stakeholder engagement mechanisms**



Note: The figure considers the average of "yes" responses provided from the perspective of both targets and promoters to the question "Which stakeholder engagement mechanisms does your organisation use or take part in?"

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Engagement processes can rely on a single mechanism or a combination of instruments depending on the intended objective (e.g. information sharing, consultation, deliberation) and the stage of the policy/project cycle (e.g. design, implementation, evaluation). For instance, a website may be set up at the early stage of the process to raise awareness and share information on a water project in development, and be followed by the creation of a multi-stakeholder committee in charge of supervising the development and implementation.

Formal engagement mechanisms

Formal engagement mechanisms bring about some advantages. In the case of water associations and RBOs, they generally benefit from a strong sense of legitimacy as they are often based on the principle of representative democracy, which makes them crucial partners to engage with other stakeholders, such as government authorities at different levels, and convey the interests of many actors. In addition, water associations encompass stakeholders invested in similar activities (e.g. association of water utilities, network of water researchers, etc.) to exchange good practices and to develop solutions and innovations to overcome common problems (e.g. improving water quality). In regulatory processes, it has become common good practice to develop and release consultation policy in order for key stakeholders to be aware of regulators' activities and expectations that may be placed on stakeholders (OECD, 2012). Structured consultation mechanisms in regulatory processes are more likely to be better informed and build confidence that regulatory decisions are cognisant of the impacts of all affected parties (OECD, 2014). Institutionalised mechanisms also tend to be set up and run by dedicated and qualified

staff. The example of Brazil illustrates multi-level contracts that formalised stakeholder engagement in water governance (Box 5.1).

Box 5.1. The National Water Pact: A contract to engage with state authorities in Brazil

In Brazil, the growing territorial diversity in terms of water availability, economic, social and environmental aspects have been a challenge to create and to keep stable institutional models adapted to the regional reality. Water-rich regions adjacent to the Amazon basin are neighbours to regions chronically affected by water shortage.

To foster an integrated vision between the federal and state water resources management, a National Water Management Pact was recently launched by the National Water Agency, in co-operation with water managers at the state level; it proposes a co-operation strategy across government levels.

The National Water Agency (ANA) organises multi-stakeholder workshops to support each state in identifying future challenges and in defining a management typology to address them. Following this prospective phase, stakeholders at state level (i.e. state and council authorities, representatives from civil society, water user sectors, river basin committees, etc.) are expected to develop management targets, coherently with state water resource policy in place. Upon signature of a bilateral contract with the ANA, states then receive a dedicated fund to reach these targets aiming to better water governance.

The process has greatly contributed to capacity development among participants involved in developing the targets. States have also requested the ANA to train teachers to help formulate their own capacity-building programmes. The pact has also contributed to closer co-operation between stakeholders at state-level and within the ANA across the various technical areas responsible for monitoring states' compliance with the pact's goals.

To date, 24 of the 27 Brazilian states have signed the pact, while the remaining states have declared, formal or informally, an interest in signing it.

Source: Based on a case study submitted by Brazil National Water Agency.

Institutionalised mechanisms are not without challenges. Instruments such as water associations can be perceived as single-minded when they solely focus on pushing forward the agenda of a singular group of stakeholders (e.g. association of irrigators; see Table 5.2). RBOs can raise challenges in terms of lobbying and consultation capture when discussions and decisions are "high-jacked" or monopolised by the interests of certain groups. It can generate principle-agent tensions by which the person sitting at the table voices his/her own concern rather than representing his or her broader constituency. This should be a key concern when selecting stakeholders to participate in advisory boards, working groups or assemblies.

Informal engagement mechanisms

Informal mechanisms for stakeholder engagement present some advantages. The relatively informal nature of meetings and workshops can foster both deliberation and build a sense of community. They provide an open atmosphere which makes participants generally more willing to discuss issues and maximises dialogues on issues that may not have come to light through more structured mechanisms. For instance, meetings and workshops are flexible in terms of timeframe and scale (from community meetings to international conferences) and can apply to a wide range of issues (e.g. from discussing a municipal sewer project to debating on transboundary basin management agreements). They offer an opportunity for anyone to express concerns, access and share information, and gain better understanding (see Box 5.2).

Table 5.2. **Assessment of formal mechanisms**

Mechanisms	Strengths	Weaknesses
Citizen committee	– Allow the involvement and input of a range of stakeholders. – Allow development of consensus (where achievable) or directions for action on complex issues. – Provide opportunities for exploring alternative strategies. – Stakeholders gain an understanding of other perspectives leading toward an agreed, integrated outcome.	– Participant selection is a major consideration: The range of interests must be broad enough to represent all those affected, and those with relevant interests and skills. Organisers must be aware of potential conflicts. – The general public may not embrace committee recommendations. – Members may not achieve consensus (although consensus may not be the goal). – Can be time and labour intensive if the issue is significant.
Consensus conference	– Empower stakeholders to develop an informed understanding and make some contribution to the development of policy and projects. – Demonstrate a plurality of views on issues. – Bridge the gap between experts and less-knowledgeable stakeholders. – Can develop new knowledge.	– High costs for set up and recruitment of participants. – The selection process can be difficult. Mapping stakeholders is critical to predetermine who are the relevant groups.
Innovative contracts and partnerships	– Foster co-ordination and co-operation across stakeholders and potentially levels of governments. – Help manage interdependencies. – Can solve institutional weaknesses.	– Unclear objectives and allocation of tasks among partners or signatories may lead to inefficiency. – Can be time and labour intensive.
Interest-pay-say principle	– Stakeholders engaged are often highly motivated to contribute in return for their financial contribution/ investment.	– Appointing (minority) representatives is sometimes perceived as “less democratic”.
Polls/survey	– Provide traceable data. – Can serve an educational purpose. – When properly constructed using good sampling techniques can reach a broad, representative public or targeted group.	– Poorly constructed surveys produce poor results. – Careful sampling is needed to make sure representative samples are taken.
Referendum	– Provide a representative view of a population’s opinion on a specific issue. – In the context of voter apathy and disenchantment with traditional forms of democracy, direct democracy can help to re-engage voters with policy matters.	– Voters do not always have the capacity or information to make informed decisions about the issue at stake, and instead may make ill-informed decisions based on partial knowledge or on the basis of unrelated factors.
River basin organisations/ councils	– Wide public and stakeholder participation in decision making. – Local empowerment.	– Deliberative decision making may be dominated by a small group of stakeholders (farmers, industries, etc.). – Legal frameworks for setting up river basin organisations do not always provide for the engagement of stakeholders in the decision making. – Need for substantial financial and human resources to be sustainable.
Stakeholder democracies	– Stakeholder groups have a direct say in all decisions taken by the assembly, including financing issues.	– Risk of low participation rates in elections in context of awareness gap regarding water-related issues. – Stakeholder groups represented in the assembly have to be well organised.
Water associations	– Common understanding across members of the issues at stake. – Often, high-level of expertise from experienced practitioners. – Legitimacy of the association to represent the views of its members when engaging with public authorities and other stakeholders.	– Can be perceived as single-minded when they solely focus on pushing forward the agenda of a singular group of stakeholders (e.g. association of irrigators). – May not encompass a wider membership that includes other players likely to be impacted by their activities.

Sources: OECD elaboration based on Involve (2005a), *The True Costs of Public Participation: Involve*, Full Research Report, Together We Can, Involve, November, available at: www.involve.org.uk/wp-content/uploads/2011/03/True-Costs-Full-Report2.pdf; and Involve (2005b), *People and Participation – How to Put Citizens at the Heart of Decision-Making*, Beacon Press, London.

Box 5.2. A three-dimensional tool to engage stakeholders in flood defence

In 2008, the Dutch water authority of Rijnland in the Netherlands launched a project on integrated coastal works with the objective to strengthen primary water fences near the municipalities of Noordwijk and Katwijk.

The project included the development of an innovative three-dimensional vision game. Game sessions were organised by the regional water authority to invite small groups of stakeholders to participate. Overall, 75 people attended including local officials, restaurant and hotel owners, inhabitants, non-governmental organisations (NGOs) and local business. Participants were given certain budgets and were tasked to develop innovative water fencing solutions. These exercises contributed to raise awareness among stakeholders involved regarding their respective interests. It also led the regional water authority to move from sharing messages to facilitating communication process with the objective to create ownership of the outcomes among stakeholders. Outcomes of these playing sessions showed that creative solutions had emerged which were later considered by the regional water authority in the project. As an example, stakeholders involved in the game suggested to find additional space for an underground parking garage which was later one built to welcome 650 cars in the inner zone of the dune. The simulation game also helped regional water authorities build lasting relationships with stakeholders and foster better communication between actors working and living in the coastal area.

Source: Based on a case study submitted by the Dutch water authority of Rijnland.

However, informal mechanisms of engagement also have some limits (Table 5.3). If the tools used to involve stakeholders do not have a minimal level of structure and mediation, outcomes may be difficult to incorporate into final decisions. They also sometimes fail to include follow-up actions such as turning views and concerns voiced into actual contributions to decision making and implementation, and are often limited to consultative purposes or information sharing. In addition, to be effective, informal tools such as meetings and workshops must be facilitated by skills and time that can moderate diverging opinions in an impartial way. If the relevant enablers are not in place, the representativeness of the overall engagement process may be questioned. In turn, it can raise concerns regarding the legitimacy of the engagement process and the accountability of those who set it up.

Zooming in on the increasing importance of information and communication technology tools

Innovative mechanisms and decision tools are gaining traction because of technological advances as well as greater skill and openness in applying the tools for discussion. The practical deployment of new ICTs has become a driving force of customised Internet platforms and applications (Pereira et al., 2003). The function of ICT platforms has taken new and varied dimensions as virtual meetings, Internet-based platforms (social media, chat rooms, online fora) and e-voting are used more frequently. Their role is not only to provide the available knowledge to inform stakeholders and debates but also to constitute the common-ground through which these debates are organised, and to integrate other sources of knowledge (e.g. crowdsourcing and knowledge sharing from the community collected through apps and social media). In its various multilateral forms, ICT-enabled engagement can improve inclusiveness by providing a shared ground where exchange of knowledge and opinions is possible (Box 5.3).

Table 5.3. **Assessment of informal mechanisms**

Mechanisms	Strengths	Weaknesses
Expert panel	– Useful when an issue is complex and contentious. – Useful where conflict exists to provide opinions which may have more credibility, and hence may assist in resolving the conflict.	– Expertise in relevant and complementary areas may be needed to produce a credible expert opinion. – Skilled moderator is often required.
Focus group	– Produce ideas that would not emerge from surveys/questionnaires, because the focus group allows opportunity for a wider range of comments.	– Such small groups may not be representative of the community response to an issue. – Require careful selection to be a representative sample.
Information hotlines	– Offer an inexpensive and simple device for publicity, information and public input. – Can serve as a link between the citizens and the municipality's government.	– Must be adequately advertised to be successful. – Can be time consuming to manage and update on a regular basis.
Meetings/workshops/fora	– Allow the involvement and input of a wide range of stakeholders. – Disseminate detailed information and decisions across stakeholders. – Can build ownership and credibility for the outcomes. – Contribute to better communication among the stakeholders involved.	– Can be time- and labour- intensive.
Stakeholder mapping	– Provide detailed stakeholder analysis (motivations and interests, interactions, scale of intervention).	– Can be time consuming. – Can be based on subjective data and may vary according to the person/place.
Traditional media	– Can disseminate information quickly to a large number of people.	– Difficult to retract should any changes occur. – The size of media releases limit the amount of real content that can be incorporated.
Web-based technologies	– Capable of reaching very large numbers of stakeholders with very large amounts of information. – Allow participants to discuss an issue at their convenience (regardless of location or time). – Anonymity of online processes can encourage open discussion.	– Many people still cannot access the Internet. – Information overload and poor design can prevent people from finding what they need.

Sources: OECD elaboration based on based on Involve (2005a), *The True Costs of Public Participation: Involve*, Full Research Report, Together We Can, Involve, November, available at: www.involve.org.uk/wp-content/uploads/2011/03/True-Costs-Full-Report2.pdf; and Involve (2005b), *People and Participation – How to Put Citizens at the Heart of Decision-Making*, Beacon Press, London.

Box 5.3. **Web-based water information systems: The case of Italy and Portugal**

In **Italy**, in the framework of the EU Water Framework Directive (WFD), the Arno River Basin Authority developed an executive information system called "Control Dashboard" to gather all relevant data regarding river basin management planning in a single depository and bridge an information gap hindering effective management decisions. The objectives of the information system are to:

- Gather and homogenise scattered data provided by different public bodies and private parties.
- Overcome planning and implementation challenges with the involvement of different public bodies across administrative levels.
- Foster stakeholder engagement at different levels and planning stages.

Box 5.3. **Web-based water information systems: The case of Italy and Portugal** (*cont.*)

- Present the data in standard reporting formats.
- Identify and present cause-effect mechanisms between drivers, pressures and water bodies' environmental status in a clear and transparent way to stakeholders to support active and inclusive decision making.
- Take account of water balances and quantitative aspects in water bodies' management decisions in accordance with the "Blueprint to Safeguard Europe's Waters" policy options.
- Evaluate the efficiency and effectiveness of planned measures to involve stakeholders in the measures' priorisation process.
- Include the outputs of innovative pilot experiences in the decision-making process. In this regard, the "Pawa" project developed water accounts through recognised standards and activated an inclusive decision-making process as regards the selection of the most appropriate measures to face water scarcity and drought conditions.
- Present the mechanisms that allow alternative objectives to be set and exemptions to be applied in a transparent way; and develop a strategic vision with links between the river basin management plan and others (e.g. flood risk management plans).

The "Control Dashboard" is a web-based, open, user-fed and exportable information system that aims at answering to public participation requirements under the WFD; the targeted audience is both the general public and interested institutional parties. The information system not only contributes to information exchange among different stakeholders and public authorities responsible for the directive's implementation (i.e. regions, water utilities, etc.), it also improves co-ordination among the competent authorities responsible for complying with the WFD in the Apennines River Basin District. Regular meetings take place to discuss the status of the information system and needed actions. The implementation of the "Control Dashboard" has contributed to saving costs (i.e. by shortening administrative procedures) and to improving acceptability and ownership whereby a large number of stakeholders are involved and provide quality data to the system.

In **Portugal**, the Water and Waste Services Regulation Authority (ERSAR) has recently developed a mobile app aimed at providing relevant information to the water and waste services users in Portugal. This mobile app contains thorough information about the quality of service provided by each provider, so that any user living in that area has all the information to compare his/her service to the service provided in other geographical areas. The information is displayed for the 278 municipalities in mainland Portugal. It includes data and indicators for the quality of service, drinking water quality, tariffs, as well as some practical information about water and waste services, such as news of the sector, tips and advice on how to reduce water consumption or waste production, among other information.

ERSAR collects information from every operator, in different regulation cycles, and analyses it, performs onsite audits and finally issues an annual report, which is the basis for all the information published in the mobile app. This mobile app was one of the communication channels chosen by ERSAR to disseminate the 700 000 data collected annually, because of the easy to use interface and the possibility to reach the citizens anywhere and at any time.

ERSAR's intention is to perform a satisfaction survey on the mobile app, integrated with the satisfaction survey of other tools used to communicate with stakeholders.

Sources: Based on case studies submitted by the Arno River Basin Authority and ERSAR.

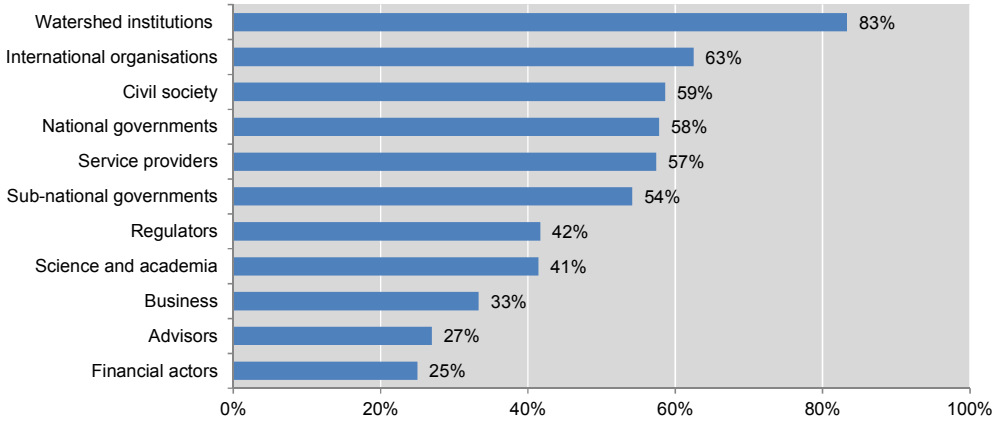
The concept of electronic participation (or e-participation) can contribute to more responsive, cost-effective and inclusive governance. Though it has been largely discussed in the literature on public sector innovation and e-governments (OECD, 2003), in the

water sector, however, e-participation remains a rather new concept. It has been used for instance to set up citizens observatories for flood risk management in the Netherlands and the United Kingdom where it consisted in a variety of citizen groups (volunteers, elected citizens, citizen scientists and communities) and rested on a range of communication modes from listening as a spectator to expressing and developing preferences on specific issues (When, Rusca and Evers, 2014).

ICT tools are used to various degrees by categories of stakeholders in decision-making processes. In the survey, 83% of watershed institutions surveyed indicated using them to both engage stakeholders in decision making related to river basin management and to take part in decisions likely to have an impact on their activities (Figure 5.2).[2] Inversely, ICT as a stakeholder engagement mechanism seems to be less critical in the day-to-day core activities of consulting and engineering firms (27%) and financial actors (25%) as stakeholder engagement targets or promoters. Efforts are still needed to generalise the use of digital tools in water decision making. While careful consideration should be given to their appropriateness depending on the intended purpose, context and participants, as well as how they fit with institutions' capacity, they can contribute to better connecting decision makers with other stakeholders. In spaces where these actors already exist, they can provide devices for policy makers to be part of conversations and dialogues happening on social media and to create online communities. It can, in turn, increase the impact of decision makers' communications, through the multiplier effect that online technologies can have.

Figure 5.2. **Use of web-based technology tools for stakeholder engagement**

210 respondents considered[1]



Note: The figure considers the share of responses provided from the perspective of targets and promoters to the question "Which stakeholder engagement mechanisms does your organisation use or take part in?" 1. See table in Box 1.11 for more details on the respondents.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Open government data

ICTs are increasingly being used by governments to help stakeholders better understand what government does, including in the water sector. More and more, governments produce and collect a broad range of different types of data in order to perform their tasks (Ubaldi, 2013). The extraordinary quantity and centrality of data collected bring increased transparency. This is particularly true as a considerable amount

of these government data are progressively becoming more easily accessible and can be used in conjunction with information from other sources and stakeholders.

A sign of the increasing efforts of government to "open their books" is the launch, in 2011, of the Open Government Partnership (OGP). This partnership currently counts 65 member countries and provides an international platform for domestic reformers committed to making their governments more open, accountable and responsive to citizens. To join, each country must develop an OGP action plan through a multi-stakeholder, open and participatory process. The action plan contains concrete and measurable commitments undertaken by the participating government to drive innovative reforms in the areas of transparency, accountability and citizen engagement. In all participating countries, government and civil society are working together to develop and implement ambitious open government reforms.

In addition to increasing government transparency and stakeholder awareness about government policies and activities, opening up data can also help generate insights into how to improve government performance in the water sector. Increased data transparency provides the basis for stakeholder engagement and collaboration in the creation of innovative projects and policies. Data openness is eventually expected to improve the decision making of all stakeholders. For instance, citizens can use government data (e.g. easily accessible water databases, such as through mobile apps) to make more informed decisions and improve the quality of their lives, while governments are expected to be able to more easily access a wider range of datasets to foster evidence-based decision making and policy/project implementation on water. Open government data can also contribute to new forms of entrepreneurships and social innovation in the water sector.

The digital divide and risk of exclusion

Web-based tools for stakeholder engagement can raise some challenge regarding the digital divide. Stakeholders in the water sector do not have the same quality, costs and level of access to ICT and media platforms. Certain countries are far more equipped in communication infrastructures than others, often developing countries. This gap can also be observed between rural and urban areas.

However, scientific research suggests that tools and instruments are not the main reasons for exclusion in decision-making processes. Although some tools can be exclusionary (e.g. ICTs that restrict their use to those that can access a computer), research suggests that the risk of exclusion is due to contexts or inadequate problem framing rather than to tools and techniques designed to support a dialogue (Pereira et al., 2003).

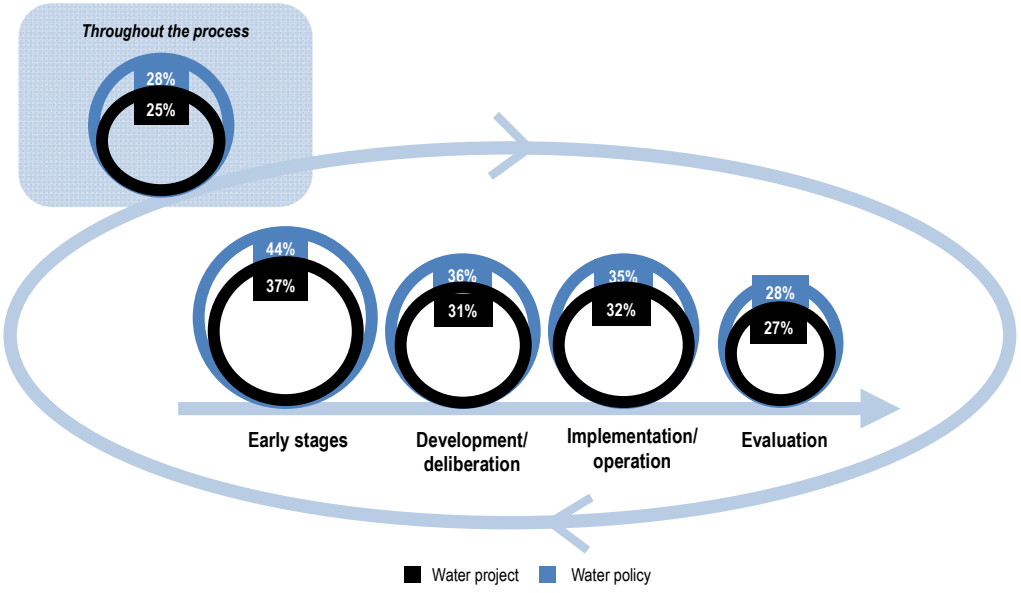
Tailoring stakeholder engagement mechanisms

Stakeholders engage at different stages of the policy/project cycle. The nature of engagement varies at each stage of a given water policy or project, and so does the likelihood of impact on the decision-making process. Similarly, selecting engagement mechanisms should take into account the categories of stakeholders targeted and the context in which they are implemented.

Matching mechanisms to the development stage of water policy and projects

The timeliness of stakeholder interactions (and related tools) across the policy and project cycle deserves careful attention. The early stages of conception, planning, design, feasibility studies is when most of the respondents surveyed intervene, followed by the development and the implementation stages, for water policy and water projects alike. For 44% of respondents surveyed, stakeholder engagement in water policies and reform takes place during the early stages of conception, while 37% of stakeholders surveyed considered it is the case for water projects. However, only 27% of respondents surveyed took part in the evaluation and monitoring, and even less throughout the project or policy cycle (Figure 5.3). Consequently, different mechanisms best apply to different steps of the cycle and process. The selection of stakeholder engagement mechanisms should be tailored to each context, stakeholders concerned, policy goals targeted and local needs. Needed capacities and resources should also be put in place to implement the mechanisms effectively among all of the stakeholders concerned. At the design stage, initiatives such as consultations and fora are often used to identify expectations or needs. At the implementation stage, partnerships in the form of water stewardships, for example, can bring together the private sector and governments to work jointly on water resources conservation. At the evaluation level, surveys are common practice to assess outcomes and levels of satisfaction.

Figure 5.3. **Involvement of stakeholders across stages of the policy/project cycle**



Note: The figure considers the average between targets and promoters for the responses as "always" and "almost always" to the question "At which stage of a water-related project and/or reform does your organisation usually get involved?"

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

There is still a lack of consideration for the value added that stakeholders' inputs can bring throughout decision-making and implementation processes. Indeed, their contribution remains often restricted to information sharing and consultation upstream in the process with the objective for conveners to present the issue at hand to stakeholders interested or likely to be impacted, gather their views and secure their support and buy-in.

However, confining their involvement to the early stages underestimates their potential to positively influence the subsequent phases. Gathering stakeholders' views during the implementation stage could provide for a reality check, which is often necessary to test the assumption and hypothesis made during the design phase (see example in Box 5.4). For monitoring and evaluation, they can also provide valuable insights on operational results and impacts on the ground and shed light on necessary adjustments and areas for improvement. The stage of progress of a water project or policy is crucial for stakeholder engagement. Efforts are still needed for stakeholder engagement to be considered as an impactful mechanism to be initiated as early as possible and sustained throughout water policy and project cycles.

Box 5.4. **Building the evidence in support of decision making**

Water management in **Australia** is made up of complex governance arrangements with over 14 different types of legal forms of water supply businesses. To support the water allocation reform, as set out by the 1994 Council of Australian Governments reforms, and the 2004 National Water Initiative, a country-wide online survey was carried out by the University of South Australia across 23 water planners selected as professional experts from various water management authorities throughout the country. Participants have years of experience in dealing with water issues and held senior positions in their respective organisations. They had been tasked with drafting the water allocation water plans and were surveyed to share views on what they considered as the best structures for water governance, management and planning, in particular between federal and state system approaches.

Survey results showed that planners overall favoured a federal system of water governance, but preferred states to manage issues of water allocation and planning. They were supportive of statutory water plans as the right way to achieve environmental sustainable development. The results of the study led to the publication of a book chapter and a journal article; the conclusions and recommendations from both support state authorities in achieving ecologically sustainable development.

Source: Based on a case study submitted by the Centre for Comparative Water Policies and Laws of the University of South Australia.

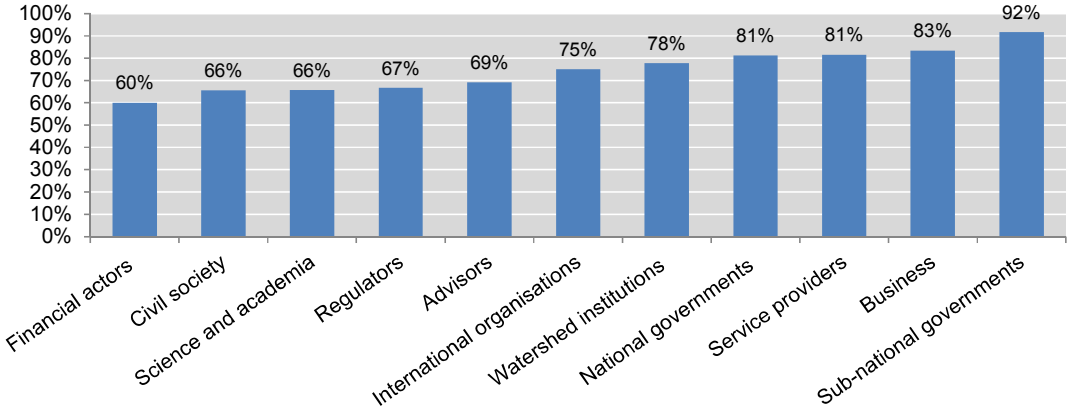
Aligning mechanisms with intended objectives

Stakeholder engagement has to be designed and managed in line with intended objectives. The different rationales that underlie inclusive approaches imply that stakeholder engagement can be a goal in itself (normative-democratic approach), a means to more efficient and legitimate water-related decision making; and an instrument to fulfil objectives that go beyond the water sector (e.g. empowerment of marginalised groups). These objectives rely on different types of mechanisms and players. For instance, to harness water-related knowledge, policy makers can set up water information systems whereas solving conflicts over water resources allocation requires the active involvement of those affected to identify the appropriate trade-offs and build consensus.

Mechanisms in place in the water sector to engage stakeholders have proven useful but their implementation and their systematic use have proven challenging. Indeed, 73% of participants surveyed concurred that existing mechanisms for stakeholder engagement are sufficient. Opinions converged that these tools have been successful to foster inclusive decision making, both formally by making stakeholder engagement more systematic, and informally by providing channels for stakeholders to contribute freely. This result shows that all tools are in place or at hand. It is then more a question of making them effective and outcome-oriented in practice than developing new instruments (Figure 5.4).

Figure 5.4. **Are there sufficient stakeholder engagement mechanisms? Share of "yes"**

210 respondents considered[1]



Note: The figure considers the respective share of "yes" responses provided by categories of stakeholders to the question asking whether all of the needed mechanisms already exist to support stakeholder engagement. 1. See table in Box 1.11 for more details on the respondents.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Fitting mechanisms to stakeholders and places

Decision makers should tailor existing mechanisms to specific categories of stakeholders. Indeed, young people, for instance, might be more receptive to Internet-based mechanisms such as social media and online discussion platforms to share their ideas than to conferences that might require travel expenses. Careful attention to cultural habits, levels of education and material means is also needed to select the appropriate tool (see Box 5.5).

Some preferences in using certain engagement mechanisms can be identified across categories of stakeholders. Results from the survey (see Chapter 8) reveal that, apart from meetings and workshops which are used by a large majority of respondents, some actors resort to certain tools more often than others. Capacity development is often used by international organisations (87.5%), financial actors and donors (80%) and civil society (72%) when they are promoters of engagement. Indeed, international organisations and donor agencies focus a large part of their activities on training as well as education and empowerment efforts to strengthen capacities and skills, such as USAID's *Water and Conflict Toolkit* and *Training Manual on Hygiene and Sanitation Promotion and Community Mobilization for Volunteer Community Health Promoters*. Consultation as part of the regulatory process is a tool favoured not only by regulators (83%) but also by national governments (69%) when looking to engage with stakeholders. Interestingly, sub-national governments and service providers also use consultation in regulatory processes, but from the perspective of a target of the engagement process. Finally, water associations are largely used by national (78%) and sub-national governments (75%) when they initiate engagement efforts. Indeed, these associations alone represent the interests of numerous stakeholders, be they service providers, watershed institutions or farmers, making them a preferred interlocutor for government authorities.

Box 5.5. Fitting engagement mechanisms to stakeholders: Water schools for mayors in Spain

The river basin authority of the Duero in Spain launched a project aiming to develop "schools' for mayors in order to provide local elected officials training and information-sharing activities in various aspects of water management. In particular, the schools focus on the topics of: *i)* existing legal frameworks for managing water; *ii)* low-cost purification systems for small towns (e.g. constructed wetlands, peat filters, lagoon, biological filters, etc.); *iii)* sustainable spatial planning solutions to reduce the risk of flood damage; *iv)* land management instruments for environmental protection and conservation in rural areas (e.g. land stewardship, environmental volunteering, etc.).

In early 2012, two pilot projects of schools for mayors were developed by the river basin organisation of the Duero and funded by the Ministry of Agriculture, Food and the Environment. The experiments were very well received and the schools for mayors were supported by the provincial councils and the Professional Association of Secretaries of City Halls. Eleven schools for mayors were developed between 2012-14, with an average attendance of 25 people per school meeting. The meetings gave rise to interest in purification projects by eight municipalities.

The schools provide local officials with information on regulatory frameworks and technologies, as well as training by experts to develop their skills in water management. Non-governmental organisations also use the schools to disseminate their work and share specific examples to develop collaboration with local government towards the protection and sustainable development of ecosystems in their municipalities. At times, Schools for Mayors invite a wider range of stakeholders to participate in activities such as irrigators, fishermen associations, nature conservation associations, hydroelectric providers, in an effort to create a forum for discussion and reconcile diverse and sometimes conflicting interests.

Assessment surveys are conducted for each school and have revealed that attendance has remained unusually low, never exceeding 50% of invited participants, but those attending have proven very active. These evaluations have also shown that the schools have been a useful platform for triggering concrete actions, such as a municipality taking the decision to allocate funds for the construction of a sewage treatment plant instead of a sport facility. Finally, the assessment of the schools has highlighted increased consultation and dialogue among technical experts of local government, resulting in better permit applications, fewer infringements, etc.

Source: Based on a case study submitted by the river basin organisation of the Duero.

Some tools are easier to use in urban areas than rural ones. Stakeholders living in urban areas tend to have more access to media and ICT-based tools like websites and social platforms for instance. Urban settings can offer more opportunities to bring together groups and people from different backgrounds and more opportunities for stakeholders to have a voice. Tools such as town hall meetings, citizens juries and public hearings concerning specific water issues are particularly appropriate for urban areas, although they have been used effectively in rural settings as well. Rural stakeholders are often disadvantaged due to the lack of communications infrastructure and the general tendency to focus more on the interests and concerns of urban actors. Tools that can be particularly useful in bringing the voice of rural citizens to the table include traditional media (e.g. radio channels) and community meetings. Box 5.6 provides experiences in Australia, Belgium and the Netherlands to fit engagement processes to local needs.

Box 5.6. Tailoring stakeholder engagement to specific local needs

Since 2013, the **Belgian** drinking water and sanitation service provider Vivaqua has partnered with municipalities and citizens to develop a flood monitoring programme. It consists of carrying out "audits" of building conditions as regards flood risks and identifying the practical measures to be taken to reduce the magnitude and frequency of floods. The project started with large initiatives to share information and raise awareness among citizens. Each building audit results in an assessment report that was sent to inhabitants to present possible solutions to improve flood protection. The last phase of the programme, which is optional and decided case by case, aims to supervise works that need to be carried out in buildings to be brought up to existing standards. The programme is closely monitored in terms of the number of citizens that have required an audit, the number of visits carried out, the number of audit reports produced, etc. To date, a number of visits have been realised and successfully provided inhabitants with the information they requested to take the necessary measures for protecting their business against flood risks.

Another example of operational stakeholder engagement takes place in the **Netherlands**. In 2003, a "flood brigade**"** was established by volunteers, along with the regional water authority, to contribute to flood protection in Kampen. Citizens willing to contribute follow a specific training and must be in good physical condition to help maintain removable structures such as stop logs and valves. The regional water authority organises two annual gatherings for the flood brigade members: one aims to train new volunteers and encourage social cohesion among people involved and the second aims to share information about broader flood protection issues, safety and urban heritage. The brigade is organised in teams with clear tasks established in a manual. Team leaders' performance is evaluated every year by their colleagues. The initiative has spread throughout the country and regional water authorities provide training for volunteers to act as "dike guards" and monitor the condition of the flood protection infrastructure on a regular basis.

In Tasmania, **Australia**, a participatory R&D planning project was initiated in 2014 to identify industry and community water needs and to develop a strategy that would support the expansion of irrigation while improving economic and social benefits from water resource utilisation and supporting a wider socio-economic policy agenda. Under the leadership of the Tasmanian government and the Tasmanian Institute of Agriculture, stakeholder consultations took place across a broad range of local actors (business, service providers, farmers, civil society, etc.) to discuss foresighting methods. This resulted in the establishment of a R&D coalition to deliver the knowledge infrastructure needed to compliment hard investments in water resource infrastructure. Three divergent scenarios for future Tasmanian agriculture were presented based on climate projections to stimulate discussion and generate debate around the dynamic relationship between R&D, public policy and economic development. In response, participants supported an R&D initiative focused on achieving broad goals related to sustainability, productivity and regional development, as well as the establishment of co-operative innovation networks to implement it. In its initial phase, the engagement process was managed by external consultants. It is now the full responsibility of the Tasmanian government which will be responsible for implementing the initiative drawn from the engagement process. A formal stakeholder advisory group was also created to steer the work in the future.

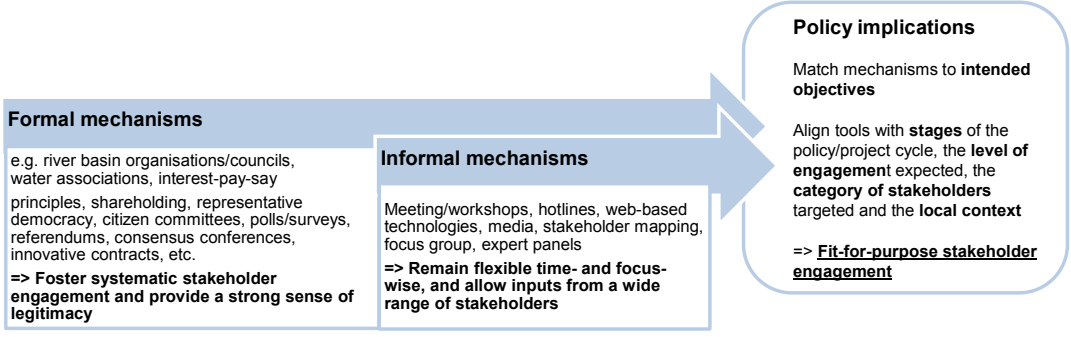
Sources: Based on case studies submitted by Vivaqua; the Dutch water authority of Groot Salland; and the Tasmanian Institute for Agriculture and Alexandra and Associates.

Conclusion

As water projects or policy processes are never identical, one cannot expect to replicate the engagement process of one project or policy (no matter how successful) to produce the same results in another project or policy. Rather, it is necessary to consider each process separately, learning from the lessons of similar projects but recognising where there is room for improvement. The key to selecting the appropriate mechanisms is to understand the broad range of options at hand, what they can achieve and why one might be more suitable than another in a particular context and for a particular purpose. The tentative taxonomy of formal and informal mechanisms can provide some guidance for decision makers to identify and implement the most appropriate tool, or combination of tools, to achieve their intended water governance objective.

Mechanisms vary in terms of the amount of time they take, the level of decision making involved, the number of stakeholders they involve, as well as the types and amount of resources they require. It is crucial for decision makers to carefully align tools with the level of engagement targeted and the context in which the engagement takes place. The effectiveness of mechanisms also relies on the capacities and resources needed for stakeholders to use them effectively, including knowledge, know-how and funding (travel expenses to attend a meeting, necessary technological settings). Also, new methods are being continually developed and require new skills and capacities. Thus, there is no one single optimal mechanism for stakeholder engagement but a menu of options, for which pros and cons need to be carefully weighted. Chapter 5 provided a non-exhaustive review of the strengths and weaknesses of formal and informal engagement commonly associated with formal and informal mechanisms decision makers can refer to in order to ensure stakeholder engagement is fit-for-purpose (Figure 5.5).

Figure 5.5. **Towards fit-for-purpose stakeholder engagement**



Source: OECD elaboration.

Notes

1. Involve (2005a and 2005b) provide further development on the costs of public participation and how to put citizens at the centre of decision making, as well as an assessment of selected engagement mechanisms.

2. Among watershed institutions surveyed, 89% pointed out the web-based technologies from a promoter perspective and 79% from a target perspective.

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Chapter 6

Assessing stakeholder engagement in the water sector

This chapter assesses the contribution of stakeholder engagement to water governance outcomes. It assesses the strengths and weaknesses of assessment tools available, and sheds light on the main challenges to evaluating stakeholder engagement's impact. The chapter reviews existing indicators for measuring the effectiveness of stakeholder engagement, in terms of their processes and their outcomes and suggests typologies of costs, risks and benefits related to stakeholder engagement. It concludes with mitigation measures that can help manage the trade-offs needed for setting stakeholder engagement on an adaptive and sustainable path in the water sector.

Introduction

There has been little evaluation of the effectiveness, costs and benefits of stakeholder engagement in the water sector because this type of analyses is relatively new to the public sector. Evaluation has generally remained on an *ad hoc* basis potentially because stakeholder engagement has often been carried out as an "add-on" to conventional processes or has often consisted of a "tick-the-box" approach to comply with existing legislation and rules.

Why evaluate stakeholder engagement?

Evaluation concerns both the process and the outcomes of stakeholder engagement. First, it can provide insight on how an engagement process has, is or will function. It can take place at various stages: during the early stages of design and preparation (*ex ante* evaluation), during the engagement process itself or after (*ex post* evaluation). Process evaluations relate to how engagement has taken place, the quality of the process and the activities either throughout the engagement initiative or during a specific phase (i.e. design, implementation). Evaluations can also focus on the outcomes of the process to assess whether or not the initiative led to the expected final results. Combining the two approaches allows for a comprehensive picture of the stakeholder engagement experience and assesses more exhaustively its effectiveness.

Valued-added of stakeholder engagement evaluation

Evaluating stakeholder engagement can strengthen the accountability of decision makers, by measuring whether public and institutional resources, including stakeholders' time and efforts, are properly used. Evaluation can help determine whether the engagement process was successful and to inventory lessons learnt to improve practice in the future. However, evaluation can face political and practical difficulties that may influence the ability of decision makers to carry out the assessment. Therefore, in many cases it is desirable that a third-party ensures the independence of the assessment and its results.

A robust evaluation can also contribute to anticipating and managing some risks. It can help to map out the different views held by different stakeholders at the start of a process and identify potential challenges that the process may face (e.g. divergent perspectives regarding flood defence measures between land planners, property owners and government authorities or regarding water resource allocation between farmers, industries and environmentalists).

For long-term decision-making and implementation processes, e.g. large infrastructure projects such as dams or water reforms, regular evaluation throughout the engagement cycle can help to check repeatedly whether the process is meeting the purpose agreed at the beginning. Water governance systems are dynamic, and therefore engagement initiatives need to remain adaptive enough to cope with unforeseen circumstances and changes. Regular evaluation can help decision makers identify weaknesses in the process and develop alternative approaches. It is also critical to ensure that knowledge and learning are gathered as the engagement process is taking place.

Although evaluation can be considered a costly process, in particular if it is commissioned and carried out independently of the engagement process, a robust review process is more than just a useful tool. It is an essential criterion for the effective

management of stakeholder engagement processes. The costs of not accounting for these risks, and being faced with engagement efforts going wrong, as often happens when there is insufficient time for proper reviews as the process unfolds, are far higher than the cost of ongoing reviews.

Evaluation of stakeholder engagement contributes to overall good governance as it provides information that can improve decision making and implementation on a number of fronts. First, it can reduce information gaps on engagement processes and encourage greater effectiveness. Second, it can provide the evidence base to select policy strategies, resource allocation and actors. Third, it accounts for results, and it allows for learning, adjusting and improving (OECD, forthcoming).

Challenges to stakeholder engagement evaluation

Evaluating stakeholder engagement can raise some difficulties. First, there is a lack of comprehensive frameworks for analysis that could provide agreed-upon evaluation methods and reliable measurement tools. Second, there is a wide variety in the design and goals of engagement processes. Therefore, evaluation frameworks should be general enough to apply across different types of processes yet specific enough to have value for learning and practice. Third, stakeholder engagement is an inherently complex and value-laden concept. There are no widely held criteria for judging the success and failure of engagement efforts. Some evaluations focus on the intrinsic benefits of stakeholder engagement but disregard its instrumental outcomes. Others focus on the instrumental outcomes for stakeholders, communities, policy and governance.

No systematic comparison of engagement processes and methods in water governance has been carried out thus far. Decision makers need to move towards more comprehensive and methodical evaluations of stakeholder engagement to improve understanding of where, when, why and how these processes work and do not work. Evaluation can help decision makers understand what type of engagement, under what conditions, creates what results.

A range of evaluation tools and practices

Stakeholder promoters are increasingly using evaluation tools to measure the success of their engagement efforts. Respondents to the OECD Survey on Stakeholder Engagement for Effective Water Governance (see Box 1.11 in Chapter 1) have indicated that they most often use multi-stakeholder meetings to collect feedback on the level of performance of engagement processes (Figure 6.1). Evaluation reports are the second most often used evaluation mechanism, for 46% of responses provided, and in particular for 59% of promoters surveyed. They allow for analysis and to keep records of the success and lessons learnt from engagement processes (see for instance Box 6.1). When publicly disclosed, these reports can also provide an indication for the stakeholders engaged of how their contribution was taken into account. Other tools can provide information for assessing the engagement process, such as levels of satisfaction, as it is the case of polls and surveys which were reported as being used by 40% of respondents. However, it is worth noting that when they exist, evaluation mechanisms are not necessarily used in a systematic and regular fashion.

Mechanisms to assess stakeholder engagement have pros and cons (Table 6.1). For instance, evaluation tools, such as multi-stakeholder meetings and evaluation reports, offer some flexibility. Meetings can take different formats and can tackle different aspects of the engagement experience (the process, the impact, the conclusions, etc.) and are

useful to collect feedback from a wide range of stakeholders who were involved in the process. Similarly, evaluation reports can cover a specific stage or the overall engagement process, and often pool feedback from a variety of sources (interviews, standard measurement, etc.). However, both also present weaknesses. The worthiness of feedback collected during multi-stakeholder meetings and workshops depends greatly on the time allocated, and the skills and expertise of the interviewers and moderators. In the case of evaluation reports, the authors of such documents should be carefully considered as they often speak as to the legitimacy of the content. An evaluation report is more likely to be valued by stakeholders engaged in the process, and in particular those that might not be satisfied with the outcomes, if it was prepared by an independent body or an academic institution.

Box 6.1. **Stakeholder engagement evaluation in Alsace-Moselle, France**

The inter-municipal public water and sanitation service provider for the Alsace-Moselle region in France has long been involved in stakeholder engagement practices as part of its activities. It has maintained a dynamic and steady relationship with a variety of stakeholders, including domestic and industrial users, elected officials, trade unions, as well as other representatives from civil society (environmental organisation, research centres, etc.) in support of a culture of networking based on trust and transparency.

All stakeholders signed "stakeholder cards" that stipulate roles and responsibilities, expectations and indicators for monitoring progress. In addition, partnership agreements are signed between certain stakeholders to enhance joint activities and evaluation.

Control and regular monitoring are provided by dedicated bodies resulting in a three-tier evaluation:

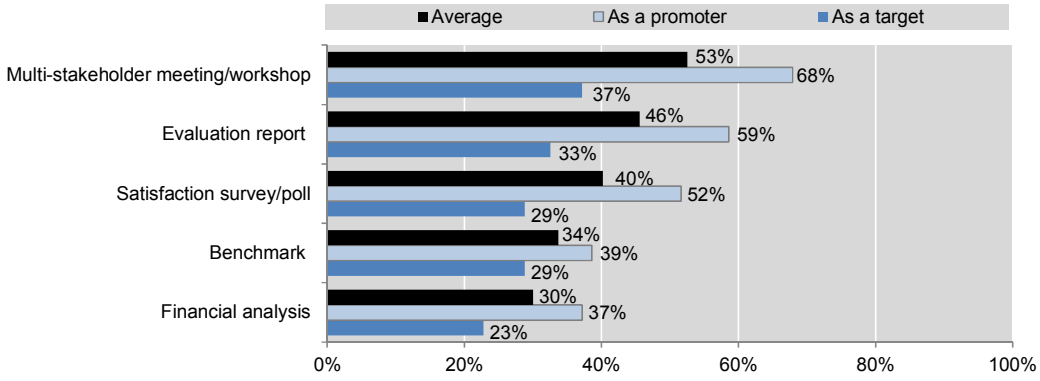
- At the partnership level, the project team meets on regular basis, measures progress and discusses results and performance against agreed-upon qualitative and quantitative targets such as stage of progress, outcomes achieved, actions carried out, expenses, etc.
- At the service provision level, two types of results are provided to elected officials and key partners of the public utility: performance results (projects and policies successfully carried out, planned activities, etc.) and perception results (customer satisfaction surveys, stakeholders and staff surveys, etc.). Based on these results, the service provider sets out its priorities and new strategies when needed.
- At a broader level, complementary monitoring is carried out externally, whether they are requested by the service provider (e.g. against ISO standards for instance) or by national regulatory authorities (e.g. regional chamber of counts). Stakeholder groups also provide additional feedback on partners such as suppliers and institutional actors.

Evaluation has shown a steady increase in confidence in the service providers from elected officials (95% of satisfaction rate), users (80%) and stakeholders (95%). Results also revealed that partnership agreements are developed on a regular basis (e.g. in 2014, an agreement was signed with the French research institute IRSTEA). More and more projects are developed to pool water resources and infrastructure together as well as pollution prevention activities, which are carried out at a larger scale than if the service provider were acting alone. This "360°" evaluation provides a comprehensive assessment further enshrined participatory processes in the service providers' approach. Building on national and international standards and references (e.g. ISO9001, ISO140001, OHSAS 18001), the Alsace-Moselle water utility has gradually moved towards a strategy of co-construction, co-development and co-evaluation of policies and projects, and receives more and more demand to testify on its approach at national level.

Source: Based on a case study submitted by Syndicat des Eaux et de l'Assainissement – Alsace-Moselle.

Figure 6.1. **Evaluation mechanisms used for stakeholder engagement**

215 respondents



Note: The figure considers the average between targets and promoters for "yes" to the question whether their organisation has mechanisms to assess the impact of stakeholder engagement.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Table 6.1. **Assessment of evaluation mechanisms**

Evaluation mechanisms	Strengths	Weaknesses
Multi-stakeholder meetings/workshops	– Allow the involvement and input of a wide range of stakeholders previously involved in the process. – Flexible in format and scope.	– Can be time- and labour- intensive. – Require skills and expertise to be well moderated, as it conditions the quality of feedback obtained during a meeting/workshop.
Evaluation reports	– Can pool together different types of feedback based on measurements and scales, interviews, etc. – Can cover a number of aspects (e.g. relevance, effectiveness, efficiency, impact). – Easy to disseminate to a broad audience.	– Legitimacy of the evaluation report greatly depends on the author (e.g. independent expert, academic, etc.).
Satisfaction surveys/polls	– Questionnaire relatively easy to prepare. – Polls can cover knowledge questions (e.g. on factual information about the process and its outcomes); feeling questions (e.g. on confidence, mistrust); opinion questions (e.g. on relevance, clarity); and behaviour questions (e.g. on description of experience, activities, actions).	– Need to be clear and easy-to-understand in order to collect useful feedback.
Benchmarks	– Compare institutions using similar engagement tools, aiming for similar objectives, etc. – Create incentives for organisations to outperform other institutions leading similar engagement approaches. – Open minds to new ideas. – Place organisations in a continuous improvement mode.	– Reveal the outcomes attained by other institutions for their engagement process but do not always consider the circumstances under which they attained such outcomes. – May lead to complacency if the benchmark reveals they performed better than other institutions. – Should not be considered as a stand-alone activity but as a means to an end, that should be accompanied by action plans to do better.
Financial analyses	– Help review the financial performance of the engagement process (costs/benefits, investments and return on investments, etc.).	– Require institutions to have financial statements of the engagement process. – Provide a myopic review of the engagement process. – Should not be considered as an end in itself but as one aspect of stakeholder engagement evaluation to be complemented with a review of non-monetary/ intangible costs and benefits.

Source: OECD elaboration.

Often, evaluation mechanisms help to collect a certain type of feedback but they cannot provide an exhaustive assessment of stakeholder engagement. Benchmarks, for instance, are a useful tool to compare engagement processes that use similar tools or pursue similar objectives. However, the specificities of the contexts in which stakeholder engagement processes are implemented influence how the latter are designed and carried out. Also, financial analyses provide a review of the financial performance of engagement processes, looking at its monetary costs and benefits. As such, they only look at the economic aspects of stakeholder engagement but do not take intangible costs and benefits into account, such as trust building and knowledge development. Therefore, evaluation mechanisms need to be carefully chosen according to the aspects or stages of the engagement process that are to be assessed, and an exhaustive evaluation may imply combining a number of tools.

Box 6.2. **The Hydropower Sustainability Assessment Protocol: Multi-stakeholder engagement to promote sustainable hydropower and practical implementation in Brazil**

While hydropower is a major source of renewable energy worldwide for electricity generation, it has been the subject of frequent controversy because its potential negative environmental, social, human rights and corruption impacts had either been ignored or insufficiently addressed. In 2008, the Hydropower Sustainability Assessment Protocol was launched at the initiative of the International Hydropower Association (IHA) as an assessment framework to evaluate the sustainability of hydropower projects.

The development of the protocol was carried out under the guidance of the multi-stakeholder Hydro Sustainability Assessment Forum, which consisted of 14 representatives from developing and developed countries (People's Republic of China, Germany, Iceland, Norway and Zambia), commercial and development banks (World Bank, Equator Principles Financial Institutions), the hydropower sector (Hydro Tasmania, IHA), as well as environmental and social non-governmental organisations (NGOs) (IUCN, WWF, Oxfam and Transparency International). Each category of participating stakeholders had specific reasons to support sustainable hydropower:

- for developing countries, hydropower plays an important role in meeting national electricity requirements
- for developed countries, hydropower continues to be important in national electricity requirements, and it is also supported as part of development assistance programmes
- banks were motivated by the need to manage reputational risk in relation to financing hydroelectric projects
- environmental NGOs were motivated by the desire to design future hydroelectric projects to avoid poor practice in addressing environmental issues
- social NGOs wanted to ensure that future hydroelectric projects would properly address social issues (i.e. resettlement, indigenous people, etc.).

The forum met between 2008-10 during formal meetings and webinars to discuss sustainability issues of relevance to hydropower, as well as corruption and transparency. It benefited from expert advice, evaluated important reference standards, developed progressive drafts, and monitored two global trialling processes and a global trialling programme. A hallmark of the protocol was its emphasis on stakeholder engagement as a key criterion for evaluating the sustainability of hydroelectric projects. The protocol was officially launched in June 2011.

Box 6.2. **The Hydropower Sustainability Assessment Protocol: Multi-stakeholder engagement to promote sustainable hydropower and practical implementation in Brazil** (*cont.*)

In 2012, the protocol was implemented in Brazil to evaluate the Jirau Hydropower Project being built by Energia Sustentavel do Brasil in the state of Rondonia. The objectives were to enhance the engagement, relationship and communication with stakeholders at the local, national and international level; obtain an independent evaluation of sustainability issues; and identify possible gaps or weaknesses as a basis for the development of an action plan to optimise socio-environmental management in the operation of the plant.

The assessment team was composed of four accredited auditors from the IHA and an observer (i.e. the Nature Conservancy) and conducted 132 interviews with a wide range of stakeholders, as well as analysed over 1 900 documents to determine the project's sustainability profile according to 20 environmental, social, technical and economic topics.

Looking particularly at stakeholder engagement aspects of the evaluation report, the assessment identifies a range of well-documented commitments, volunteer programmes and arrangements that generated significant and sustained benefits for directly affected communities and surrounding communities. The report confirmed that the energy provider had established adequate management, monitoring and compensation measures to assure that project-affected communities (e.g. miners, displaced landowners, fishermen) were well assisted.

Overall, the results obtained as a result of the stakeholder engagement exceeded expectations, and demonstrated that the Hydropower Sustainability Assessment Protocol is a useful tool to approach and improve relations with stakeholders to discuss the sustainability of large hydropower projects. The assessment of the Jirau hydropower plant project proved to be beneficial not only to identify opportunities for improvement in terms of socio-environment management practices, but also to visualise achievement and further opportunities to enhance benefits for the society and the environment. The evaluation report is also expected to support an evidence-based discussion on the socio-environmental costs and benefits of hydropower at large.

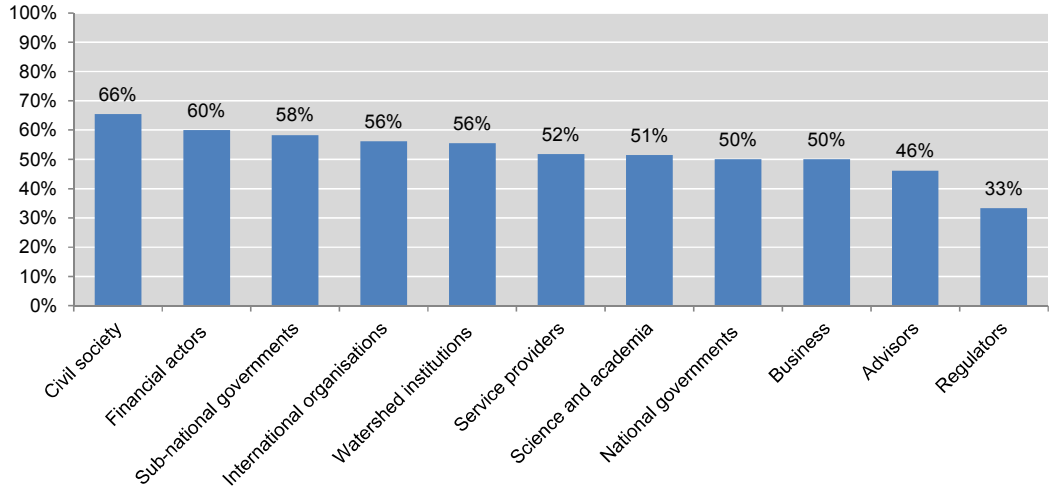
Source: Based on case studies provided by Transparency International and GDF Suez Energy Brazil.

Some categories of stakeholders use evaluation mechanisms more often than others. Sixty-six percent of civil society organisations surveyed conduct evaluation on a regular basis, while only 50% of businesses undertake the same exercise (Figure 6.2). This is in part due to the perception that receiving feedback from customers on a given stakeholder engagement process, particularly in terms of complaints, is negative and should not be fostered. Rather than ignore, dismiss or under-value complaints, there is value in viewing them as useful warning signs that the process could be improved.

Although regulatory consultations are becoming common practice, their evaluation remains incidental in the water sector. Public consultations in developing draft primary laws and subordinate regulations exist in all OECD countries (OECD, 2008). Nevertheless, the assessment of the quality of these consultations needs further attention, including in the water sector. Indeed, among the categories of stakeholders surveyed, regulators were the least prone to use evaluation mechanisms on a regular basis (Figure 6.2). To support better evaluation of regulatory consultations, the OECD *Recommendation of the Council on Regulatory Policy and Governance* (OECD, 2012) advises to regularly publish reports on the performance of regulatory policy and reform programmes, including on how public consultation functions in practice.

Figure 6.2. **Frequency of use of evaluation mechanisms across stakeholders**

215 respondents



Note: The figure considers the respective share of answers for "very often" and "often" by category of stakeholders.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

How to evaluate stakeholder engagement? The need for indicators

Indicators are increasingly advocated as a tool for measuring the impact of stakeholder engagement. However, existing research calls for caution as they can be highly contentious both in theory and in practice. It can be argued that complex processes of social change should not be reduced to simple metrics, and that the process of defining indicators and analysing the implications of the results can be highly complex and political. Some outcomes of engagement processes can be intangible (such as improved relationships or a sense of empowerment) and both quantitative and qualitative indicators should be employed to review the engagement process. At the same time, indicators can also be informative measurements of complex systems.

Existing indicators for monitoring and assessing stakeholder engagement

Several sets of proxies identified from the literature review can be useful in defining a set of indicators to assess stakeholder engagement effectiveness (Box 6.3). A tentative framework should look at the: *i)* effectiveness of the engagement process itself, including criteria on clarity of objectives, availability of data, milestones timeline attained and expenses; *ii)* effectiveness of the process in reaching intended outcomes, both related to social capital (empowerment, trust, accountability, legitimacy) and to water governance at large (resolutions of conflict at hand, quality improvement, implementation of the planned policy/project).

Reporting on evaluation outcomes

Transparent reporting to stakeholders on the results and outcomes of the engagement process is essential to build support and trust. Reporting gives feedback to the participants on how their inputs have influenced the final decision. As such, it serves as *ex post* tool for the promoters, and a mechanism to involve stakeholders.

Box 6.3. Overview of existing indicators for assessing stakeholder engagement

- **Process criteria:** Representativeness; inclusivity; participation rate; early involvement/obtaining input early in planning process/continuous involvement; process fairness; process flexibility; subjective assessment of previous evaluations; perceived openness of process; transparency; structured decision making; resource accessibility; task definition; independence; interaction; continuity; comfort; convenience; satisfaction; deliberation; fairness; competence; identification of common good; incorporation of values/beliefs into discussion; effectiveness of method process.
- **Outcome criteria:** Policy/decision influence; time to develop regulations; reduce/eliminate judicial challenges; agency responsiveness to participants' policy demands; public views incorporated into decision making; influence on public; social impact; impact on general thinking; effect on public and plan support; participants' values/opinions evaluated; interaction with lay knowledge (impact on lay learning); effect on staff and planning process; impact on training (learning of knowledgeable personnel); staff awareness; conflict resolution; restoring public trust in public agencies; perceptions of consultation by members of parliament, public, media (i.e., perceived success/failure); effectiveness and cost effectiveness; procedural impact of the mechanism (Rowe and Frewer, 2005a, 2005b).
- **Community involvement** indicators:
  - community influence: i.e. percentage of adults who feel they can influence decisions affecting their local area
  - community cohesion*:* i.e. percentage of people who feel that their local area is a place where people from different backgrounds can get on well together
  - social capital*:* i.e. percentage of people who have helped or been helped by others
  - condition of the community and voluntary sector*:* i.e. extent and influence of the voluntary and community sector in the locality (Humm, Jones and Chanan, 2005).
- **Performance indicators for public participation:**
  - co-operative: during the process the balance between proponents and opponents should change; more people should support the proposed action and less people should object
  - respect culture and values of community: way of addressing, handling and organising should be adapted to the culture, core values and beliefs of a community
  - respect for social institutions: active co-operation with local formal and informal leaders
  - consideration of demographics: involvement of all participating age groups
  - consideration of differences in power: involve representatives from all participating and affected power levels
  - consideration of different values and interests: involvement of all stakeholders, either having a stake in the project or being affected by it
  - meaningful involvement: determination of the level to which stakeholder information and concerns are taken into account
  - early information: determination of the stage of the process during which stakeholders are involved
  - all interests respected: mapping of all interests and cost and benefits of proposed change should be assigned to stakeholder groups
  - equity between generations: addressing sustainability and long-term impacts
  - mutual respect: core values should be honoured

Box 6.3. **Overview of existing indicators for assessing stakeholder engagement** (*cont.*)

  - mutual understanding: social learning should be pursued
  - improved proposal: changes in the documents based on or as a reaction to stakeholder input or concerns
  - results accounted for: changes instigated by the participation made explicit in report (Enserink, Witteveen and Lie, 2009).

- **Scope of the process:** Participatory processes should address the elaboration of laws, plans/strategy and specific water-related projects.
- **Scope of the participants:** Participatory processes should include at least representatives of the following stakeholder groups: industry (including energy production), urban supply, agriculture (including animal breeding), green NGOs, academic sector.
- **Process design:** *i)* Consultation objective is stated at the outset; *ii)* target audience is stated at the outset; *iii)* consultation documents include a timetable for the consultation process; *iv)* responses from "consultees" and the outcome of the consultation exercise are published before any subsequent change in the relevant policy, law, programme.
- **Capacity building:** *i)* Authorities ensure access to background documents related to the different water management components; *ii)* documents are provided in insufficient time to allow consultees to provide considered responses; *iii)* financial support is provided for stakeholders to be actively involved.
- **Level of empowerment:** *i)* Information language and form are suitable to the recipients; *ii)* information is complete and provided in a timely manner; *iii)* stakeholders have a real chance of influencing the process with their comments; *iv)* stakeholders have a real chance of influencing the process with their involvement (De Stefano, 2010).
- **Process evaluation:** Accountability; cost-effectiveness, deadlines and milestones; facilitation; knowledge inclusion; legitimacy; power.
- **Intermediary outcome evaluation:** Development of social capital (interaction and network development and trust); products of the process (agreements, end to a stalemate, innovation, institutional change, shared knowledge and information).
- **Resource management outcome evaluation:** Ecological improvement; economic improvement; human health and well-being improvement; implementation of an accepted plan; reduction in conflict/increased harmony (Carr, Bloschl and Loucks 2012).

Sources: Carr, G., G. Bloschl and D.P. Loucks (2012), "Evaluating participation in water resource management: A review", *Water Resources Research*, Vol. 48, Issue 11, November, http://dx.doi.org/10.1029/2011WR011662; De Stefano, L. (2010), "Facing the Water Framework Directive challenges: A baseline of stakeholder participation in the European Union", *Journal of Environmental Management*, Vol. 91, Issue 6, pp. 1 332-1 340, http://dx.doi.org/10.1016/j.jenvman.2010.02.014; Enserink, B., L. Witteveen and R. Lie (2009), "Performance indicators for public participation", IAIA 09 Conference Proceeding', Impact Assessment and Human Well Being, 29th Annual Conference of the International Association for Impact Assessment, 22 May 2009, Accra International Conference Center, Accra, Ghana; Humm, J., K. Jones and G. Chanan (2005), "Testing indicators of community involvement", Final Report, Community Development Foundation Research Unit, available at: www.most.ie/webreports/reportjune2010/Policy07/Ivan/Testingindicsfinal.pdf.pdf; Rowe, G. and L.J. Frewer (2005), "A typology of public engagement mechanisms", *Science Technology Human Values*, Vol. 30, No. 2, pp. 251-290, http://dx.doi.org/10.1177/0162243904271724.

Reporting deserves consideration not only at the end of an engagement process, but throughout the process. Reporting can cover the different stages of the water policy/project in terms of: *i)* how information is made accessible; *ii)* how stakeholders are

targeted and involved; *iii)* the amount of human and financial resources invested (Box 6.4 provides an example of reporting on a participation process).

Box 6.4. **Reporting on the participation process under the EU Water Framework Directive**

Annex VII of the EU Water Framework Directive (WFD) requires that the river basin management plans cover "a summary of the public information and consultation measures taken, their results and the changes to the plan made as a consequence" (Annex VII.9) and "the contact points and procedures for obtaining background documentation and information referred to in Article 14(1) (…)" (Annex VII.11). This requirement provides information to the European Commission in its role as supervisory authority over the implementation of the WFD.

The requirement from Annex VII.9 can be fulfilled by providing some measures taken and techniques used, the responses received from stakeholders in different sectors, and the implications of the responses for the river basin management plan. Guidance documents to help river basin organisations implement the WFD also recommend to take into account the reporting aspects beforehand and to include quality indicators in the reporting such as facts and figures, a description of the public participation plan and measures of participants' satisfaction.

Source: European Commission (2003), *Common Implementation Strategy for the Water Framework Directive (2000/60/EC)*, Guidance Document No 8, Public Participation in Relation to the Water Framework Directive, Working Group 2.9 – Public Participation, European Communities, Luxembourg.

What should be evaluated in stakeholder engagement?

Getting to understand stakeholders' perspectives by involving them in the process is one way to enhance the effectiveness of decision making and water governance, despite related costs. One can easily argue that stakeholder engagement may slow down decision-making and implementation processes or lead to inaction by diverting attention and resources away from needed actions. However, these reflections fail to consider the quality of the decision making and the extent to which inclusive decision making, including inputs to mainstream decision making, can lead to "better" decisions, for instance when they are better aligned with local water contexts and needs. Stakeholder engagement can lead to decisions that are more fully supported by those affected, and avoid the costs of decision-making processes being disrupted with protests by those not involved. Similarly, organisations that foster inclusive approaches and openness in policy or project processes are more likely to secure the support of stakeholders concerned.

Evaluation also needs to analyse the costs and benefits of stakeholder engagement. Involving stakeholders in water projects and policy processes can raise costs and generate benefits. There are overall positive considerations for stakeholder engagement to improve outcomes and build consensus. Nevertheless, decision makers and project leaders have begun to criticise engagement processes as too costly, expensive in time and money, and as not subject to capture by specific lobby groups in their own interests.

Effectiveness

Evaluating the effectiveness of engagement processes and outcomes can shed light on the contribution of stakeholder engagement to better water governance. Measuring the impact of stakeholder engagement on the various aspects of water governance can help to identify where inclusive decision making is the most effective and helpful to reach the intended objectives. This resonates with the support and sense of ownership that often result from engagement process. Similarly, stakeholder engagement also makes an important contribution to building consensus, trust and confidence for 48% of

respondents surveyed. It is also interesting to point out that although 73% of respondents indicated that they contribute to capacity building (see Figure 3.5 in Chapter 3), only 20% reported that stakeholder engagement was effective (Figure 6.3).

Box 6.5. **Assessing performance in stakeholder engagement: NARBO's benchmarking system**

The Network of Asian River Basin Organisation (NARBO) has developed a performance benchmarking system to assess the capacity of river basin organisations (RBOs) in implementing principles of integrated water resources management (IWRM). It encompasses 14 indicators organised around 5 critical performance areas related to the mission; stakeholders; learning and growth; internal business processes; and finance. The stakeholder indicators look at customer involvement, customer feedback, environmental audits and basin livelihoods. NARBO has conducted performance assessments of RBOs in a number of Asian countries including Lao People's Democratic Republic, Malaysia, Philippines and Sri Lanka, which improved their effectiveness in implementing IWRM principles in various river basins and fostered experience sharing and bench-learning across basin organisations.

Examples of NARBO's indicators for evaluating customers' involvement in river basin organisations

Critical performance area	Stakeholders
Objective	Customer satisfaction
Objective description	Customers will be fully satisfied by the services provided by the river basin organisation(RBO)
Indicator	Customer involvement: A measure of the level of customer involvement in the decision making of the RBO and, therefore, their acceptance of the organisational goals and operation
Indicator values	How to evaluate the RBO's performance
1. No planned customer communication	– No awareness of customer communication (indicator value = 0.0) – An awareness of the importance of customer communication but no plans to deliver (indicator value = 1.0)
2. Customer information	– Some information is available to customers on request (indicator value = 1.5) – Information relevant to customers is readily available and prominently displayed in a place of public access (indicator value = 2.0)
3. Open meetings	– There is an awareness of the importance of open and two-way communication with customers but so far no routine open meetings take place (indicator value = 2.5) – There is a schedule of open meetings and evidence of invitations for customers with opportunities for customers to voice their concerns and air their views (indicator value = 3.0)
4. Customer contributions to decisions	– Customers are encouraged to provide feedback in many forms appropriate to themselves (indicator value = 3.5) – There is evidence that the customer feedback is carried forward to strategic planning and that organisational decisions incorporating customer's views are taken (indicator value = 4.0)

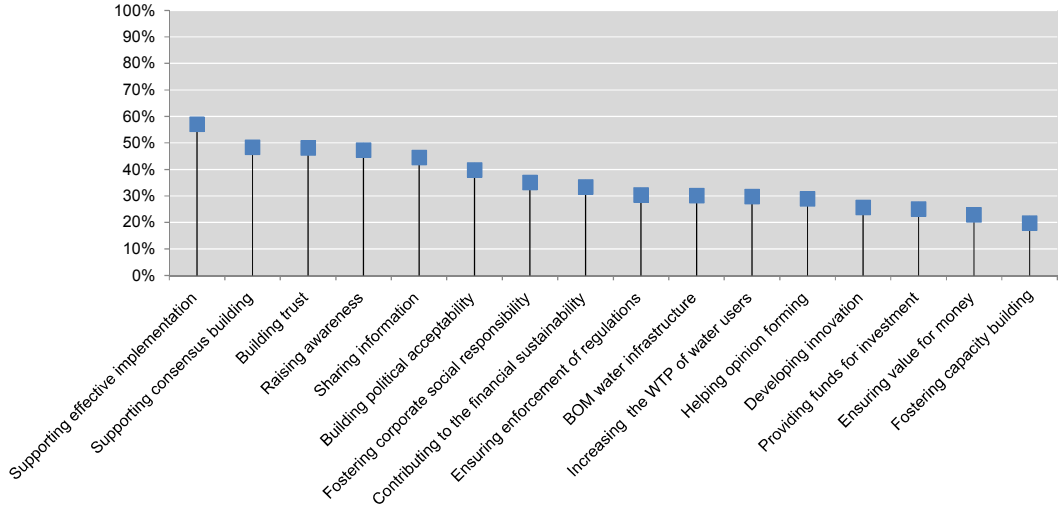
In Sri Lanka, for instance, the Mahaweli river basin authority provided limited opportunities for involving irrigators and domestic water users in decision-making and planning processes. NARBO's evaluation carried out in 2006 pointed to such gaps as well as to areas for improvement as regards stakeholder engagement. It provided an incentive for establishing venues to exchange opinions and involve these stakeholders in the IWRM in the basin. A recent NARBO evaluation carried out in 2013 according to the same indicators showed concrete progress in customer involvement and customer feedback, while also pointing to areas where further effort is needed, such as by introducing regular dialogue opportunities.

In the case of the Selangor Water Management Authority in Malaysia, the river basin is subject to serious droughts which put water supply for the city of Kuala Lumpur at risk. The basin authority relied on NARBO's assessment framework to evaluate its own performance, including regarding stakeholder engagement. Conclusions and recommendation from the assessment were included into the business programme of the basin authority and encouraged the establishment of regular stakeholder meetings. In addition, the basin authority is focusing efforts on developing communication channels with the stakeholders concerned, and more specifically with ICT tools.

Source: Based on a case study provided by the Network of Asian River Basin Organisations.

Figure 6.3. **Perceived impact of stakeholder engagement on water governance**

215 respondents



Note: The squares represent the average between targets and promoters of responses given to each water governance objective for which stakeholder engagement is considered "crucial."

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Evaluations can shed light on the differentiated impacts of stakeholder engagement across categories of stakeholders. Depending on their interest, stakeholders perceive the impact of engagement processes in different ways (Figure 6.4). For instance, 80% of watershed institutions surveyed think that stakeholder engagement is crucial to support effective implementation of policy and projects, and to raise awareness on water challenges and costs. Inversely, they did not view it as crucial in providing funds for investment (31%). Civil society argued that stakeholder engagement has a crucial impact when it comes to information sharing (53 %) and capacity building (52%) as opposed to ensuring proper enforcement of regulations and norms (12%). Service providers primarily see the impact of stakeholder engagement in terms of ensuring value for money (42%) and building, operating and maintaining water infrastructure (50%). They reported that it is less important as a vehicle to ensuring the willingness to pay (32%). Box 6.6 provides an example in Australia where stakeholder engagement contributed to improving water users' willingness to pay.

Assessing stakeholder engagement should not be considered as an end in itself but serve a broader purpose of improving the process and its outcomes. As an example, *ex post* surveys and polls can help determine at which stage of the policy/project cycle stakeholders perceive they have the most influence over decisions. This happens essentially at the early stages for 66% of national governments, 67% of watershed institutions and 37% of service providers surveyed, while 67% of regulators and 37% of academia and research centres consider having a greater influence during the evaluation stage (Figure 6.5).

Evaluation of stakeholder engagement needs to take place within a systemic approach where the processes, tools and practices are improved based on the evaluation results. Stakeholder engagement cannot be considered as a linear process only guided by clear procedures and predefined objectives. Rather, it needs to consider the complexity and dynamics of water governance systems and should remain adaptive and flexible.

Evaluation provides for learning and reflection throughout the engagement process in order to fine-tune expected outcomes in line with changing insights and conditions (see Box 6.7).

Box 6.6. **Improving the willingness to pay for water in South Australia**

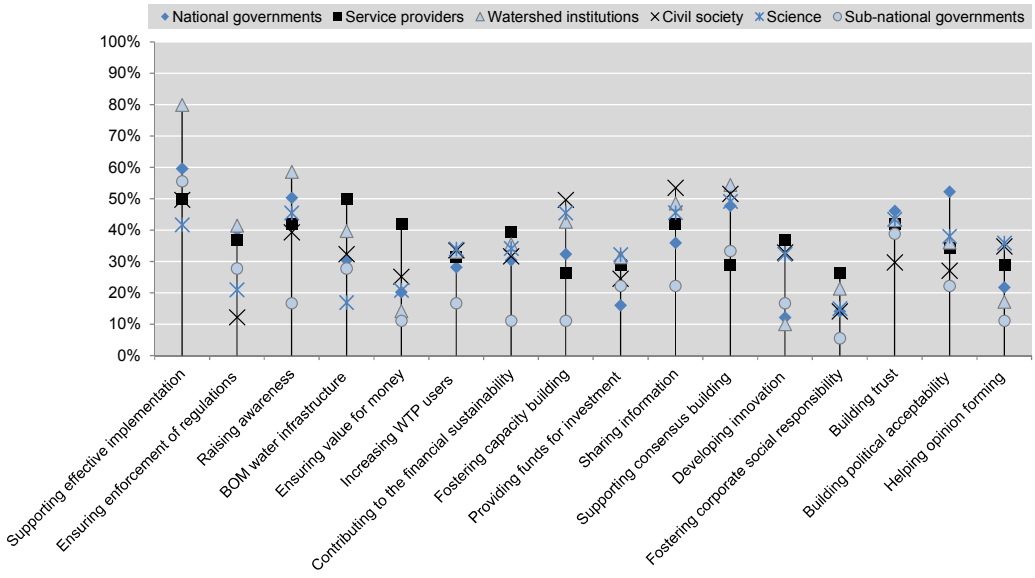
Under the 2004 South Australian National Water Management Act, councils are tasked to collect a levy four times per year at fixed intervals from house owners based on property value. In addition, the levy rate levels vary among council areas even within the same region causing considerable inequalities for ratepayers. Furthermore, the levy does not reflect a penalty for behaviours that damage local natural resources.

A study sponsored by the University of South Australia investigates an alternative method for levy collection that would improve the willingness of house owners to pay, based on the volume of water consumed and through water bills. The study explored community attitudes regarding the current levy base method and recommendations for an alternative approach that would positively encourage change in individual water consumption behaviour. The study involved the Adelaide & Mount Lofty Natural Resources Management Board to gather information on levy history and collection. It relied on an online survey carried out across 770 property owners, which demonstrated an information gap among survey respondents regarding the levy structure, and indicated that better information and education of the community on natural resources and water management was needed. The survey indicated that property owners were more in favour of a levy based on water consumption rather than on property value. This provided a robust basis for changing the levy policy to increase the willingness of property owners to pay.

Source: Based on a case study submitted by the Centre for Comparative Water Policies and Laws of the University of South Australia.

Figure 6.4. **Perceived impact of engagement processes across stakeholders**

215 respondents

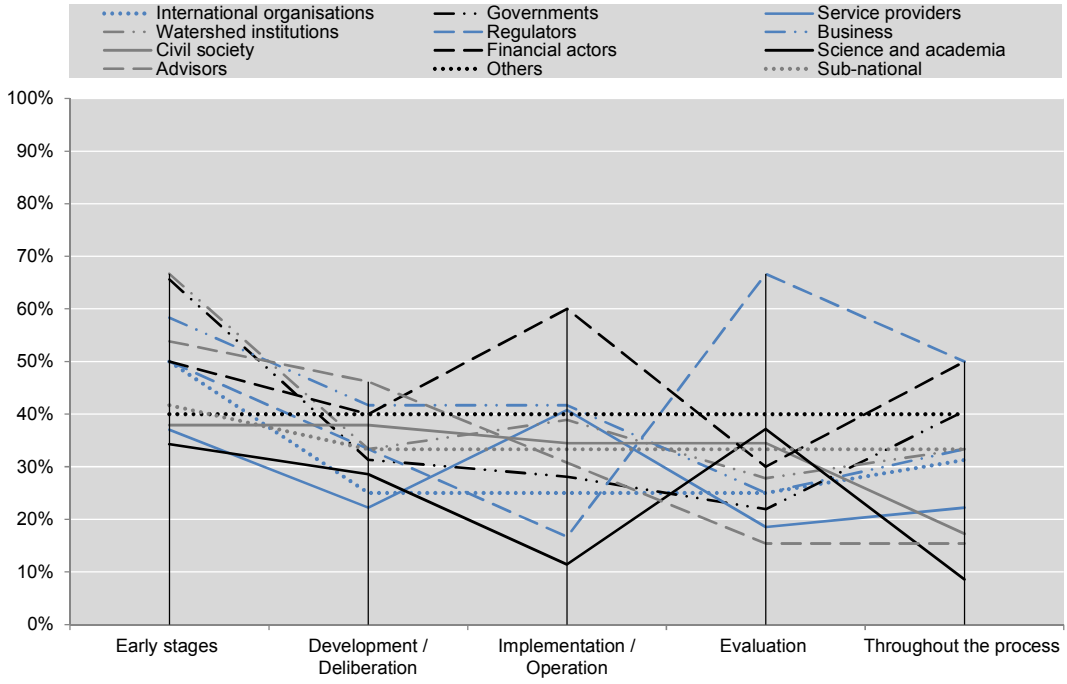


Note: The figure considers the average between targets and promoters by categories of stakeholder for responses given to each water governance objective for which stakeholder engagement is considered "crucial."

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Figure 6.5. **Level of influence of stakeholder engagement on decision-making stages of the policy/project cycle**

215 respondents



Note: The figure considers the stage of the policy/project cycle at which the influence of stakeholder engagement was considered as "significant" looking at 12 categories of stakeholders, on a range from significant influence to some influence, little influence and no influence.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

In light of the intended objectives, the results can provide some lessons for decision makers to refine or intensify their strategies at certain points throughout the process. Assessments can inform decision makers and conveners on how the stakeholder engagement process performs. Monitoring and evaluation should be part of an evolving cycle of learning to assess the strengths and weaknesses of specific approaches and identify possible areas for improvement. As an example, the University of Arizona Water Resources Research Centre used a participation tracking system to monitor inclusiveness and interactiveness as part of a project on water planning which came to be instructive for the project managers to target future engagement towards under-represented groups (Box 6.8).

Costs

More and more, decision makers are encouraged to share information, increase transparency and involve more stakeholders. Discussions, consultation and exchange of opinions raise some transaction costs, be they direct or indirect, monetary or not, that relate to different phases of the engagement process (Figures 6.6 and 6.7). As such, stakeholder engagement is an investment which, when done properly, can limit the likelihood of stakeholder engagement risks to arise, and bolster water policies, reforms and projects.

Box 6.7. Improving stakeholder co-ordination through evaluation in South Africa

South African water services face critical challenges in terms of poor planning and prioritisation; ageing infrastructure, increasing investment needs in poor economic conditions, a changing workforce with an increasing lack of technical skills, and shifting patterns in water demands with rising energy costs. The Municipal Strategic Self-Assessment (MuSSA) tool has been conceptualised by South Africa's Department of Water and Sanitation (DWS), to support improved decision making, water utility business management and effective sustainable performance by municipal water utilities.

The tool helps to convey the current overall business health of water services, flag areas of business vulnerability and indicate future likely performances of water service provision with early warnings. The identified vulnerabilities are then addressed via the associated municipal priority action plans (MPAP) which is a high-level planning process overseen by the DWS to support effective and appropriate planning across internal and external silos and implementation of sustainable solutions. Importantly, the combined MuSSA/MPAP process allows the national government to proactively provide support to municipalities showing signs of extreme distress and resolve adverse situations before they arise. Whilst not a legislated requirement, the MuSSA/MPAP process is supported at high governmental level and was recently included as a component of the water services development plans. Water service authorities are required by law to submit water services development plans to the Department of Water Affairs.

Since 2006, the DWS annually supports 152 municipal water services authorities to establish the baseline vulnerabilities affecting their performance using the MuSSA through an online tool where senior municipal managers are required to indicate their performance according to 16 key business attributes. Following the consolidation of the findings and formal feedback, the DWS facilitates workshops at the municipal level to develop the WPAP and agree on a set of proposed priority actions addressing the vulnerabilities captured. Municipalities are then expected to sign-off and implement the MPAP (which is operational since 2013). A monitoring process is then initiated to check annually on the progress of agreed-upon strategic actions to update the vulnerability status of municipalities as well as the MPAP.

The process generates multiple outputs and actions at local, provincial and national levels. As such, multiple stakeholders participate in assessing key municipal vulnerabilities such as regional offices of the Department for Water and Sanitation, the National Treasury, the Auditor General, as well as the South African Local Government Association. The MPAP contribute to aligning decision making across these different actors and thereby support managerial autonomy at municipal level, secure political support, improve performance accountability, commit top management to strong leadership and provide incentives to enhance performance (awards and rewards, etc.).

Although no formal assessment mechanisms has been used to date to evaluate the impact of the MuSSA/MPAP process, findings are frequently presented and discussed at national, provincial and local level to highlight the progress made (or not) and positive case studies. The findings also feed into South Africa's National Benchmark Initiative where they undergo a peer review process, thus supporting improved efficiency and effectiveness in water services delivery via comparative performance benchmarking, peer-to-peer knowledge sharing and iterative performance improvements.

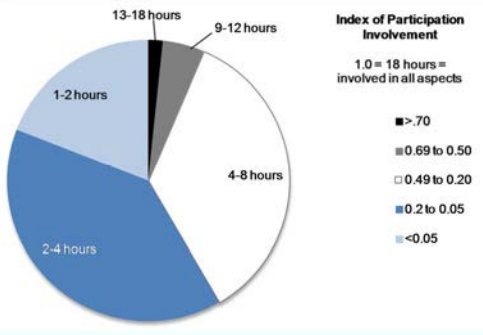
The MuSSA/MPAP process has encountered some difficulties related to the discontinuity of municipal official mandates, leading to delays in development. The implementation of the MPAPs also requires buy-in from municipal top management who might see the findings are a critic on their performance. The need to break down silos within municipalities (e.g. finances, engineering, human resources), is also an on-going effort to facilitate and achieve co-operation and cultural change in the water service sector at large. Nevertheless, since its inception, active sharing of MuSSA/MPAP findings have helped municipal water service authorities to save time and direct limited resources to prioritised needs. The involvement of various municipal officials throughout the process has also contributed to ownership over the MPAPs and has encouraged more discussions among them to agree on the appropriate ways forward. They also learn about existing legislative requirements and technical aspects.

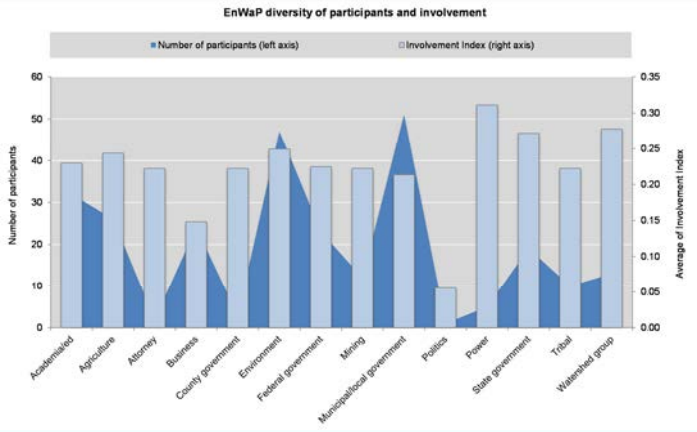
Source: Based on a case study submitted by the Department of Water and Sanitation of South Africa.

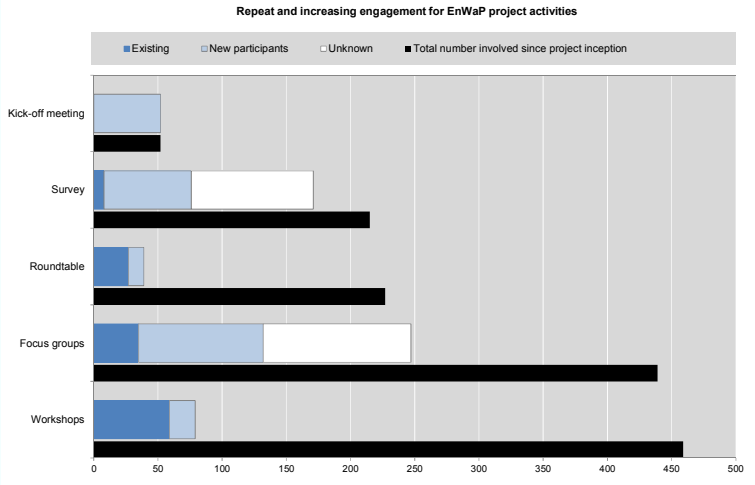
Box 6.8. Tracking participation to evaluate stakeholder engagement in water planning in Arizona

The project "Connecting the Environment to Arizona Water Planning" from the University of Arizona Water Resources Research Centre (WRRC) began in July 2011. Its objective is to foster dialogue among water users on voluntary, stakeholder-driven options for addressing the environment in the context of limited water supplies and existing water rights. The programme was carried out in two phases: the first was principally geared toward information and awareness, in particular through 38 presentations across Arizona and newsletters to a distribution list of over 800 contacts. The second was more focused on consultation and co-decision across various stakeholders, including representatives from governments, service providers, regulators, researchers and academics, civil society and environmental NGOs. Parliamentarians and politicians were also invited to engage but their contribution remained somewhat minimal. In total, over 450 people took part in an online survey, regional workshops and focus group meetings. Focus group meetings in particular were designed to reach out to water-interest groups that were otherwise under-represented in the process.

Although evaluation of the project was mostly informal, the project Steering Committee closely monitored progress through participation tracking. The WRRC created an index of participant involvement to examine the degree of commitment to the project demonstrated by individuals, which was considered particularly instructive when analysing the different interest groups involved in the project. It will also be a useful tool to target future engagement of groups that were less represented (according to the number of participants) or engaged (according to the Involvement Index). Success of the engagement effort was also tracked through an assessment of increasing involvement and repeat involvement in engagement activities.



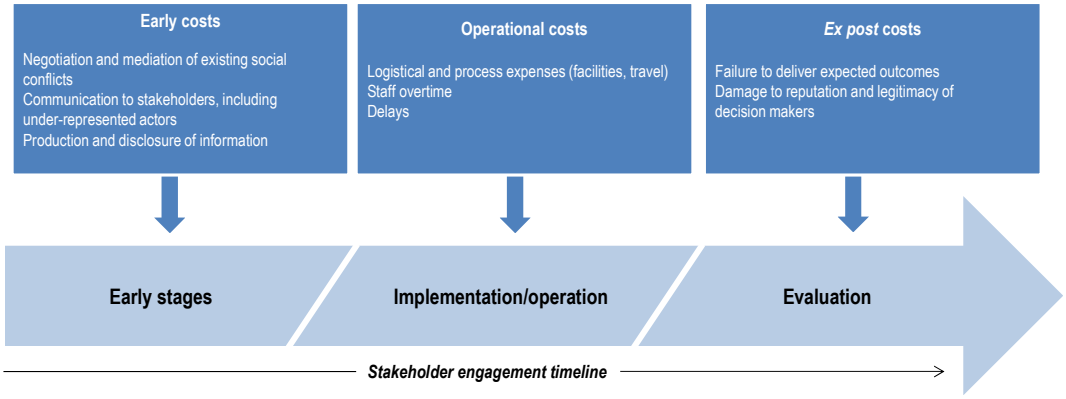




A formal survey targeting the 220+ participants and stakeholders of the project was to be administered at the conclusion of the project in October 2014.

Source: Based on a case study submitted by the University of Arizona Water Resources Research Centre, http://wrrc.arizona.edu/Water-for-the-Environment.

Figure 6.6. **Categories of costs in stakeholder engagement**



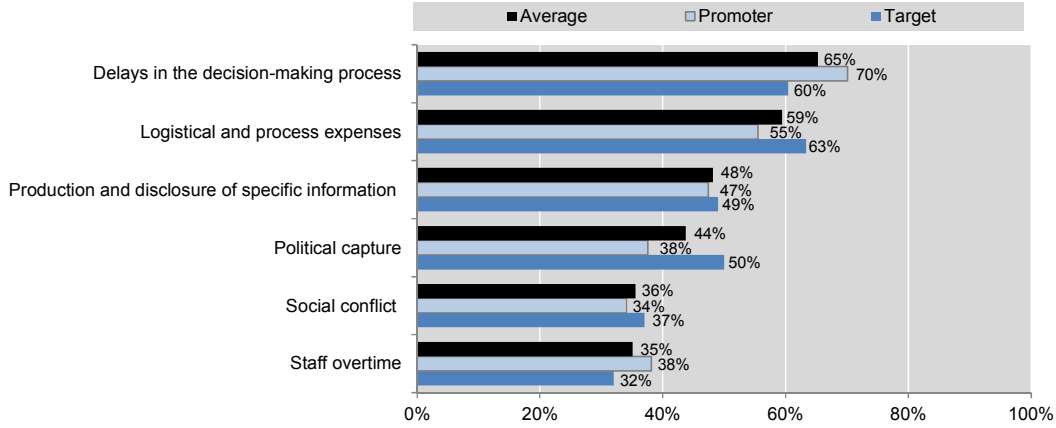
Source: OECD elaboration.

Early costs

Stakeholder engagement can incur some costs in its early stages. Engagement processes do not take place in a vacuum but are embedded in specific contexts of social interactions between stakeholders that may have different aspirations and interests. Pre-existing oppositions and conflicts between certain actors in the water sector raise some early costs for institutions whereby investment in negotiations is necessary before any constructive dialogue can take place. Social conflicts were identified as primary costs by 36% of respondents surveyed (Figure 6.7). Similarly, in situations where strong lobbies exist, or where certain stakeholders are often ignored, promoters of engagement may need to invest *ex ante* in mediations and communication efforts to avoid capture (identified as an important cost by 44% of respondents) during the process, and maintain a fair balance among stakeholders to be involved.

Figure 6.7. **Most important costs of stakeholder engagement in the water sector**

215 respondents



Note: The figure considers the average between targets and promoters for the types of costs ranked between 1 and 3 on a scale from 1 to 6.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Early costs also concern the production and disclosure of information. It is an important concern in 48% of responses provided, and especially watershed institutions (63%). Stakeholders can be ill-informed about issues at hand resulting in poor quality contributions and sub-optimal outcomes. Therefore, promoters of engagement should ensure that the needed information is available as early as possible for stakeholders to fully grasp what is at stake for the water policy or project concerned. Costs relate to disclosing existing information to stakeholders (e.g. setting up an online platform, conducting an information campaign, etc.) or producing new information (e.g. ordering new studies, mandating researchers, etc.).

Operational costs

The implementation and operation of the engagement process raise some operational costs. They include the monetary costs related to events (facilities, travel expenses) and staff costs generated by necessary training, time spent during and outside working hours, and additional expertise when needed. Stakeholder engagement might lead to quicker decisions, but may require more intensive work for those directly involved. Among the participants surveyed, 55% of the promoters and 63% of targets have identified logistical and process expenses to be the primary cost of stakeholder engagement.

Delay in decision making and implementation was identified as the most important cost incurred by stakeholder engagement. It was ranked as primary in 65% of the responses provided, and in particular for national governments (79%) and business (71%). Expenses related to logistics and travel ranked second for the average sample of surveyed respondents (59%), and most important for service providers (55%).

Ex post *costs*

The outcomes of stakeholder engagement can generate *ex post* costs. Once the operational phase of the engagement is over and stakeholders involved look at its performance, such evaluation can reveal that the objectives defined at the outset of the process were not achieved. Failure to deliver raises some costs for the reputation of promoters. Mitigating the damage done to organisations' public relations and image (e.g. in terms of confidence, customer satisfaction, trust, etc.) may require investing in communication efforts such as public campaigns. Also, failure to deliver the intended outcomes can put the leadership and legitimacy of decision makers into question. Poorly managing the engagement process and not meeting the targeted goals may raise questions about the leadership abilities of the promoters. For instance, a company in the water sector that does not achieve the outcomes of its engagement process may raise doubts amongst its shareholders if they perceive it as a sign of weak decision-making capabilities.

Risks

Stakeholder engagement presents some risks (Figure 6.8). They can relate to risk of conflict arising between stakeholders during the engagement process, if it is poorly managed. There are also risks of opposition and litigation over the outcomes of the process if stakeholders are only involved in the final phase of the policy or project process. Stakeholder engagement processes that are set up under false or misleading pretences (i.e. giving the illusion of inclusiveness on a particular water issue when the decision has, in fact, already been made) can undermine the accountability of decision makers if the participants realise their inputs were disregarded. Capture by certain groups, inertia to change current practices, and complexity of process or

over-consultation can all raise risks of frustration and fatigue among stakeholders. Mechanisms and measures exist to help decision makers mitigate these risks (see Table 6.2).

Figure 6.8. **Four types of risks in stakeholder engagement**

Source: OECD elaboration.

Table 6.2. **Risks and mitigation measures**

Risks	Mitigation measures
Conflicts due to diverging objectives and interests	Setting up negotiation and mediation processes to build consensus
Opposition to engagement process outcomes	Engaging stakeholders as early as possible in the process to ensure ownership
Undermined accountability	Providing a clear rationale and objectives and ensuring integrity and transparency throughout the process
Frustration/fatigue	– Defining clear objectives and expectations – Engaging stakeholders on issues they care about – Communicating on the impact of stakeholders' inputs in the final outcomes

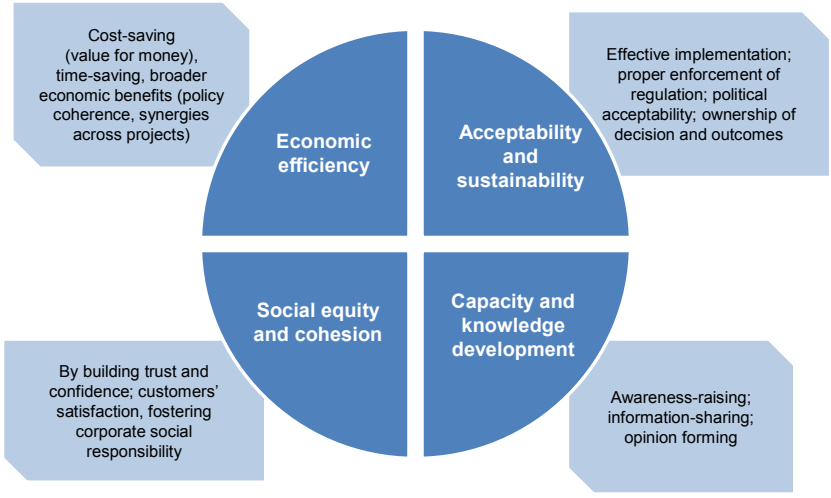
Source: OECD elaboration.

Not all engagement processes lead to successful outcomes. New officials may come into office while a collaborative initiative is underway and refuse to implement what their predecessors promised. Sometimes, as their leadership or memberships may shift, stakeholder groups that approved a final agreement change their minds and obstruct its implementation (Susskind, 2013). Water management efforts sometimes go against new policies adopted in other sectors that were formulated completely independently. For instance, a situation of energy crisis may cause policy makers to override their prior commitments to proceed with water management in a certain way. In such cases, officials and stakeholder groups should explain why they no longer support the water management agreements they previously approved, and look for new opportunities to collaborate.

Benefits

The process of engaging stakeholders may be more costly than the total absence of consultation, but by allowing testing and refining decisions, it is likely to yield short- and long-term benefits. Short-term benefits relate to the outcomes of engagement, such as better quality decision making, increased willingness of stakeholders to collaborate to solve common water problems or greater support for the implementation of a water project or policy. Long-term benefits relate to improved understanding and awareness on flood risks, more confidence in government's decisions or capacity building. Overall, benefits can be categorised around four categories: acceptability and sustainability; social equity and cohesion; capacity development; and economic efficiency (Figure 6.9).

Figure 6.9. **Four types of long-term benefits of stakeholder engagement**



Source: OECD elaboration.

Acceptability and sustainability

Stakeholder engagement contributes to acceptability and sustainability and resilience in water projects and policies. For 62% of respondents surveyed, it contributes to building ownership for the policy and project concerned (Figure 6.10). It also contributes to making water policy and projects more sustainable and resilient in the long term (51%) Decisions relying on an inclusive approach are likely to be more future proof (see Box 6.9). Conversely, policy making or project processes that fail to engage stakeholders can lead to protests and delays hindering implementation.

Stakeholders involved in decision making and implementation are provided with a unique window into how decisions and policies are made and put into practice. Therefore, engagement processes have a key role in public scrutiny and in holding decision makers accountable. Inclusive decision making can also prevent decision makers from "filtering" the options considered for a water project or policy, thus undermining democratic legitimacy and the accountability of the decision-making processes.

Box 6.9. **Engagement to secure buy-in and acceptability for new technologies in Australia**

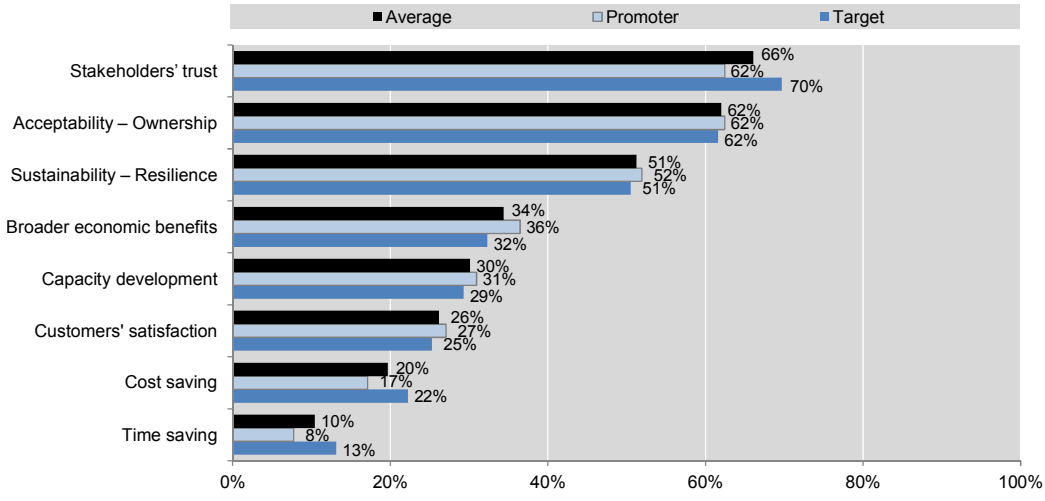
The **Virginia Pipeline Scheme** in Adelaide is one of the largest high-quality water recycling schemes worldwide and the first of its type in Australia. It provides water for irrigation in a key horticulture region of the country. A study sponsored by the University of South Australia and CRC for Irrigation Futures Australia interviewed 128 irrigators using reclaimed water as part of the Virginia Pipeline Scheme to collect data on their practices and perceptions and investigate the role of community participation in successful implementation of the water reuse scheme. Results showed that effectively designed partnerships between key stakeholders, backed up by sound regulatory and policy measures, has led to the effective implementation of the scheme and broader acceptance of recycling through greater awareness.

In Australia, stormwater has increasingly been recognised as an alternative source to augment freshwater supply and address growing water needs. However, the implementation of stormwater reuse strategies is challenged by concerns of public health and acceptance, largely explained by a knowledge gap regarding the substitution of treated stormwater for potable drinking water. An online study was conducted in 2011 by the University of South Australia to gauge the attitude and intention of residents from the Salisbury local government area in South Australia to use treated stormwater for non-potable use. The questionnaire was jointly developed by the National Centre for Groundwater Research and Training, the Salisbury City Council and the Department of Environment, Water and Natural Resources and provided participants with extensive information on the project's objective, method and ethical considerations. Results showed that residents were mostly confused about the sources of reused water and rather unclear about which authorities owned the reclaimed water, but also that they were keen to assist with water sustainability and to use fit-for-purpose water for certain uses instead of potable water. The study proved useful for governments who wanted to have a better understanding of diverging residents' attitudes. Conclusion of the studies showed that policy initiatives aiming to promote stormwater use should consider upstream communities' expectations and acceptance, as well as communicate with residents on a regular basis and respond to inquiries in order to avoid costly policy and project failure.

Source: Based on a case studies submitted by the Centre for Comparative Water Policies and Laws of the University of South Australia.

Figure 6.10. **Main benefits of stakeholder engagement in the water sector**

215 respondents



Note: The figure considers the average between targets and promoters for benefits ranked between 1 and 3 on a scale from 1 to 8.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Social equity and cohesion

Stakeholder engagement guarantees equity and democracy in decision making and can provide solutions for conflict situations. For instance, stakeholder engagement contributes to reinforcing stakeholder's trust (66% of respondents surveyed) and improving customers' satisfaction for what concerns the quality of water and sanitation (26% of respondents surveyed). Inclusive decision making brings stakeholders together and contributes to strengthened co-operation towards a more cohesive water sector (see Box 6.10).

Box 6.10. **Stakeholder engagement for trust building in the Netherlands**

In 2008, the Dutch water authority of Amstel, Gooi en Vecht, an important recreational region in the centre of the Netherlands, faced a trust crisis with local citizens following the introduction of new water level regulation (i.e. flexible surface water level management instead of a fixed water level). This resulted in distorted communication and several lawsuits between the regional water authority and inhabitants who were worried about navigability capacity and risk of flooding.

To restore trust and confidence, a participatory monitoring network was set up by the regional water authority with the support of Deltares, a Dutch independent institute for applied research in the field of water, to encourage stakeholders to contribute by allowing additional measuring devices to be set up on their properties and permitting the manual measurement of surface water level and groundwater level. The monitoring approach and results were discussed and shared during five meetings attended by hydrological and geotechnical experts and all involved stakeholders.

The process was evaluated after the first year and during the second year of activities through interviews with participating citizens and staff from the regional water authority. During the first year, assessment results showed that the participatory monitoring approach yielded useful additional data and that stakeholders were active and thorough in their monitoring. Water managers and citizens also increasingly communicated issues related to water levels, and the public developed a better understanding of the advantages of flexible water level regimes, thus expressing more trust in water managers. The results from the second year showed a decrease in interest, which was due in part to fewer opportunities for stakeholders to meet and discuss but also to participant satisfaction with the information gathered during the first year.

The project evaluation revealed that the engagement process successfully contributed to expanding the initial monitoring network and increased insights on hydrological processes and changes. More importantly, it contributed to a strong improvement of communication between stakeholders such as farmers, recreational entrepreneurs and other citizens on the one hand, and the regional water authorities on the other hand, and a shared understanding among all regarding the management of the water system. There has also been less resistance of stakeholders against flexible water levels.

Source: Based on a case study submitted by Deltares.

By having a say in the outcomes, stakeholders are more likely to experience a degree of responsibility regarding the outcomes of the decision-making process. Thus, engaging stakeholders contributes to a greater sense of ownership regarding the outcomes of the engagement processes and the following action taken, be it the construction of new water infrastructure or the implementation of a water policy.

Capacity and knowledge development

Stakeholder engagement helps to strengthen capacity building and empowerment. It can fulfil an educative purpose allowing participants to develop their capacities to articulate both their interests and concerns and to provide their insights to the decision-making and implementation processes. The process of jointly designing and implementing water policy or projects can reinforce local organisations, build confidence, skills and capacity to co-operate, and raise awareness and critical appraisal. In this way it empowers people, including formerly under-represented or excluded actors, and enables them to be part of the decision-making process. On average, 30% of respondents to the survey believe that stakeholder engagement allows for capacity development.

Stakeholder engagement contributes to knowledge improvement and awareness raising. Water challenges are complex and multifaceted and often require different kinds of information and expertise to be fully tackled. Encouraging communication and collaboration across different stakeholders is a useful way to pull knowledge from different fields together. Stakeholders engaged then share their insights and together produce new knowledge (be it technical or non-technical) that improves the overall understanding of water issues at hand. By fostering knowledge sharing and production, stakeholder engagement also raises awareness among the actors involved regarding water, as well as the roles and responsibilities of others involved in the policy or project process (see Box 6.11).

Box 6.11. **Knowledge development: A mechanism and an output of stakeholder engagement**

Developing feasible, implementable strategies to address water issues is challenging. Decision makers are confronted with problems that are interrelated and difficult to understand (such as providing water security across agriculture, industry and domestic use), with multiple interests like environmental conservation and economic growth, and with an uncertain future regarding climate change, water demands and supplies. The role of knowledge in stakeholder engagement is vital in this setting to develop feasible strategies for water issues. Opening up knowledge production processes to various stakeholders (researchers, policy makers and other societal actors) enables them to contribute their knowledge to the complex water issues and proposed solutions. Stakeholder engagement and knowledge go hand in hand to enable decision makers to structure the complexity of the water issues they face.

Knowledge development with stakeholders can therefore be a primary intention of an engagement process. Stakeholders can be involved in decision making for the sole purpose of either pooling existing knowledge together or generating new knowledge to support the policy/project process and impact the decisions. This is the case of expert panels in which a variety of experts are engaged based on various fields of expertise to provide highly specialised input and opinions, debate and discuss various courses of action, and make recommendations. Also, crowdsourcing is an increasingly common practice according to which needed ideas or content are obtained by soliciting contributions from a large group of people. Alternatively, engagement processes can lead to secondary (knowledge) intentions of social learning and knowledge sharing. River basin organisations bring a range of actors at the watershed level together to jointly design river basin management plans and implement integrated water resources management (IWRM) principles. Such participatory initiatives contribute to dialogue which leads to information and experience sharing, thus strengthening their knowledge.

Box 6.11. **Knowledge development: A mechanism and an output of stakeholder engagement** (*cont.*)

Different types of stakeholder engagement exist around knowledge development to respond to water issues. Knowledge can be interactively developed with a diversity of stakeholders in the planning phase of water projects (Seijger et al., 2013). Or, knowledge can be developed across different policy domains of flood control and nature to seek multifunctional solutions (Janssen et al., 2014). Also, stakeholders can participate in monitoring water systems to enhance knowledge about the water system.

However, knowledge can also be the cause of challenges, struggle and conflict in decision making. Decision-making processes on water often involve different and fragmented forms of knowledge that are not always easily comparable. In addition, information and knowledge may be sensible and result in tensions between actors. Also, the capacity of stakeholders may be limited to understand the knowledge that is exchanged.

Yet when these challenges are addressed, there are various benefits of stakeholder engagement in knowledge production, both for decision makers and engaged stakeholders. For decision makers, these benefits include a better understanding of the issue at hand (e.g. local stakeholders have provided insights on local aspects); innovative ideas that can improve a strategy/policy/solution; enhanced feasibility of solutions and policies (in terms of finance, legal aspects, public support). For engaged stakeholders, the benefits may cover individual learning, the incorporation of their needs in the crafted policy or strategy, and an enhanced understanding of other stakeholders and their needs.

Sources: Based on Janssen et al. (2014), "The role of knowledge in greening flood protection. Lessons from the Dutch case study future Afsluitdijk", Ocean & Coastal Management 95 (2014), 219-232; and Seijger et al. (2013), "Responding to coastal problems: Interactive knowledge development in a US nature restoration project", Ocean & Coastal Management 89 (2014), 29-38.

Just as for costs, categories of stakeholders do not enjoy the same benefits from engagement processes. For 56% of civil society organisations surveyed, capacity development is a primary benefit that comes out of inclusive decision making. Citizens are given the opportunity to learn about water issues and have access to new information. Another interesting example is customer satisfaction: 33% of regulators and 30% of donors and investors surveyed reported this as a crucial positive impact of engagement processes, compared to 15% of citizens and 11% of business.

Economic efficiency

Stakeholder engagement contributes to economic efficiency. It can help optimise invested resources, and produce better policy outcomes and cost-effectiveness in the long term. It also contributes to broader economic benefits related to greater policy coherence and synergies across sectors and projects (34%). In the survey, 29% of national governments reported cost-saving as a major benefit.

Stakeholder engagement helps to reduce the costs of conflict and contention. By encouraging a mutual education across stakeholders regarding their various interests and needs, it contributes to building consensus and common agreements on issues that might have otherwise raised tensions, e.g. water allocation across various users in a river basin (see Box 6.12).

Box 6.12. Engaging stakeholders to solve the water conservation economic dilemma: The experience of "New Ideas on Water" in France

At the turn of the millennium in France, the challenges raised by resource conservation saw the emergence of new expectations from local authorities and civil society. The economic model for water and sanitation services appears to be fragile, relying on water volumes sold, often benefiting large water users and threatening investment over the long term. Thus, according to its 2006 sustainable development road map, Lyonnaise des Eaux launched the "New Ideas on Water" programme in 2010. It combines various mechanisms at different scales such as a web consultation platform (100 000 visitors, 400 contributions), 3 experts fora at the national level, 15 regional fora with 700 local elected representatives and Lyonnaise des Eaux managers, a targeted public relations campaign (particularly towards decision makers and youth) and 2 surveys conducted amongst elected representatives and the French population at large. These various mechanisms converged in 2012 with the formalisation of the "Contract for Water Health," which is structured around 12 commitments and assessed yearly by Vigeo.

The commitments are meant to be adapted according to local issues and to be incorporated into Lyonnaise des Eaux contracts with its clients. For instance:

- 194 local charters of governance have been signed with clients
- Lyonnaise des Eaux created the joint-venture Onova with the co-operative Terrana to develop environmental services to agriculture
- in 2013, 16 contracts included a part of remuneration based on environmental performances of Lyonnaise des Eaux.

This has allowed a shift away from a model solely based on volume, which did not correspond to the current issues surrounding the conservation of water resources, to index operators' remuneration on their environmental and societal performance. Innovative pricing solutions have been implemented to reconcile the imperatives of access to water for all and resource conservation. Dunkirk, Orléans, Hyères, Laon or Dijon are emblematic contracts to this regard.

This process has deeply transformed the company, its menu of services as well as its managerial culture. It contributed to an evolution of the corporate image among stakeholders and put water issues on the political agenda. A concrete example is Article 28 of the 2013-312 law in France (April 2013, also called the "Brottes Law") which encourages explicitly local governments to experiment new tariff schemes to be evaluated after five years by the National Water Committee.

Source: Based on a case study submitted by Suez Environnement.

Conclusion

Without proper evaluation, stakeholder engagement cannot be improved. Evaluations should be a critical step for decision makers to identify which mechanisms and strategies are most cost-effective so that good practices can be replicated. It can also support the development of a business case for action-oriented stakeholder engagement that incentivises decision makers to invest in inclusive approaches. They can also provide a reality check to debunk perceptions. In particular, the costs for participants are often underestimated, while demands for them to engage in decision making continue to grow, contributing to frustrations and demotivation in cases where they cannot anticipate their impact and actual contribution to the decision-making process.

Different costs and benefits accrue to different stakeholder groups at different times and require managing trade-offs to ensure successful engagement processes and

outcomes. There is a dearth of knowledge on the distributional impacts of stakeholder engagement. The danger is the potentially inequitable distribution of the benefits of engagement. To contribute to effective water policies and projects, an engagement process should deliver substantial benefits in the long term. Yet, any change that brings about benefits to the society as a whole but has negative consequences for certain groups may face opposition by the latter. If they have sufficient economic and political power and are well-organised, the "losers" may succeed to slow down or block the change.

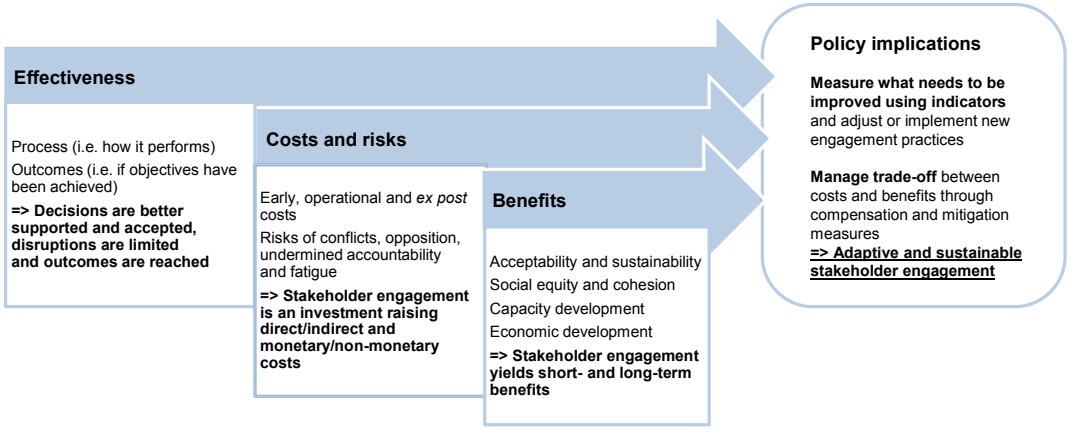
The sustainability of stakeholder engagement will not only depend on the net difference between aggregate costs and benefits but also on how they are distributed between stakeholders, and on stakeholders' willingness to bear them. Also, water policy reforms and large projects can induce important adjustment costs, especially in the short term, while the benefits of such initiatives may only arise in the long term. It is crucial to critically reflect upon the ratio of costs and benefits during engagement processes, determine the appropriate trade-offs related to this dual temporality, and ensure these are communicated and well-understood by stakeholders to avoid any frustrations.

Whether, when and how to compensate those who will lose out as a result of a reform or project is a critical concern for decision makers. Failure to compensate the likely "losers" may reinforce opposition and increase costs, both monetary and non-monetary (delays, conflicts). Compensation or concessions to potential losers do not necessarily compromise or contradict the effectiveness of the engagement process or the end result. Some compensation strategies consist in long transition periods where, for instance, new water laws or regulations are incrementally put into practice, allowing time for adjustments. Compensations can also take the form of adoption of policies in another sector (energy, agriculture, land use) that offset the cost of reform for some groups.

Conducting evaluations on the costs and benefits of stakeholder engagement can provide the evidence to guide effectively decision making and implementation with tangible data and analyses. This is especially true in the water sector where stakes are widely distributed among diverse stakeholders and perceptions vary from one category to another, with different influential power and reactive devaluation strategies. However, careful consideration is needed so as to not compare costs and benefits *stricto sensu*. The investments needed for stakeholder engagement are rarely proportional to the benefits it creates. Often, costs of stakeholder engagement are short term (e.g. early and operational costs), while benefits may arise during the engagement, immediately after or in the long term. Therefore, an engagement process considered as costly may still yield great long-term benefits and therefore be worth investing in and conducting. The perspectives of the stakeholders involved are critical to defining the costs and benefits of engagement. It is also critical to include these perspectives in the evaluation exercise, alongside the interests of the decision makers, and to consider the wider impacts on local communities and society as a whole to understand the true costs and benefits of participation (Involve, 2005).

Stakeholder engagement takes place in changing environments, therefore engagement processes need be considered in a dynamic way. As mechanisms may not work or new information may arise, time must be allowed to assess whether the process should be adjusted. Due to the often long-term nature of reform processes or infrastructure projects, it is important for stakeholder engagement to remain flexible and resilient to adapt to changing circumstances. Even when all of the conditions are in place for engagement processes to be successful, they might still fail to reach the expected outcomes because of the dynamic, complex and systemic political economy environment (Figure 6.11).

Figure 6.11. **Towards adaptive and sustainable stakeholder engagement**



Source: OECD elaboration.

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Chapter 7

Stakeholder engagement in the water sector: Key principles and a Checklist for Public Action

Decision makers and practitioners are eager to receive pragmatic guidance that supports successful stakeholder engagement. This chapter introduces the framework conditions needed to yield the short- and long-term benefits of stakeholder engagement. It proposes a set of key principles and a Checklist for Public Action, with indicators, international references and self-assessment questions that can help identify areas of improvement and create common ground for policy makers and practitioners.

Introduction: Why are principles needed?

In a rapidly changing and connected world where climate change, population growth, urban development, rising water need for energy and food, natural disasters, and water shortage are likely to damage societies and the environment, stakeholders must be empowered to act together to shape water governance. Setting up the enabling environment for collective management of water can allow actors to face these challenges together, and to successfully meet the needs of current and future generations.

Inclusive and consultative policy processes are no panacea for addressing all of the challenges facing the water sector, but they can contribute to more effective decision-making and implementation processes and to better water governance at large. Stakeholders that compose the water sector play a crucial role in determining the outcome of a given policy or project. They can initiate and support it, but they can also oppose efforts, attempt to block them or divert them to serve their own aims. Stakeholder engagement provides opportunities to share objectives, experiences and responsibilities, and to be more supportive of solutions that will be reached while voicing and addressing concerns and interests. As such, stakeholder engagement is a means for groups and individuals to share tasks and responsibilities in a sector where they often contribute to challenges as well as solutions.

Stakeholder engagement on water has expanded into diverse forms and multiple purposes. It has enabled more and more actors and practitioners to get involved, but it also faces some obstacles and raises some costs that hinder its contribution to, and impact on, the effectiveness of water projects and policies' objectives. For engagement processes to be relevant, a careful balance between what they try to achieve, the resources they require and whether they succeed in reaching the intended objectives is needed. Framework conditions have been identified, and can provide the foundation for setting up the enabling environment towards impactful and meaningful stakeholder engagement in water governance.

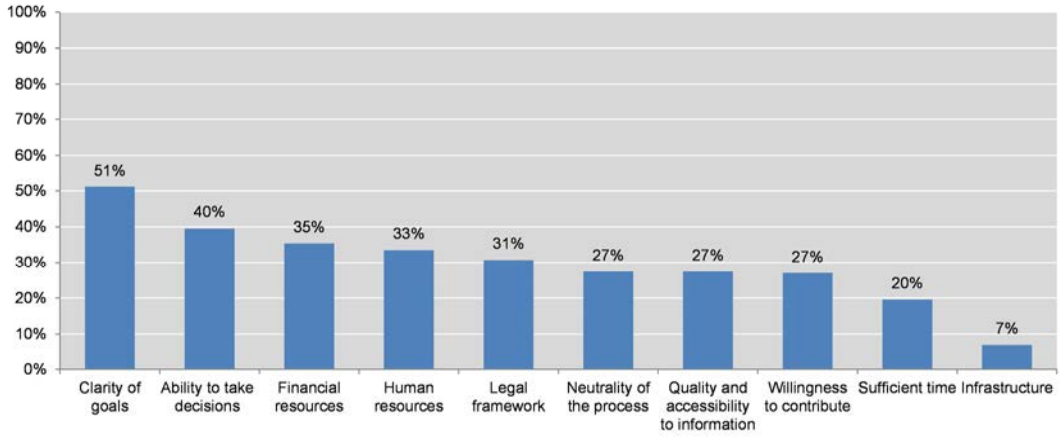
Critical aspects of governance should guide stakeholder engagement frameworks. First, equity: fair and equitable access to engagement opportunities is key to ensure a balanced and representative process that takes into account diverse ideas and opinions. Second, transparency: being transparent and open about the ways to identify stakeholders, choose engagement mechanisms and define the objectives pursued can help to raise interest among stakeholders and to develop an understanding of and support for the final decisions. Third, accountability: it is not sufficient to provide platforms for stakeholders to share their ideas as decision makers must also clearly demonstrate how these ideas are taken into account. Procedural transparency and timely disclosure of information, including alternative solutions, are therefore critical to ensure the legitimacy of decision-making processes and their outcomes. Fourth, trust: engagement processes may bring together groups with opposing views who fear that their views will not be taken into account. Showing participants what the intention of the process is and how their input will be considered is important to ensure productive discussions and exchange of opinions. It is also important that decision makers be able to trust the quality and value of input from non-technical experts.

Conditions for success: Highlights from the survey

Clarity of goals

Clarity on the common goals for water management as well as the objectives, roles and responsibilities of the overall engagement processes is crucial to create collaboration in stakeholder engagement for 51% of respondents surveyed (Figure 7.1). Decision makers need to communicate about the outcomes they are trying to achieve in terms of water management and governance, and the purpose of the process, as well as clarify *ex ante* what participants will actually be asked to do and how the outputs will be used. In order for stakeholder engagement to effectively create collaborative decision making and problem solving, all stakeholders involved in a policy/project process should know the aims and rules of the game, including what is expected of them, as well as the targeted outcomes. This helps avoid potential disappointment with regard to the influence of stakeholders over the process and its outcomes, and improves the credibility of the process for all contributing. In the absence of clear goals, it becomes more difficult to select the right mechanisms and level of engagement for the right stakeholders.

Figure 7.1. **Conditions for success of stakeholder engagement**



Note: The figure considers the conditions for success ranked between 1 and 3 on a scale from 1 to 10.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Ability and capacity to take decisions

The engagement process should not only involve stakeholders but ensure they have the capacity of influencing and improving the outcomes. The ability of stakeholders to take decisions was considered an important condition for stakeholder engagement by 40% of the respondents surveyed. Stakeholder engagement should not be limited to the creation of avenues for actors willing to get involved, but also ensure that they have the ability to have an impact through capacity building and education. It implies for decision makers to enter the engagement process consciously knowing they will have to share some decision-making power with other actors that might not share the same views. An equitable distribution of power among stakeholders engaged is key to provide useful and impactful contributions and to take decisions collectively. It should be fostered through trust between the parties involved and confidence in realistic results.

The ability of stakeholders to take decisions can be fostered by external and internal actions. In the former case, decision makers can encourage actors engaged in decision making to take on more power and influence using a range of incentives, grants and awards mechanisms. In the latter case, changes in internal organisational culture can encourage easier exchange and critique with outside stakeholders and set up incentives that encourage decision makers to tap into new ideas and suggestions.

Financial and human resources

The requisite financial and human resources should be secured to support stakeholder engagement. These are important factors for success for respectively 35% and 33% of the respondents surveyed. Financial resources are also needed to set up the appropriate engagement and communication tools. Whether it is the creation of an online platform or the organisation of a meeting, implementing engagement tools requires dedicated and qualified personnel that carry the process through and support stakeholders involved to maximise their contribution to the process. Securing the necessary resources to sustain the engagement process often has an impact on the ability of decision makers to set up meaningful and sustainable inclusive decision making.

Quality and accessibility of information

Result-oriented engagement processes imply that stakeholders be aware and informed about the issues concerned and about the objectives of the decision-making process. Information is power. Some stakeholders, including governments, will need to be persuaded of the benefits that they will receive from sharing information and developing a more holistic understanding of the issues. Information should be shared in an accessible way without using complex concepts.

People have different levels and types of knowledge on water issues, different perceptions and may process information differently. Therefore, communication and decision making cannot be purely a rational process. Information should be presented under different forms, hard facts and evidence, opinions or as personal experience. Some stakeholders may need training and support to engage on an equal footing with the others. This may be in the form of information that enables them to contribute to discussions, or with the provision of data on likely impacts for their area or sector.

Time and timeliness

Time and timeliness are two key factors for success. Lack of time is one of the most common constraints of many engagement processes. Like any conventional processes, stakeholder engagement requires time to develop, raise awareness and build trust. Stakeholders also need sufficient time to realistically and effectively participate (e.g. early notice of a meeting to prepare for it). A balance therefore needs to be reached between the need to take decisions quickly and the need to involve stakeholders in taking that decision, while avoiding over-burdening stakeholders with too-frequent meetings or too much information. As important, meaningful stakeholder engagement needs to take place at several stages during the decision-making process, from the early steps of conception and design to development, implementation and assessment. Therefore, the decision-making process and the timing of engagement both need to be well-planned.

Stakeholder engagement can raise short-term costs and risks, but when sufficient time is allocated, these are often outweighed by long-term benefits. An important determinant of successful engagement processes is whether stakeholders are willing to accept incremental gains over, or after, a long period of time. The challenge therefore becomes

optimising and sharing long-term benefits while reconciling disparate stakeholders' needs and expectations and developing a consensus across actors involved in such trade-offs.

Stakeholder engagement should take into account hydro-meteorological, administrative and temporal scales. Indeed, stakeholders involved should understand that previous decisions on water resources management and water provisions set the scene wherein decision makers operate. Also, organisations involved in stakeholder engagement work on different timelines and schedules. Funding for strategies and policies may become available at different points in the future; legislation may introduce other timelines (e.g. on spatial planning or on evaluation cycles on water quality and flood control); and interests of stakeholders may pertain to different temporal scales. In addition, governments may be responsible for strategic long-term goals, yet they need to ensure that their short-term decisions are linked to long-term objectives.

Principles on Stakeholder Engagement in Water Governance and a Checklist for Public Action

Governments at all levels have a critical role to play in setting the enabling environment for effective, fit-for-purpose and outcome-oriented stakeholder engagement apart from / in addition to their convening power. A balanced combination between government support and bottom-up efforts is needed. Central and sub-national authorities can incentivise a wide range of options that back up effective stakeholder engagement. They include enhancing legal frameworks (hard and soft law such as ISO standards), supporting efforts for data collection and sharing (crowdsourcing, open data strategy with universities and research institutions), innovative contracts, shareholding, interest-pay-say and capacity development (staff training in public administration). These instruments are likely to prevent engagement fatigue and provide concrete benefits while limiting the cost of engagement.

To guide public action in that direction, the OECD has developed a set of overarching Principles on Stakeholder Engagement in Water Governance intended as a standard for governments to follow when designing water policy and projects. Within such principles, a building block of stakeholder engagement should lay down the following framework conditions for effective, fit-for-purpose and outcome-oriented stakeholder engagement.

The principles are intended as a tool to transform policy frameworks related to stakeholder engagement in the water sector. OECD constituencies are policy makers and the Principles on Stakeholder Engagement in Water Governance offer opportunities to influence public debate and actions at all levels of government while mitigating fears and resistance to change (i.e. reluctance to shift the power balance). Although engagement processes cannot be easily replicated from one context to another, the principles can provide some indications of areas for improvement and provide for a common ground that policy makers and practitioners can share.

The set of principles is structured around six dimensions of stakeholder engagement (Table 7.1). These dimensions are interrelated and should not be considered in isolation but rather in a systemic view and require an inclusive, integrated, horizontally co-ordinated approach to deliver expected outcomes.

To support the implementation of the principles, a tentative Checklist for Public Action is suggested to help governments foster inclusive decision making and policy/project implementation on water. Developing success criteria for stakeholder engagement is a difficult task since stakeholders perceive success differently. Bearing these difficulties in mind, the following checklist suggests some priority questions for

governments to assess framework conditions for enhancing stakeholder engagement related to each of the six principles, and a selection of tools and international practices.

A set of tentative indicators is also suggested in the checklist to monitor the effectiveness of engagement processes and identify areas for improvement (Box 7.1). They can be tracked using a black, grey and white traffic light system:

- Black lights indicate that the principle is not effectively taken into account when developing and implementing stakeholder engagement and requires urgent attention.
- Grey lights indicate that the principle is somewhat taken into account in stakeholder engagement but remains partially a challenge and requires further efforts to have the potential for positive impact.
- White lights indicate principles that have been well taken into account during stakeholder engagement and have had a positive impact on the process and its outcomes.

Table 7.1. **Principles on Stakeholder Engagement in Water Governance**

Inclusiveness and equity	**Principle 1:** Map all stakeholders who have a stake in the outcome or that are likely to be affected, as well as their responsibility, core motivations and interactions
Clarity of goals, transparency and accountability	**Principle 2:** Define the ultimate line of decision making, the objectives of stakeholder engagement and the expected use of inputs
Capacity and information	**Principle 3:** Allocate proper financial and human resources and share needed information for result-oriented stakeholder engagement
Efficiency and effectiveness	**Principle 4:** Regularly assess the process and outcomes of stakeholder engagement to learn, adjust and improve accordingly
Institutionalisation, structuring and integration	**Principle 5**: Embed engagement processes in clear legal and policy frameworks, organisational structures/principles and responsible authorities
Adaptiveness	**Principle 6:** Customise the type and level of engagement as needed and keep the process flexible to changing circumstances.

Source: OECD elaboration.

Box 7.1. **Water governance indicators: Challenges and ways forward**

Tracking the implementation of the below-suggested principles on stakeholder engagement requires proper identification of selected indicators. As such, principles target primarily decision makers at national and sub-national level, so do the indicators suggested in the tentative Checklist for Public Action of this report.

Indicators can take the form of measurements of an objective to be met, resources to be mobilised, effects obtained, quality or context variables. In the context of policy analysis, indicators can be helpful in setting policy priorities and in benchmarking processes. They are used to monitor, evaluate and adapt policies, contributing to reach different aims: while monitoring aims to track (and possibly promote) continuous progress, evaluation aims to assess if particular objectives have been achieved. In doing so, evaluation frequently makes a specific attempt to link cause and effect and to attribute changes in outcomes to programme activities.

Even when standardised metrics exist, the effectiveness of indicators might be hindered by a number of factors:

- **Technical issues related to the indicators' *construction*:** The construction of indicators is not an easy task and it might imply several issues that limit their employment in the decision-making process, such as technical problems related to measurement errors, coherence of measurements, biases in expert assessments.
- ***Complexity* of water governance:** The definition of water governance encompasses multiple dimensions (institutional, political, social, environmental and economic) and involves a multitude of actors at different levels of government, in the public, private and non-profit sectors. Being a complex concept, its measurement is not straightforward.

Box 7.1. **Water governance indicators: Challenges and ways forward** (*cont.*)

- **Uncertainty of the *context*:** Policy makers have limited control over factors that might affect the effectiveness of water governance (e.g. fiscal crisis, climate change conditions, etc.). The uncertainty of the context might require a certain degree of adaptability, affecting choices and the capacity of policy makers and planners to implement proper policies and strategies for efficient water governance at different scales.
- ***Continuity*:** The scarce availability of data can hinder the comparability and/or the measurement of progress year after year.
- ***Completeness:*** When focused on specific aspects, indicators fail to capture the whole picture of the water governance system. However, data availability represents a great challenge, leading to a scarce range of choices when it comes to "what" to measure. Moreover "poor governance produces poor data" and vice versa: generating data, even when not yet available, might favour good governance, as indicators can spot problems, create incentives for change and trigger changes.
- ***Comparability*:** Even when indicators on several aspects of water governance are available, comparisons across countries are not always feasible. Indicators are not necessarily standardised measures applicable to all contexts unconditionally, since the concept of governance itself may vary from country to country.
- **Difficulty in establishing *causality*:** As for other policies, understanding the causal linkages between policies and results is critical in the water sector. However, an established indicator system might not be able to assess whether or not benefits are the results of certain actions implemented to achieve "effective water governance." This is especially the case when indicators are not only used as a tick-the-box exercise, but as a tool through which evaluating linkages between inputs and outputs.

The following ten questions can help define fit-for-purpose indicators:

1. What to measure? Policy indicators will measure the implementation of the OECD Water Governance Principles → Definition of which type of indicators (*de jure*, *de facto*, perception-based, etc.).
2. What is the scope? Assessment of the implementation of principles (possible stage approach) → Benchmark?
3. At which scale should the indicators be defined? Sub-national, basin, national, international level → Difficulty of finding a solution applicable to all countries.
4. Whose views should be relied on? Survey, experts, users, others?
5. How to build up the indicator? Criteria need to be clearly stated and the methodology (i.e. several separate indicators, composite indicators, assessment performance tools) needs to be chosen considering the purpose and the availability of data.
6. Who are the recipients? Governments, civil society, corporate sector → Identification of the audience.
7. How will indicators be used? Information? Decision making?
8. Who will contribute to the monitoring of the implementation of principles? Identification of institutions/actors.
9. How can the replicability of the indicators be ensured? Identification of feasible solutions for the replicability of the indicators every three years.
10. How should the information be disclosed? Identification of a range of options for sharing data collected.

Source: OECD (forthcoming), *Water Governance Indicators*, OECD Publishing, Paris, forthcoming.

Together, the principles, the tentative Checklist for Public Action and the indicators can encourage governments, and other actors in the water sector, to catalyse efforts for making good practices possible and more visible, and to take action towards more impactful stakeholder engagement in support of better water governance.

The numerous case studies presented in the report will be subject to more in-depth work to analyse similarities and differences, and draw policy lessons.[1] Cross-case reasoning can help identify patterns or correlation between different forms of stakeholder engagement and specific domains or contexts; and to elaborate strategies (e.g. which mechanisms work best in which situations [institutional programmes, concrete projects]) in support of effective stakeholder engagement in the water sector. This will allow further parameters to be included when analysing different governance processes that apply in different countries and to provide tailored policy recommendations towards more inclusive water governance frameworks.

Inclusiveness and equity

Principle 1: **Map all stakeholders who have a stake in the outcome or that are likely to be affected, as well as their responsibility, core motivations and interactions**

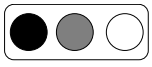
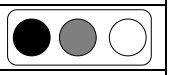
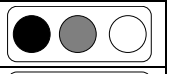
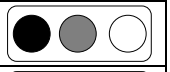
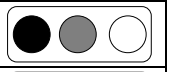
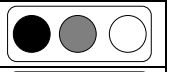
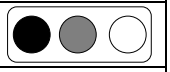
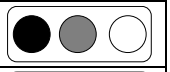
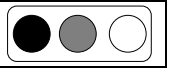
Stakeholder mappings should be done in relation to a specific issue and be updated on a regular basis. Such mapping should pay attention to newcomers, players outside the water sector and traditionally under-represented groups. This is critical to ensure that all stakeholders are identified and properly involved throughout the policy/project cycle. Finding the right balance between inclusiveness and empowerment of stakeholders is also important. Engagement processes (and related mechanisms) need to accommodate the needs of stakeholders with varying levels of interests and resources to ensure inclusivity and accessibility. Risks related to consultation capture from over-represented categories, to the detriment of unheard voices, as well as risks of prejudice to a particular category of stakeholders deserve careful consideration. Equity between present and future generations in a perspective of sustainability should be promoted. Thus, disaggregated data on gender, age economic status and the level of impact of proposed policies and measures is crucial.

Preliminary checklist

- Have the core water governance functions and the stakeholders formally responsible for executing them been clearly identified?
- Have all stakeholders likely to influence or to be impacted by the water policy/project under discussion been engaged, including in other sectors, and those who are likely not to support the measures proposed?
- Are rules in place to allow public dissent or opposing opinions?
- Have stakeholders' interests and motivations been clearly determined as regards the water policy/project under discussion (e.g. demands, aspirations, potential inputs and needs [information, facts, financial resources])?
- Have any institutional/organisational bottlenecks that would prevent stakeholders from engaging been effectively diagnosed?
- Are mitigation measures (incentives, rewards, sanctions) in place to overcome them?

- Are incentives in place to actively involve less-heard groups such as women, youth and the poor in water decision making that affects them?
- Are safeguards in place to prevent risks of conflict of interest and/or situations where certain stakeholder groups can be influenced (e.g. through economic incentives)?
- Are the results of stakeholder mappings checked and shared with all those involved and the greater public?

Indicators

Informed and transparent identification and selection of stakeholders to be involved in the engagement process, based on a clear understanding of their roles, responsibilities, interests, motivation and interrelations	
Broad outreach to inform individuals and organisations about the water policy/project process in order for them to decide whether and/or how they want to be involved	
Completion of a situation assessment to identify options for engaging under-represented stakeholders and options for funding resource- or otherwise constrained stakeholders	
Stakeholders' motivations and expectations have been clearly identified (e.g. survey, analytical study, report)	
Early assessment of the concerns and ideas of all stakeholders concerned (e.g. individual interviews with the full range of key stakeholder groups by a neutral entity)	
Inter-relations/linkages between the stakeholders to be involved have been determined and explained to all those engaged	
Equitable share of representation among categories of stakeholders involved and workable modalities identified	
Specific attention is devoted to the stakeholders outside the water sector (e.g. farmers, business, institutional investors, planners, etc.)	
Broad availability of stakeholders' mappings	

Selected tools and practices

- OECD institutional mapping of roles and responsibilities in the water sector, as carried out in the Netherlands (www.oecd.org/gov/regional-policy/water-governance-netherlands.htm), Mexico (www.oecd.org/gov/regional-policy/makingwaterreformhappeninmexico.htm) and Italy (www.oecd.org/env/country-reviews/italy2013.htm)
- Suez Environnement Stakeholder Engagement Toolkit for water utility managers (Box 3.1)
- Hydro Sustainability Assessment Protocol, accessible at www.hydrosustainability.org (Box 6.2)

Clarity of goals, transparency and accountability

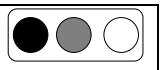
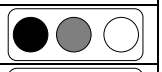
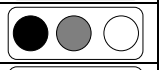
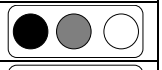
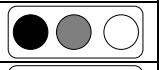
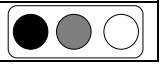
Principle 2: **Define the ultimate line of decision making, the objectives of stakeholder engagement and the expected use of inputs**

Clarifying the goals and reasons for engagement is key to building mutual understanding and trust of how stakeholders may be involved in the process, and for informed stakeholders to provide quality contributions in line with expectations. Objectives of stakeholder engagement can contribute to the formulation of river basin plans at the watershed level, service delivery, awareness-raising (e.g. on water costs, risks, future trends), auditing, risk mapping, as well as performance monitoring. Similarly, the authority responsible for taking decisions, and its willingness to take stakeholders' ideas on board in doing so, should be clearly identified to enhance confidence in the value of the process. Transparency and accountability in how the engagement process is designed and implemented (e.g. stakeholder mapping methods, use of stakeholders' inputs) is crucial to improve credibility and legitimacy, and build trust among the stakeholders involved. Diligent work is necessary to ensure that the engagement process is fair and equitable and to reliably engage stakeholders.

Preliminary checklist

- Have *ex ante* strategies been clearly designed to frame the engagement process?
- When defining the strategies, have the following elements been addressed?
  - the decision-making line (i.e. who manages the outcomes; who has veto power, who is responsible for communication, who reports back on the inputs from the engagement process)
  - the level(s) of engagement targeted (ranging from information sharing to co-decision making) in line with the types of stakeholders targeted and their stakes in the process
  - the timeline of the engagement process, taking into account the political calendar
  - the intended objectives and expected outcomes
  - how engagement inputs should be used and transmitted to stakeholders
  - how stakeholders can challenge decisions when the proper process has not been carried out (i.e. code of conduct for all those engaged).
- Are stakeholders informed of their entitlements, responsibilities and what is expected of them in the engagement process, including the level of influence, to ensure that a shared understanding of the process is developed?
- When carrying out the engagement process, are the following accountability criteria taken into consideration:
  - inputs from stakeholders are openly considered and addressed
  - no category of stakeholders is disadvantaged by the design of the engagement process
  - the final outcome reflects a balance of the various interests and needs of stakeholders.

Indicators

Clear understanding of the framework of the engagement process in terms of line authority, level of engagement defined, proposed timeline, targeted objectives, expected outcomes, use of inputs and code of conduct	
Development and implementation of an engagement plan, with stakeholder input points clearly outlined and the full range of perspectives incorporated	
Clear understanding of the expectations of the stakeholders involved regarding the process and the outcomes	
Development of a master schedule with a detailed timeline, key deliverables requiring inputs, expected stakeholder meetings over the course of the water policy/project process	
Consistent and appropriate communication between promoters of the engagement process and the stakeholders involved (e.g. to distribute important information, to gather useful feedback, etc.)	
Dissemination of concise summaries of all stakeholder meetings	
Feedback to stakeholders on how their input has been taken into consideration and how that input has shaped interim and final decisions	

Selected tools and practices

- In **Milan**, a memorandum of understanding was signed between stakeholders (regional and local government, civil society and citizen committees) to enhance the dissemination of information on water quality, consumption and treatment techniques, etc. This information is accessible though the online platforms of all of the stakeholders for greater transparency and accountability (Box 1.5).
- In the **Netherlands**, the Dutch water authority of Amstel, Gooi en Vecht, with the support of Deltares, set up a participatory monitoring network to encourage stakeholders to contribute in the measuring and monitoring of groundwater levels. This type of monitoring provides additional clarity and can rebuild trust (Box 6.10).

Capacity and information

Principle 3: **Allocate proper financial and human resources and share needed information for result-oriented stakeholder engagement**

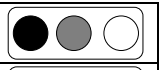
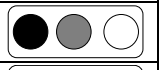
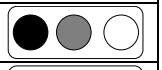
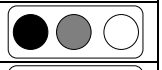
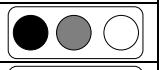
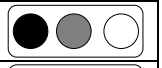
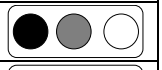
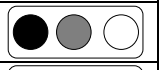
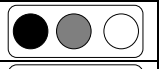
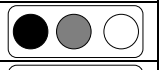
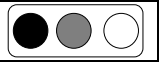
Improving the overall contribution to substantive discussions and decision making requires access to timely and understandable information (be it cultural, scientific, traditional, etc.), technical expertise, experience sharing and funding in the right format and sufficiently on time (planning) to realistically and effectively participate. Supporting two-way information sharing through consistent and appropriate communication channels, including web-based technologies when feasible, is key. Ensuring the financial affordability of the engagement process is also important, to ensure the effective engagement of all those that have a stake; convey accurate, trusted and accessible information to diverse sectors; foster opinion-forming within and across stakeholder groups; and build support to the process. The interpretation and application of these resources and information require competences and capability development at all levels to enable sustainable stakeholder engagement (e.g. skills, social learning).

Preliminary checklist

- Has the knowledge that is required of and available from the involved stakeholders been reviewed?
- Are the appropriate formal and/or informal and affordable engagement mechanisms in place to engage the targeted stakeholders?

- What knowledge is needed to support the engagement process? From which stakeholders and disciplines?
- Is professional facilitation and mediation in place to organise dialogues between stakeholders involved?
- Has a detailed budget been drawn up to support the engagement process with short-, medium- and long-term milestones? Has it been approved and disseminated?
- Are programmes of learning and development available to support the knowledge and skills necessary for effective stakeholder engagement, including specific training to encourage the participation of women, indigenous peoples and youth?
- Are requirements and avenues in place to easily access and share information on the water policy/project under discussion? The information should:
  - be in laymen's terms and local language
  - include open data to enable third parties to reuse and disseminate.
- Have specific targets for communication been defined (i.e. types of channels/format, frequency of exchanges, frequency of updates, etc.)?
- If appropriate for the given purpose, context and participants, are ICTs being used?

Indicators

Establishment of a website and/or written and/or visual material to educate stakeholders about how they can contribute to water policy/project process	
Options are explored for subsidising engagement for some categories of stakeholders to be appropriately inclusive	
Meetings are conducted at sub-national level (local, provincial) and/or web-streamed to enhance accessibility	
At every meeting, stakeholders are oriented to the current stage of the water policy/project process	
Prior identification of the knowledge and/or experience that is required of and available from the involved stakeholders	
Existence of facilitation and mediation to support capacity building and knowledge exchange	
Sufficient number of training sessions carried out to support the engagement process	
Sufficient number of stakeholders attending the training sessions	
Sufficient number of channels available to exchange information	
Organisation of meetings to provide technical presentations and to discuss with stakeholders about data (e.g. sources, management) and preliminary analysis, tailored to stakeholders' level of understanding	
Existence of a legal process to access information	
Implementation of existing international and national agreements on transparency of information	
Summary reports are prepared using non-technical language and highlighting key points of the water policy/project process	
Existence of mediation mechanisms when access to information is denied	
Share of organisation's budget dedicated to stakeholder engagement	

Selected tools and practices

- **Aarhus Convention** on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (http://ec.europa.eu/environment/aarhus)
- **Arno River Basin Authority Executive Information System** to support integrated planning, management and stakeholders' involvement in a web-based, shared environment (Box 5.3)
- **ERSAR Mobile App** to provide relevant information on the quality of water and waste services users in Portugal (Box 5.3)
- **Province of Milan's *L'acqua in Comune*** online information platform on water and sanitation service (Box 1.5)

Efficiency and effectiveness

Principle 4: **Regularly assess the process and outcomes of stakeholder engagement to learn, adjust and improve accordingly**

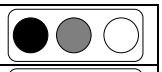
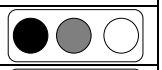
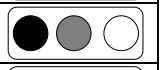
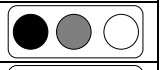
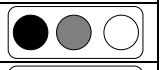
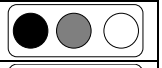
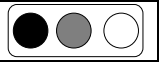
Such evaluation and monitoring can resort to fact-based and perception-based tools and indicators, and be carried out by targets, promoters and/or third parties. Results should be disclosed to increase accountability, provide insight on the success of the engagement process in reaching its intended objectives and learn from experience to improve practice in the future. Evaluation should not be limited to *ex ante* and *ex post* assessment but remain an ongoing process throughout the policy/project cycle. Stakeholder engagement can yield benefits in terms of resilience, sustainability, cohesion, acceptability, capacity and efficiency. But it can also delay decision making and implementation, and generate different types of (monetary and non-monetary) material, process, reputational and social costs. Assessing the costs and benefits of engagement processes can help to ensure that all interests, including under-represented stakeholders, are respected regarding the distribution of impacts, compensation and benefits. Mitigation measures are needed to reduce costs and set the right incentives while managing the dual short-term/long-term temporality.

Preliminary checklist

- Are regular and systematic evaluation tools in place (ratings, indexes, indicators) to assess the effectiveness, costs and benefits of engagement processes?
- Is stakeholder engagement assessed through qualitative judgments (i.e. strengths/weaknesses, advantages/disadvantages)?
- Are evaluation results used to identify priorities for adjustments in water policies/projects and to monitor progress (i.e. systemic evidence, arguments, comparative data, etc.)?
- Are stakeholders allowed to examine their own involvement in order to express their views and develop broad-based support for water reform agendas and projects?
- Is the independence of the assessment guaranteed whenever possible?
- Are responses provided to the findings of the assessment?
- Is feedback provided on the engagement process?

- When an evaluation report is finished, does it include the following elements:
  - the types of stakeholders engaged or not (and the reasons why) and the rationale for selection
  - the inputs taken integrated in the outcomes or not and the rationale for selection
  - the outcomes achieved and the factors of success
  - the unachieved objectives and the reason for failure?

Indicators

Review of engagement process at least annually to determine what works and what should be improved (e.g. online surveys, interviews with stakeholders, meetings, etc.)	
Regular monitoring throughout the engagement process (design, development, implementation) through quantitative data (monetary costs/benefits, etc.) and/or qualitative data (e.g. stakeholders' feedback, level of satisfaction, etc.)	
Definition of performance measures to gauge the extent of stakeholder engagement at various levels (i.e. national, regional, local)	
Use of benchmarks and/or standards for assessment based on international norms and local practice as appropriate	
Communication on the results of the engagement process evaluation with all stakeholders involved	
Successful use of the inputs from the engagement process to achieve the desired outcomes agreed upon by stakeholders	
Fulfilment of the agreed-upon purpose of the engagement process	
Careful appraisal of the indirect outcomes of the engagement process	
Careful assessment of the short-term and long-term benefits yielded by the engagement process in terms of acceptability and sustainability, social equity and cohesion, capacity development and economic efficiency, and their degree of impact on the stakeholders involved	
Development of agreed-upon compensation measures for the stakeholders negatively impacted by the engagement process	
Definition of alternative and new approaches agreed upon by all stakeholders involved to address the weaknesses of the engagement process identified in the evaluation exercise	

Selected tools and practices

- **EU Water Framework Directive** reporting system on participation (Box 6.4)
- **NARBO Performance Benchmarking and Peer Review** of river basin organisations (www.narbo.jp/event/ev_annc_Performance_Benchmarking.html) (Box 6.5)
- **University of Arizona Water Resources Research Centre**'s practice in stakeholder participation tracking (Box 6.8)
- **Alsace-Moselle region**'s three-tier evaluation system of stakeholder engagement (Box 6.1)

Institutionalisation, structuring and integration

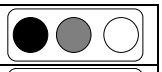
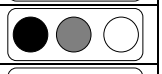
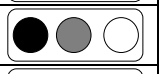
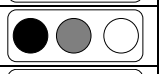
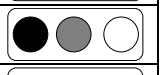
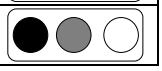
Principle 5: Embed engagement processes in clear legal and policy frameworks, organisational structures/principles and responsible authorities

There is no water governance without governance at large. Similarly, there can be no effective stakeholder engagement without proper incentives for bottom-up and inclusive policy making. A clear set of rules, platforms and vehicles for doing so is critical to move from reactive to proactive and systematic stakeholder engagement in the water sector. But institutionalisation increases the risk of engagement "fatigue" and/or "capture" from over-represented categories to the detriment of unheard voices. It should be flexible to take into consideration place-based needs and changing circumstances while fostering a change in the "mindset", daily practices, professional skills and culture of decision making. Provisions for stakeholder engagement should be aligned coherently and holistically across the water chain and policy domains related to water.

Preliminary checklist

- Are charters and the rules of the game clearly defined to instil a minimum level of stakeholder engagement in water policy/project process?
- When defining these charters, are the following elements taken into account?
  - the types of decision-making processes that should be applied
  - at which stage of the decision-making process the engagement duty should apply
  - who should be involved
  - what information should be provided to stakeholders and how?
- Are engagement practices embedded in the institutional/organisation culture?
- Are the needed competencies and culture of engagement built within institutions and organisations for managing and facilitating inclusive decision-making processes (e.g. staff training)?
- Are legislations or regulations in place requiring timely and effective stakeholder engagement in water policy/project processes?
- When establishing the legislation:
  - Are stakeholders engaged and contributing to the definition of requirements?
  - Does it include the minimum criteria for engagement and acknowledge that such formalised engagement is one crucial element among others in the decision-making process?
  - Does it take into account local frameworks that are already in place?
  - Are requirements flexible and adjustable?

Indicators

Requirements for stakeholder engagement are in place within the organisation	
Establishment of standing stakeholder advisory group at the appropriate level of government that reflects the broadest range of interests possible and with an equal number of seats across categories of stakeholders	
Definition of explicit, fair and balanced ground rules for engagement within water policy process goals	
Charters and the rules of the game are clearly established	
A business case has been developed to support stakeholder engagement	
Reporting on the compliance with existing requirements is in place	

Selected tools and practices

- **Japan:** Japan Water Agency requirements on stakeholder engagement (Box 2.3)
- **Netherlands:** Delta Programme (Box 1.7)
- **United States:** Chesapeake Bay Program (Box 1.7)

Adaptiveness

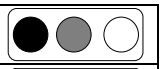
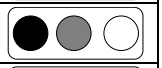
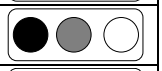
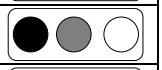
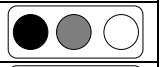
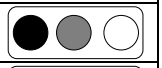
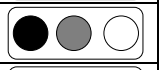
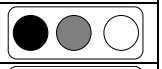
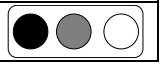
Principle 6: **Customise the type and level of engagement to the needs and keep the process flexible to changing circumstances**

Stakeholder engagement tools and mechanisms work differently across places, times, objectives and stages of the policy/project cycle. They should be tailored to each context (geographic, socio-economic, cultural), type of stakeholder concerned, policy goal targeted and place-based needs to accommodate varying levels of interest and resources from stakeholders and consider other options as needs arise. Water governance systems are complex and in flux, where change is dynamic and often unpredictable. Engagement processes therefore need to enable multiple stakeholders to respond and adapt to uncertainty, and should remain flexible to manage risks and resilient to adapt to changing environments. Lessons can be learnt from failure in engagement approaches in terms of management of complexity and how to trigger fundamental change.

Preliminary checklist

- Are short-term-decisions linked to long-term objectives?
- Are outcomes of engagement processes (i.e. policies, strategies, solutions) flexible enough to keep sufficient options open in the future?
- Are stakeholders engaged in mapping the key uncertainties relevant for the issue at hand?
- Are formal or/and informal mechanisms for engagement carefully chosen, considering the types of stakeholders and the local context?
- Have the efficiency, value added and limits of different approaches been explored across different scenarios or similar contexts?
- Are knowledge building and sharing supported to build the evidence base on what works, in which contexts and why and to inform the development of new approaches?

Indicators

Outcomes of engagement processes cover short- and long-term issues	
Outcomes of the engagement process are robust yet flexible and accessible	
Mapping uncertainties jointly with stakeholders involved	
Clear understanding of local specificities of the context prior to setting up the engagement process (e.g. urban/rural areas, etc.)	
Additional venues for discussions, additional educational events or additional information-sharing mechanisms are envisaged to bridge the identified capacity gaps	
Ex ante assessment of stakeholder's needs	
Development and analysis of different engagement scenarios (pros/cons, potential risks)	
Regular reassessment and establishment of new methods to address gaps where the engagement process is not meeting expectations	
Development of innovative/creative methods with new approaches and new stakeholders, including from outside the sector	

Selected tools and practices

- **Électricité de France**'s convention on water efficiency and allocation (Box 2.5)
- **Brazil**'s **National Water Agency**'s national management pact (Box 5.1)

Note

1. A dedicated OECD working paper will be published in 2015 to that effect.

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Chapter 8

Stakeholders' profiles

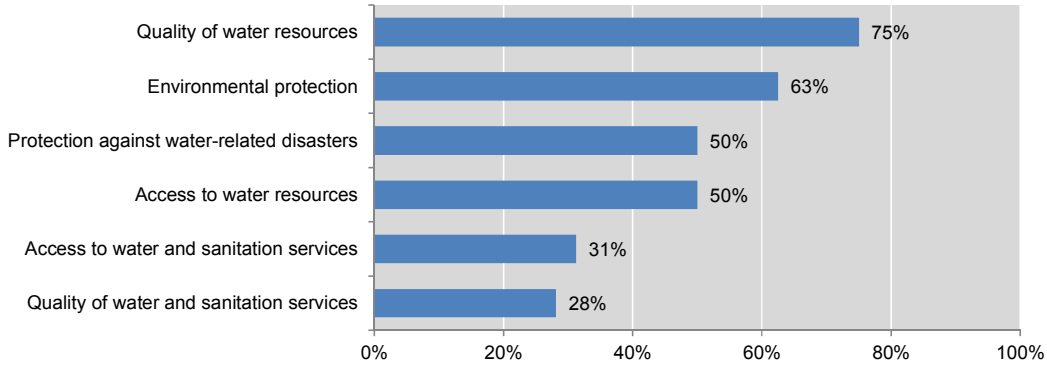
The chapter presents eleven stakeholder profiles, based on the OECD 2014 Survey on Stakeholder Engagement for Effective Water Governance, with a uniform layout for ease of comparison. Each profile provides information on key topics of stakeholder engagement such as the priority water areas of interest; keywords associated to stakeholder engagement; the scale(s) of intervention; the interactions with other stakeholders; drivers, mechanisms, obstacles, conditions for success, as well as costs and benefits of stakeholder engagement.

National governments

List of national governments surveyed

Afghanistan – Ministry of Energy and Water
Australia – Murray-Darling Basin Authority
Bangladesh – Water Development Board
Brazil – National Water Agency
Chile – General Directorate for Water
China (People's Republic of) – Ministry of Water Resources, Development Research Centre
Colombia – Ministry for Environment, Housing and Territorial Development
Czech Republic – Ministry of Agriculture
Denmark – Nature Agency
El Salvador – Under-Secretary for Territorial Development and Decentralisation
Finland – Finnish Environment Institute
France – Ministry of Sustainable Development and Energy
Germany – Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
Hungary – Ministry of Interior
Japan – Ministry of Land, Infrastructure, Transport and Tourism, Water Resources Department
Luxemburg – Ministry for Sustainable Development and Infrastructure
Mexico – National Water Commission
Netherlands – Ministry of Infrastructure and Environment
New Zealand – Ministry for the Environment
Norway – Norwegian Environment Agency
Palestinian Territories – Environment Quality Authority
Panama – National Environmental Authority
Paraguay – National Service for Environmental Sanitation
Poland – Ministry of the Environment
Russian Federation – Federal Agency of Water Resources, Department for International Co-operation
Scotland – Scottish government
Slovenia – Ministry of Agriculture and the Environment
South Africa – Water Research Commission
Spain – Ministry of Agriculture, Food and the Environment, General Directorate for Water
Thailand – Department of Water Resources
Turkey – Turkish Water Institute
United States – Environmental Protection Agency

Areas of interest

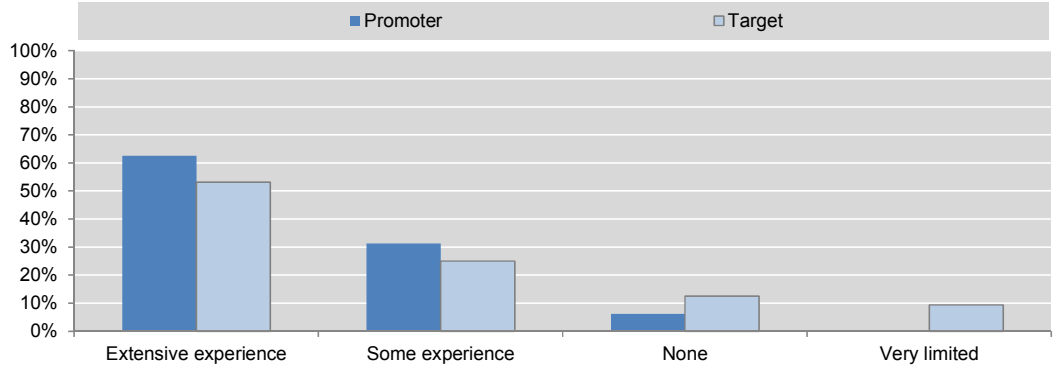


Note: Areas of interest of national governments ranked from 1 to 3 on a scale from 1 to 6.

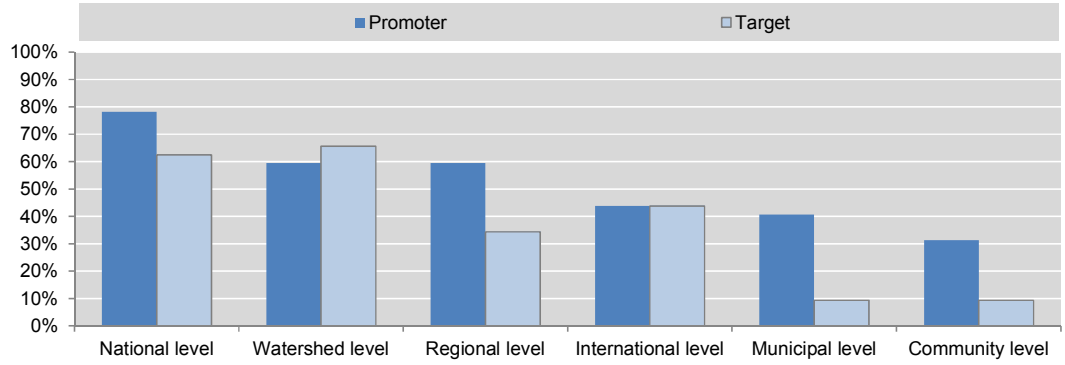
Keywords most often associated with stakeholder engagement

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5.

Experience in stakeholder engagement

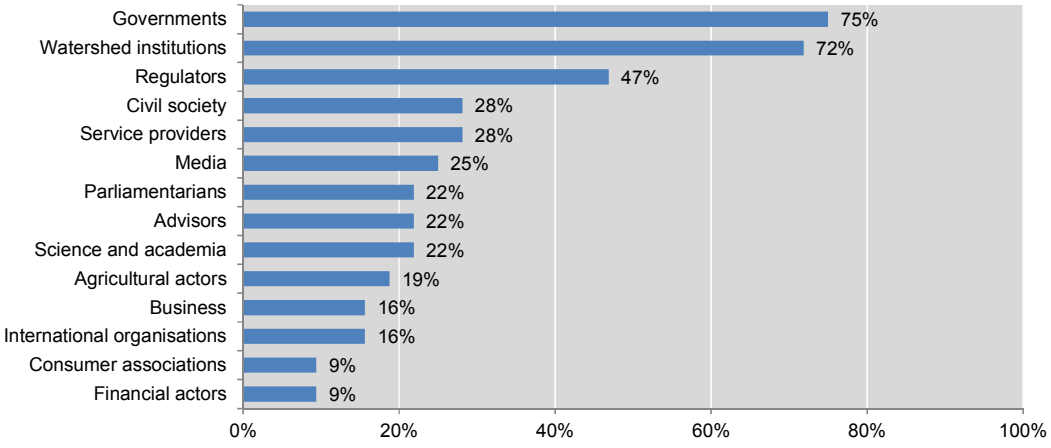


Scale of intervention



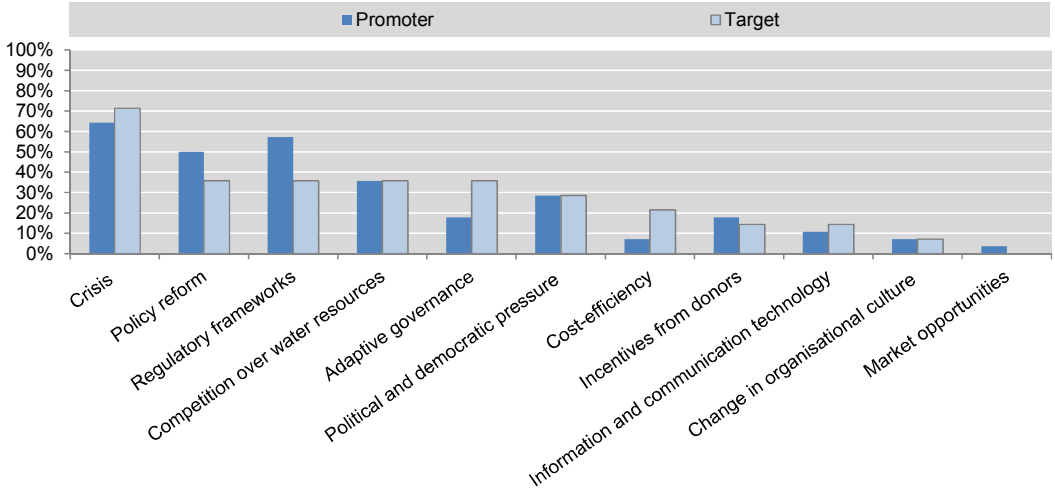
Note: Scale of intervention at which national governments primarily intervene.

Interactions with other stakeholders



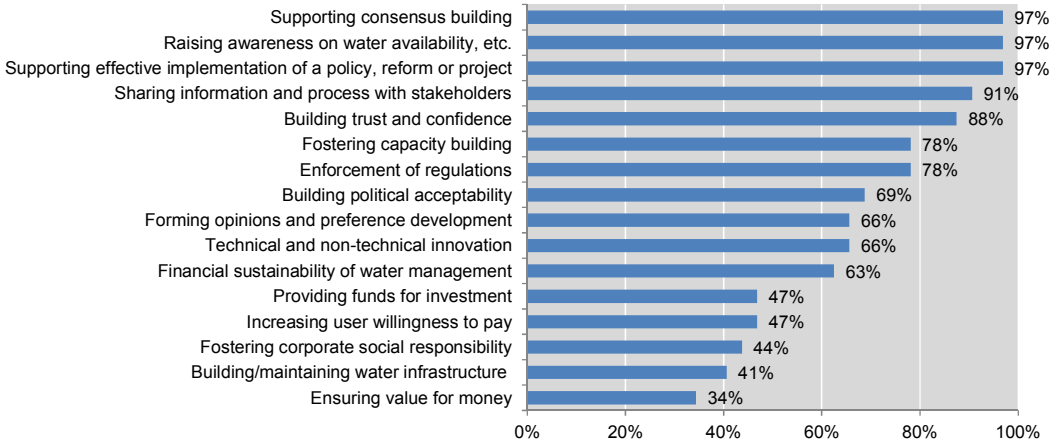
Note: Categories of stakeholders with which national governments interact "always or very frequently".

Main drivers



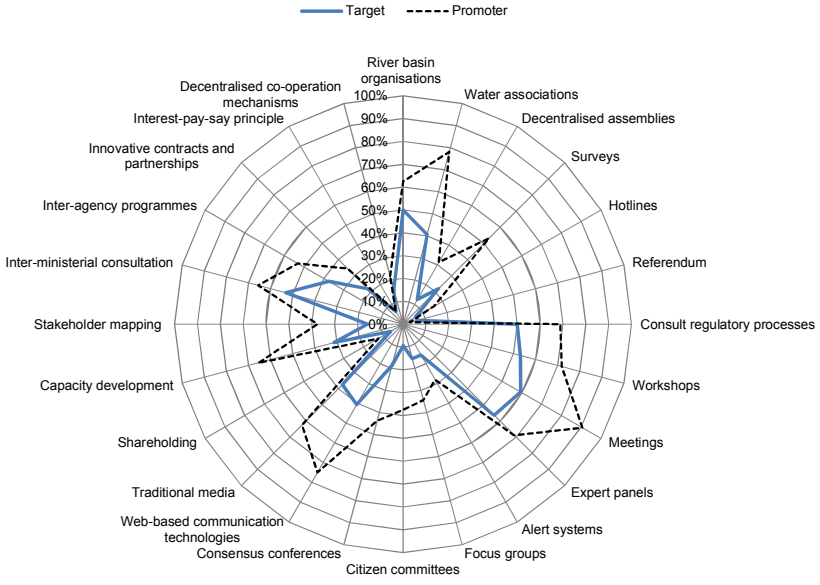
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Perception about national governments' contribution to better water governance

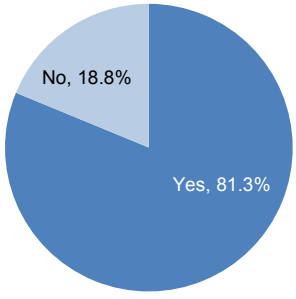


Note: Areas of contribution to water governance for which national governments responded "yes".

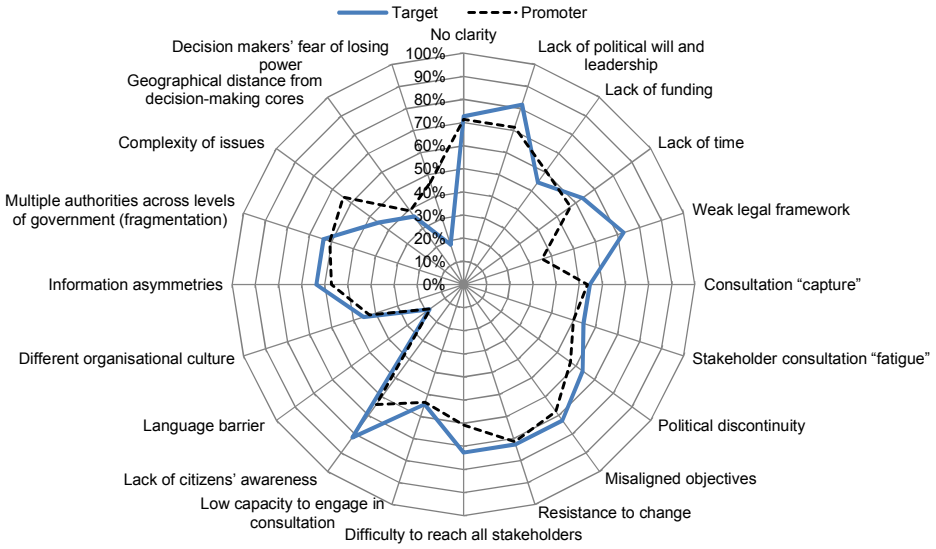
Use of stakeholder engagement mechanisms



Are existing stakeholder engagement mechanisms sufficient?

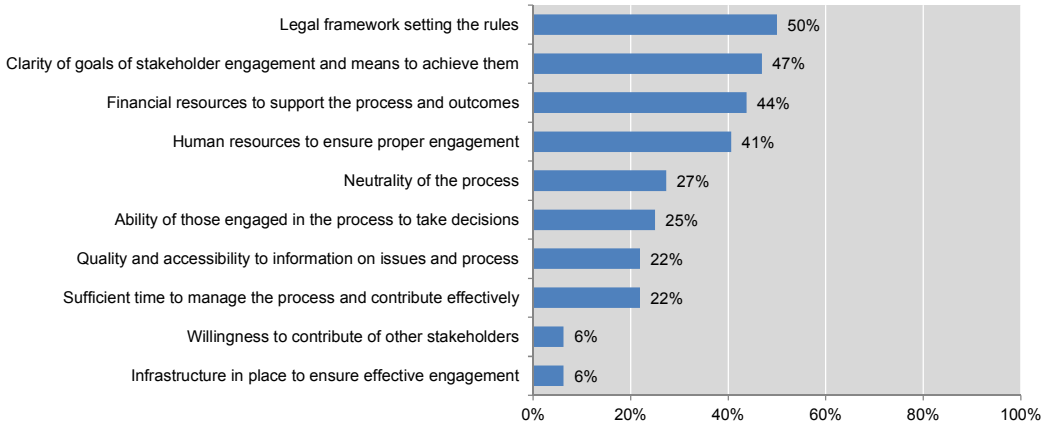


Main obstacles faced to engage stakeholders



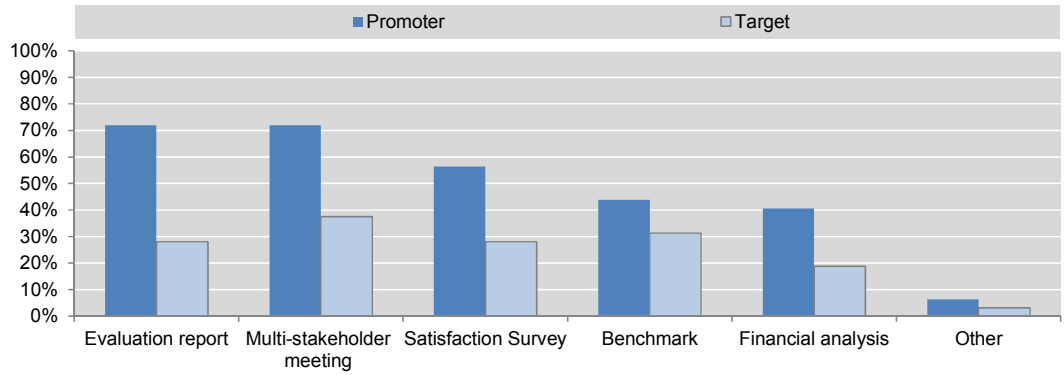
Note: Obstacles considered as "critical" and "important" by national governments.

Perception of critical conditions of success to effectively contribute to water-related decision making

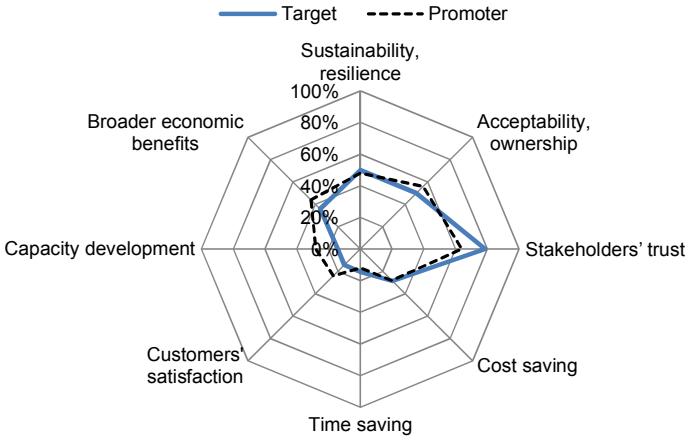


Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Mechanisms used to assess the effectiveness of stakeholder engagement

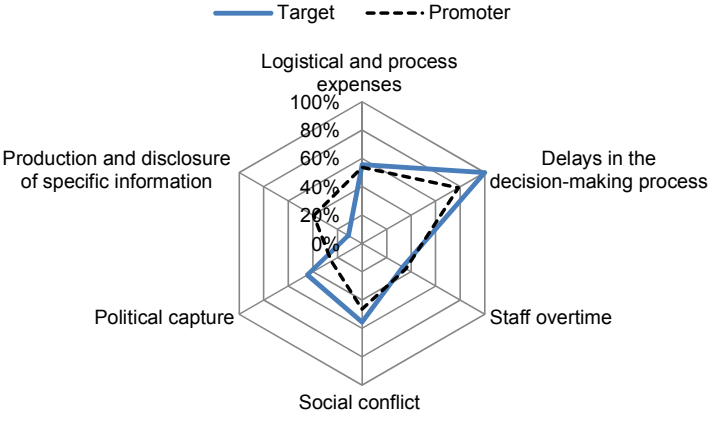


Perception of the main benefits derived by stakeholder engagement



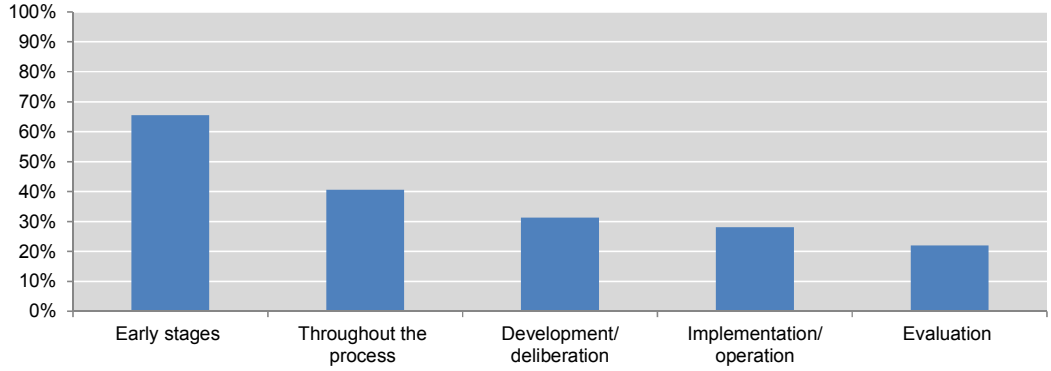
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 8.

Perception of the main costs incurred by stakeholder engagement



Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 6.

Stage of decision making at which the stakeholder is the most influential



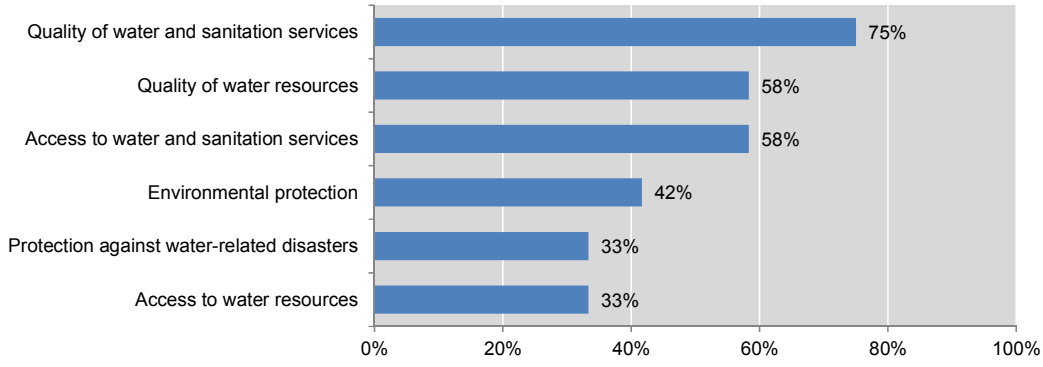
Note: Stages of decision making at which national governments consider having a "critical influence".

Sub-national governments

List of sub-national governments surveyed

Belgium – Flemish Environment Agency
Brazil – Municipal Council of Sesimbra
Canada – City of Vancouver
Canada – New Brunswick Department of Environment and Local Government
Canada – Province of Ontario
Costa Rica – Institute for Aqueducts and Sewerage
Korea – Seoul Metropolitan Government
New Zealand – Canterbury Regional Council
Paraguay – Co-ordination Unit for the Drinking Water and Sanitation Programme of El Chaco
Spain – Consortium for Environmental Services Management of the Badajoz Province
United States – Hampton Roads Sanitation District
United States – Kent County Department of Public Works

Areas of interest

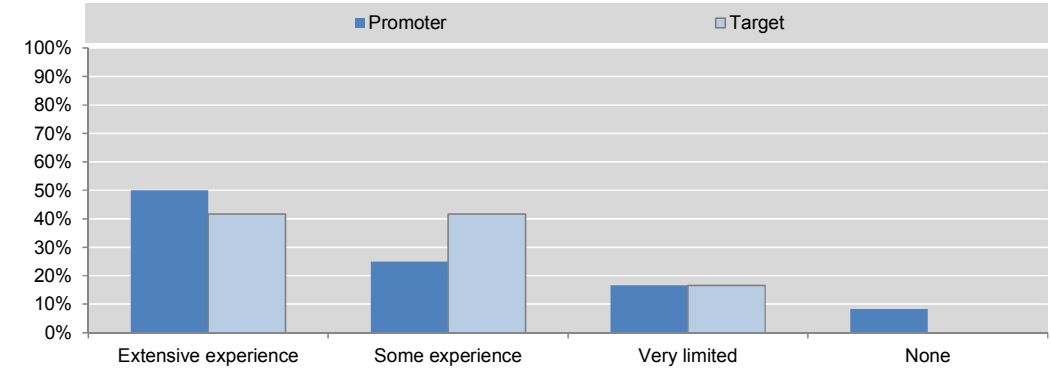


Note: Areas of interest of sub-national governments ranked from 1 to 3 on a scale from 1 to 6.

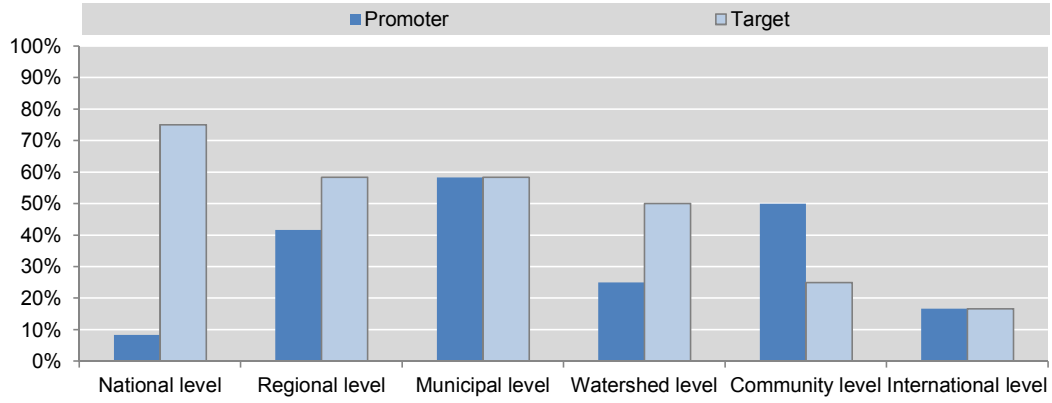
Keywords most often associated with stakeholder engagement

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5.

Experience in stakeholder engagement

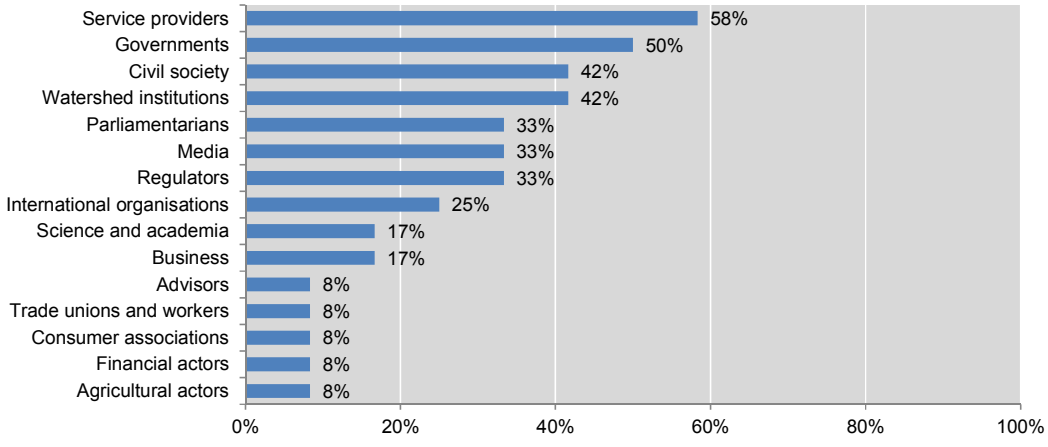


Scale of intervention



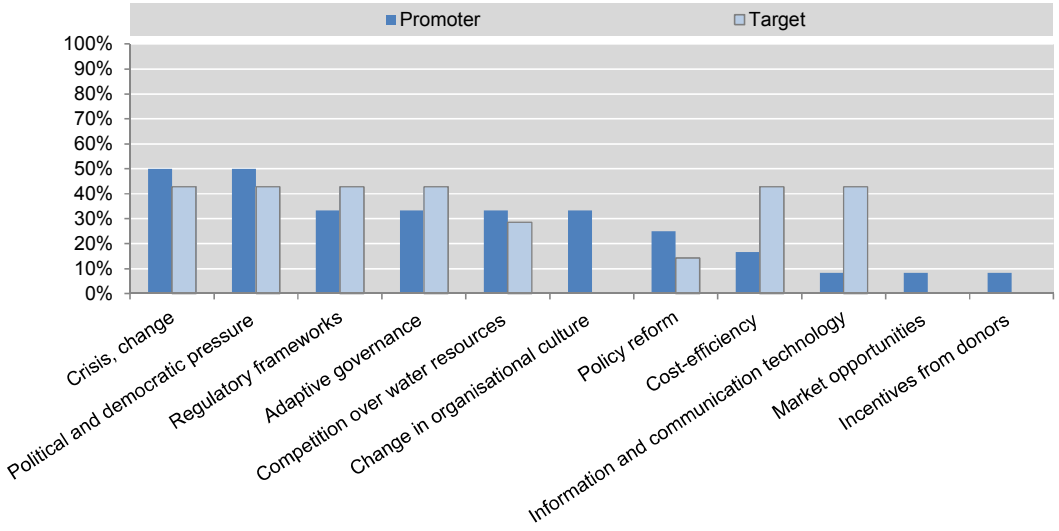
Note: Scale of intervention at which sub-national governments primarily intervene.

Interactions with other stakeholders



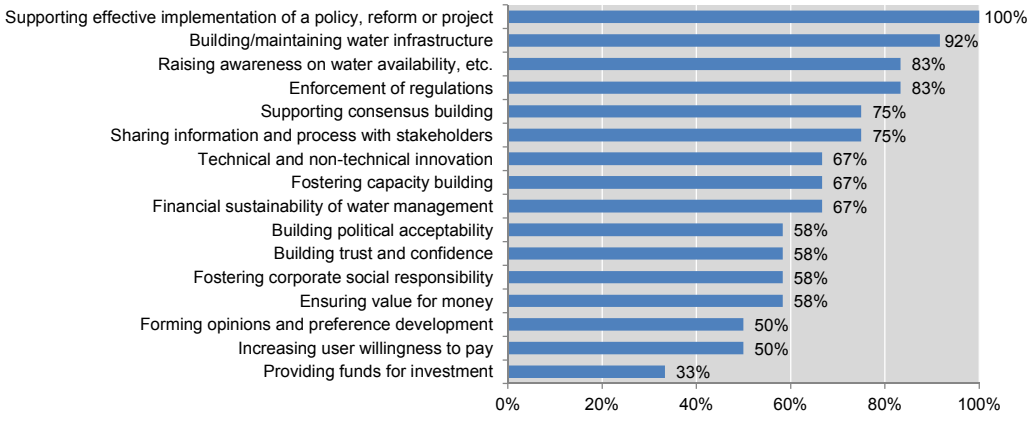
Note: Categories of stakeholders with which sub-national governments interact "always or very frequently".

Main drivers



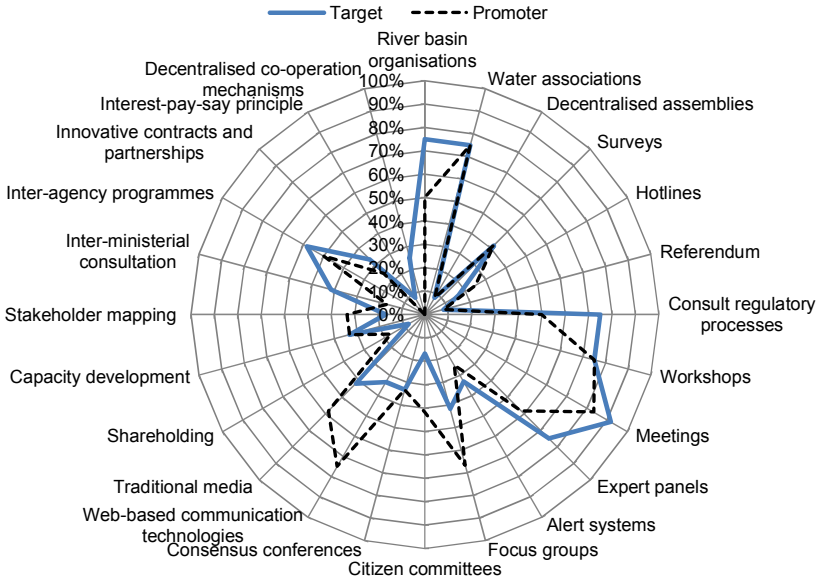
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Perception about sub-national governments' contribution to better water governance

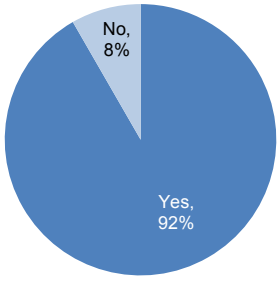


Note: Areas of contribution to water governance for which sub-national governments responded "yes".

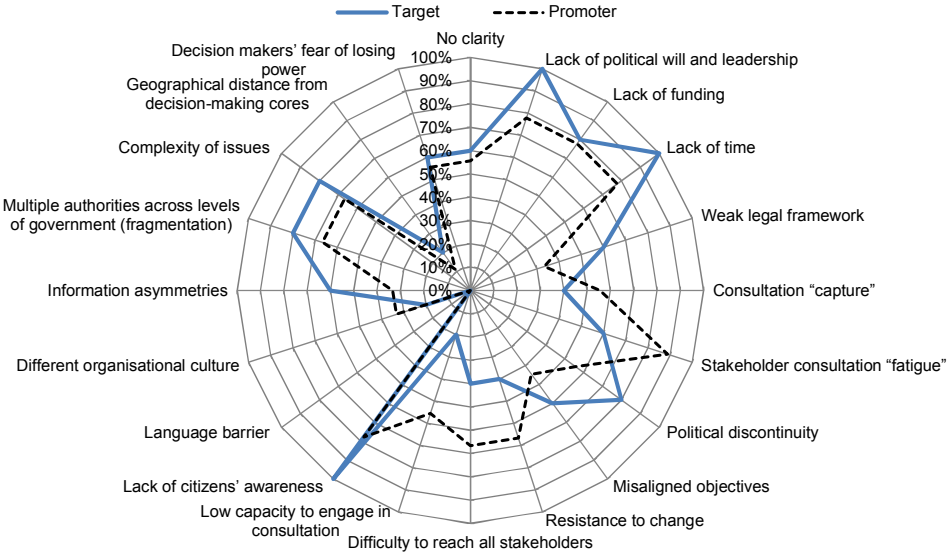
Use of stakeholder engagement mechanisms



Are existing stakeholder engagement mechanisms sufficient?

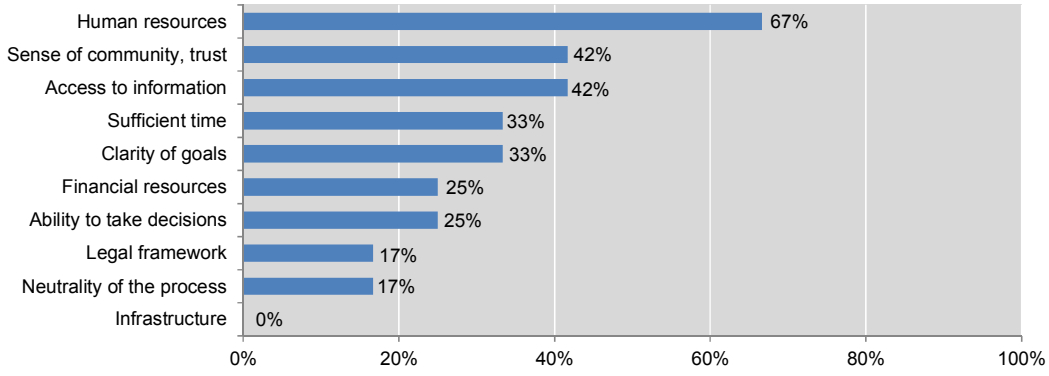


Main obstacles faced to engage stakeholders



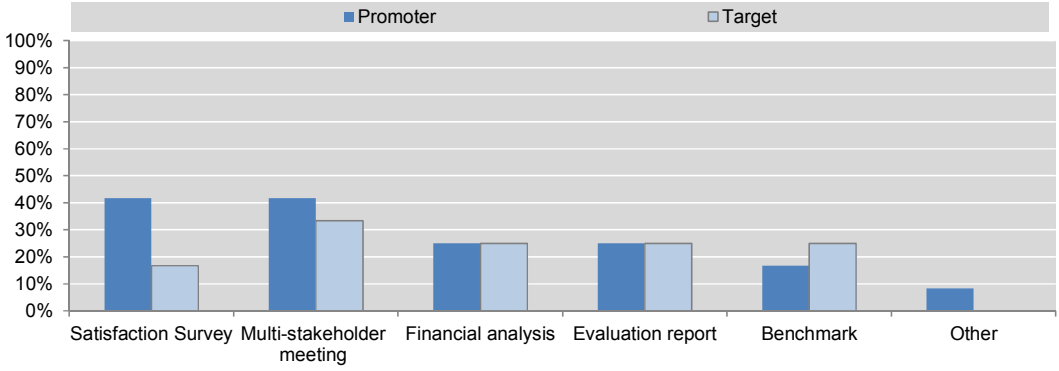
Note: Obstacles considered as "critical" and "important" by sub-national governments.

Perception of critical conditions of success to effectively contribute to water-related decision making

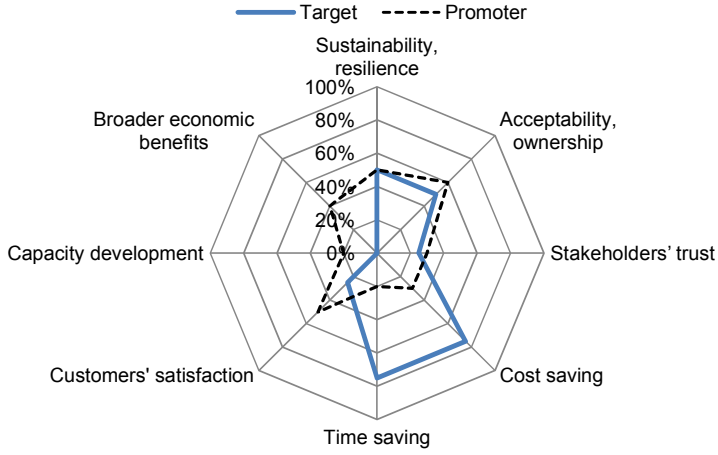


Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Mechanisms used to assess the effectiveness of stakeholder engagement

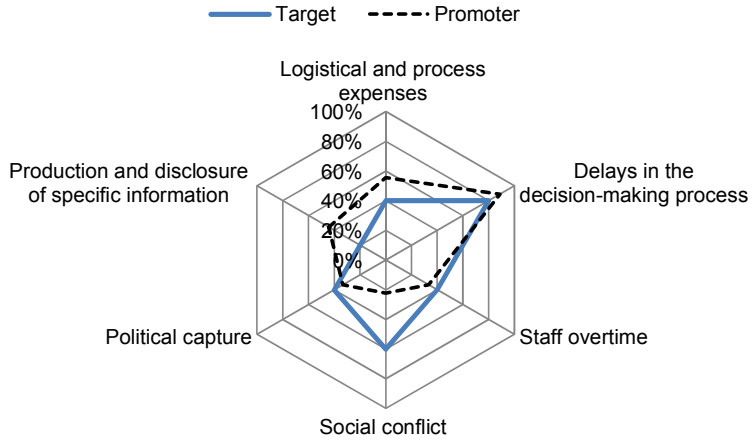


Perception of the main benefits derived by stakeholder engagement



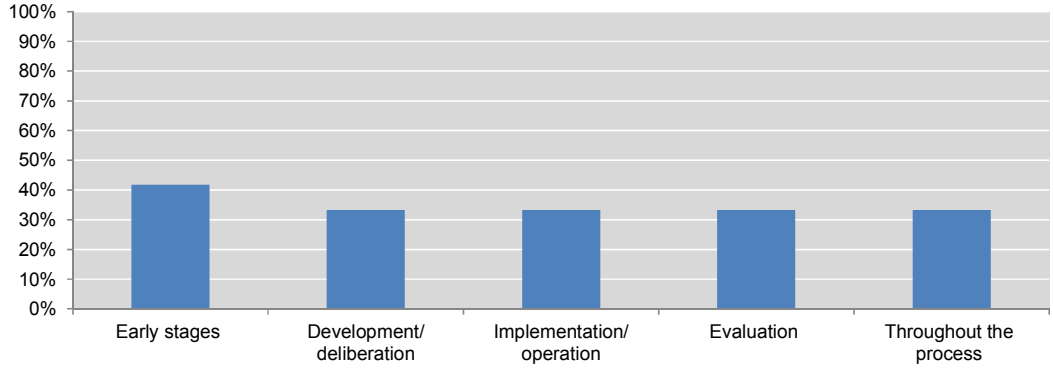
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 8.

Perception of the main costs incurred by stakeholder engagement



Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 6.

Stage of decision making at which the stakeholder is the most influential



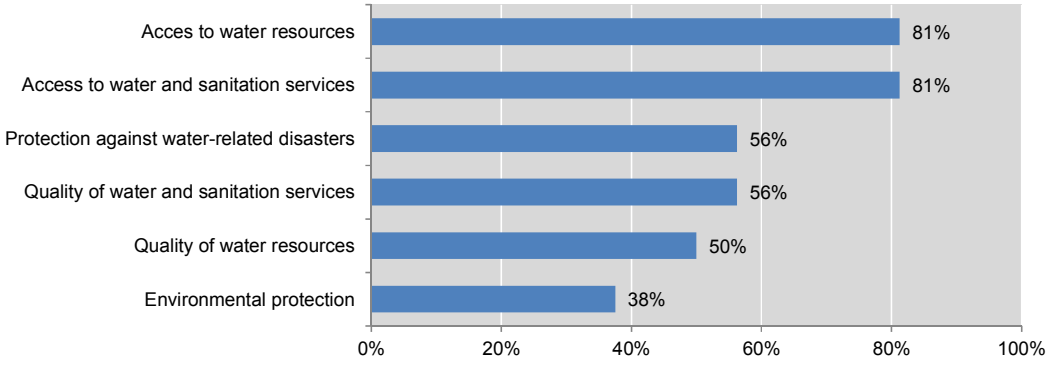
Note: Stages of decision making at which sub-national governments consider having a "critical influence".

International organisations

List of international organisations surveyed

African Minister's Council on Water
Economic Commission for Latin America and the Caribbean
Food and Agriculture Organization
Global Environmental Facility, International Waters Focal Area
Global Institute for Water, Environment and Health
Global Water Partnership
Global Water Partnership – Slovenia
Global Water Partnership – Ukraine
International Commission for the Protection of the Danube River
League of Arab States
Mediterranean Institute for Water (IME)
Scientific Information Centre of Interstate Commission for Water Coordination in Central Asia
UNDP Global Water Solidarity
UNESCO International Hydrological Program
Union for the Mediterranean
UN-Water Decade Programme on Advocacy and Communication

Areas of interest

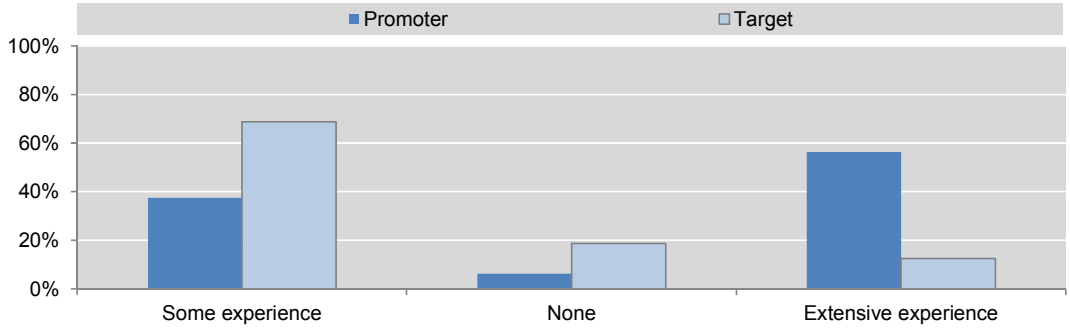


Note: Areas of interest of international organisations ranked from 1 to 3 on a scale from 1 to 6.

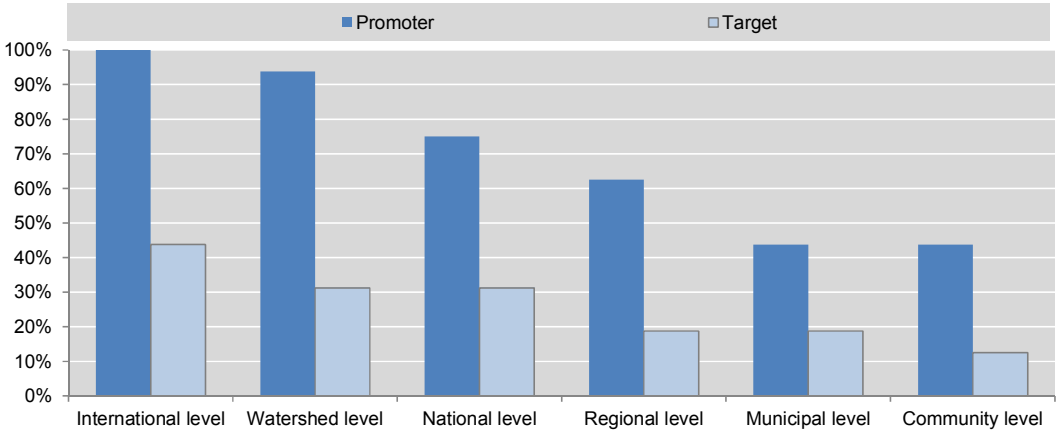
Keywords most often associated with stakeholder engagement

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5.

Experience in stakeholder engagement

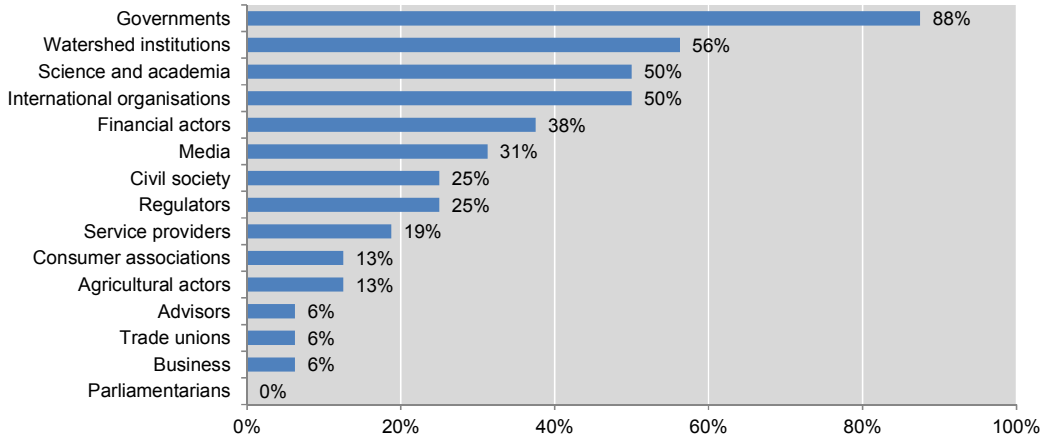


Scale of intervention



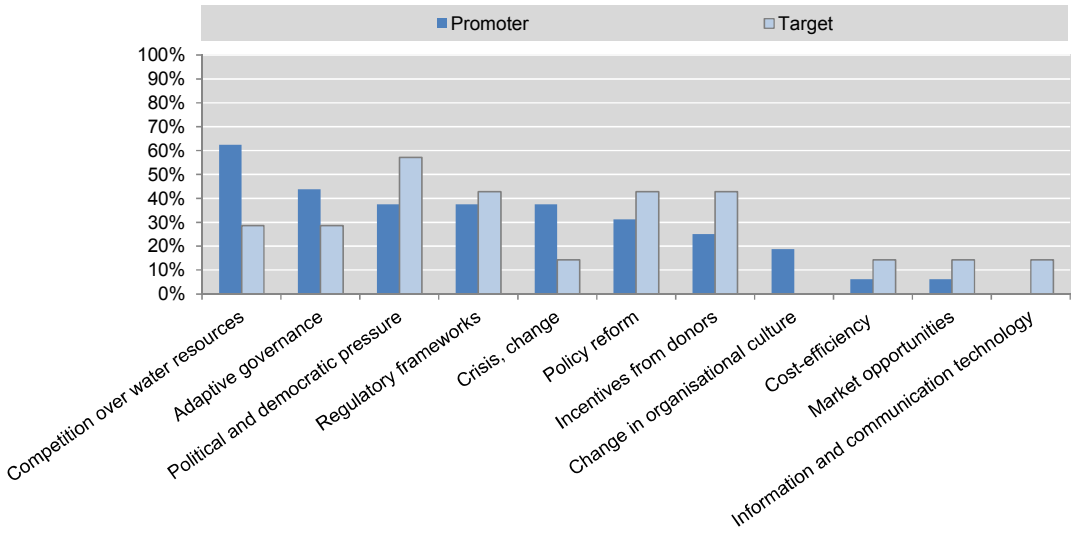
Note: Scale of intervention at which international organisations primarily intervene.

Interactions with other stakeholders



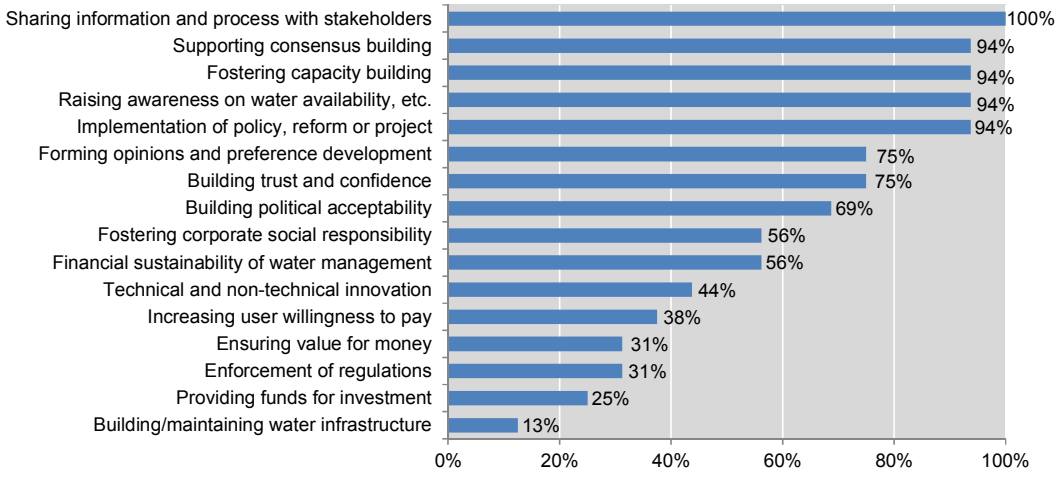
Note: Categories of stakeholders with which international organisations interact "always or very frequently".

Main drivers



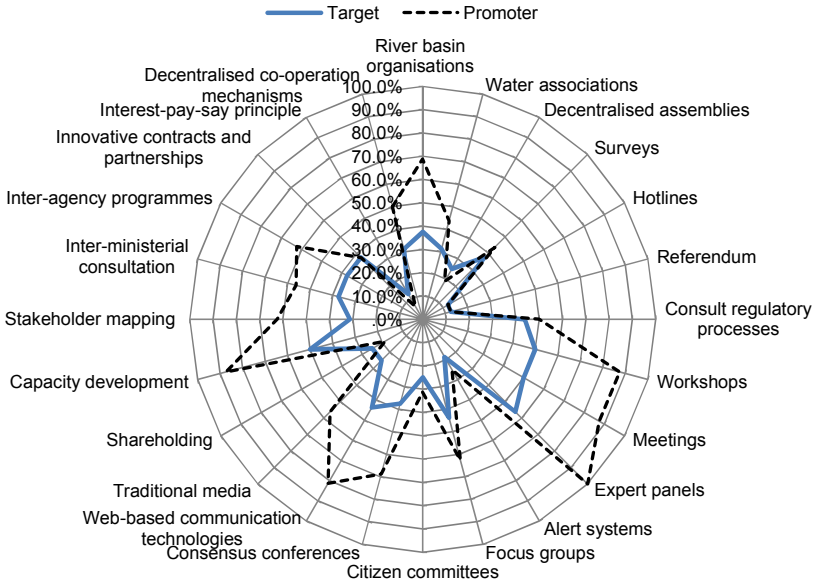
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Perception about international organisations' contribution to better water governance

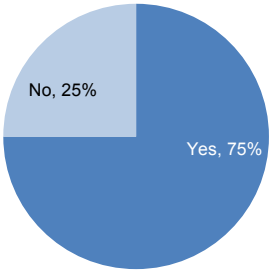


Note: Areas of contribution to water governance for which international organisations responded "yes".

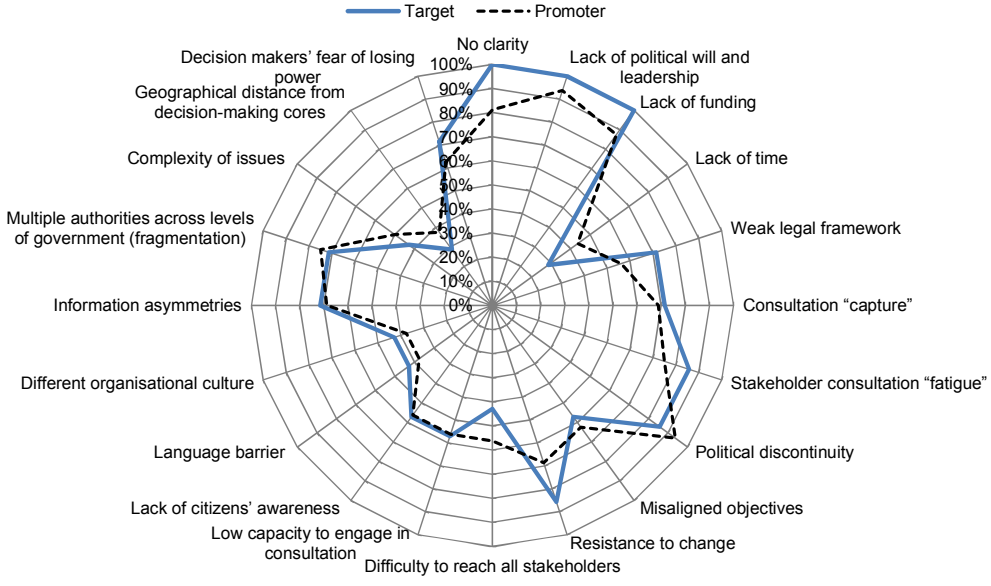
Use of stakeholder engagement mechanisms



Are existing stakeholder engagement mechanisms sufficient?

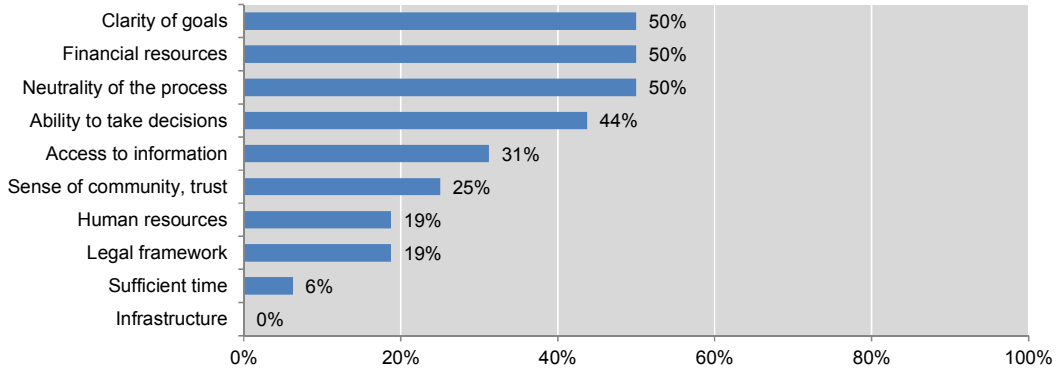


Main obstacles faced to engage stakeholders



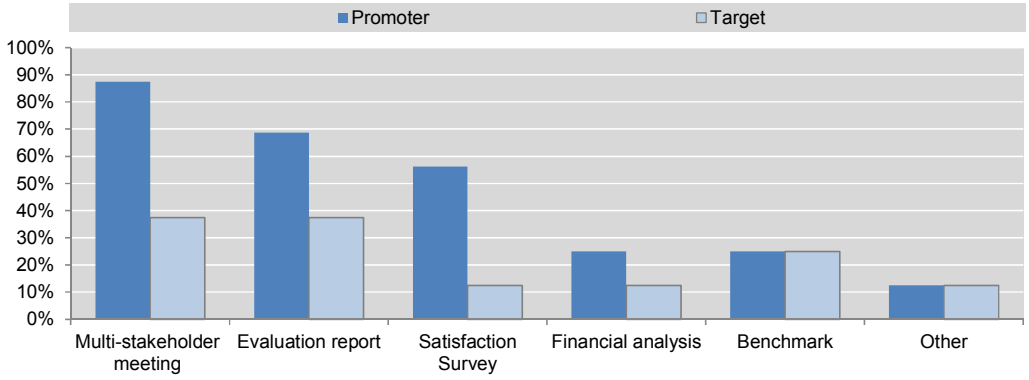
Note: Obstacles considered as "critical" and "important" by international organisations.

Perception of critical conditions of success to effectively contribute to water-related decision making

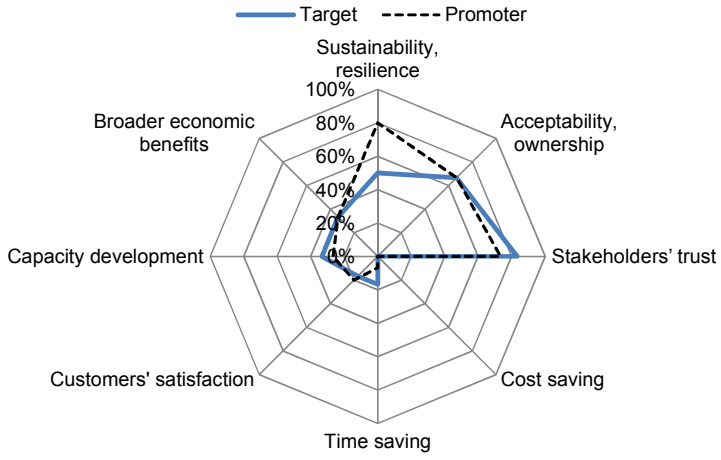


Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Mechanisms used to assess the effectiveness of stakeholder engagement

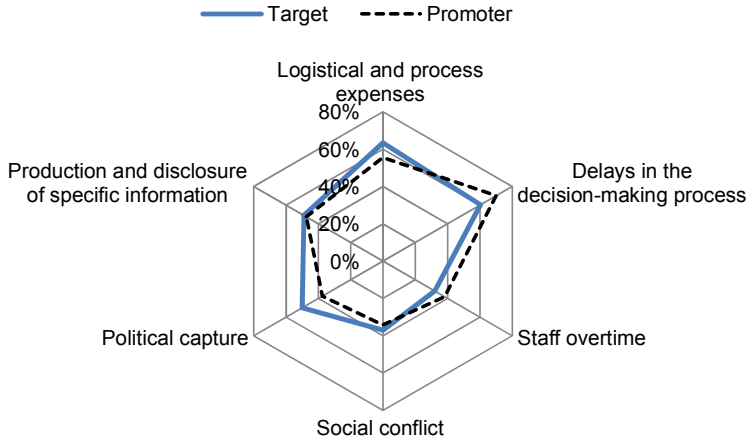


Perception of the main benefits derived by stakeholder engagement



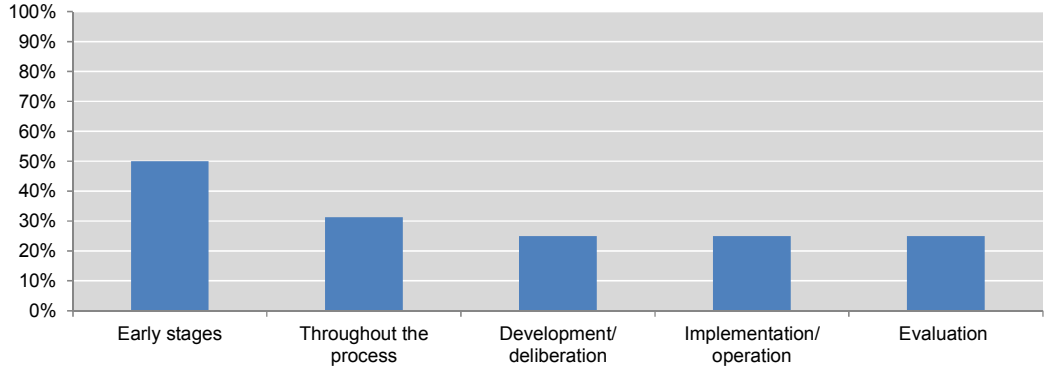
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 8.

Perception of the main costs incurred by stakeholder engagement



Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 6.

Stage of decision making at which the stakeholder is the most influential



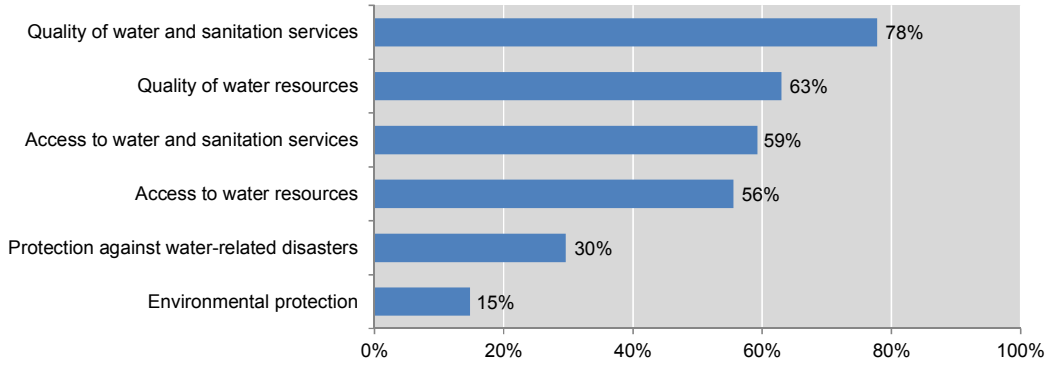
Note: Stages of decision making at which international organisations consider having a "critical influence".

Service providers and their networks

List of service providers surveyed

Algeria – SEAAL (Société des Eaux et de l'assainissement d'Alger)
AquaFed
Aqua Publica Europea
Australia – Water Corporation of Western Australia
Belgium – SA AQUAWAL
EUREAU
France – Eau de Paris
France – SYDEC
France – Syndicat des Eaux d'Ile de France
France – Syndicat des Eaux et de l'Assainissement – Alsace Moselle
Italy – Cap Holding Spa
Italy – Metropolitana Milanese Spa
Italy – SMAT S.p.A.
Italy – UNIACQUE S.p.A.
Korea – K-Water
Mexico – National Association for Water and Sanitation
Portugal – AC E.M.
Portugal – Aguas de Coimbra
Portugal – Aguas de Portugal SA
Portugal – APDA (Portuguese Association of Water and Wastewater Services)
Russian Federation – Russian Water and Wastewater Association
Slovak Republic – Verejné prístavy AS
Spain – ACUAMED
Spain – AEAS (Spanish Association of Water and Sanitation)
Suez Environnement
United Kingdom – Water UK

Areas of interest

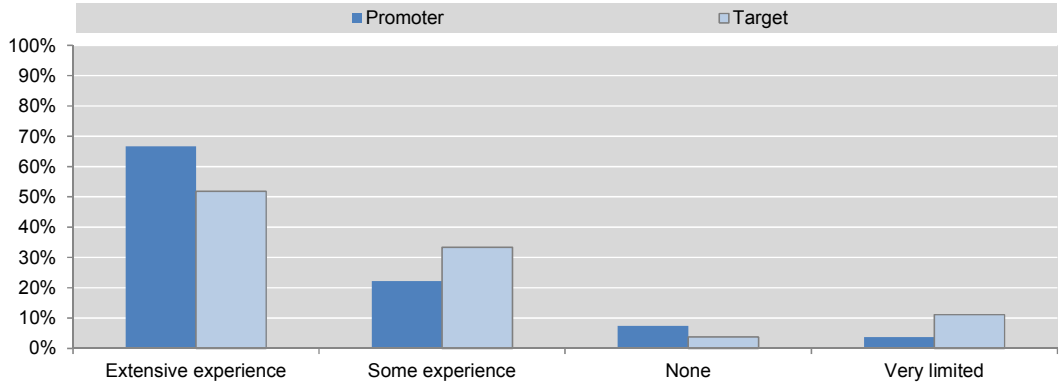


Note: Areas of interest of service providers ranked from 1 to 3 on a scale from 1 to 6.

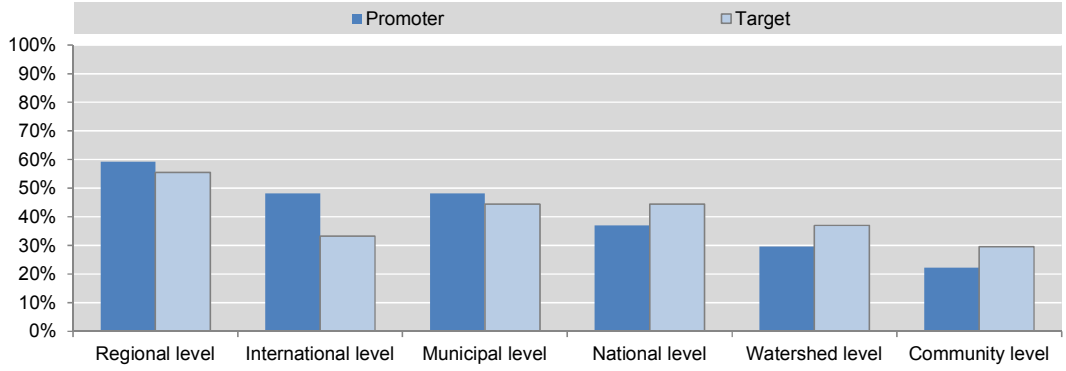
Keywords most often associated with stakeholder engagement

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5.

Experience in stakeholder engagement

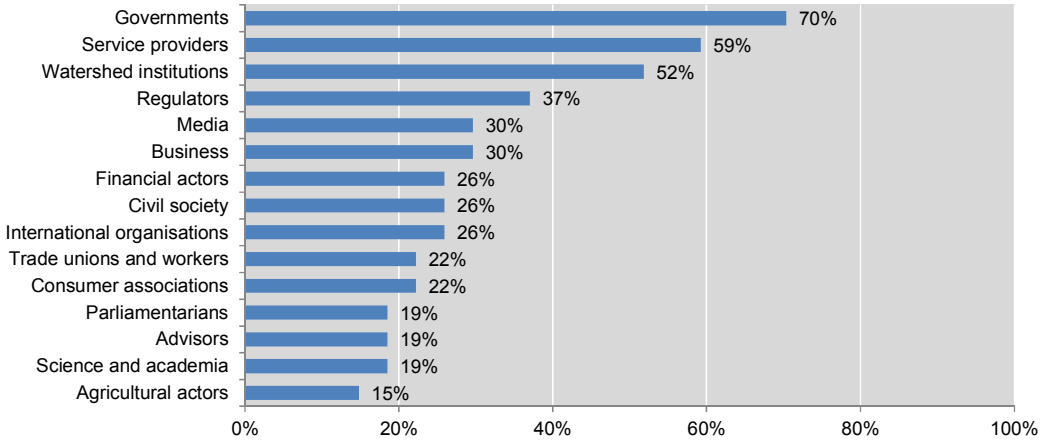


Scale of intervention



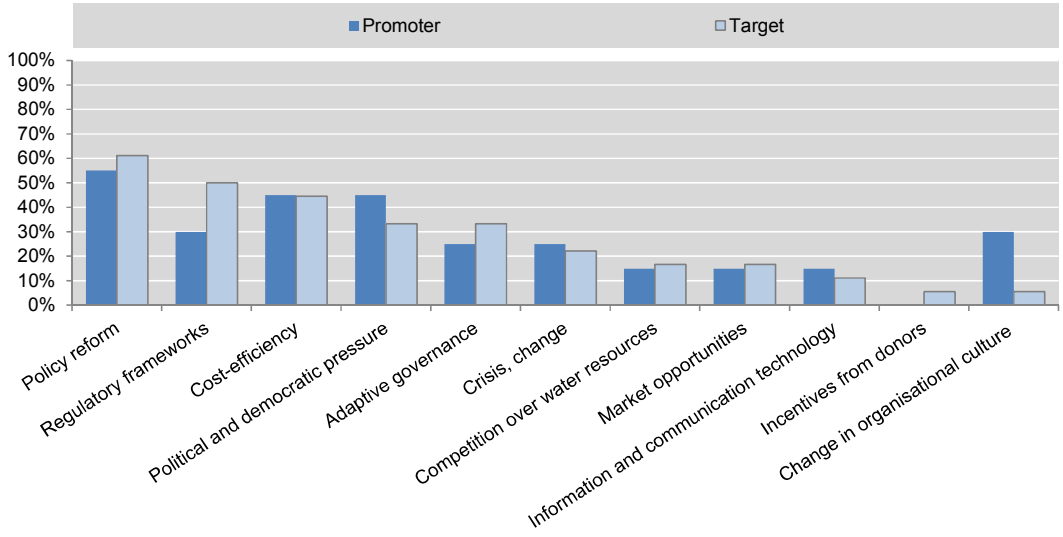
Note: Scale of intervention at which service providers primarily intervene.

Interactions with other stakeholders



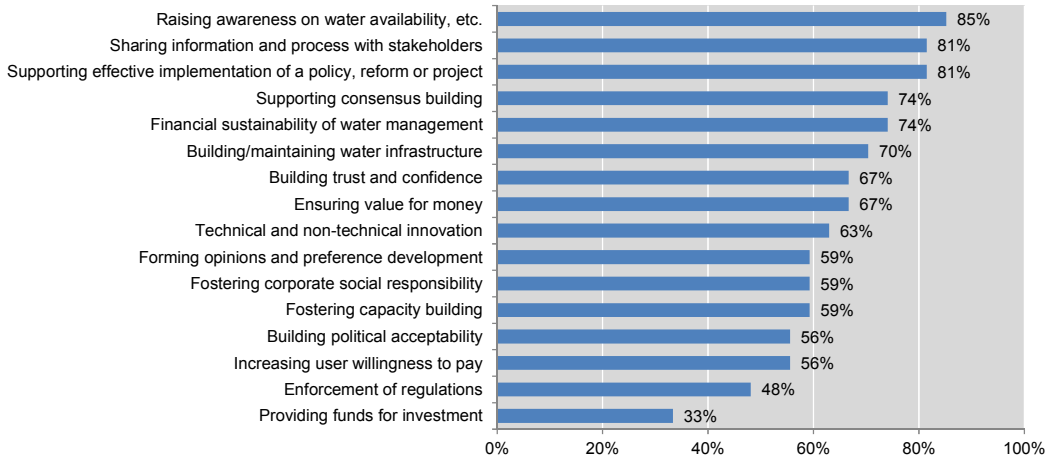
Note: Categories of stakeholders with which service providers interact "always or very frequently".

Main drivers



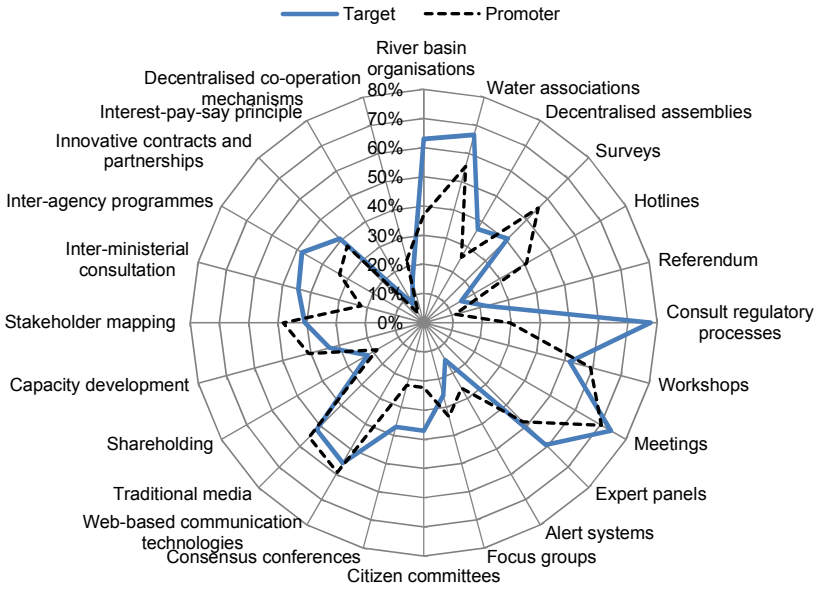
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Perception about service providers' and their networks' contribution to better water governance

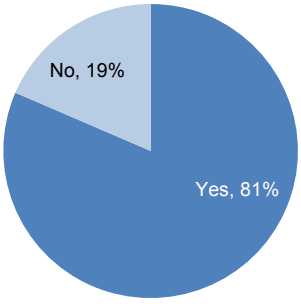


Note: Areas of contribution to water governance for which service providers responded "yes".

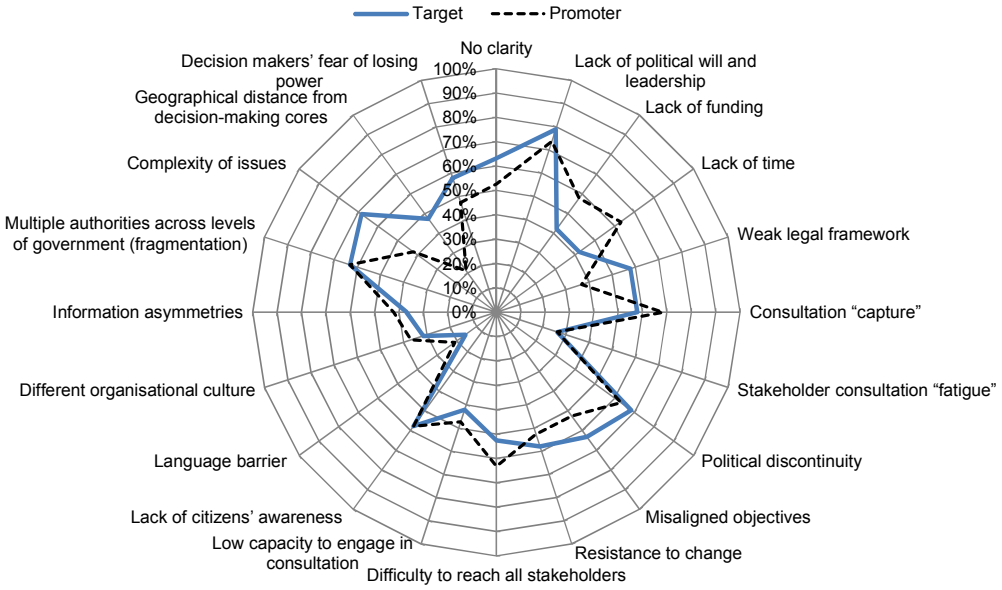
Use of stakeholder engagement mechanisms



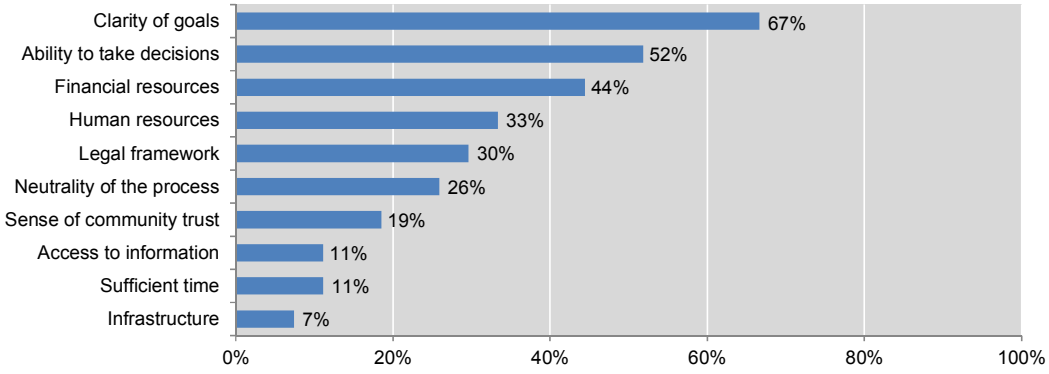
Are existing stakeholder engagement mechanisms sufficient?



Main obstacles faced to engage stakeholders

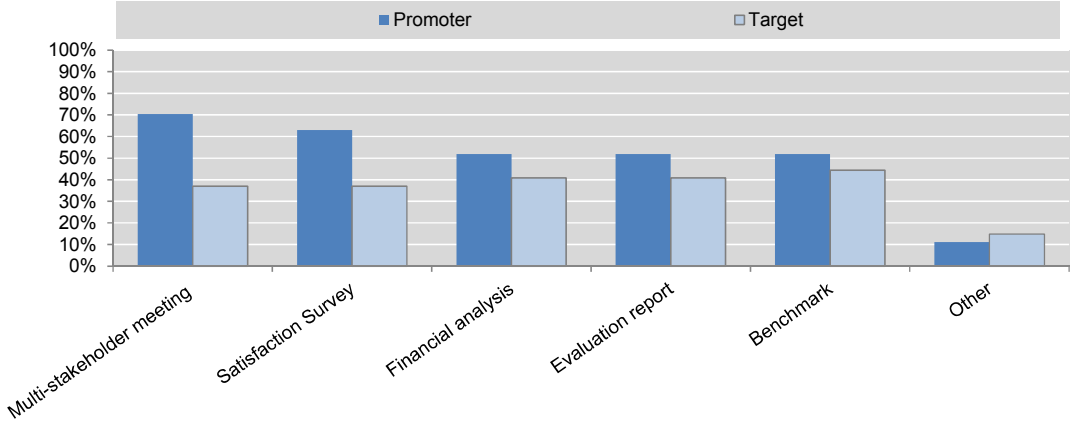


Perception of critical conditions of success to effectively contribute to water-related decision making

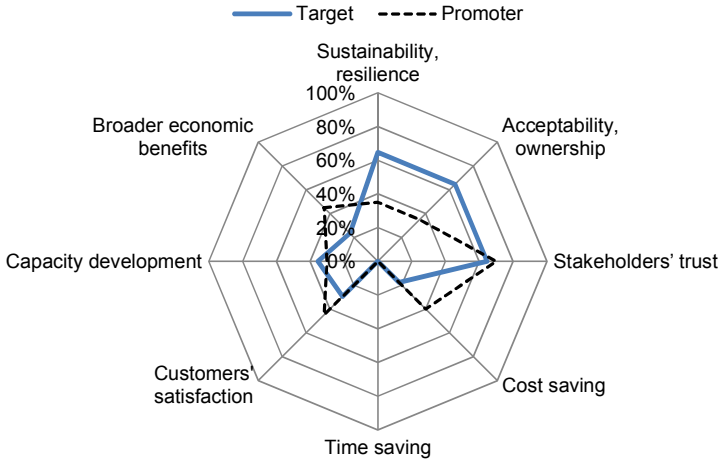


Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Mechanisms used to assess the effectiveness of stakeholder engagement

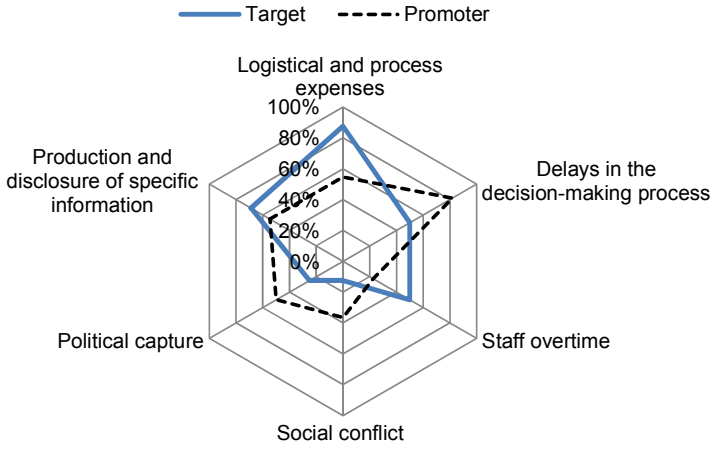


Perception of the main benefits derived by stakeholder engagement



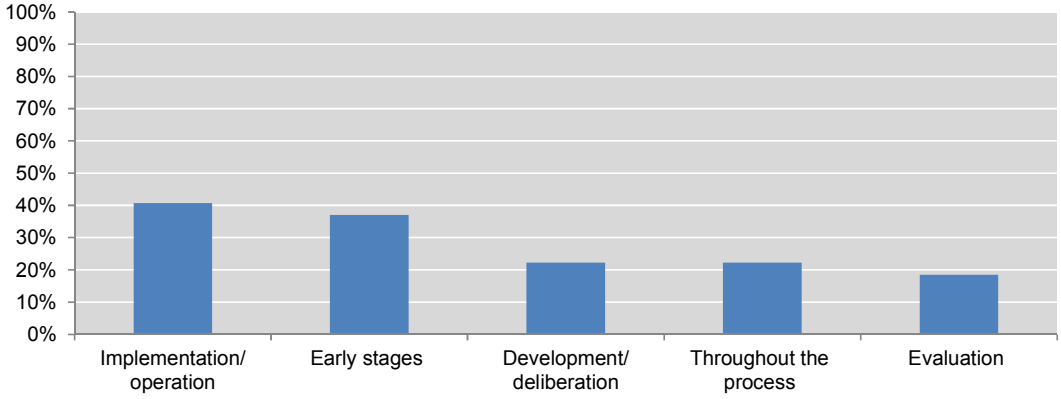
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 8.

Perception of the main costs incurred by stakeholder engagement



Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 6.

Stage of decision making at which the stakeholder is the most influential



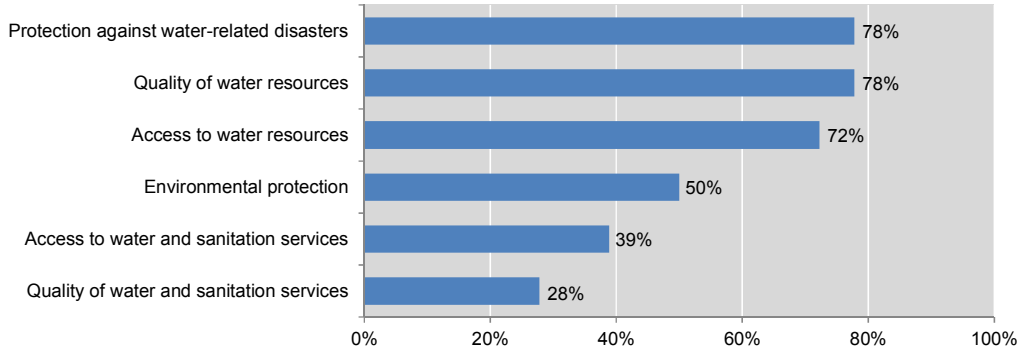
Note: Stages of decision making at which service providers consider having a "critical influence".

Watershed institutions and their networks

List of watershed institutions surveyed

Canada – Association of River Basin Organisations of Quebec
Canada – South Nation River Conservation Authority
European Union Water Management Association
France – Agence de l'Eau Rhône-Méditerranée-Corse
France – Association Française des Établissements Publics Territoriaux de Bassin
Germany – Wupperverband
Indonesia – Perum Jasa Tirta II Jatiluhur
International Network of Basin Organizations
Italy – Tuscany Water Authority
Japan – Japan Water Agency
Netherlands – Association of Dutch Water Authorities
Netherlands – Dutch Water Authority of Brabantse Delta
Netherlands – Dutch Water Authority of Rijnland
Network of Asian River Basin Organizations
Spain – Júcar River Basin Authority
Spain – River Basin Authority of Segura
Sri Lanka – Mahaweli Authority
Thailand – Mun River Basin Committee

Areas of interest

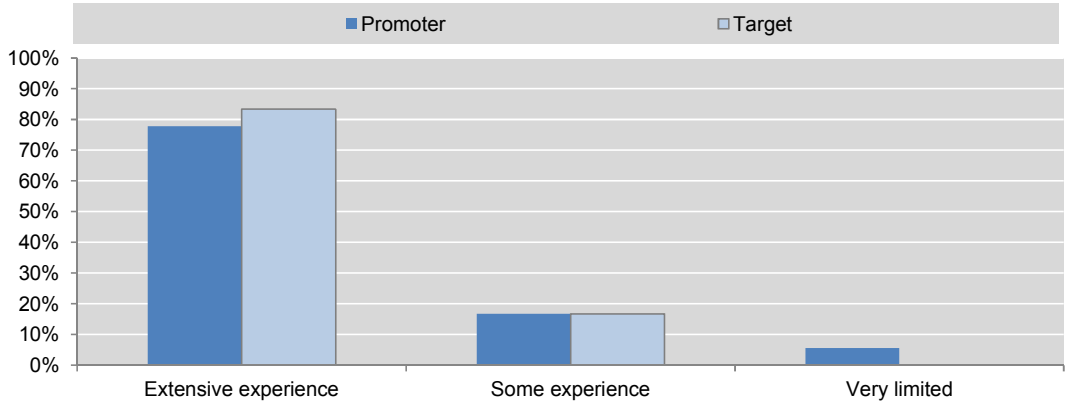


Note: Areas of interest of watershed institutions ranked from 1 to 3 on a scale from 1 to 6.

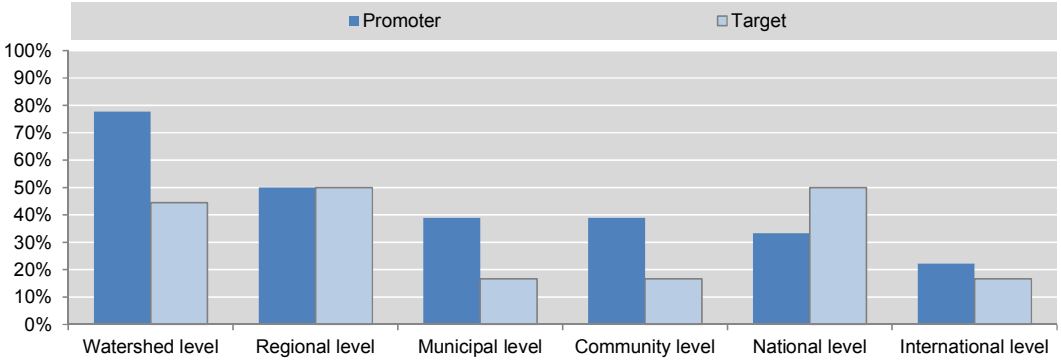
Keywords most often associated with stakeholder engagement

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5.

Experience in stakeholder engagement

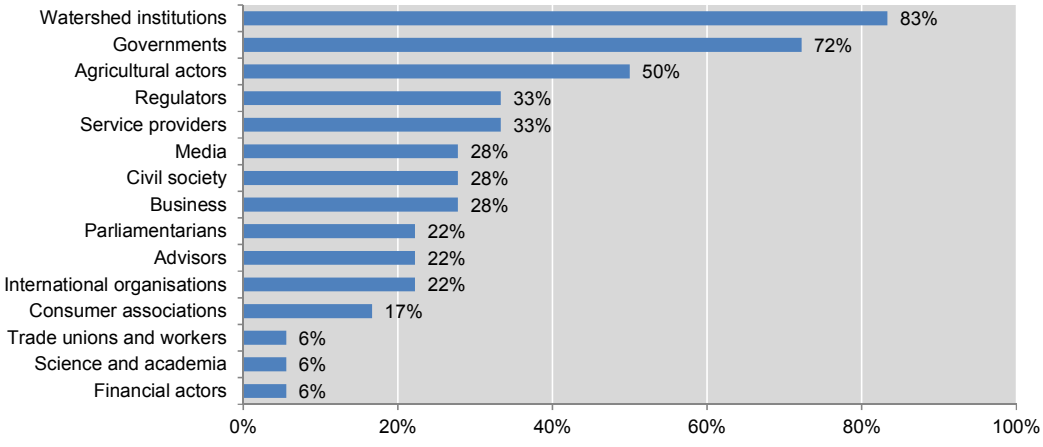


Scale of intervention



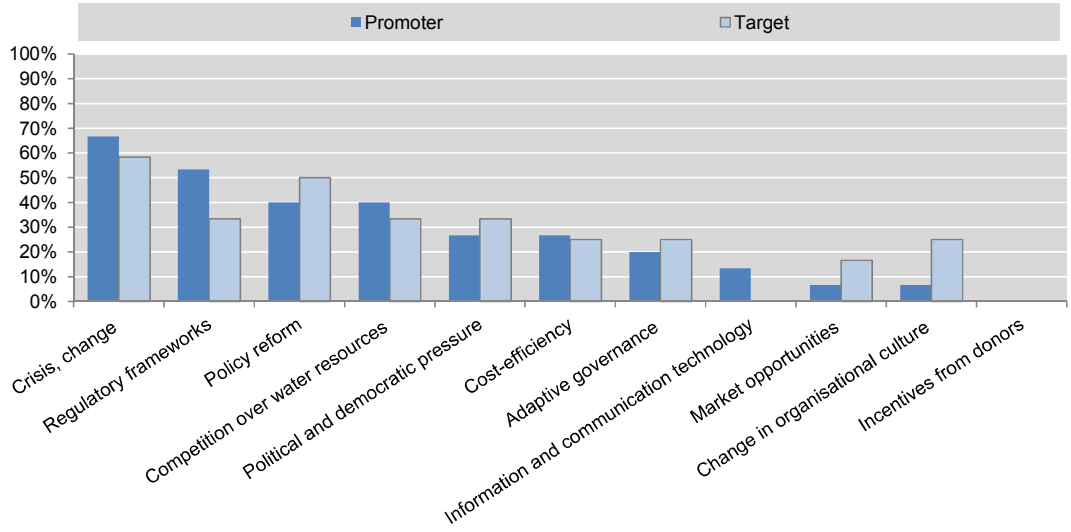
Note: Scale of intervention at which watershed institutions primarily intervene.

Interactions with other stakeholders



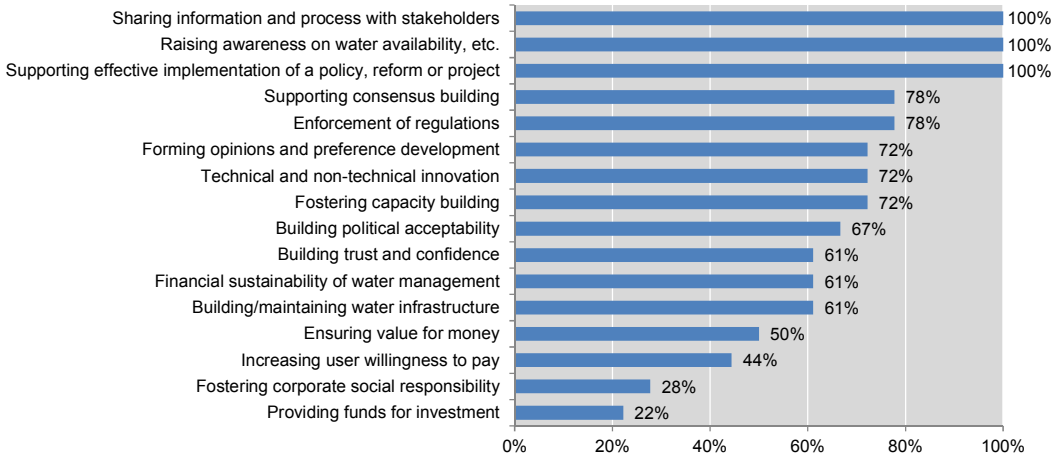
Note: Categories of stakeholders with which watershed institutions interact "always or very frequently".

Main drivers



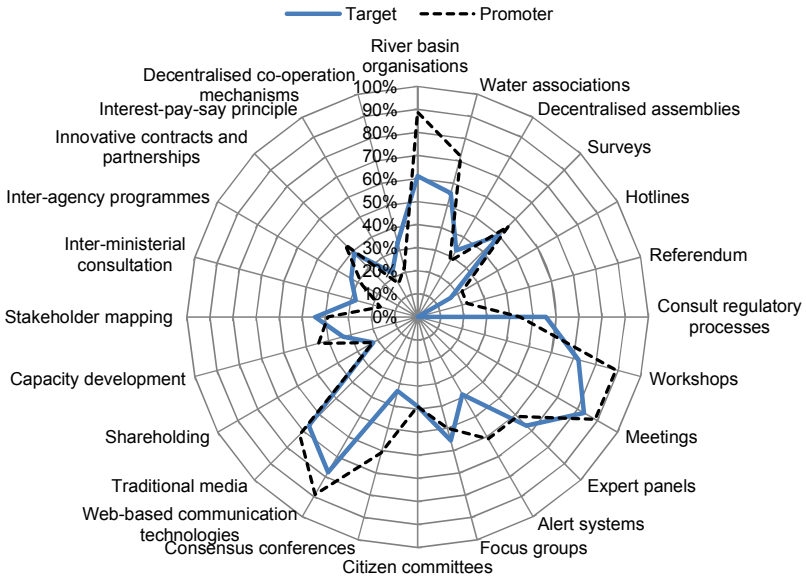
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Perception about watershed institutions' and their networks' contribution to better water governance

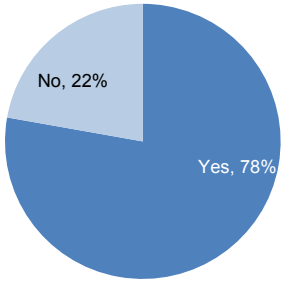


Note: Areas of contribution to water governance for which watershed institutions responded "yes".

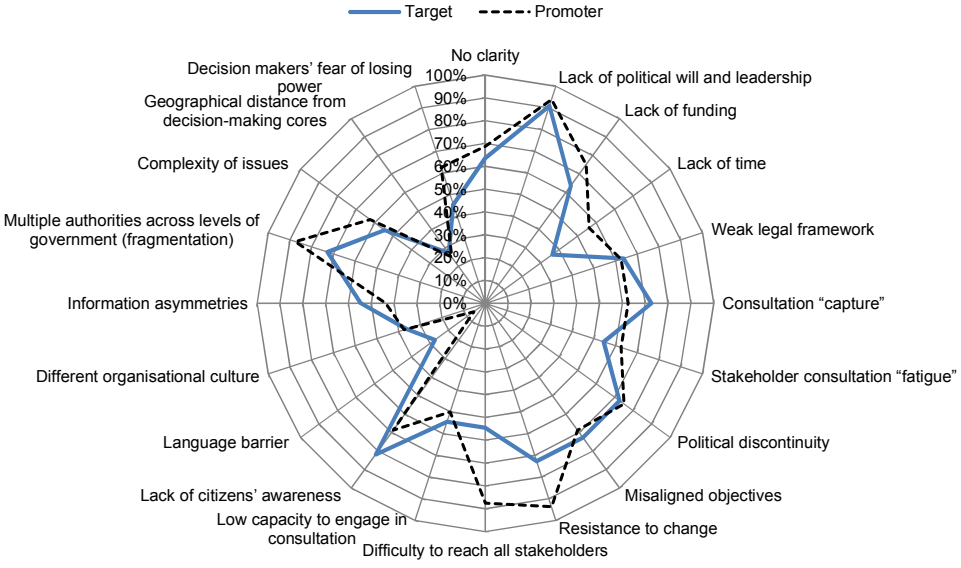
Use of stakeholder engagement mechanisms



Are existing stakeholder engagement mechanisms sufficient?

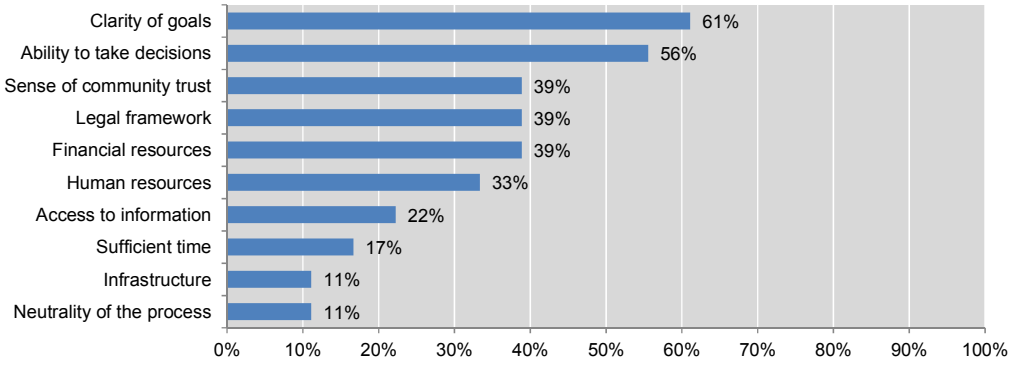


Main obstacles faced to engage stakeholders



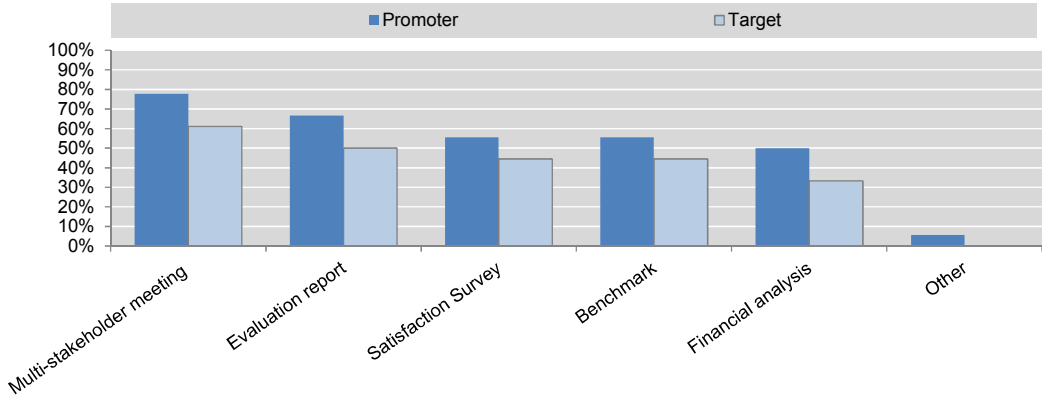
Note: Obstacles considered as "critical" and "important" by watershed institutions.

Perception of critical conditions of success to effectively contribute to water-related decision making

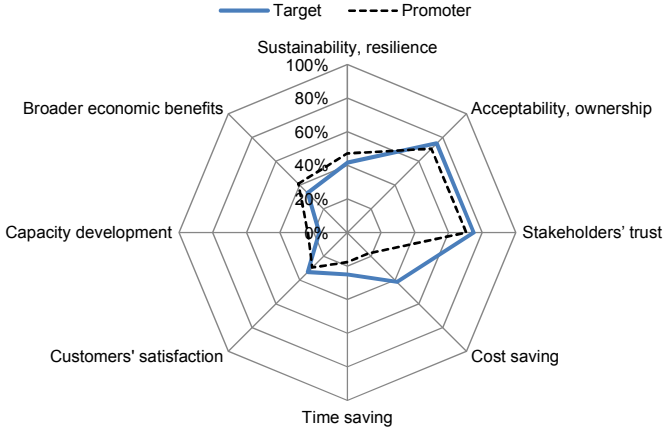


Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Mechanisms used to assess the effectiveness of stakeholder engagement

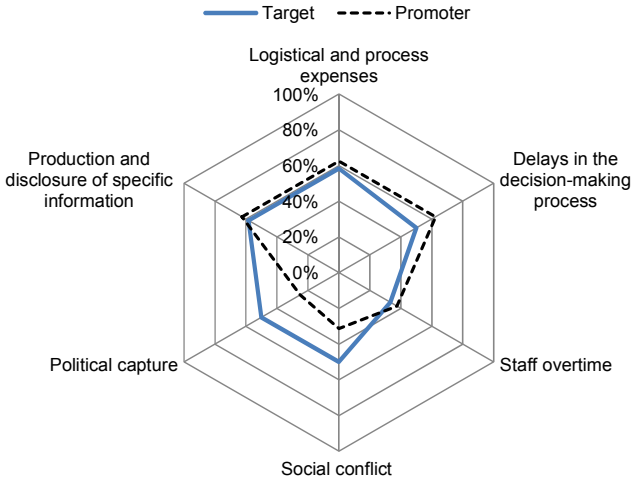


Perception of the main benefits derived by stakeholder engagement



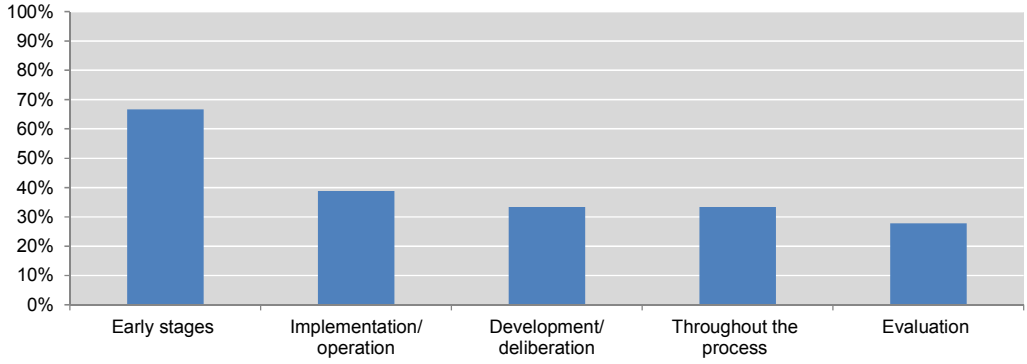
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 8.

Perception of the main costs incurred by stakeholder engagement



Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 6.

Stage of decision making at which the stakeholder is the most influential



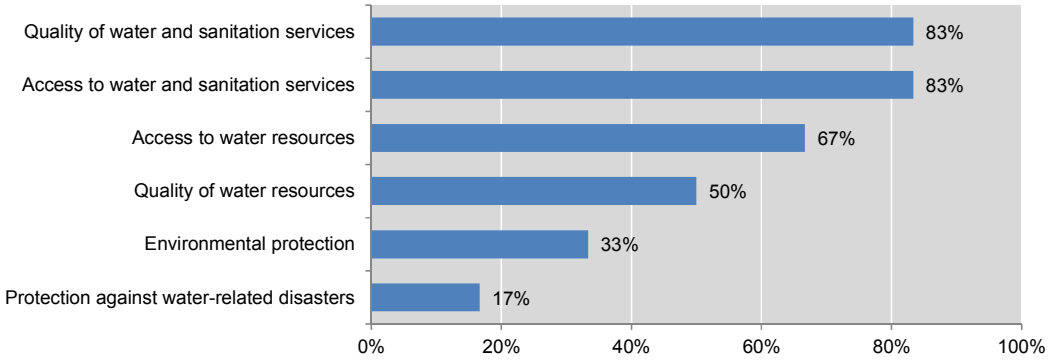
Note: Stages of decision making at which watershed institutions consider having a "critical influence".

Regulators

List of regulators surveyed

Australia – Independent Competition and Regulatory Commission
Brazil – Municipal regulatory agency for water services of Esgoto
Italy – Regulatory Authority for Electricity, Gas and Water
Malta – Malta Resources Authority
Portugal – Water and Waste Services Regulation Authority
United Kingdom – Environment Agency

Areas of interest

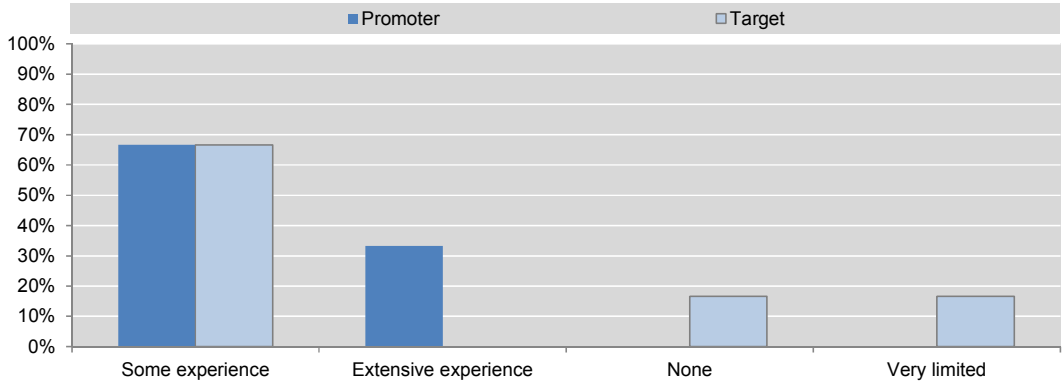


Note: Areas of interest of regulators ranked from 1 to 3 on a scale from 1 to 6.

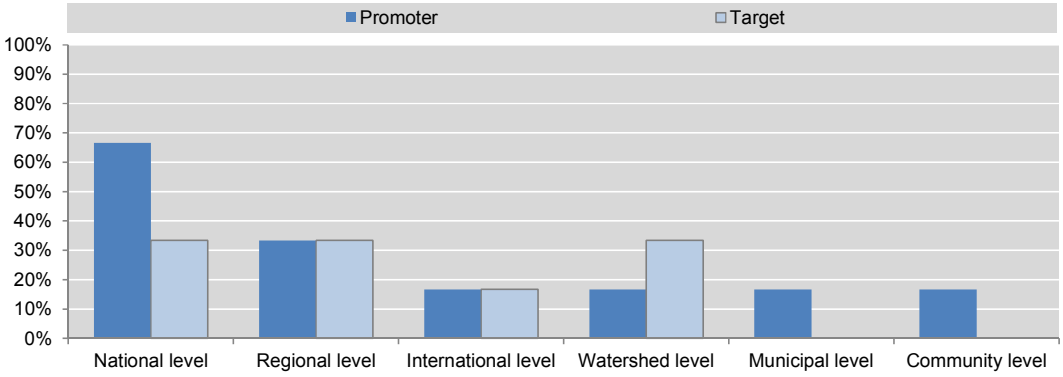
Keywords most often associated with stakeholder engagement

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5.

Experience in stakeholder engagement

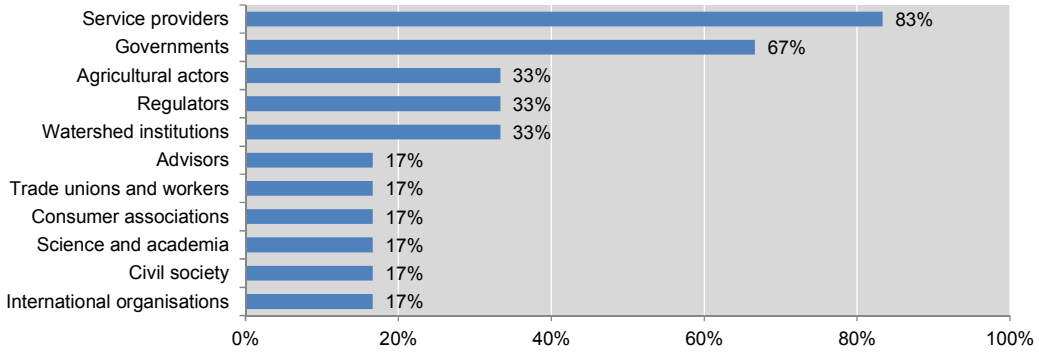


Scale of intervention



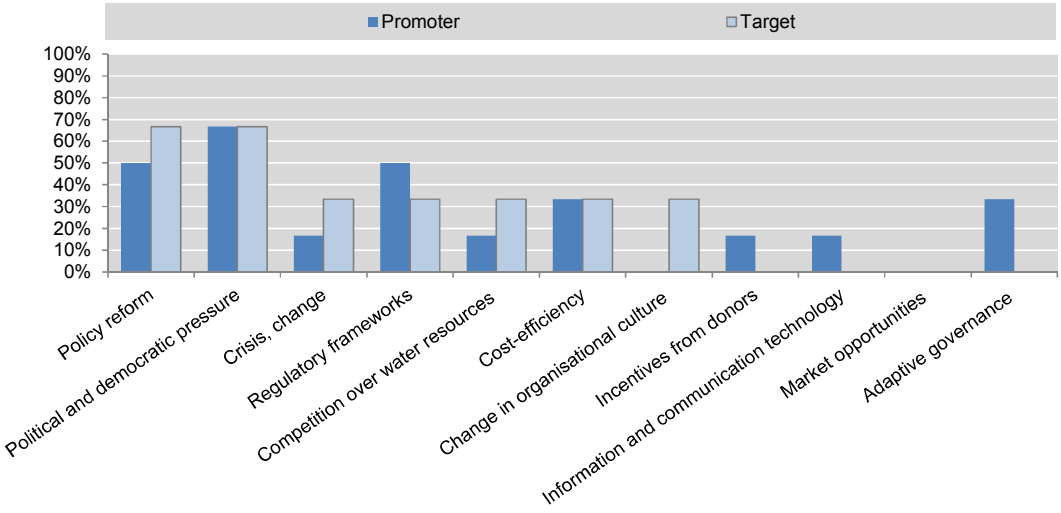
Note: Scale of intervention at which regulators primarily intervene.

Interactions with other stakeholders



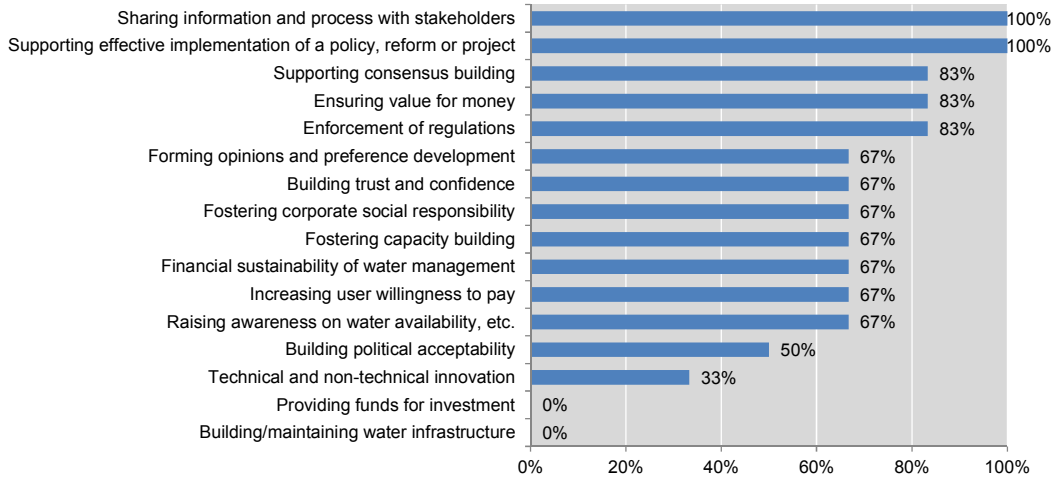
Note: Categories of stakeholders with which regulators interact "always or very frequently".

Main drivers



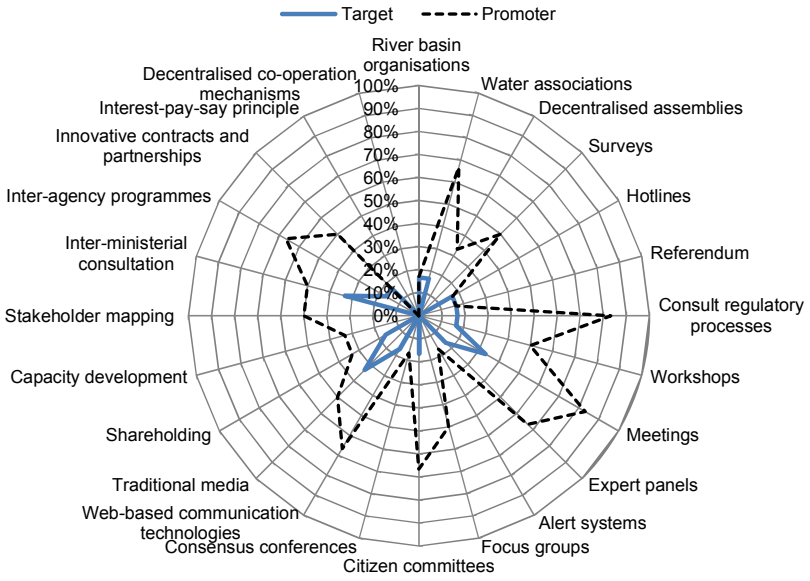
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Perception about regulators' contribution to better water governance

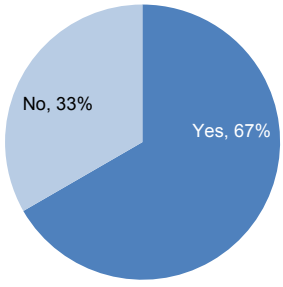


Note: Areas of contribution to water governance for which regulators responded "yes".

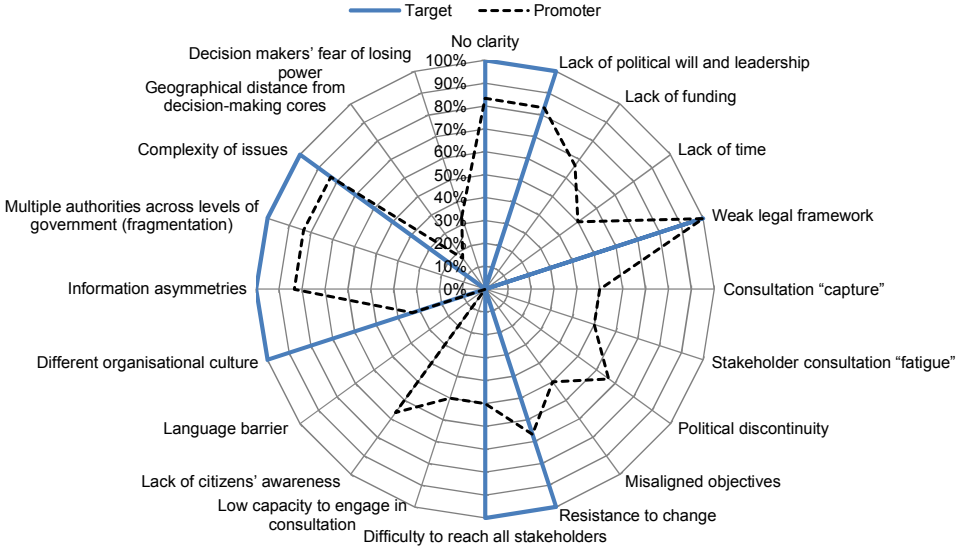
Use of stakeholder engagement mechanisms



Are existing stakeholder engagement mechanisms sufficient?

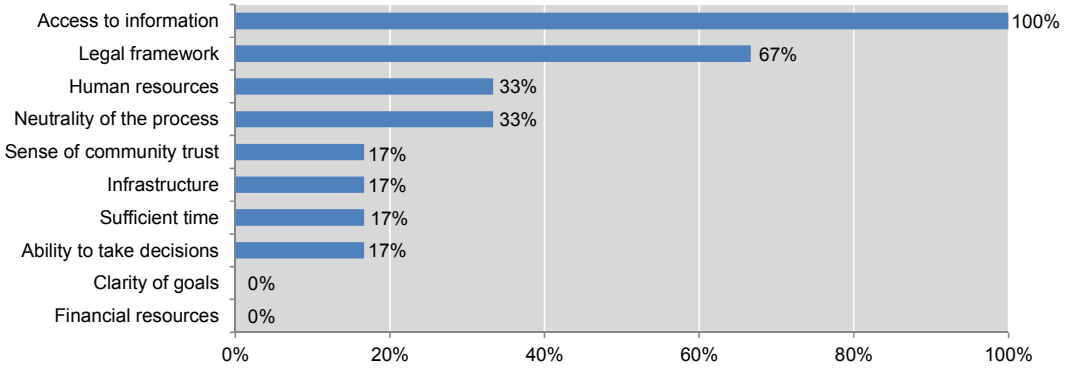


Main obstacles faced to engage stakeholders



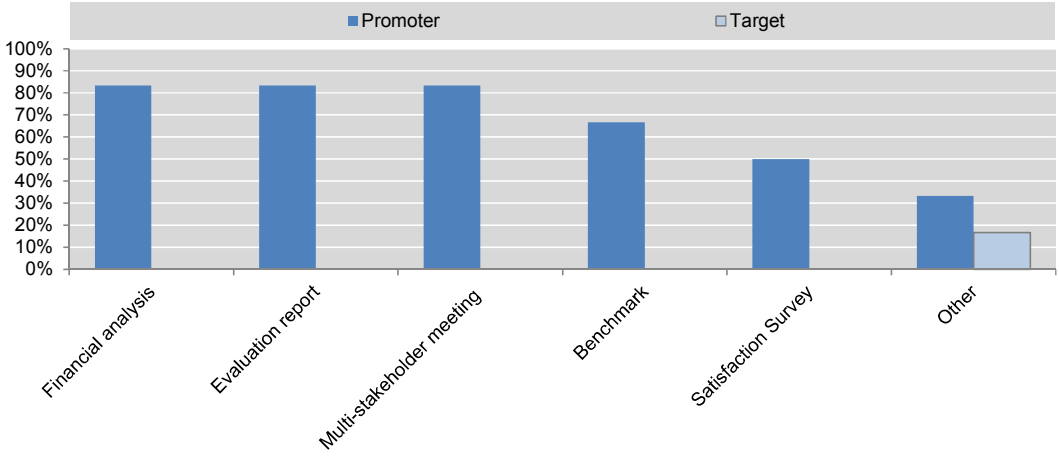
Note: Obstacles considered as "critical" and "important" by regulators.

Perception of critical conditions of success to effectively contribute to water-related decision making

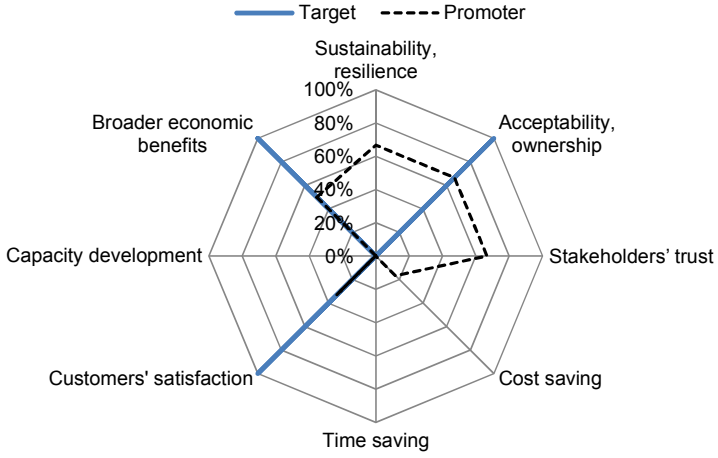


Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Mechanisms used to assess the effectiveness of stakeholder engagement

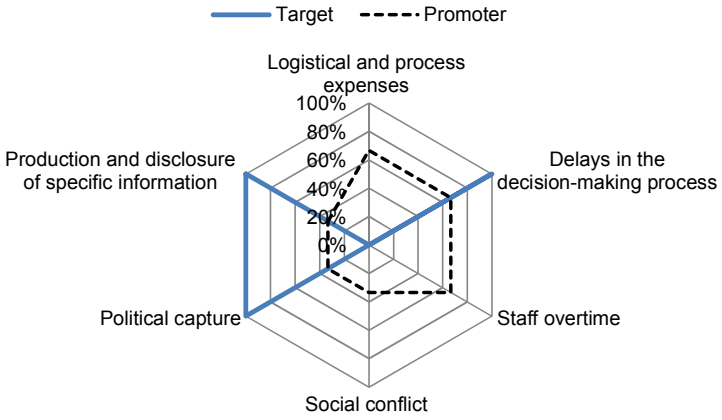


Perception of the main benefits derived by stakeholder engagement



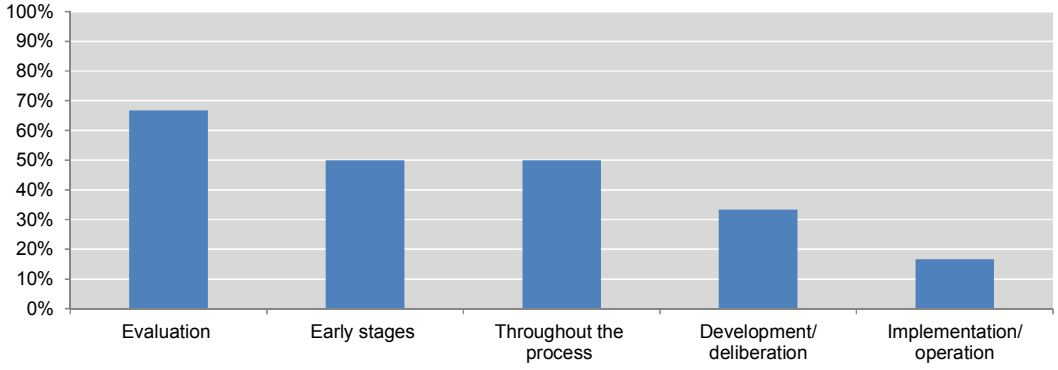
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 8.

Perception of the main costs incurred by stakeholder engagement



Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 6.

Stage of decision making at which the stakeholder is the most influential



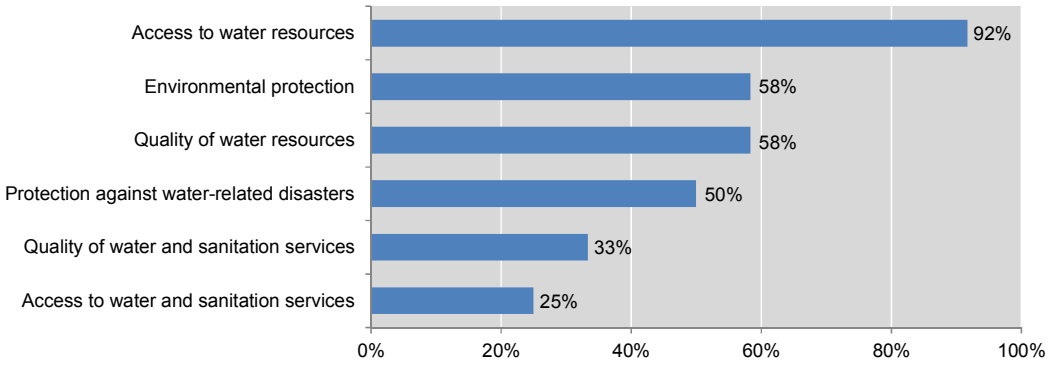
Note: Stages of decision making at which regulators consider having a "critical influence".

Business

List of businesses surveyed

Anglo American
Brazilian Business Council for Sustainable Development
CH Industries
Coca-Cola Hellenic Bottling Company S.A.
Électricité de France
GDF SUEZ
Sasol
The Coca-Cola Company
Titan Cement – Greece
Tractebel Energia – Brazil
Water Committee of the National Society of Mining, Petroleum and Energy – Peru
World Business Council for Sustainable Development

Areas of interest

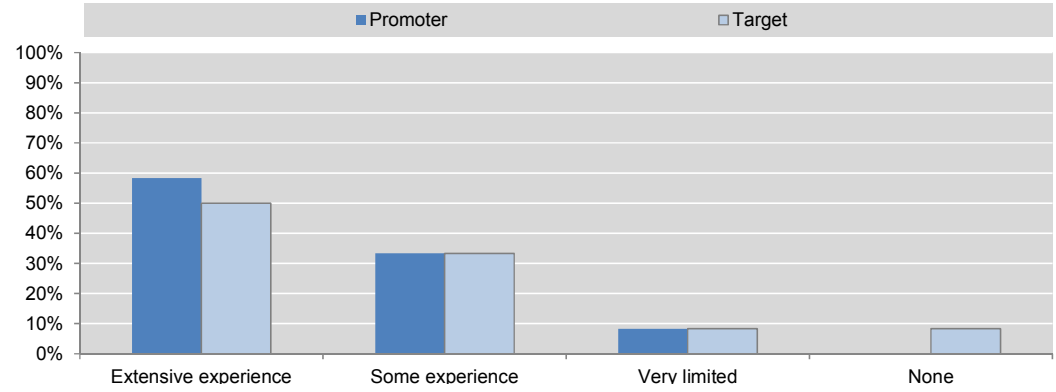


Note: Areas of interest of business ranked from 1 to 3 on a scale from 1 to 6.

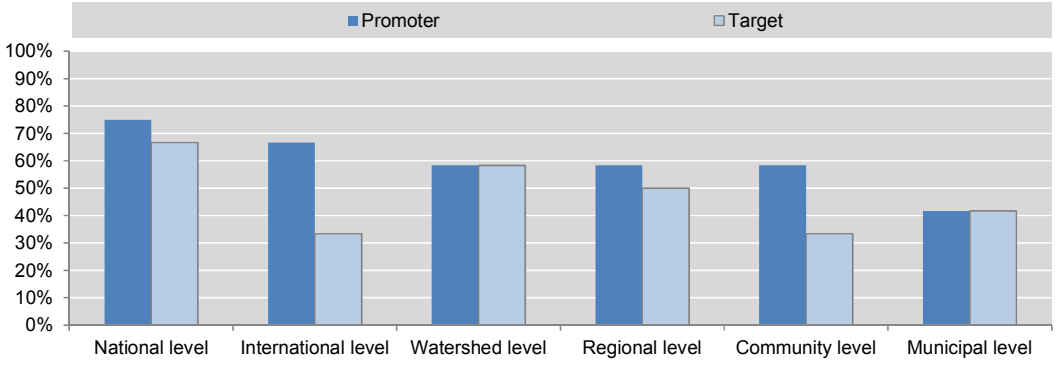
Keywords most often associated with stakeholder engagement

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5.

Experience in stakeholder engagement

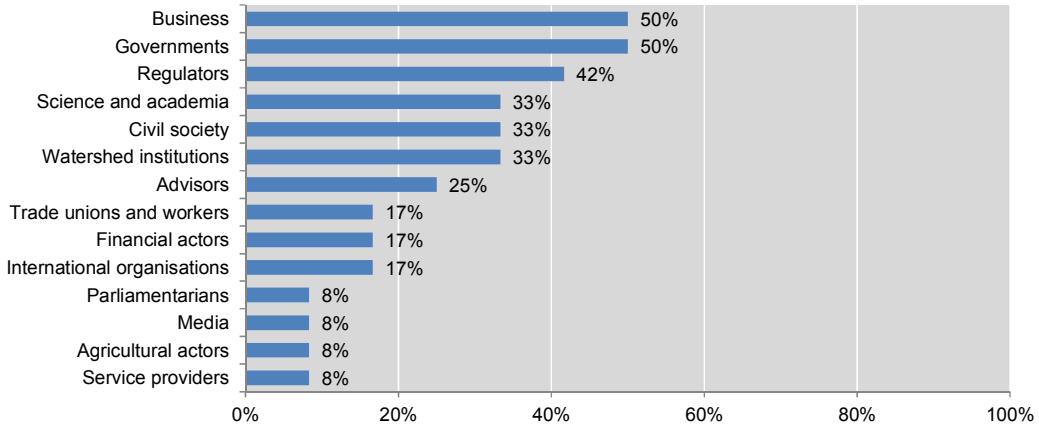


Scale of intervention



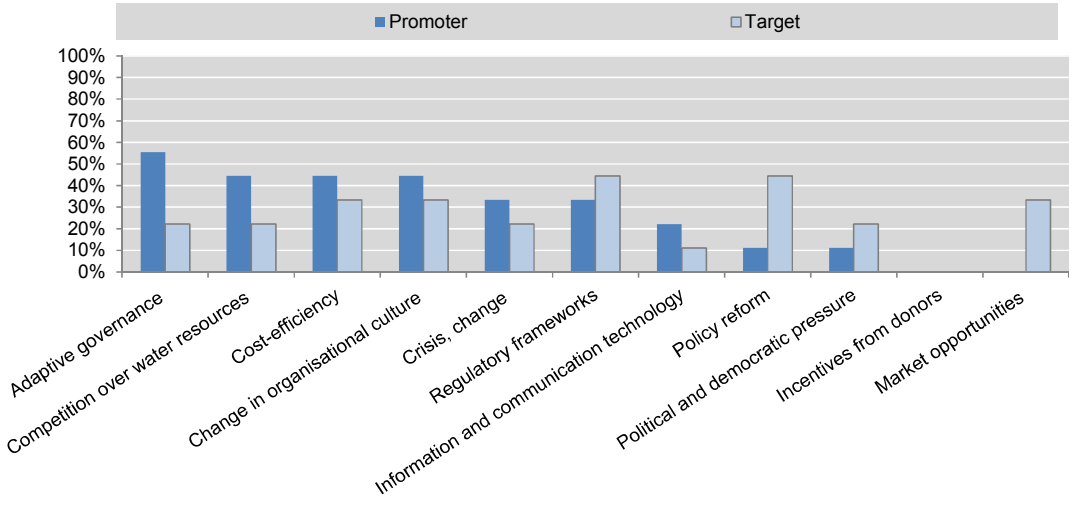
Note: Scale of intervention at which business primarily intervenes.

Interactions with other stakeholders



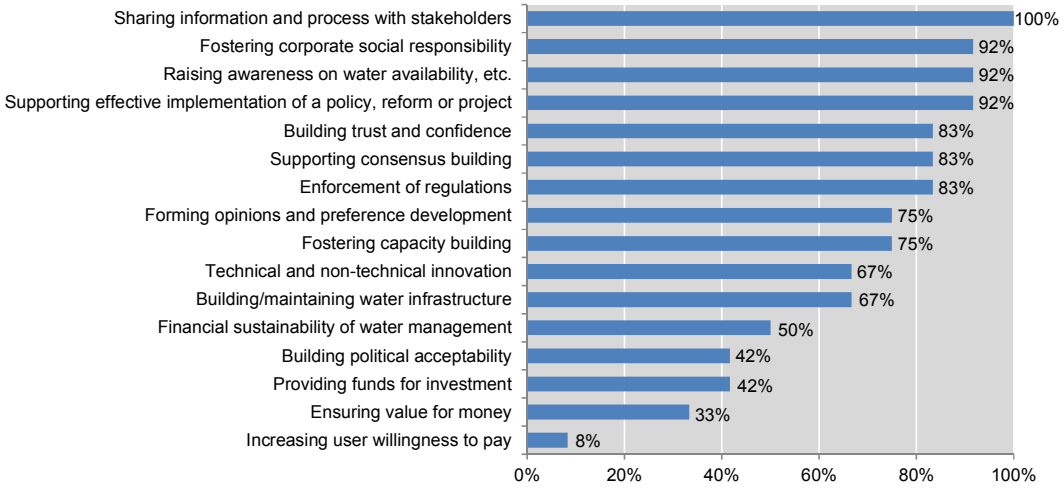
Note: Categories of stakeholders with which business interacts "always or very frequently".

Main drivers



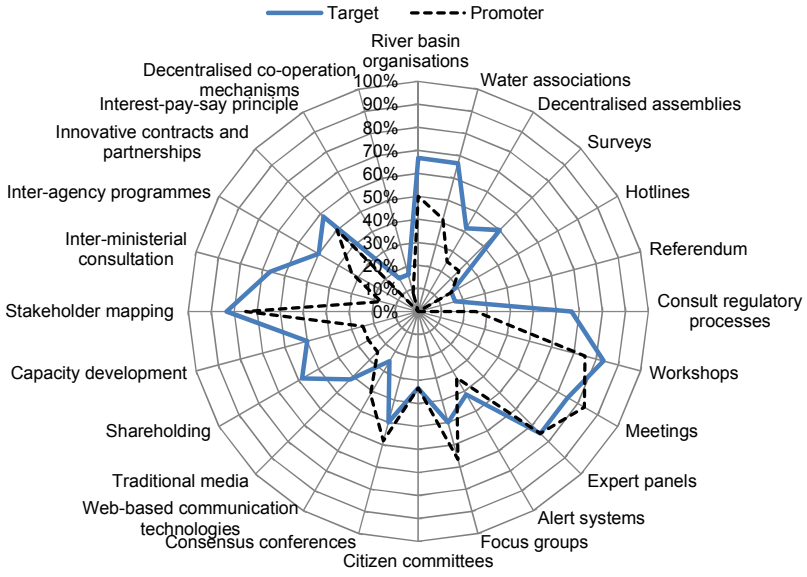
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Perception about business's contribution to better water governance

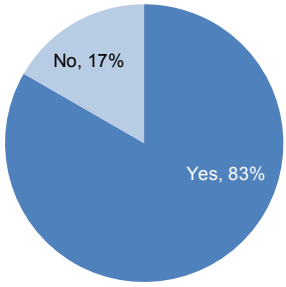


Note: Areas of contribution to water governance for which business responded "yes".

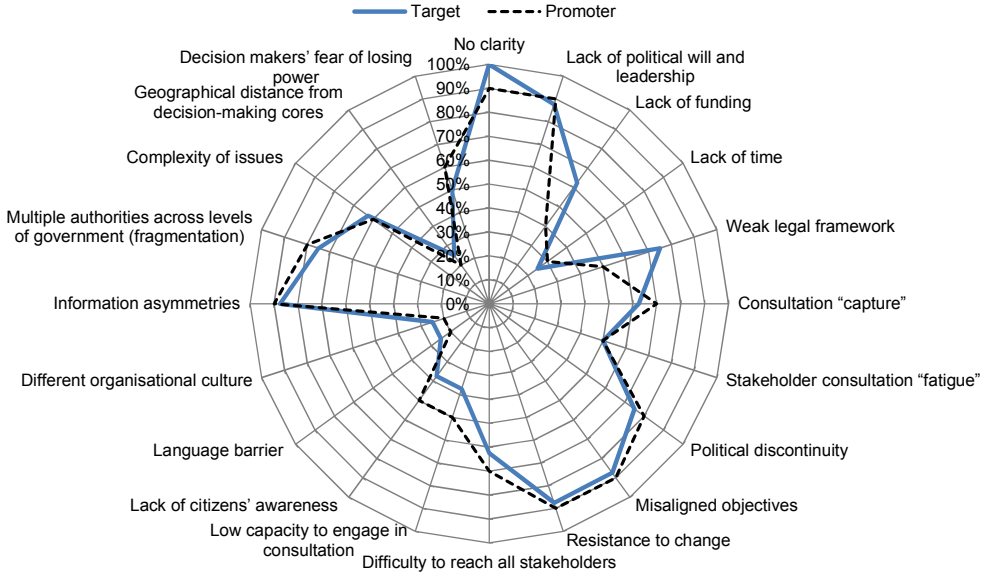
Use of stakeholder engagement mechanisms



Are existing stakeholder engagement mechanisms sufficient?

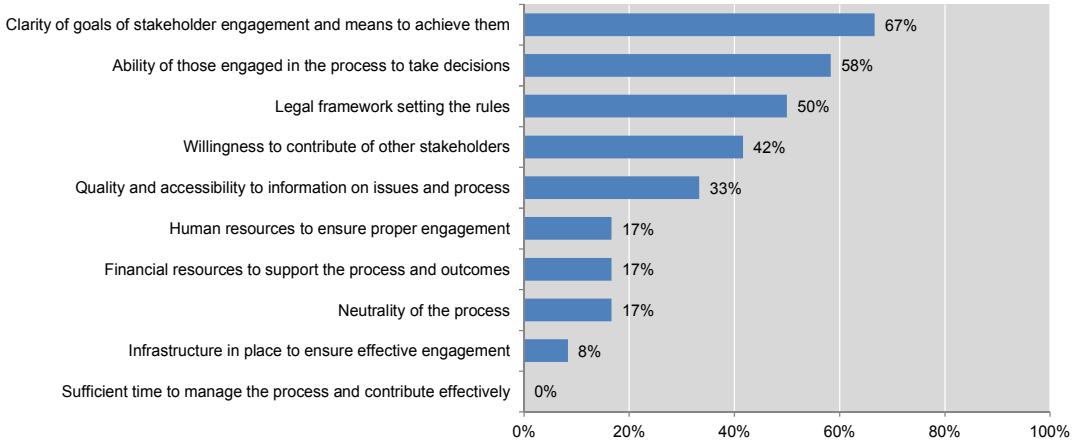


Main obstacles faced to engage stakeholders



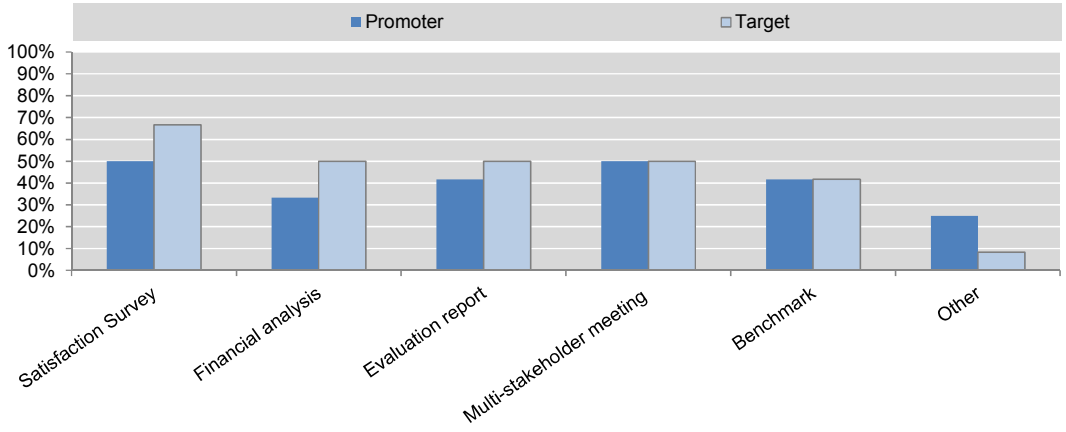
Note: Obstacles considered as "critical" and "important" by business.

Perception of critical conditions of success to effectively contribute to water-related decision making

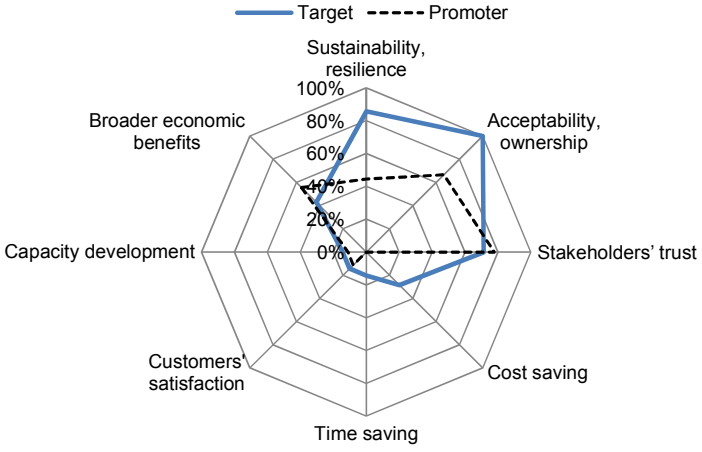


Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Mechanisms used to assess the effectiveness of stakeholder engagement

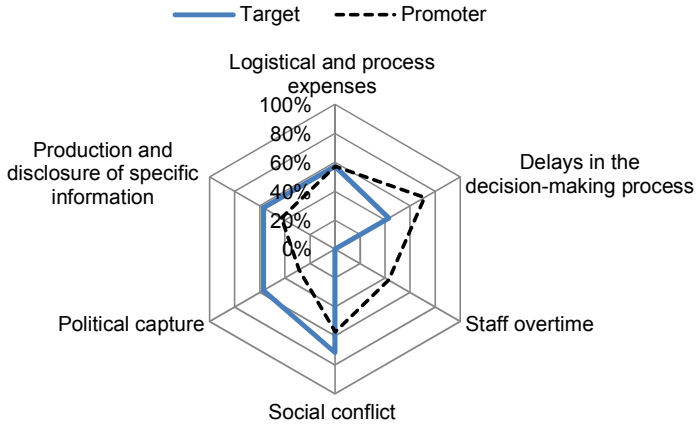


Perception of the main benefits derived by stakeholder engagement



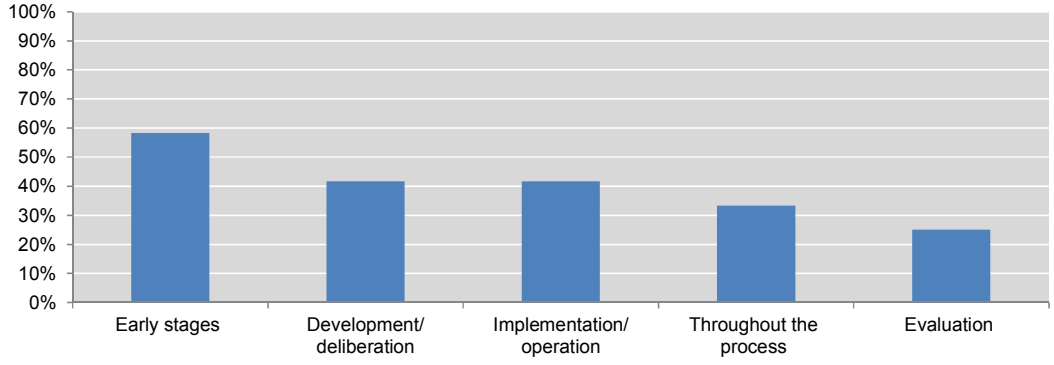
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 8.

Perception of the main costs incurred by stakeholder engagement



Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 6.

Stage of decision making at which the stakeholder is the most influential



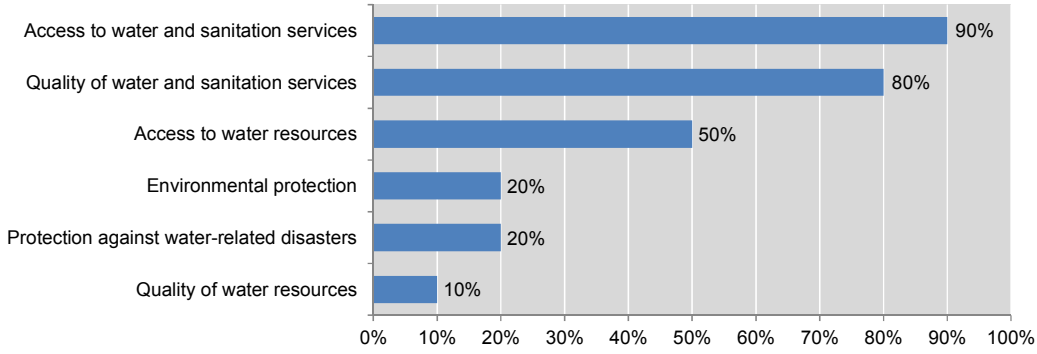
Note: Stages of decision making at which business considers having a "critical influence".

Financial actors

List of financial actors surveyed

Asian Development Bank (ADB)
France – Agence française de développement (AFD)
Germany – German Development Bank (KfW)
Germany – German Agency for International Cooperation (GIZ)
Indonesia – Indonesian Urban Water Sanitation and Hygiene Project (IUWASH)
Inter-American Development Bank (IADB)
Netherlands – Association of Dutch Insurers
Spain - Spanish Agency for International Cooperation and Development (AECID)
Sweden - Swedish International Development Cooperation Agency (SIDA)
United States – United States Agency for International Development (USAID)

Areas of interest

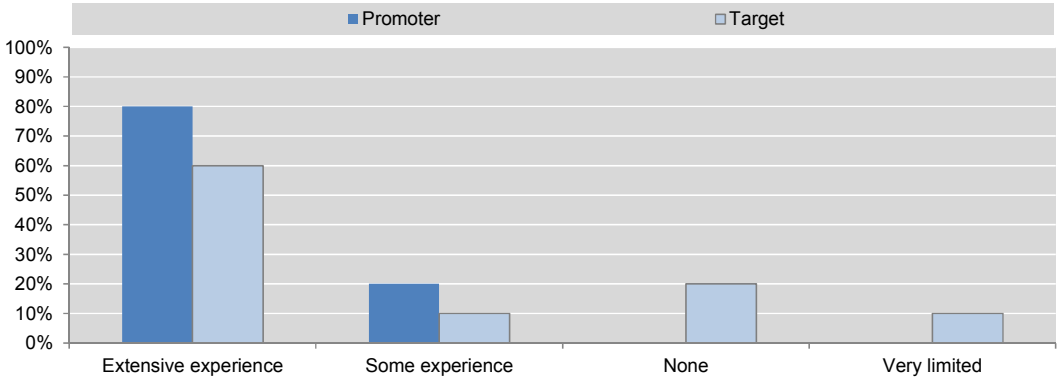


Note: Areas of interest of financial actors ranked from 1 to 3 on a scale from 1 to 6.

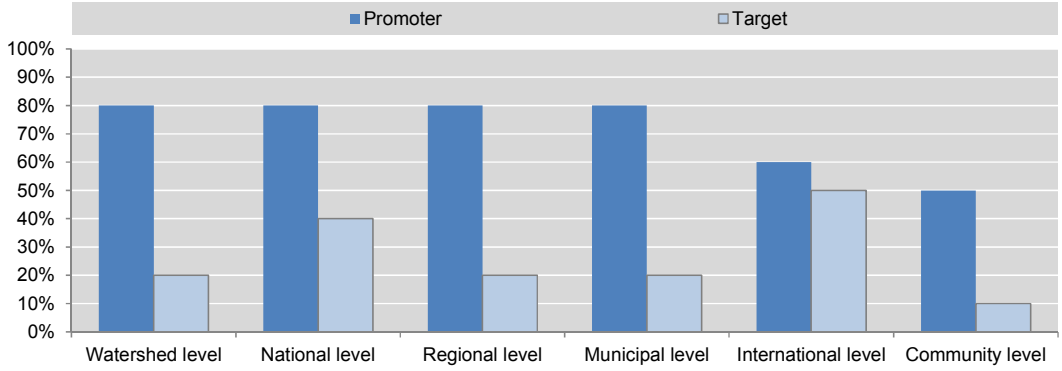
Keywords most often associated with stakeholder engagement

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5.

Experience in stakeholder engagement

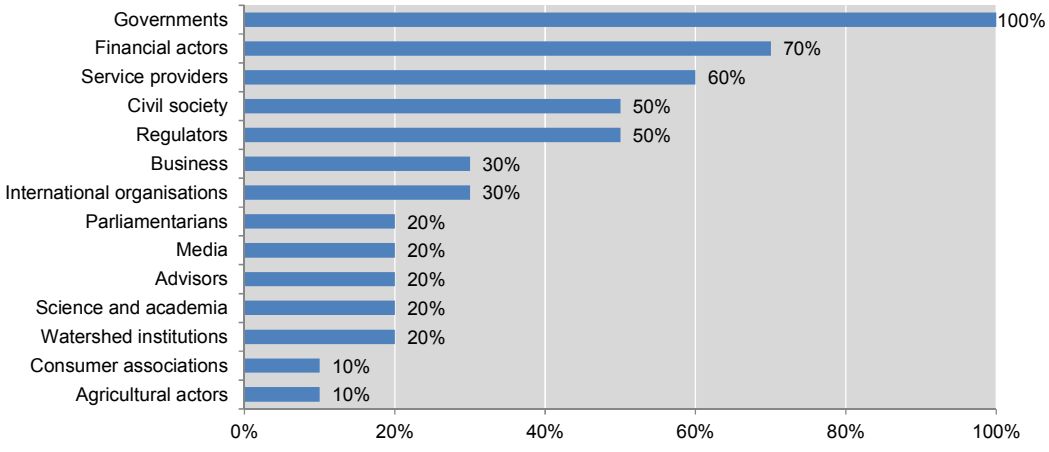


Scale of intervention



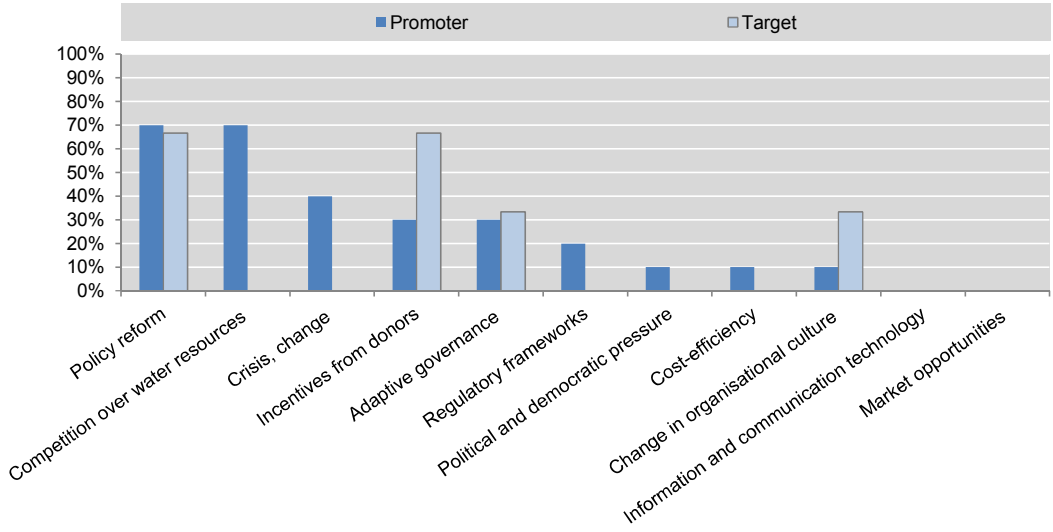
Note: Scale of intervention at which financial actors primarily intervene.

Interactions with other stakeholders



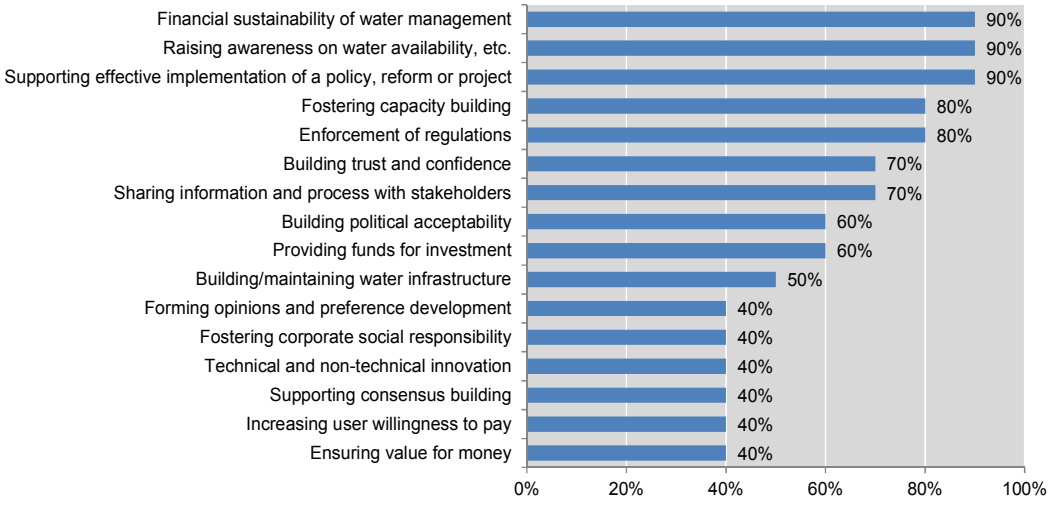
Note: Categories of stakeholders with which financial actors interact "always or very frequently".

Main drivers



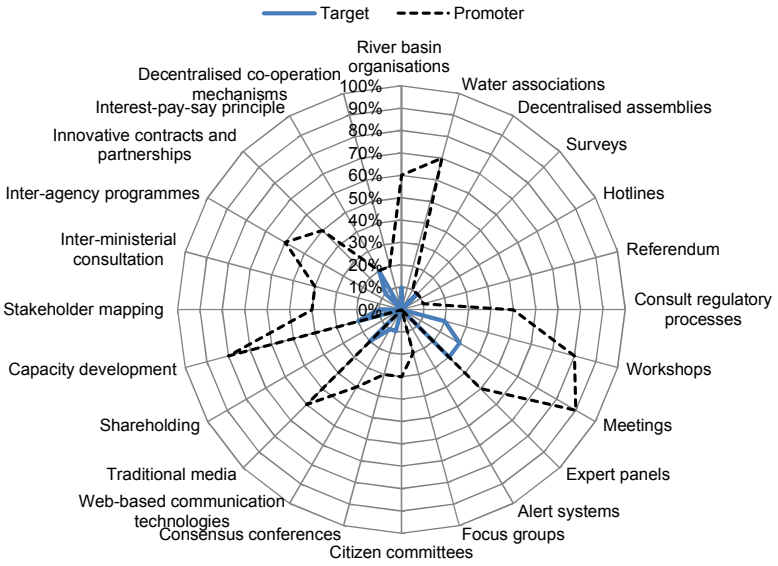
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Perception about financial actors' contribution to better water governance

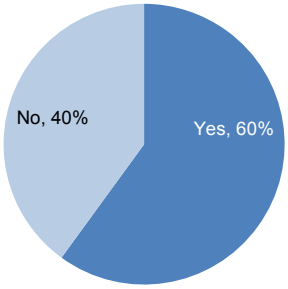


Note: Areas of contribution to water governance for which financial actors responded "yes".

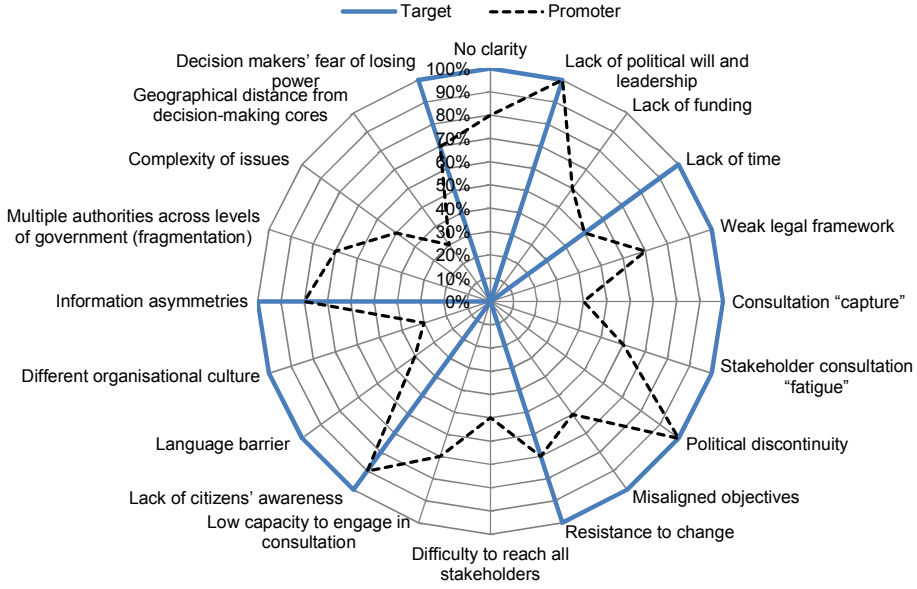
Use of stakeholder engagement mechanisms



Are existing stakeholder engagement mechanisms sufficient?

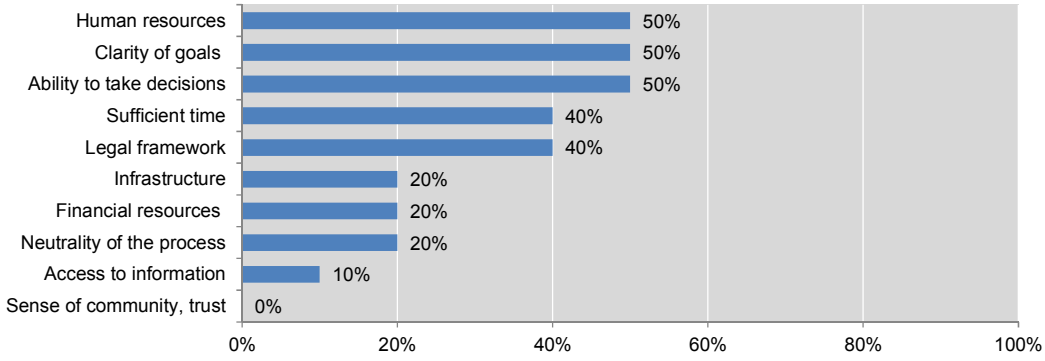


Main obstacles faced to engage stakeholders



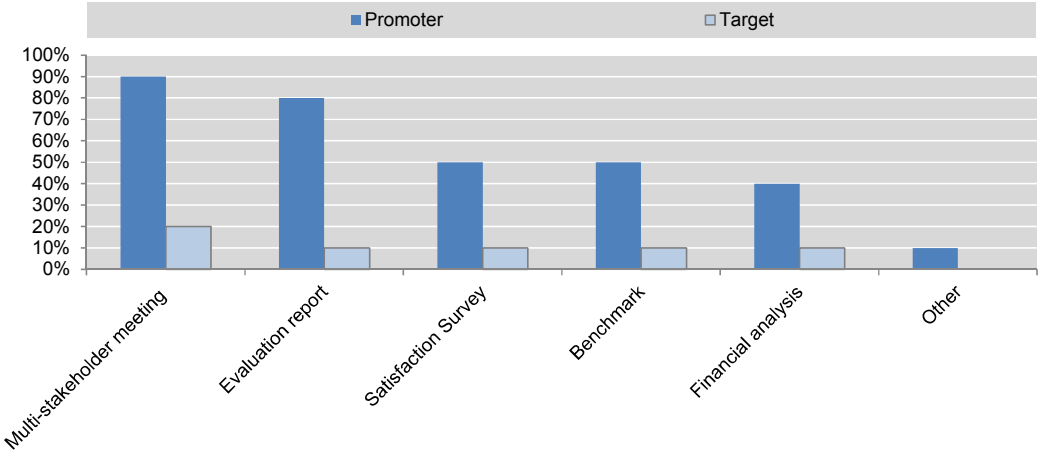
Note: Obstacles considered as "critical" and "important" by financial actors.

Perception of critical conditions of success to effectively contribute to water-related decision making

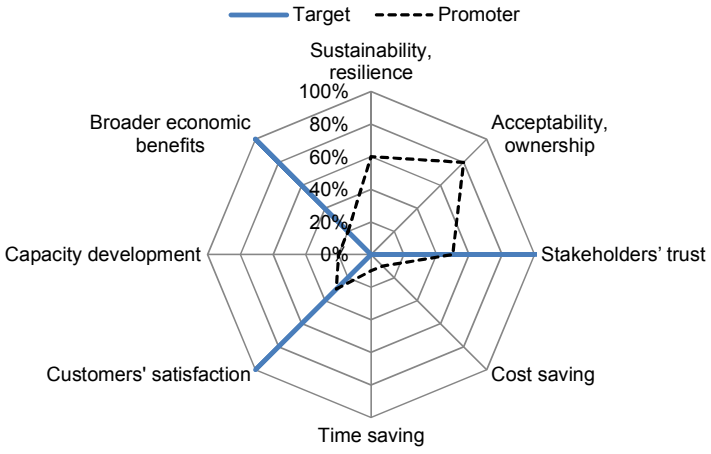


Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Mechanisms used to assess the effectiveness of stakeholder engagement

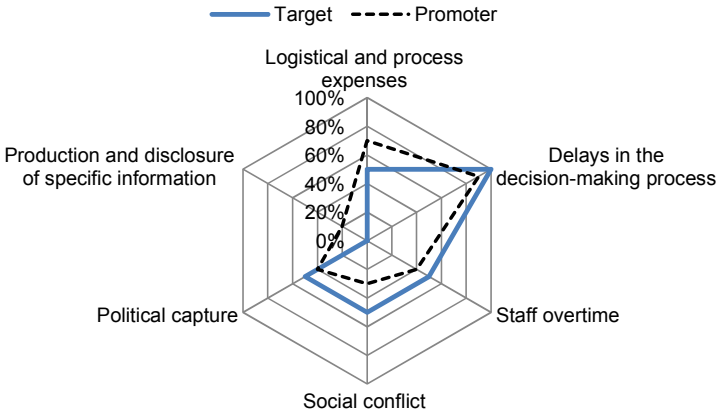


Perception of the main benefits derived by stakeholder engagement



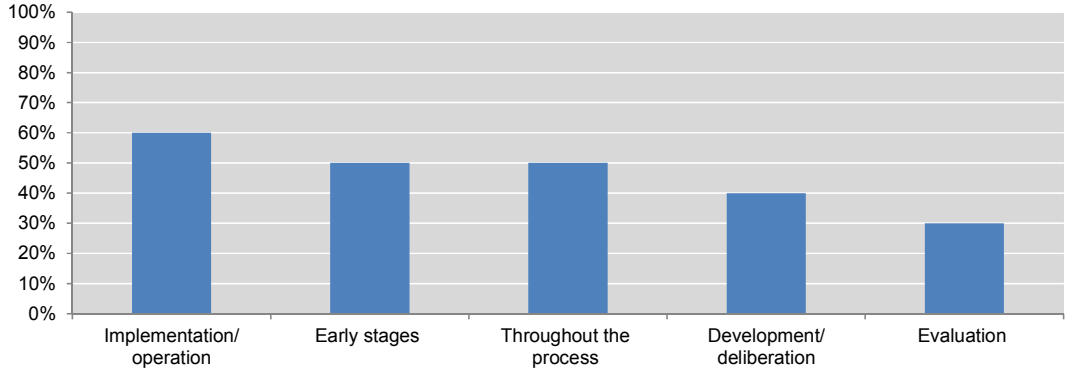
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 8.

Perception of the main costs incurred by stakeholder engagement



Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 6.

Stage of decision making at which the stakeholder is the most influential



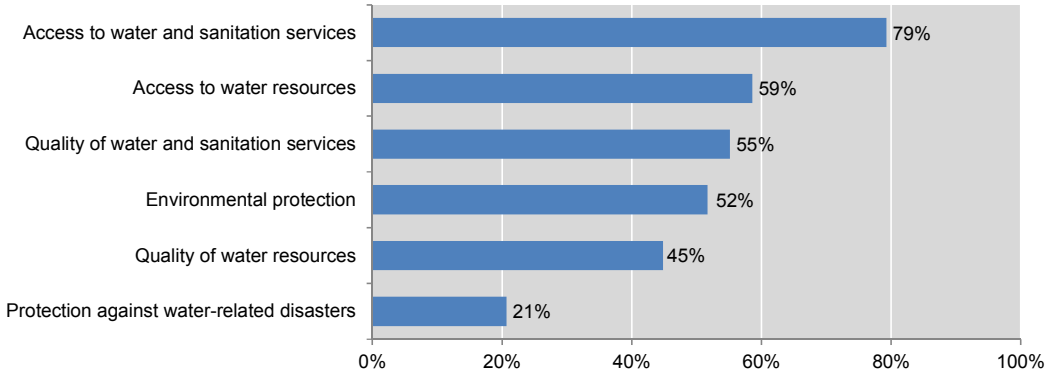
Note: Stages of decision making at which financial actors consider having a "critical influence".

Civil society

List of civil society organisations surveyed

Armenian Women for Health and Healthy Environment
Association Aide aux Familles et Victimes des Migrations Clandestines
Both ENDS
Bulgarian Water Association – Bulgaria
Business and Professional Women International
Friends of the Earth Middle East
Global Water Initiative
Global Women Development Promoters
GRET
HANDS-NGO
International Commission on Large Dams
International Institute for Sustainable Development
International Water and Sanitation Centre (IRC)
Kirinda Youth Environmental Management and Poverty Alleviation Program – Uganda
Millennium Water Alliance
Movimiento Agua y Juventud
National Association of Professional Environmentalists – Uganda
Portuguese Water Partnership
Réseau Projection
SustainUS
Transparency International
Vewin
Wasser in Bürgerhand – Germany
Water Integrity Network
Water Youth Network
WaterAid
WaterLex
Waterlution
World Wildlife Fund (WWF)

Areas of interest

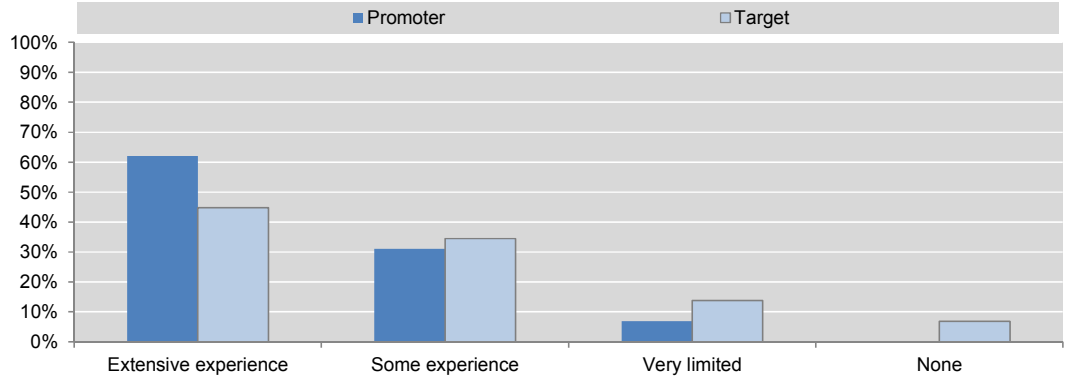


Note: Areas of interest of civil society organisations ranked from 1 to 3 on a scale from 1 to 6.

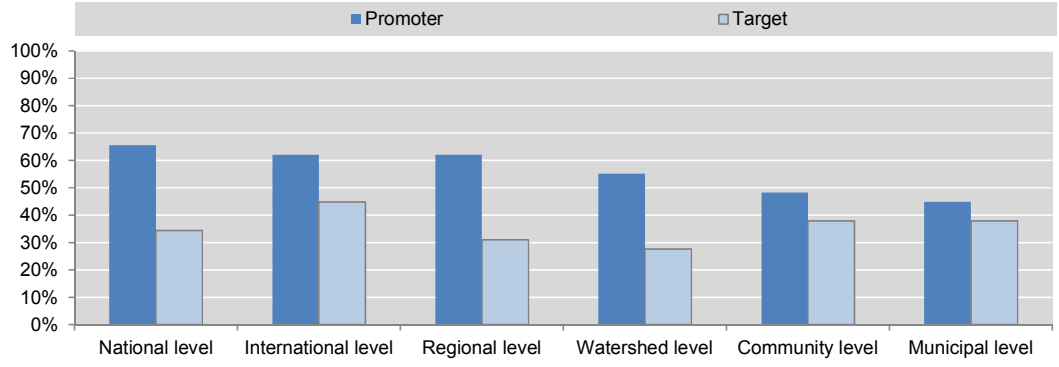
Keywords most often associated with stakeholder engagement

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5.

Experience in stakeholder engagement

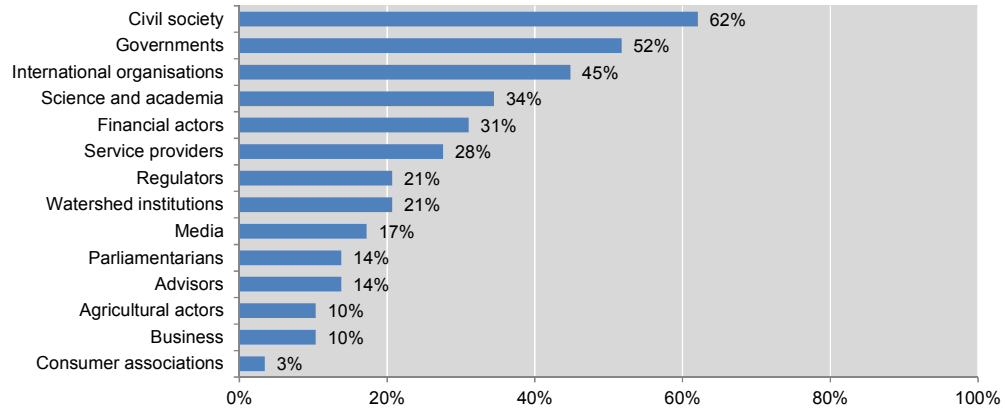


Scale of intervention



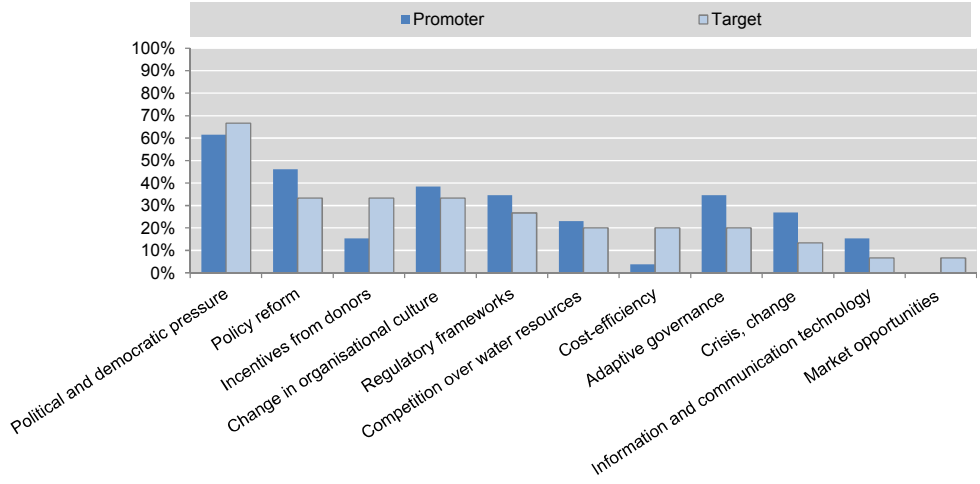
Note: Scale of intervention at which civil society primarily intervenes.

Interactions with other stakeholders



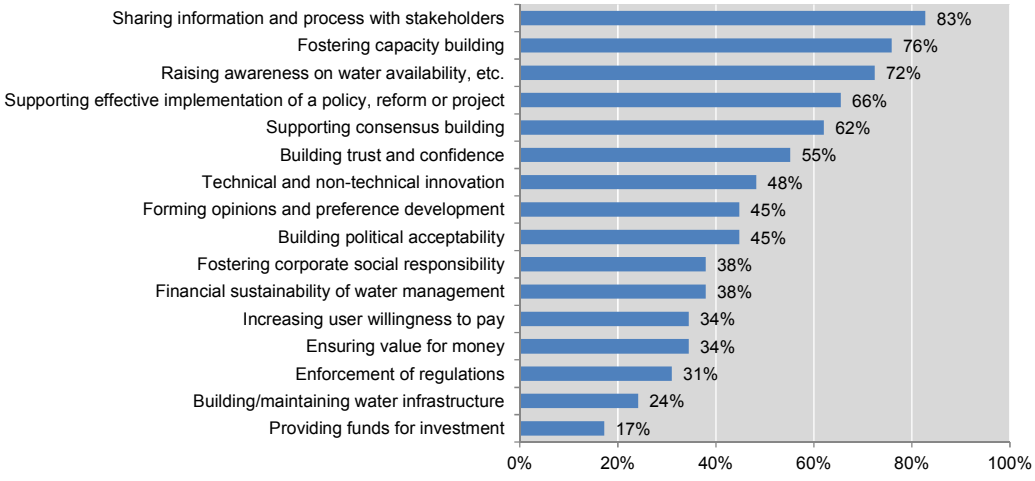
Note: Categories of stakeholders with which civil society interacts "always or very frequently".

Main drivers



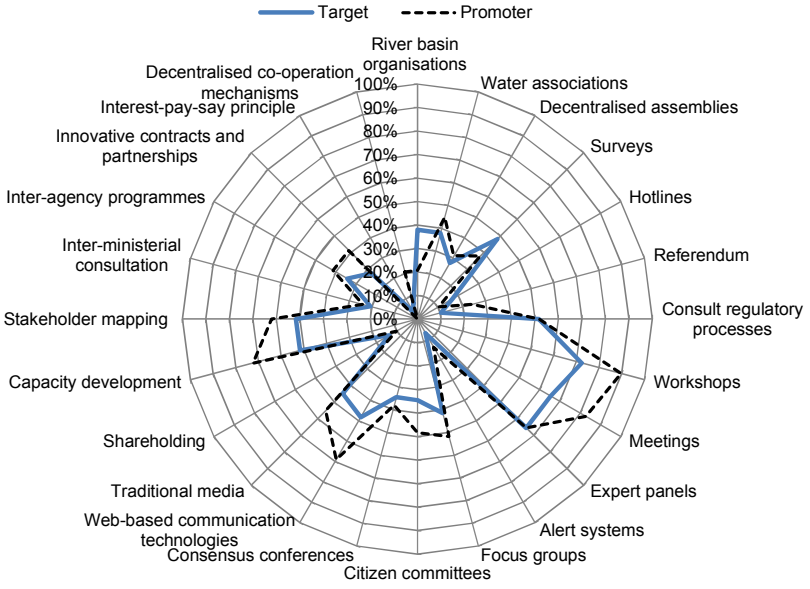
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Perception about civil society's contribution to better water governance

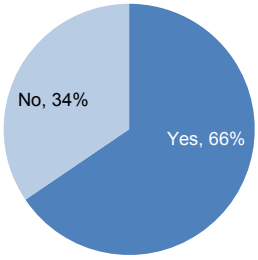


Note: Areas of contribution to water governance for which civil society responded "yes".

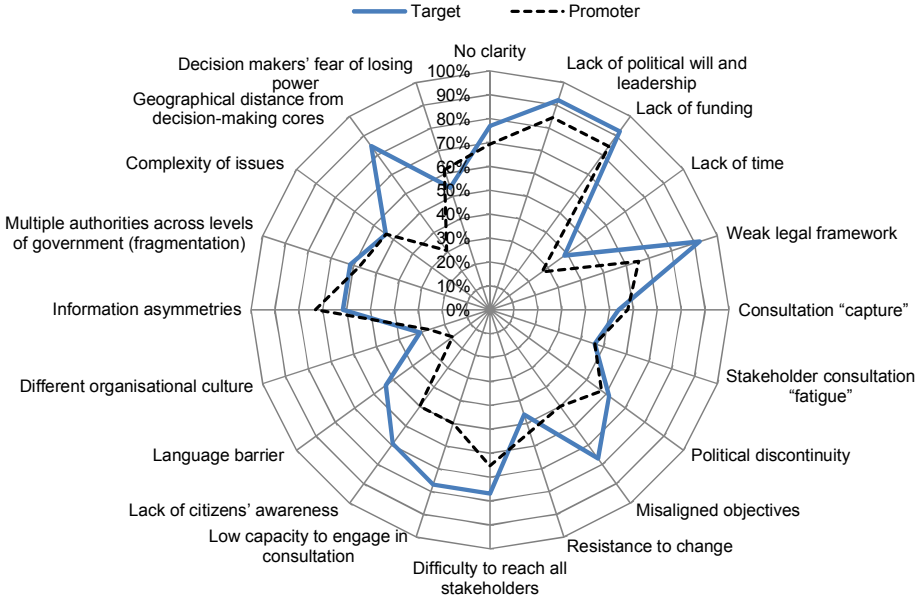
Use of stakeholder engagement mechanisms



Are existing stakeholder engagement mechanisms sufficient?

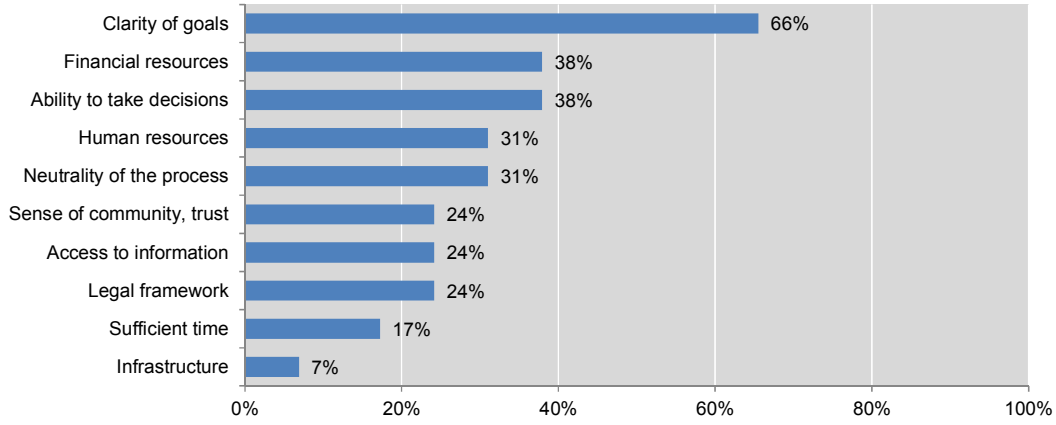


Main obstacles faced to engage stakeholders



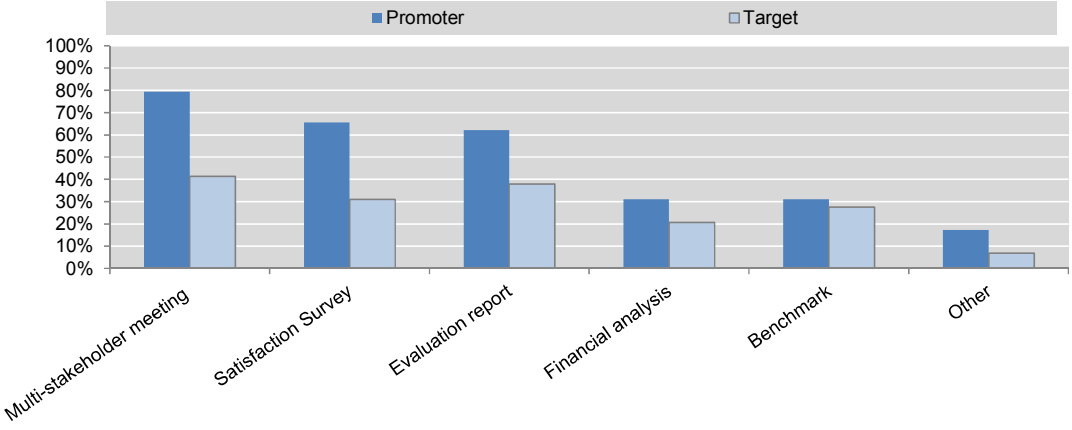
Note: Obstacles considered as "critical" and "important" by civil society.

Perception of critical conditions of success to effectively contribute to water-related decision making

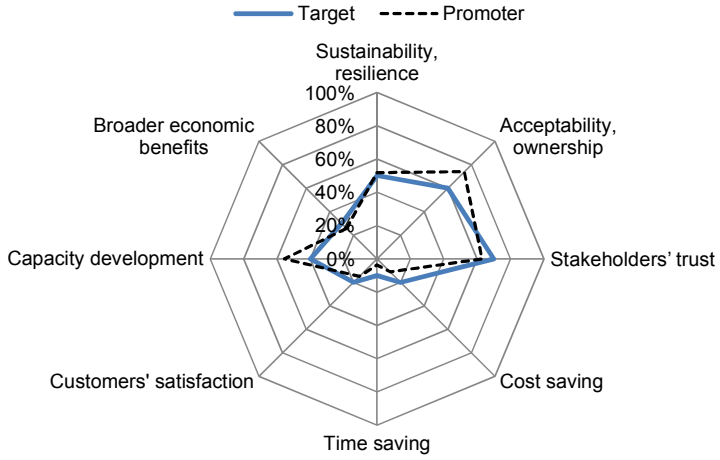


Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Mechanisms used to assess the effectiveness of stakeholder engagement

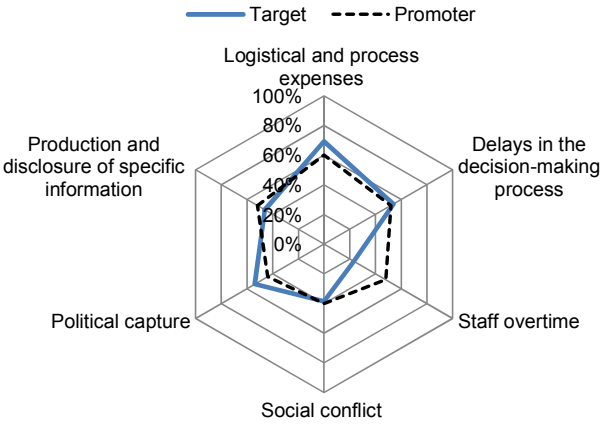


Perception of the main benefits derived by stakeholder engagement



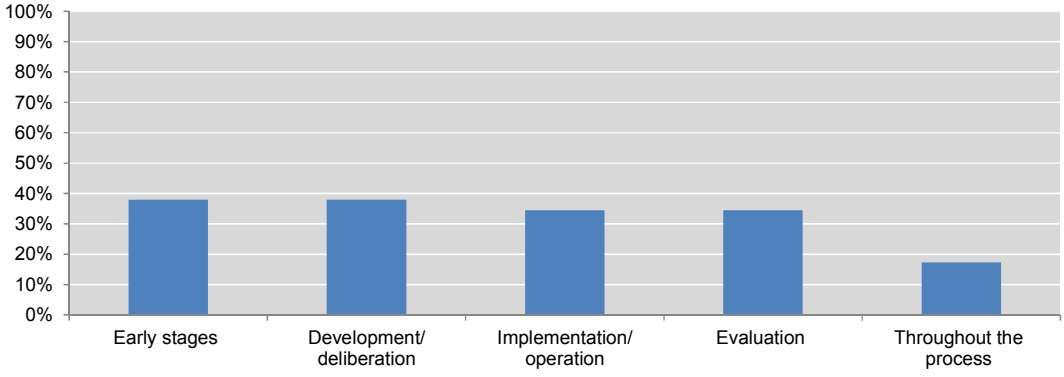
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 8.

Perception of the main costs incurred by stakeholder engagement



Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 6.

Stage of decision making at which the stakeholder is the most influential



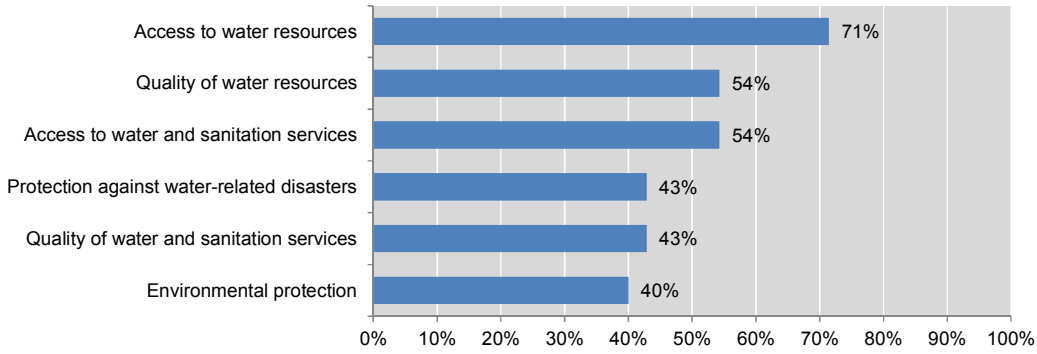
Note: Stages of decision making at which civil society considers having a "critical influence".

Science and academia

List of scientific and academic institutions surveyed

Canada – University of British Colombia, Program on Water Governance
Chile – Pontifica Universidad Catolic, Department of Agricultural Economics
Ethiopia – Arba Minch University
France – Institut de recherche pour le développement
France – IRSTEA
France – National Centre for Scientific Research
France – Sorbonne Business School
France – University of Paris – Panthéon-Sorbonne
France – University Paris Est
International Water Resources Association
Italy – Foundation for the Environment, Turin School of Local Regulation
Korea – Korea Environment Institute
MESONexusTeam
Mexico – Instituto para el Desarrollo Regional del Tecnológico de Monterrey
Mexico – Third World Centre for Water Management
Mexico – Universidad Autonoma Metropolitana
Netherlands – Delft University of Technology – Nile Basin Discourse
Netherlands – Deltares
Netherlands – KWR Watercycle Research Institute
Netherlands – Landcare Research NZ Ltd
Netherlands – United Nations Educational, Scientific and Cultural Organization – Institute for Water Education
Netherlands – Utrecht University
Netherlands – Water Governance Centre
Netherlands – World Water Academy
Slovenia – University of Ljubljana
South Africa – UniSA
Spain – Botin Foundation
Spain – Universidad Politecnica de Cataluna
Sweden – Stockholm International Water Institute
Thailand – Chulalongkorn University
United Kingdom – University of Exeter
United States – Tufts University
United States – University of Arizona, Water Resources Research Centre
United States – University of Pennsylvania
United States – Water Health

Areas of interest

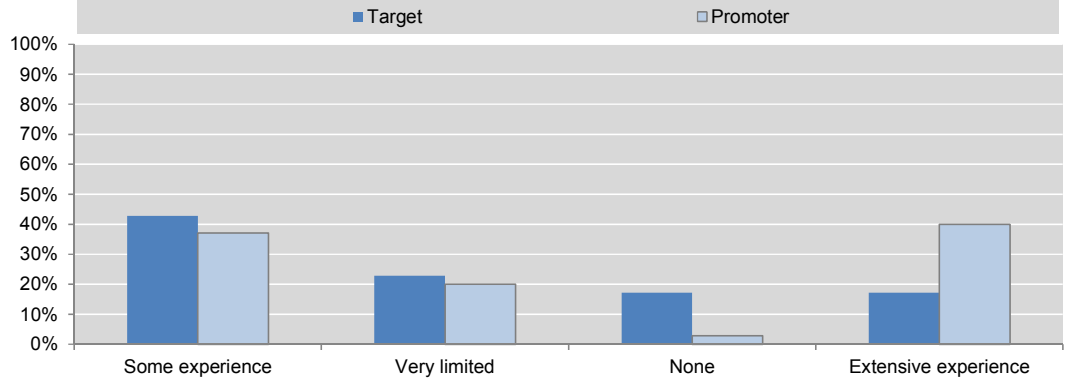


Note: Areas of interest of science and academia ranked from 1 to 3 on a scale from 1 to 6.

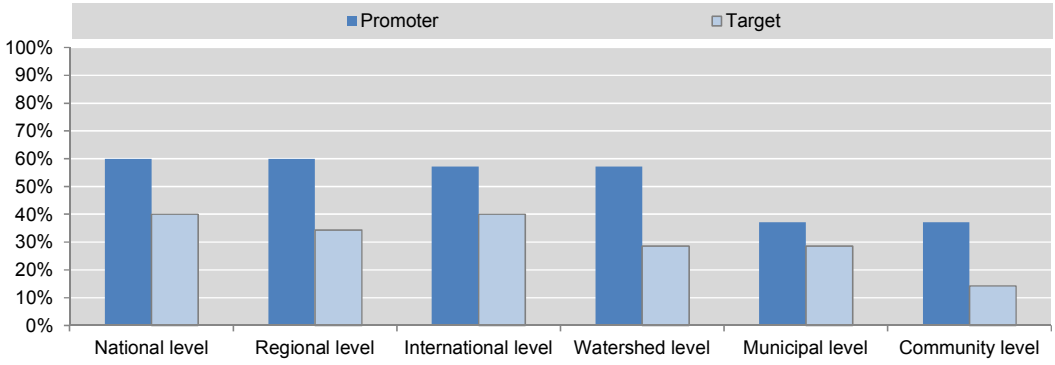
Keywords most often associated with stakeholder engagement

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5.

Experience in stakeholder engagement

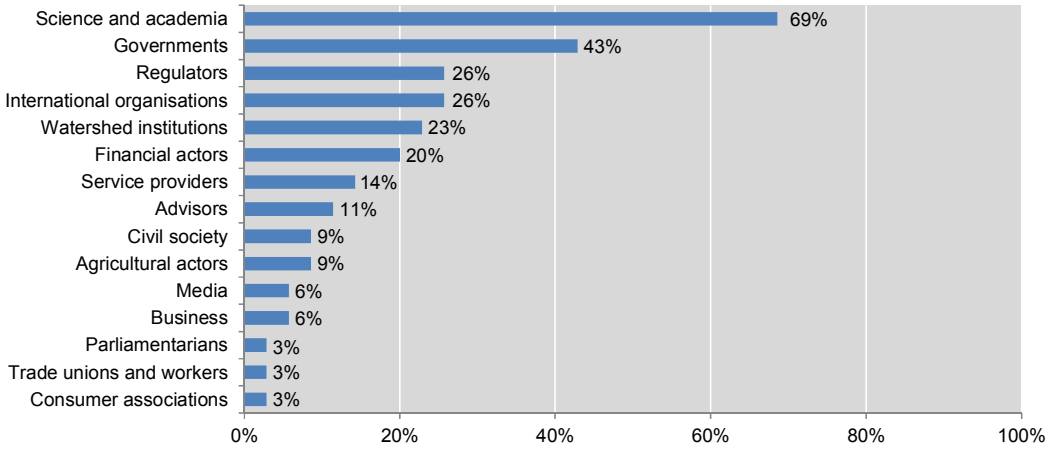


Scale of intervention



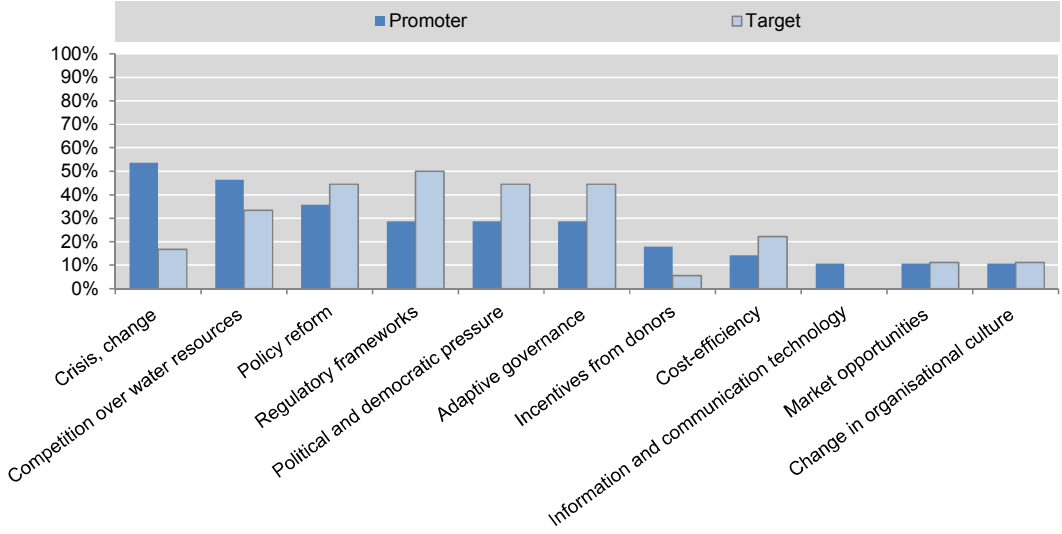
Note: Scale of intervention at which science and academia primarily intervene.

Interactions with other stakeholders



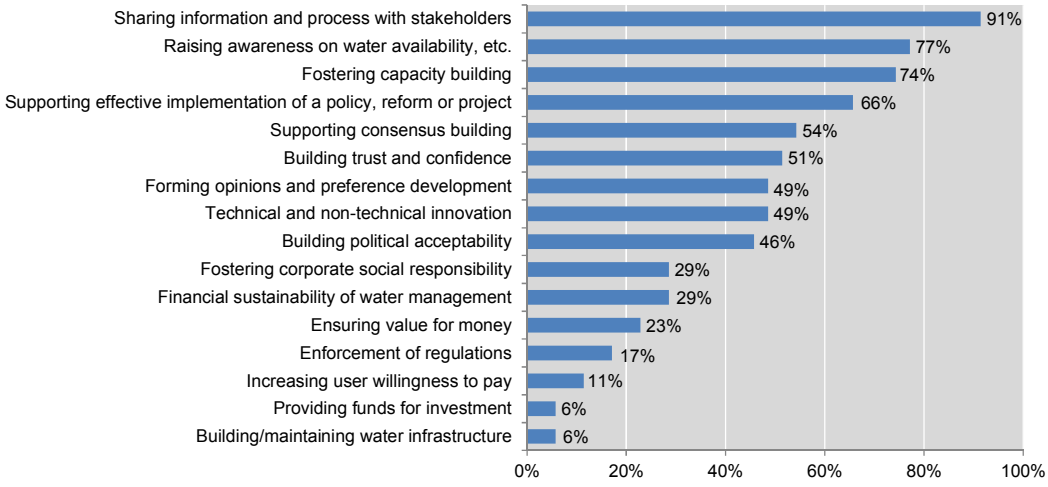
Note: Categories of stakeholders with which science and academia intervene "always or very frequently".

Main drivers



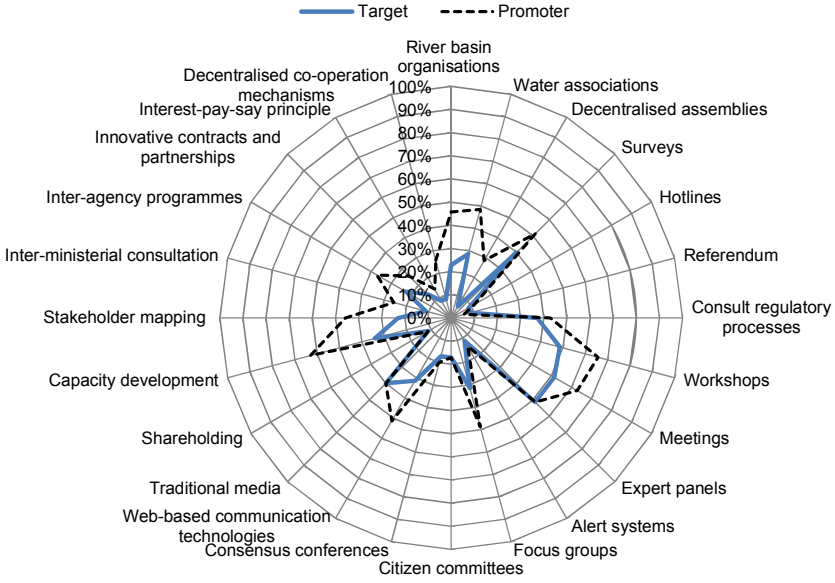
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Perception about science and academia's contribution to better water governance

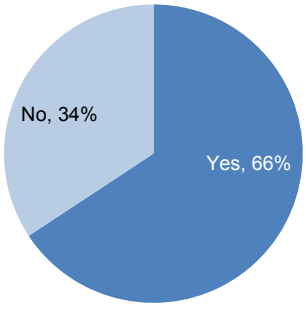


Note: Areas of contribution to water governance for which science and academia responded "yes".

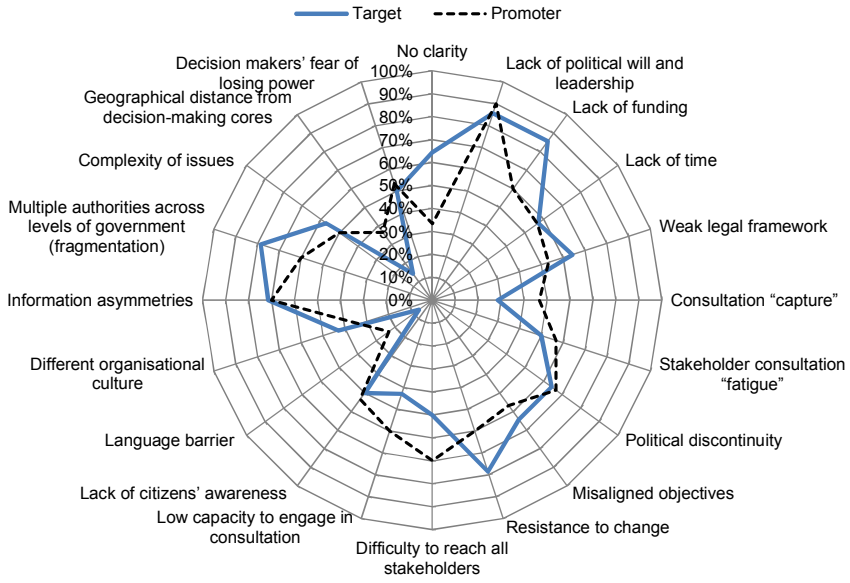
Use of stakeholder engagement mechanisms



Are existing stakeholder engagement mechanisms sufficient?

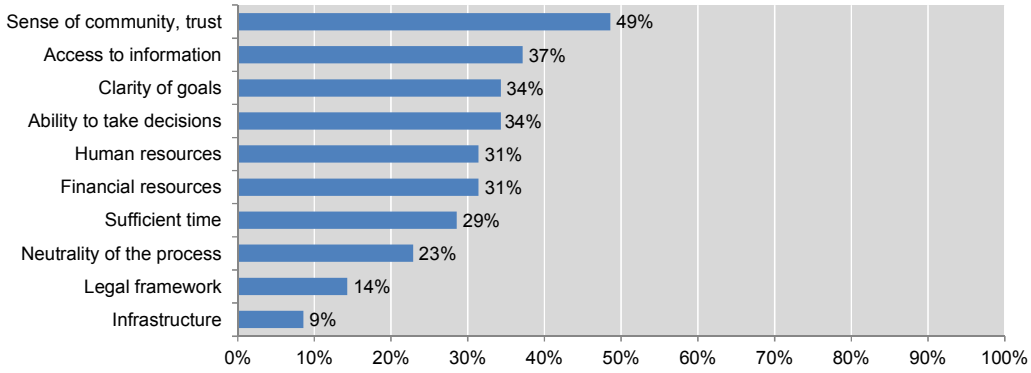


Main obstacles faced to engage stakeholders



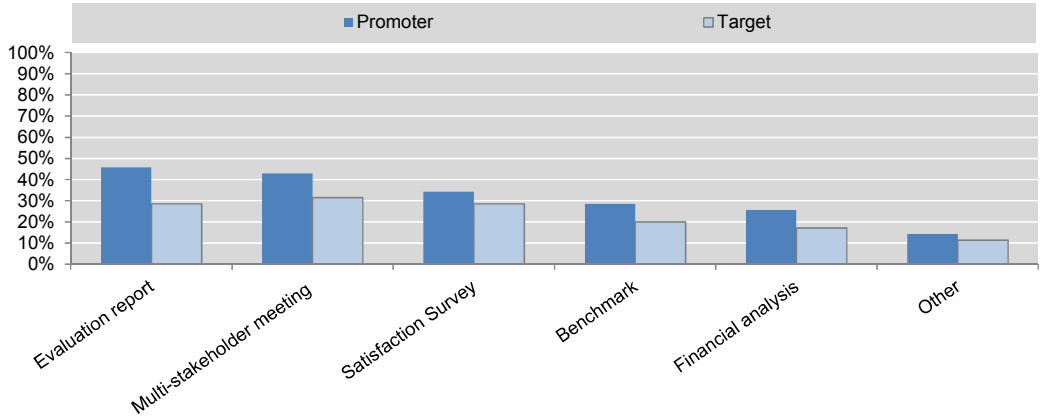
Note: Obstacles considered as "critical" and "important" by science and academia.

Perception of critical conditions of success to effectively contribute to water-related decision making

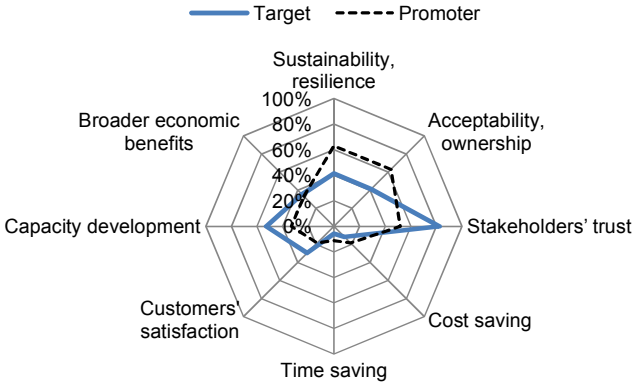


Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Mechanisms used to assess the effectiveness of stakeholder engagement

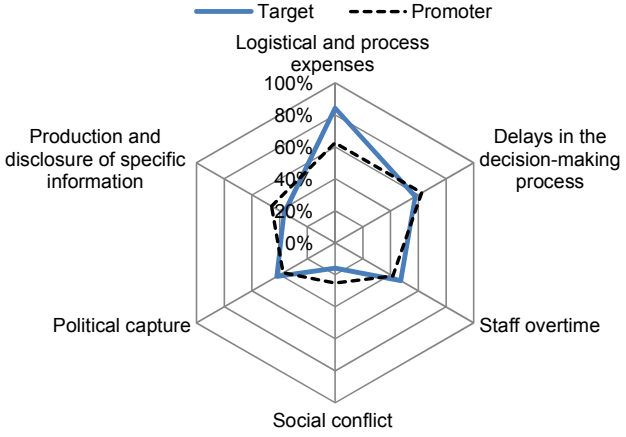


Perception of the main benefits derived by stakeholder engagement



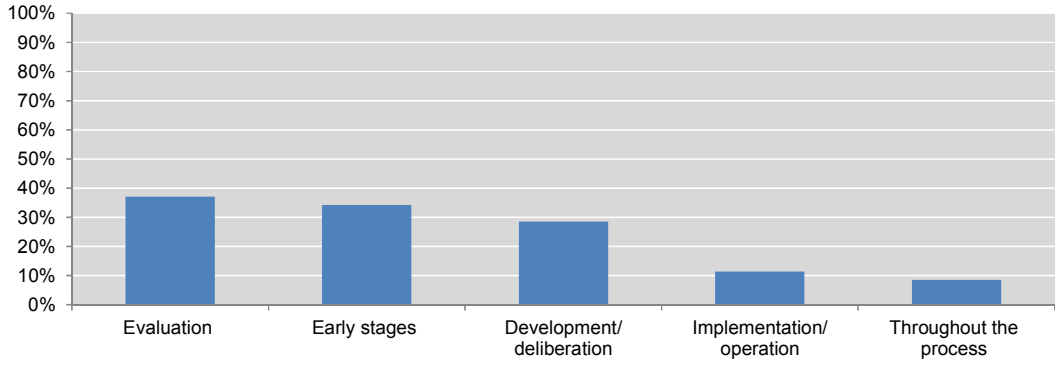
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 8.

Perception of the main costs incurred by stakeholder engagement



Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 6.

Stage of decision making at which the stakeholder is the most influential



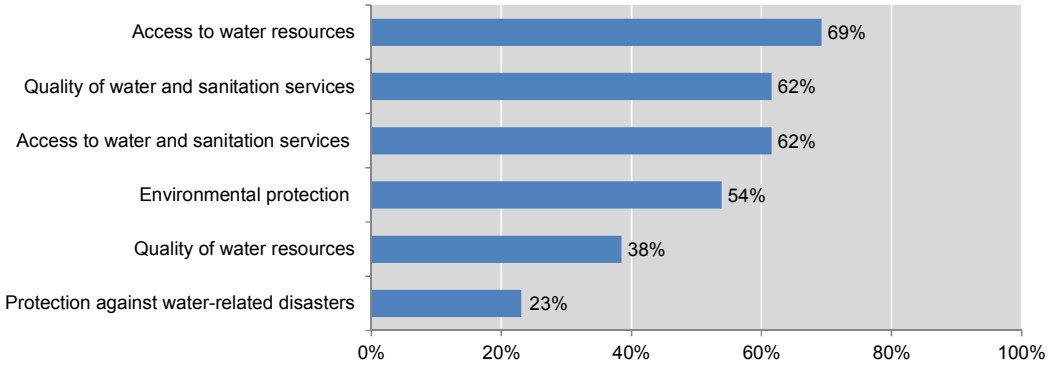
Note: Stages of decision making at which science and academia consider having a "critical influence".

Advisors

List of advisors surveyed

Afcap Consulting
Alexandra and Associates Pty Ltd
ALFAR PROJECT CO.
ARCADIS
Bixler Consulting
Fundacion Chile
ICATALIST
José Fradé – Independent consultant
J2C Water Ltd.
Royal HaskoningDHV – Business Line Water Technology
TransformationFirst Asia Pte Ltd
TreeVelop
Twynstra Gudde management consultants

Areas of interest

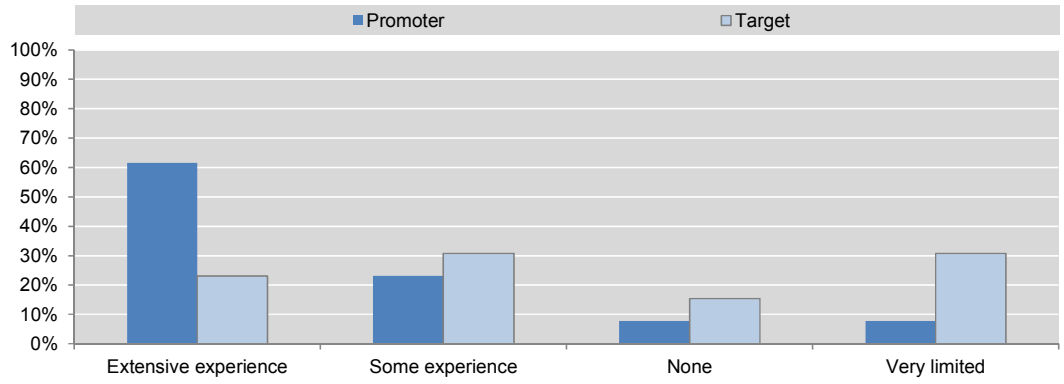


Note: Areas of interest of advisors ranked from 1 to 3 on a scale from 1 to 6.

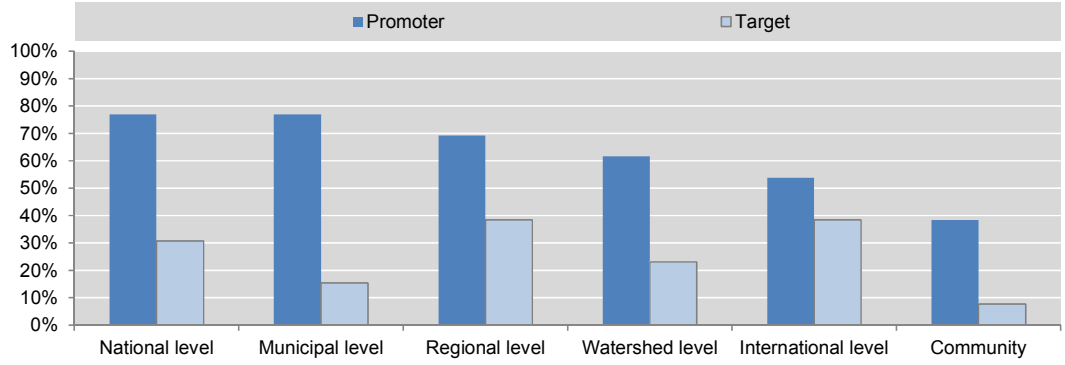
Keywords most often associated with stakeholder engagement

Note: The word cloud was created based on the key terms that were ranked first on a scale from 1 to 5.

Experience in stakeholder engagement

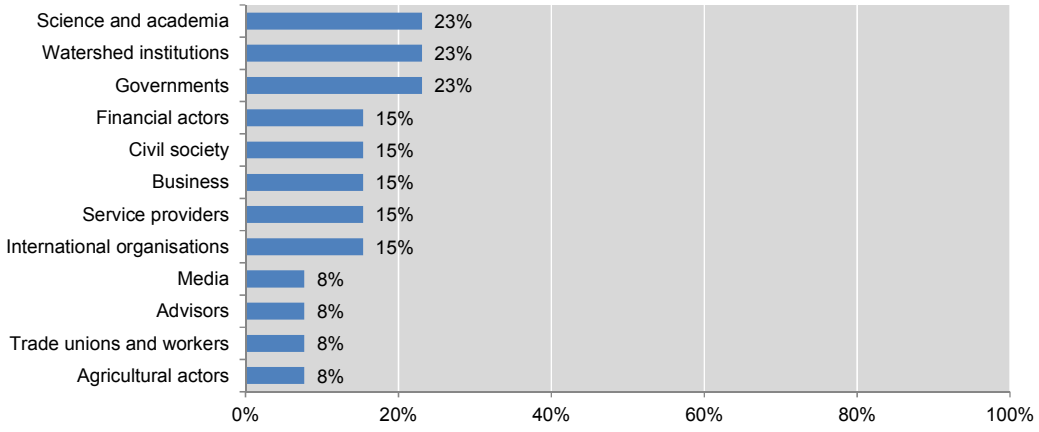


Scale of intervention



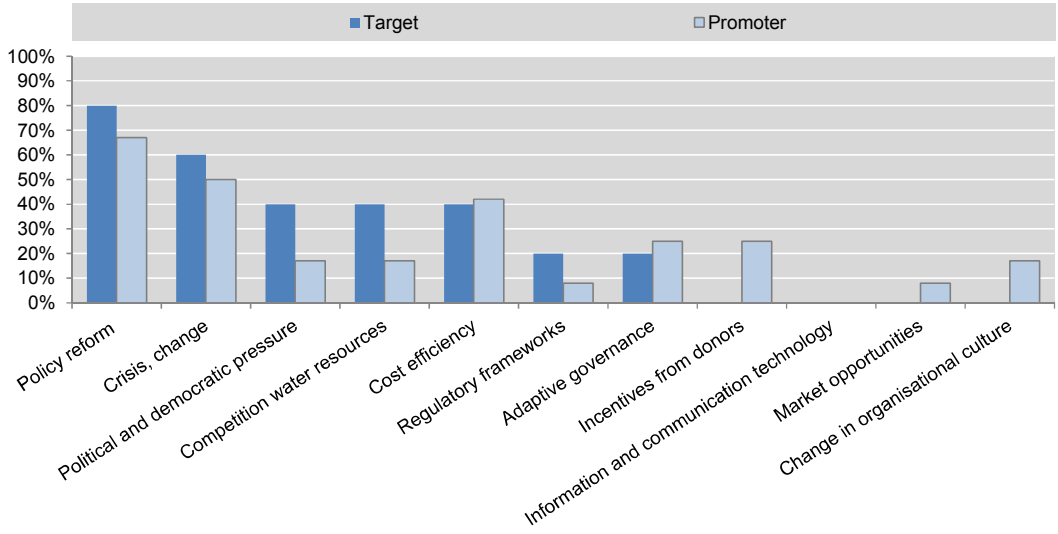
Note: Scale of intervention at which advisors primarily intervene.

Interactions with other stakeholders



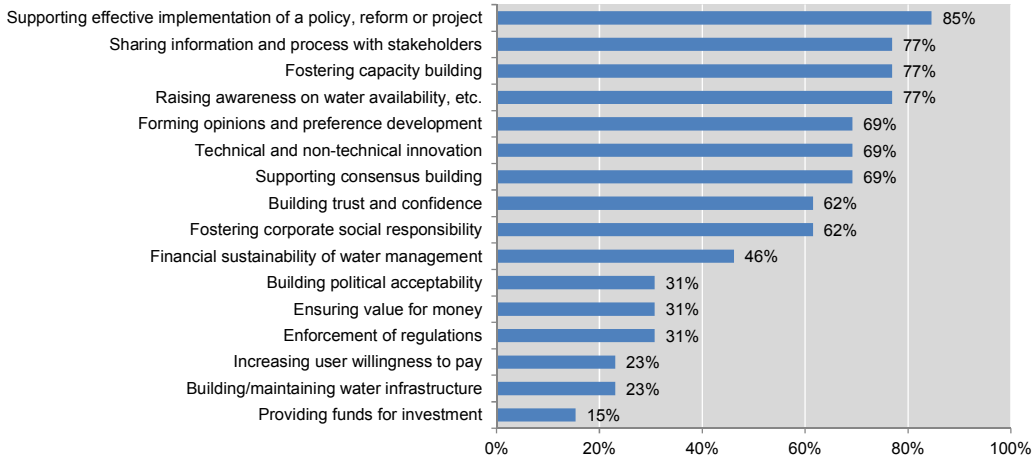
Note: Categories of stakeholders with which advisors intervene "always or very frequently".

Main drivers



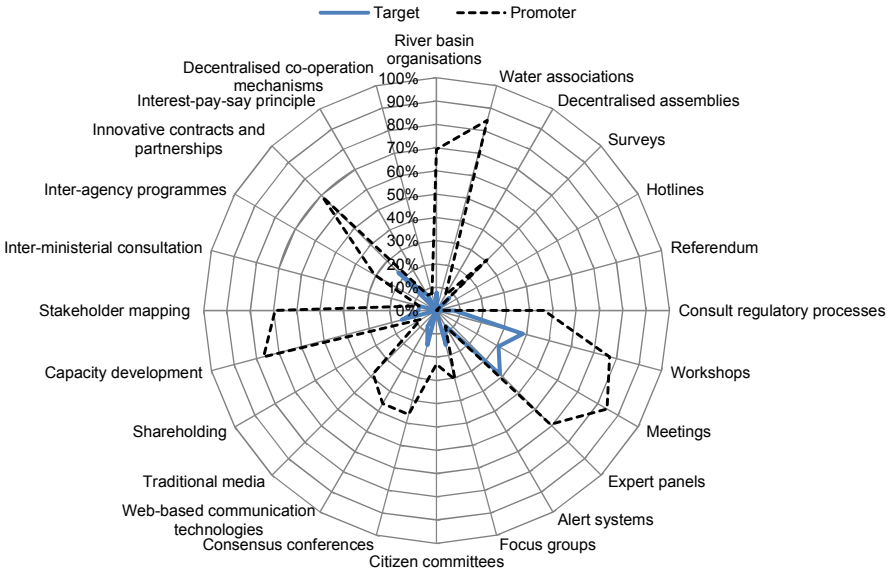
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Perception about advisors' contribution to better water governance

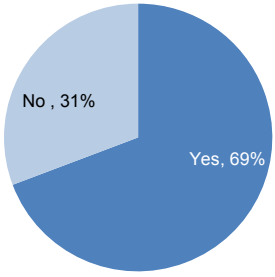


Note: Areas of contribution to water governance for which advisors responded "yes".

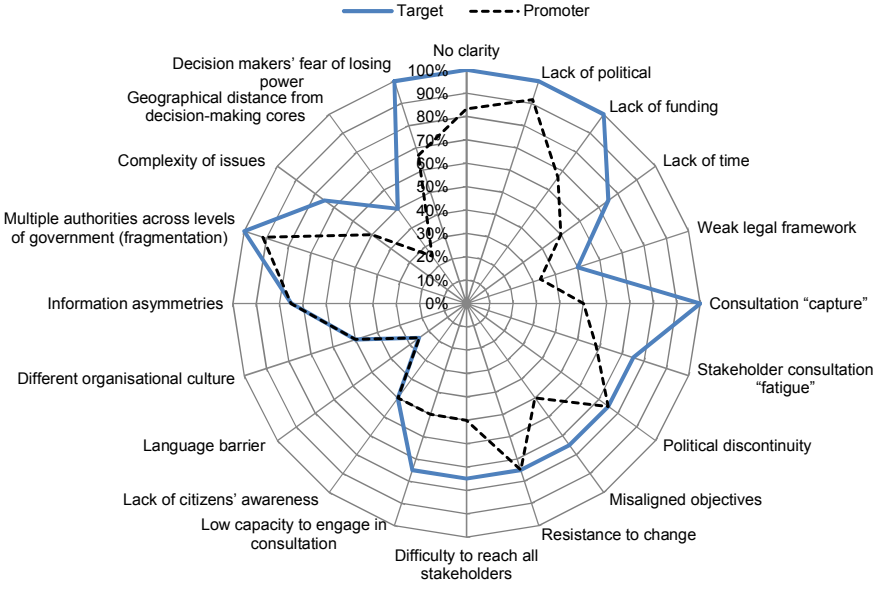
Use of stakeholder engagement mechanisms



Are existing stakeholder engagement mechanisms sufficient?

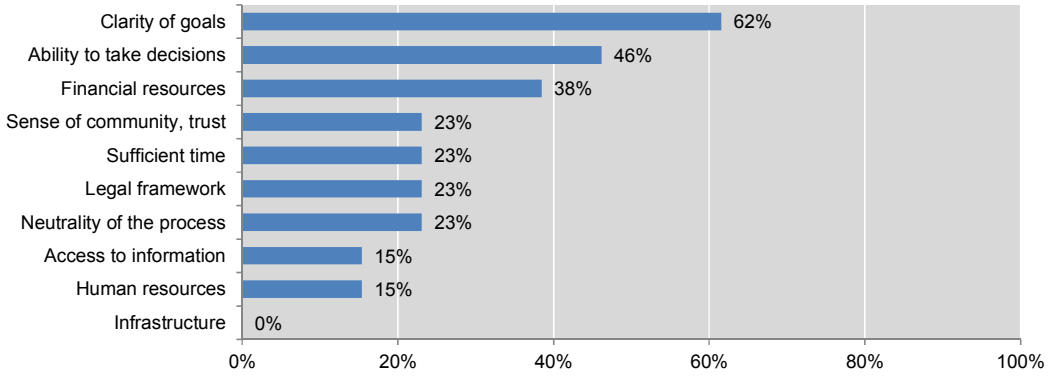


Main obstacles faced to engage stakeholders



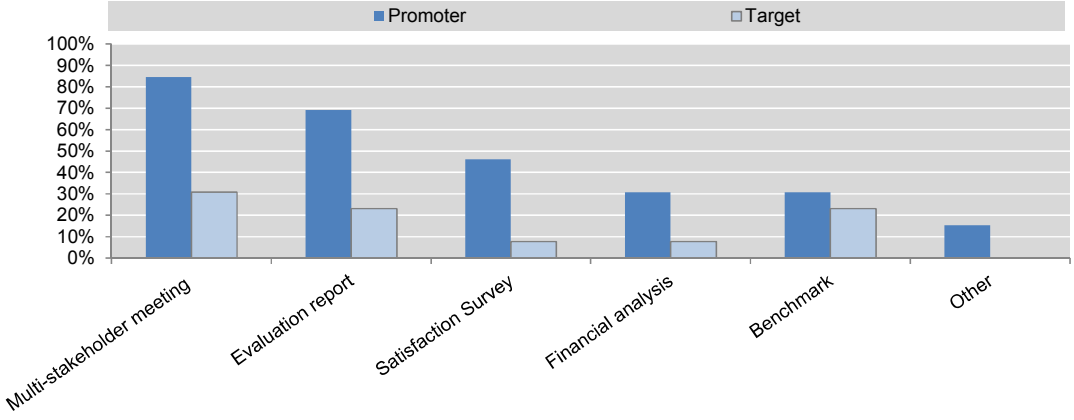
Note: Obstacles considered as "critical" and "important" by advisors.

Perception of critical conditions of success to effectively contribute to water-related decision making

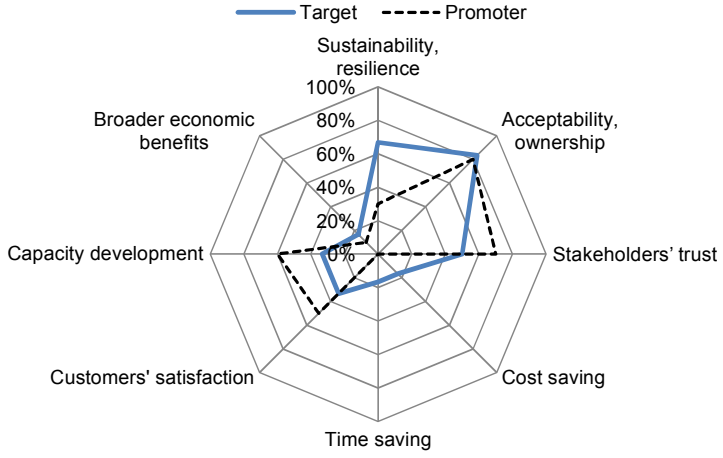


Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 10.

Mechanisms used to assess the effectiveness of stakeholder engagement

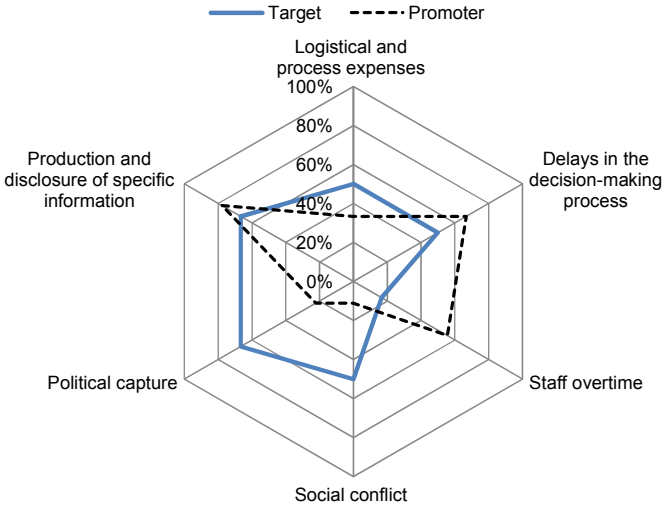


Perception of the main benefits derived by stakeholder engagement



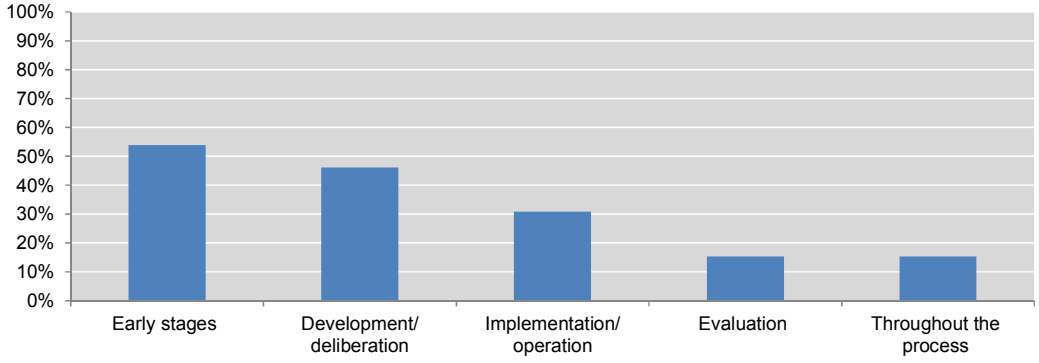
Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 8.

Perception of the main costs incurred by stakeholder engagement



Note: This figure processes responses that were ranked from 1 to 3 on a scale of 1 to 6.

Stage of decision making at which the stakeholder is the most influential



Note: Stages of decision making at which advisors consider having a "critical influence".

Annex A

Parliamentarians in water-related stakeholder engagement

Box A.1. Water-related stakeholder engagement: The perspective of the Dutch House of Representatives

The House of Representatives of the Netherlands took part in the survey and its responses (qualitative and quantitative data) provide an overview of parliamentarians' involvement in water-related decision making. The House of Representatives is one of the two chambers of the Dutch parliament that make up the Senate. It is responsible for voting on political issues, following close examination of documents, working visits, opportunities for the public to make their opinions heard, and consultations with the voters and the general public.

According to the Dutch House of Representatives, the primary force driving stakeholder engagement is the call for adaptive governance and flexible and resilient management mechanisms to cope with future challenges. The expected sea-level rise in the Netherlands due to climate change has led the government and the House of Representatives to favour a tripartite approach, with extensive information sharing and stakeholder engagement, to pursue an adaptation agenda. They created the Delta Programme, set up the Delta Fund and appointed a Delta Commissioner to ensure that the Netherlands is safe from floods. The House of Representatives also found that the financial crisis, change- and emergency-driven situations (ranked n°2), and of political and democratic pressure (ranked n°3) are also key factors in pushing for more inclusive decision making.

The Dutch House of Representatives reported having limited experience with stakeholder engagement on water-related decision making. Its main areas of interest in the sector relate to protection: water-related disasters, the quality of water resources, and water and sanitation services. Dutch parliamentarians mostly associate stakeholder engagement to concepts such as "democracy", "awareness" and "civil society". The House of Representatives intervenes at all territorial scales, from the international to the community levels. It also interacts with a wide range of actors, most frequently with other parliamentarians, supra-national organisations and the national government, but also often with regulators, civil society, customer associations, business, regional water authorities, agricultural actors, as well as financial actors, academics and trade unions.

The parliamentarian chamber pointed out some critical obstacles it faces when taking part or promoting stakeholder engagement, including, most importantly, the lack of clarity on the expected use of their inputs in the decision-making process. It was also pointed out that the lack of political will and leadership, funding and time, and weak legal framework to support stakeholder engagement were also critical barriers.

The Dutch House of Representatives uses a combination of mechanisms to engage in water-related decision making, mostly as a target of engagement processes. These include regional water authorities, surveys, polls and hotlines, meetings and workshops, consultation in the regulatory process as well as consensus conferences and web-based technologies.

Box A.1. **Water-related stakeholder engagement: The perspective of the Dutch House of Representatives** (*cont.*)

The Dutch House of Representatives uses several evaluation tools to regularly assess the impact of its contribution, as a target, on decision making, including a satisfaction survey, financial analysis, evaluation reports and multi-stakeholder meetings. Results and conclusions are made available on the official website of the House of Representatives. Building on these evaluations, the House of Representatives has identified broader economic benefits (e.g. better policy coherence, synergies across projects) as being the primary benefit that stakeholder engagement yields. Building stakeholders' trust and acceptability and ownership were ranked as the second and third most important benefits. Regarding the monetary and non-monetary costs of engagement, the House of Representatives firstly pointed to political capture, followed by the production and disclosure of specific information, and to social conflict. Overall, the Dutch House of Representatives considers having significant influence over all stages of a water policy or projects, from the early stages to the evaluation, and sees stakeholder engagement as critically contributing to: *i)* supporting effective policy implementation; *ii)* raising awareness on water availability, risks, quality and costs; *iii)* fostering capacity building; *iv)* providing funds for investment; *v)* developing technical and non-technical innovation; *vi)* building trust and confidence.

The Dutch House of Representatives considers that increased central and sub-national governance will help to foster more active stakeholder engagement in decision making on water. It believes that this will achieve a more balanced approached to decision making, but it requires a system that allows for good and accessible information (ranked first), sufficient time to manage engagement processes and contribute effectively (ranked n°2), and the needed human resources to ensure proper engagement (ranked third).

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Annex B

Agricultural actors in water-related stakeholder engagement

Box B.1. **The perspective of the European Irrigation Association**

The European Irrigation Association (EIA) took part in the OECD Survey on Stakeholder Engagement for Effective Water Governance to share experiences and offer the perception of agricultural actors regarding stakeholder engagement.

According to the survey, the EIA's primary interests are environmental protection and the quality of, and access to, water resources. It reported limited and *ad hoc* experience with engagement processes both as a target and a promoter. The key words it most often associates with these initiatives are "interests", "satisfaction" and "co-ordination".

The EIA's experience shows that it most often interacts with agricultural actors and international organisations; sporadically engages with governments, business, science and academia and civil society; and very rarely interacts with watershed institutions. The EIA considers cost-efficiency and the search for value for money as the main driving forces for stakeholder engagement, followed by the call for adaptive governance to cope with future challenges. It identified the lack of political will and funding, and a weak legal framework as critical obstacles to stakeholder engagement, as well as the difficulty to reach out to certain types of stakeholders.

The EIA uses a wide range of formal and informal engagement mechanisms, primarily as promoters of engagement processes, such as water associations, decentralised assemblies, consultation in regulatory processes, interest-pay-say principle, as well as web-based technologies, citizens committees and capacity development. Overall, the EIA considers having only some influence over decision-making processes, and only during the early stages and the development and evaluation phases.

To assess the performance of its engagement initiatives, the EIA uses tools such as satisfaction surveys, financial analysis, evaluation reports, multi-stakeholder meetings and certification. These evaluations have shown that delays in decision making and social conflicts are the two most important costs, while customer satisfaction and broader economic benefits (e.g. from greater policy coherence, synergies across projects, etc.) are the main benefits yielded by stakeholder engagement.

As regards the role of governments, the EIA considers that central authorities should support stakeholder engagement by setting up legal frameworks on the topic and ensuring their implementation. It also believes that sub-national governments could also assist stakeholder engagement through enforcement of norms and requirements, monitoring and support.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Annex C

Trade unions in water-related stakeholder engagement

Box C.1. The perspective of the European federation of Public Service Unions

The European federation of Public Service Unions (EPSU) participated in the OECD survey and shared some insights on the experience of trade union workers regarding water-related stakeholder engagement. It stated that trade union workers are not frequently considered as stakeholders and therefore have limited engagement in water decision making; it would support a bigger role for workers in decision-making processes. With respect to key terms, it associated "democracy", "rights" and "capacity" with stakeholder engagement.

In the water sector, the EPSU primarily interacts with trade unions and workers, and is often in contact with parliamentarians, service providers and civil society. However, the EPSU rarely communicates with business, agricultural actors, donors and consumer associations. Policy reform and projects under discussion are the primary driver for stakeholder engagement according to the EPSU, followed by the regulatory frameworks for public participation in place. The EPSU considers that participation, transparency and accountability are integral parts of sound regulation in the water sector. However, the EPSU sees the lack of clarity regarding the use of stakeholders' inputs and the risk of consultation "capture" as critical barriers to engagement processes.

The EPSU uses different mechanisms to take part in water-related decision making such as surveys and referendums, water associations, information and communications technology, and decentralised co-operation mechanisms. Overall, the EPSU considers that it has a low degree of influence on decision-making processes during all stages.

When evaluating the performance of engagement processes, the EPSU considers logistical expenses, the risk of political capture and staff overtime as the most important costs. Acceptability and ownership (e.g. through its involvement in the "Right2water" initiative), broader economic benefits (e.g. improved relationships with service providers and governments) and capacity development are the main benefits the EPSU obtains from engagement processes. To increase these benefits, the EPSU points to the role that the European Commission and governments, at various levels, can and should play to further support the involvement of civil society organisations in decision-making processes.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Annex D

Media in water-related stakeholder engagement

Box D.1. The perspective of the media: Highlights from the survey

In the OECD survey, two media representatives, one from the water sector, offered their insights on experience with stakeholder engagement.

Within the water box: The experience of Circle of Blue

Circle of Blue uses a team of leading journalists, data experts, field researchers and designers to report from the front lines of the world's resource crises. In 2012, Circle of Blue received the Rockefeller Foundation's Centennial Innovation Award for its feedback-loop model that combines on-the-ground reporting, data collection, analysis, design and convening.

Circle of Blue has demonstrated extensive experience as an informer, promoter and target of stakeholder engagement, intervening mostly at the international, national and regional levels. It primarily interacts with water, food and energy-related institutions, business, civil society, science and academia, in addition to traditional and emerging media channels.

From Circle of Blue's perspective, crisis, change and emergency-driven situations are the most important drivers for inclusive decision making. These shocks are inflection points and teaching moments that can be leveraged when the right processes and response mechanisms are in place. It also believes that policy reforms are important levers for action because of their ability to encourage cross-agency awareness and collaboration to bridge competing values and priorities. In its view, persistence and follow through are often lacking in traditional stakeholder practices, and a lack of political will can prevent co-ordinated awareness on water issues, sharing of trusted data and convening of inclusive debate.

Circle of Blue often prepares evaluation reports about its engagement processes, successes and next steps at its own expense because the results are worthwhile. It provides insights on engagements with experts and ministers, and takes part in collaborative investigations to help farmers and researchers in various countries. Overall, Circle of Blue's response to the survey shows it has significant influence over decision making. For instance, Circle of Blue's reporting on the People's Republic of China's water-energy challenge, for example, was used to help draft two of the six provisions in the 2014 US-China climate discussions.

Outside the water box: The experience of Xmediaworks

Xmediaworks offers consultancy and online services to governments, research institutes and business on communication and information related to education, health and public services. Xmediaworks only has some experience on stakeholder engagement, mostly on an *ad hoc* basis, and associates with it the key word "shared understanding". Through its work, Xmediaworks often interacts with governments, science and academia, and consulting firms.

Box D.1. **The perspective of the media: Highlights from the survey** (*cont.*)

Xmediaworks sees crisis and emergency-driven situations as the main driving force for stakeholder engagement because fear and threat often get actors' attention. It considers the search for value for money and information and communication technologies as new forms of interaction opportunities as important drivers, but identified resistance to change, difficulty to reach out certain types of stakeholders and the lack of citizens' awareness as critical barriers to inclusive decision making.

Xmediaworks rarely evaluates its engagement processes, and it does not feel that it has any influence over decision-making processes. Nevertheless, Xmediaworks points to delays in decision making as the most important cost of stakeholder engagement, followed by the production and disclosure of information, while sustainability and resilience is the main benefit.

Source: OECD Survey on Stakeholder Engagement for Effective Water Governance (2014).

Annex E
Cross case study list

Case study title	Institution(s) submitting the case study	Water-related issue(s) at stake	Promoter(s) of the engagement process (categories of stakeholders)
Africa			
Utilising a water services vulnerability assessment and associated prioritised action plan process to support effective governance and sustainable water services *[Box 6.7]*	Department of Water and Sanitation – South Africa	– Drinking water supply – Wastewater management	– National government – Sub-national governments – Non-governmental organisations – Science and academia
Case study of South Africa's movement towards participatory agent-based social simulation modelling for sharing the benefits of water *[Box 2.2]*	University of KwaZulu-Natal – South Africa	– Drinking water supply – Wastewater management – Water disasters – Water resources management – Climate change – Environmental protection – Integration of science and policy – Government-business-civil society co-operation	– National government
Embedding strategic adaptive management as the participative decision framework in the Inkomati Catchment Management Agency *[Box 3.19]*	University of the Witwatersrand – South Africa	– Wastewater management – Water disasters – Water resources management – Climate change – Environmental protection – Integrated catchment management	– Watershed institutions – Science and academia
Whole system change approach to the rural water sector in Ghana *[Box 3.7]*	International Water and Sanitation Centre	– Drinking water supply	– Non-governmental organisations – Service providers – Sub-national governments

Case study title	Institution(s) submitting the case study	Water-related issue(s) at stake	Promoter(s) of the engagement process (categories of stakeholders)
Restoration of Bukango shallow dam in Bukomansimbi district *[Box 1.3]*	KYEMPA – Uganda	– Drinking water supply – Water disasters – Water resources management – Climate change – Environmental protection	– Non-governmental organisations
Participation in the management of the Niger, Senegal and Congo transboundary rivers *[Box 3.18]*	International Network of Basin Organisations	– Water resources management	– National government – Watershed institutions
The management of groundwater as the main source of water in rural areas of Cameroon: The case of the traditional hand-dug wells *[Box 3.5]*	AFVMC Association	– Drinking water supply – Water resources management – Environmental protection	– Sub-national governments – Civil society (non-governmental organisations and citizens)
Americas			
Participatory approach to IWRM in Quebec *[Box 1.9]*	Regroupement des organismes de bassin versant du Québec – Canada	– Water resources management	– Sub-national governments – Watershed institutions
South Saskatchewan River Basin - Adaptation to Climate Variability Project *[Box 2.6]*	Alberta WaterSMART – Canada	– Drinking water supply – Water disasters – Water resources management – Climate change – Environmental protection	– Business – Watershed institutions – Sub-national government – Non-governmental organisations
Engaging stakeholders and Aboriginal people on the Great Lakes *[Box 3.20]*	Government of Ontario – Canada	– Drinking water supply – Wastewater management – Water disasters – Water resources management – Climate change – Environmental protection – Ecosystem health	– Sub-national governments
Chesapeake Bay Program *[Box 1.7]*	Environmental Protection Agency – United States	– Drinking water supply – Wastewater management – Water disasters – Water resources management – Climate change – Environmental protection – Restoration	– National government – Sub-national governments – Civil society

Case study title	Institution(s) submitting the case study	Water-related issue(s) at stake	Promoter(s) of the engagement process (categories of stakeholders)
Designing Engagement: Rebuild by Design's Approach to Community Engagement *[See 3.12]*	Rebuild by Design – United States	– Water disasters	– National government – Sub-national governments – Non-governmental organisations – Science and academia
Water Harvesting Assessment Tool *[Box 2.1]*	University of Arizona, Water Resources Research Centre – United States	– Drinking water supply – Water resources management – Climate change – Water harvesting – Stormwater management	– Science and academia – Sub-national governments
Groundwater, climate and stakeholder engagement: A case study from the Santa Cruz Active Management Area in Arizona, USA *[Box 2.1]*	University of Arizona, Water Resources Research Centre – United States	– Drinking water supply – Water disasters – Water resources management – Climate change – Groundwater pumping – Aquifer recharge	– Science and academia
Finding water for riparian and aquatic ecosystems: A roadmap to connect the environment to water planning in Arizona, USA *[Box 6.8]*	University of Arizona, Water Resources Research Centre – United States	– Water resources management – Environmental protection	– Science and academia
An examination of learning preferences and sociometric networks in the US municipal water industry *[Box 3.16]*	University of Pennsylvania – United States H2OGo LLC	– Drinking water supply – Wastewater management – Water resources management	– Science and academia
Innovative business model attracting long-term investment in water and sanitation in the United States *[Box 3.3]*	Suez Environnement	– Drinking water supply – Wastewater management	– Sub-national governments – Service providers – Financial actors
South Bay Salt Pond Restoration *[Box 3.15]*	Deltares – Netherlands	– Water disasters – Climate change – Environmental protection	– National government – Sub-national governments
National Water Management Pact *[Box 5.1]*	National Water Agency – Brazil	– Water governance	– National government
Preservation of river sources – replication in its DNA *[Box 1.8]*	Tractebel Energia S.A. – Brazil	– Drinking water supply – Environmental protection – Environmental education	– Business – Sub-national governments – Civil society

Case study title	Institution(s) submitting the case study	Water-related issue(s) at stake	Promoter(s) of the engagement process (categories of stakeholders)
Assessment of Jirau hydropower project with the Hydropower Sustainability Assessment Protocol *[Box 6.2]*	GDF Suez Energy Brazil	– Water resources management – Climate change – Environmental protection – Sustainability in hydropower projects	– Business – International organisations
Tecocomulco Lagoon *[Box 3.19]*	National Water Commission – Mexico	– Wastewater management – Water resources management – Environmental protection	– Watershed institutions – Sub-national governments
Asia-Pacific			
Water Environment Partnership in Asia *[Box 3.17]*	Institute for Global Environmental Strategies – Japan	– Wastewater management – Environmental protection – Water governance	– National government
Enhancing stakeholder engagement through communication with the residents upstream and downstream for sustainable water resources management *[Box 2.4]*	Japan Water Agency – Japan	– Drinking water supply – Water resources management – Environmental protection	– Watershed institutions
Identifying stakeholders by project base through institutional framework of Japan Water Agency *[Box 2.3]*	Japan Water Agency – Japan	– Drinking water supply – Water disasters – Water resources management – Environmental protection	– National government – Watershed institutions
Rural farmers adapting to climate change impact in drought prone areas of northeast Thailand *[Box 3.14]*	Chi River Basin Committee – Thailand	– Water resources management – Climate change – Environmental protection	– Watershed institutions – Science and academia
Role of community participation and partnerships in successful implementation of a water reuse scheme *[Box 6.9]*	University of South Australia, Centre for Comparative Water Policies and Laws – Australia	– Wastewater management	– Science and academia
Roles of levies in encouraging changes in individual water consumption behaviour *[Box 6.6]*	University of South Australia, Centre for Comparative Water Policies and Laws – Australia	– Water resources management – Roles of economic instruments	– Science and academia
An exploration of community attitudes and intended behaviours toward uptake of stormwater for non-potable uses *[Box 6.9]*	University of South Australia, Centre for Comparative Water Policies and Laws – Australia	– Wastewater management – Water disasters – Water resources management – Stormwater reuse	– Science and academia

Case study title	Institution(s) submitting the case study	Water-related issue(s) at stake	Promoter(s) of the engagement process (categories of stakeholders)
Sustainable water planning in Australia: A survey of attitudes of water policy entrepreneurs toward sustainability *[Box 5.4]*	University of South Australia, Centre for Comparative Water Policies and Laws – Australia	– Water resources management	– Science and academia
Alliance contract and procurement process for water and wastewater services in Adelaide, South Australia *[Box 1.16]*	Suez Environnement South Australian Water Corporation	– Drinking water supply – Wastewater management – Environmental protection – Minor capital works	– Service providers
Participatory fore sighting for irrigation R&D planning *[Box 5.6]*	Tasmanian Institute of Agriculture – Australia Alexandra and Associates	– Water disasters – Water resources management – Climate change – Environmental protection – Irrigation – Regional development	– Sub-national governments – Advisors
Canterbury Water Management strategy *[Box 3.8]*	Canterbury Regional Council – New Zealand	– Drinking water supply – Water resources management – Environmental protection	– Sub-national governments – Civil society (indigenous communities) – Agricultural actors
NARBO RBO performance benchmarking and stakeholder engagement *[Box 6.5]*	Network of Asian River Basin Organisations	– Drinking water supply – Water disasters – Water resources management – Climate change – Environmental protection	– Watershed institutions and their network
Europe			
Establishing a training approach with farmers to prevent and fight pollution caused by nitrates from agricultural sources. Application to a groundwater body used for drinking water production of a large city *[Box 3.14]*	Compagnie Intercommunale Liégeoise des Eaux – Belgium Société Publique de Gestion de l'Eau Nitrawal	– Drinking water supply – Water resources management – Environmental protection – Protection of water sources	– Sub-national governments – Service providers – Agricultural actors – Science and academia
Setting up a neighbourhood guiding system to manage floods *[Box 5.6]*	Vivaqua – Belgium	– Water disasters	– Service providers – Business
Optimising water (for food) and energy nexus with local irrigators in the Durance valley, France *[Box 2.5]*	Électricité de France	– Drinking water supply – Water disasters – Water resources management – Climate change – Environmental protection	– Business

Case study title	Institution(s) submitting the case study	Water-related issue(s) at stake	Promoter(s) of the engagement process (categories of stakeholders)
Stakeholder engagement in an inter-departmental service provider in France *[Box 6.1]*	Syndicat des Eaux et de l'Assainissement Alsace-Moselle – France	– Drinking water supply – Wastewater management – Environmental protection	– Service providers
Citizens' participation in governance of water services *[Box 1.10]*	Société publique locale eau de Grenoble Comité des usagers du service public de l'eau de Grenoble – France	– Drinking water supply – Environmental protection – Water pricing	– Service providers – Water users
French water policy: Dialogue with stakeholders at national, basin and local level *[Box 1.9]*	International Network of Basin Organisations	– Water resources management	– National government – Sub-national governments – Watershed institutions
New ideas for water/contract for water health *[Box 6.12]*	Suez Environnement	– Drinking water supply – Wastewater management – Water disasters – Water resources management – Climate change – Environmental protection – Water governance, economic model for water	– Service providers
Public involvement in WFD implementation in Baden-Wurttemberg *[Box 1.9]*	Ministry of Environment – Germany	– Drinking water supply – Wastewater management – Water resources management – Environmental protection	– National government – Watershed institutions
Water in municipality – Agreement for a safe water *[Box 1.5]*	Gruppo CAP – Italy	– Drinking water supply	– Service providers – Sub-national governments – Non-governmental organisations
An executive information system to support integrated planning management and stakeholders' involvement in a web-based, shared environment *[Box 5.3]*	Arno River Basin Authority – Italy	– Drinking water supply – Wastewater management – Water disasters – Water resources management – Climate change – Environmental protection	– Watershed institutions
Delta Programme *[Box 1.7]*	Delta Programme Commissioner – Netherlands	– Water disasters – Water resources management – Climate change	– National government – Sub-national governments – Civil society

Case study title	Institution(s) submitting the case study	Water-related issue(s) at stake	Promoter(s) of the engagement process (categories of stakeholders)
Integrated Coastal Works Katwijk *[Box 5.2]*	Water authority of Rijnland – Netherlands	– Water disasters – Climate change – Environmental protection – Coastal economy	– National government – Sub-national governments – Watershed institutions – Civil society – Business
Policy participation on a regional level: Dealing with the awareness gap *[Box 1.3]*	Water authority of Rijnland – Netherlands	– Wastewater management – Water disasters – Water resources management – Climate change – Environmental protection	– Sub-national governments
Participatory monitoring as an instrument to achieve intermediate outcomes in stakeholder participation processes in Loosdrecht, Netherlands *[Box 6.10]*	Deltares – Netherlands	– Water resources management – Climate change – Environmental protection	– Watershed institutions – Science and academia
Sand Motor Delfland *[Box 3.13]*	Deltares – Netherlands Ministry of Infrastructure and Environment – Netherlands	– Water disasters – Climate change – Environmental protection	– National government – Sub-national governments
Westergouwe *[Box 3.4]*	Water authority of Schieland en de Krimpenerwaard – Netherlands	– Spatial planning	– Sub-national governments
Pilot Rietkreek *[Box 3.14]*	Water authority of Brabantse Delta – Netherlands	– Water resources management – Climate change – Environmental protection	– Agricultural actors – Watershed institutions
Overdiepse Polder *[Box 3.14]*	Water authority of Brabantse Delta – Netherlands	– Water disasters – Climate change	– Agricultural actors – Sub-national governments – Parliamentarians
How Room for the River tackled the NIMBY threat *[Box 3.13]*	Ministry of Infrastructure and Environment – Netherlands Deltares	– Water disasters – Climate change	– National government – Sub-national governments – Watershed institutions
Kampen flood brigade *[Box 5.6]*	Water authority of Groot Salland – Netherlands	– Water disasters	– Watershed institutions – Sub-national governments
Women for Water *[Box 3.9]*	Portuguese Association of Water and Wastewater services	– Drinking water supply – Wastewater management – Water disasters – Water resources management – Climate change – Environmental protection	– Service providers

Case study title	Institution(s) submitting the case study	Water-related issue(s) at stake	Promoter(s) of the engagement process (categories of stakeholders)
Young Water Professionals *[Box 3.9]*	Portuguese Association of Water and Wastewater Services	– All water-related issues	– Network of service providers
Depollution of the Ave basin, Portugal *[Box 3.10]*	Aguas do Noroeste, S.A – Portugal	– Wastewater management – Water resources management – Environmental protection	– Sub-national governments – Science and academia – Service providers
Project "Water Heroes" *[Box 1.3]*	Empresa Municipal de Água e Saneamento de Beja – Portugal	– Drinking water supply – Wastewater management – Environmental protection	– Service providers – Sub-national governments
ERSAR Mobile App *[Box 5.3]*	Water and Waste Services Regulation Authority (ERSAR) – Portugal	– Drinking water supply – Wastewater management – Environmental protection – Urban waste management	– Regulators
Spanish experiences in watershed management *[Box 1.9]*	Ministry of Agriculture – Spain	– Water resources management – Environmental protection	– National government – Watershed institutions – Agricultural actors
School of Mayors *[Box 5.5]*	El Duero River Basin Authority – Spain	– Drinking water supply – Wastewater management – Water disasters – Water resources management – Environmental protection	– Watershed institutions
Remote management of irrigation networks as a tool for saving water in public spaces *[Box 3.15]*	Samcla, sl – Spain	– Water resources management	– Service providers – Business
People power in the UK water sector *[Box 1.10]*	Water UK	– Economics of water	– Regulators – Service providers – Consumer associations
The catchment-based approach in England *[Box 3.19]*	UK Environment Agency Water UK	– Water resources management	– National government
Customer engagement in setting water prices and investment priorities in Scotland *[Box 3.11]*	Scottish government	– Drinking water supply – Price and investment priority setting	– Regulators – Service providers – National government
Implementation of IWRM in Ukrainian river basins *[Box 2.6]*	Global Water Partnership – Ukraine	– Water disasters – Water resources management	– National government – Watershed institutions
Public participation in the Danube River Basin: Experiences from the ICPDR *[Box 1.9]*	International Commission for the Protection of the Danube River	– Water disasters – Climate change – Environmental protection	– National government – Financial actors and donors

Case study title	Institution(s) submitting the case study	Water-related issue(s) at stake	Promoter(s) of the engagement process (categories of stakeholders)
Global			
Water Youth Network: Empowering young people through a professional youth network *[Box 3.6]*	Water Youth Network	– All water-related issues	– Civil society
Hydro sustainability assessment protocol – Multi-stakeholder engagement to promote sustainable hydropower *[Box 6.2]*	Transparency International	– Water disasters – Water resources management – Climate change – Environmental protection – Hydropower	– International organisations

Annex F
List of respondents to the OECD survey

Afcap Consulting
Afghanistan – Ministry of Energy and Water
African Minister's Council on Water
Alexandra and Associates Pty Ltd
ALFAR PROJECT CO.
Algeria – Société des Eaux et de l'Assainissement d'Alger (SEAAL)
Anglo American
Aqua Publica Europea
AquaFed
ARCADIS
Armenian Women for Health and Healthy Environment
Asian Development Bank (ADB)
Association Aide aux Familles et Victimes des Migrations Clandestines
Australia – Independent Competition and Regulatory Commission
Australia – Murray-Darling Basin Authority
Australia – Water Corporation of Western Australia
Bangladesh – Water Development Board
Belgium – Flemish Environment Agency
Belgium – SA AQUAWAL
Bixler Consulting
Both ENDS
Brazil – Municipal Council of Sesimbra
Brazil – Municipal regulatory agency for water services of Esgoto
Brazil – National Water Agency
Brazil – Tractebel Energia
Brazilian Business Council for Sustainable Development
Bulgaria – Bulgarian Water Association
Business and Professional Women International
Canada – City of Vancouver
Canada – New Brunswick Department of Environment and Local Government
Canada – Province of Ontario
Canada – Regroupement des organismes de bassins versants du Québec
Canada – South Nation River Conservation Authority
Canada – University of British Colombia, Program on Water Governance
CH Industries
Chile – General Directorate for Water
Chile – Pontifical Catholic University, Department of Agricultural Economics
China (People's Republic of) – Ministry of Water Resources, Development Research Centre
Circle of Blue
Coca-Cola Hellenic Bottling Company S.A.

Colombia – Ministry for Environment, Housing and Territorial Development
Costa Rica – Institute for Aqueducts and Sewerage
Czech Republic – Ministry of Agriculture
Denmark – Nature Agency
Economic Commission for Latin America and the Caribbean
El Salvador – Under-Secretary for Territorial Development and Decentralisation
Électricité de France
Ethiopia – Arba Minch University
EUREAU
European Federation of Public Service Unions
European Irrigation Association
European Union Water Management Association
Finland – Finnish Environment Institute
Food and Agriculture Organization
France – Agence de l'Eau Rhône-Méditerranée-Corse
France – Agence française de développement (AFD)
France – Association Française des Établissements Publics Territoriaux de Bassin
France – Eau de Paris
France – Institut de recherche pour le développement
France – IRSTEA
France – Ministry of Sustainable Development and Energy
France – National Centre for Scientific Research
France – Sorbonne Business School
France – SYDEC
France – Syndicat des Eaux d'Ile de France
France – Syndicat des Eaux et de l'Assainissement – Alsace-Moselle
France – University of Paris – Panthéon-Sorbonne
France – University Paris Est
Friends of the Earth Middle East
Fundacion Chile
GDF SUEZ
Germany – Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
Germany – German Agency for International Cooperation (GIZ)
Germany – German Development Bank (KfW)
Germany – Wasser in Bürgerhand
Germany – Wupperverband
Global Environmental Facility – International Waters Focal Area
Global Institute for Water, Environment and Health
Global Water Initiative
Global Water Partnership
Global Water Partnership – Slovenia
Global Water Partnership – Ukraine
Global Women Development Promoters
Greece – Titan Cement
GRET
HANDS-NGO
Hungary – Ministry of Interior
ICATALIST
Indonesia – Perum Jasa Tirta II Jatiluhur
Indonesia – Indonesian Urban Water Sanitation and Hygiene Project (IUWASH)

Inter-American Development Bank (IADB)
International Commission for the Protection of the Danube River
International Commission on Large Dams
International Institute for Sustainable Development
International Network of Basin Organizations
International Water Resources Association
International Water and Sanitation Centre (IRC)
Italy – Cap Holding S.p.A.
Italy – Foundation for the Environment – Turin School of Local Regulation
Italy – Metropolitana Milanese S.p.A.
Italy – Regulatory Authority for Electricity, Gas and Water
Italy – SMAT S.p.A.
Italy – Tuscany Water Authority
Italy – UNIACQUE S.p.A.
J2C Water Ltd.
Japan – Japan Water Agency
Japan – Ministry of Land, Infrastructure, Transport and Tourism, Water Resources Department
José Fradé – Independent consultant
Korea – Korea Environment Institute
Korea – K-Water
Korea – Seoul Metropolitan Government
League of Arab States
Luxemburg – Ministry for Sustainable Development and Infrastructure
Malta – Malta Resources Authority
Mediterranean Institute for Water (IME)
MESONexusTeam
Mexico – Instituto para el Desarrollo Regional del Tecnológico de Monterrey
Mexico – National Association for Water and Sanitation
Mexico – National Water Commission
Mexico – Third World Centre for Water Management
Mexico – Universidad Autonoma Metropolitana
Millennium Water Alliance
Movimiento Agua y Juventud
Netherlands – Association of Dutch Insurers
Netherlands – Association of Dutch Water Authorities
Netherlands – Delft University of Technology – Nile Basin Discourse
Netherlands – Deltares
Netherlands – Dutch Water Authority of Brabantse Delta
Netherlands – Dutch Water Authority of Rijnland
Netherlands – House of Representatives
Netherlands – KWR Watercycle Research Institute
Netherlands – Landcare Research NZ Ltd
Netherlands – Ministry of Infrastructure and Environment
Netherlands – UNESCO – Institute for Water Education
Netherlands – Utrecht University
Netherlands – Water Governance Centre
Netherlands – World Water Academy
Network of Asian River Basin Organizations
New Zealand – Canterbury Regional Council
New Zealand – Ministry for the Environment

Norway – Norwegian Environment Agency
Palestinian Territories – Environment Quality Authority
Panama – National Environmental Authority
Paraguay – Co-ordination Unit for the Drinking Water and Sanitation Programme of El Chaco
Paraguay – National Service for Environmental Sanitation
Peru – Water Committee of the National Society of Mining, Petroleum and Energy
Poland – Ministry of the Environment
Portugal – AC E.M.
Portugal – Aguas de Coimbra
Portugal – Aguas de Portugal SA
Portugal – Portuguese Association of Water and Wastewater Services (APDA)
Portugal – Portuguese Water Partnership
Portugal – Water and Waste Services Regulation Authority
Réseau Projection
Royal Haskoning DHV – Business Line Water Technology
Russian Federation – Russian Water and Wastewater Association
Russian Federation – Federal Agency of Water Resources, Department for International Co-operation
Sasol
Scientific Information Centre of Interstate Commission for Water Co-ordination in Central Asia
Scotland – Scottish government
Slovak Republic – Verejné prístavy AS
Slovenia – Ministry of Agriculture and the Environment
Slovenia – University of Ljubljana
South Africa – UniSA
South Africa – Water Research Commission
Spain – ACUAMED
Spain – Botin Foundation
Spain – Consortium for environmental services management of the Badajoz province
Spain – Júcar River Basin Authority
Spain – Ministry of Agriculture, Food and the Environment, General Directorate for Water
Spain – River Basin Authority of Segura
Spain – Spanish Agency for International Cooperation and Development (AECID)
Spain – Spanish Association of Water and Sanitation (AEAS)
Spain – Universidad Politecnica de Cataluna
Sri Lanka – Mahaweli Authority
Suez Environnement
SustainUS
Sweden – Stockholm International Water Institute
Sweden – Swedish International Development Cooperation Agency (SIDA)
Thailand – Chulalongkorn University
Thailand – Department of Water Resources
Thailand – Mun River Basin Committee
The Coca-Cola Company
TransformationFirst Asia Pte Ltd
Transparency International
TreeVelop
Turkey – Turkish Water Institute
Twynstra Gudde management consultants
Uganda – Kirinda Youth Environmental Management and Poverty Alleviation Program

Uganda – National Association of Professional Environmentalists
UNDP Global Water Solidarity
UNESCO International Hydrological Program
Union for the Mediterranean
United Kingdom – Environment Agency
United Kingdom – University of Exeter
United Kingdom – Water UK
United States – Environmental Protection Agency
United States – Hampton Roads Sanitation District
United States – Kent County Department of Public Works
United States – United States Agency for International Development (USAID)
United States – University of Arizona, Water Resources Research Centre
United States – University of Pennsylvania
United States – Water Health
United-States – Tufts University
UN-Water Decade Programme on Advocacy and Communication
Vewin
Water Integrity Network
Water Youth Network
WaterAid
WaterLex
Waterlution
World Business Council for Sustainable Development
World Wildlife Fund
Xmediaworks

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