



# Guidelines for Public Participation

in the Regulation of Urban Water Services

Miharu Hirano and Carolina Latorre



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# About these guidelines

The project on *public participation in the regulation of urban water services: tariff-setting* was initiated with the recognition of the practical needs in unpacking the term “public participation”—a concept that is so widely used on an international scale but remains somewhat ambivalent. Its concrete meaning and nuances may differ in operational terms depending on the sector, locality or mindset of colleagues in an institution.

Admittedly, there is no one ideal model of public participation. What is considered appropriate must be decided on a case-by-case basis according to local circumstances and needs. Institutional or resource constraints can also prevent the exercise of participation activities that would be theoretically desirable. In practice, however, there are strong calls for “good” public participation. They stem from national and international laws, policy guidelines, demands of users, or endogenous initiatives by directors or staff of institutions involved in regulation.

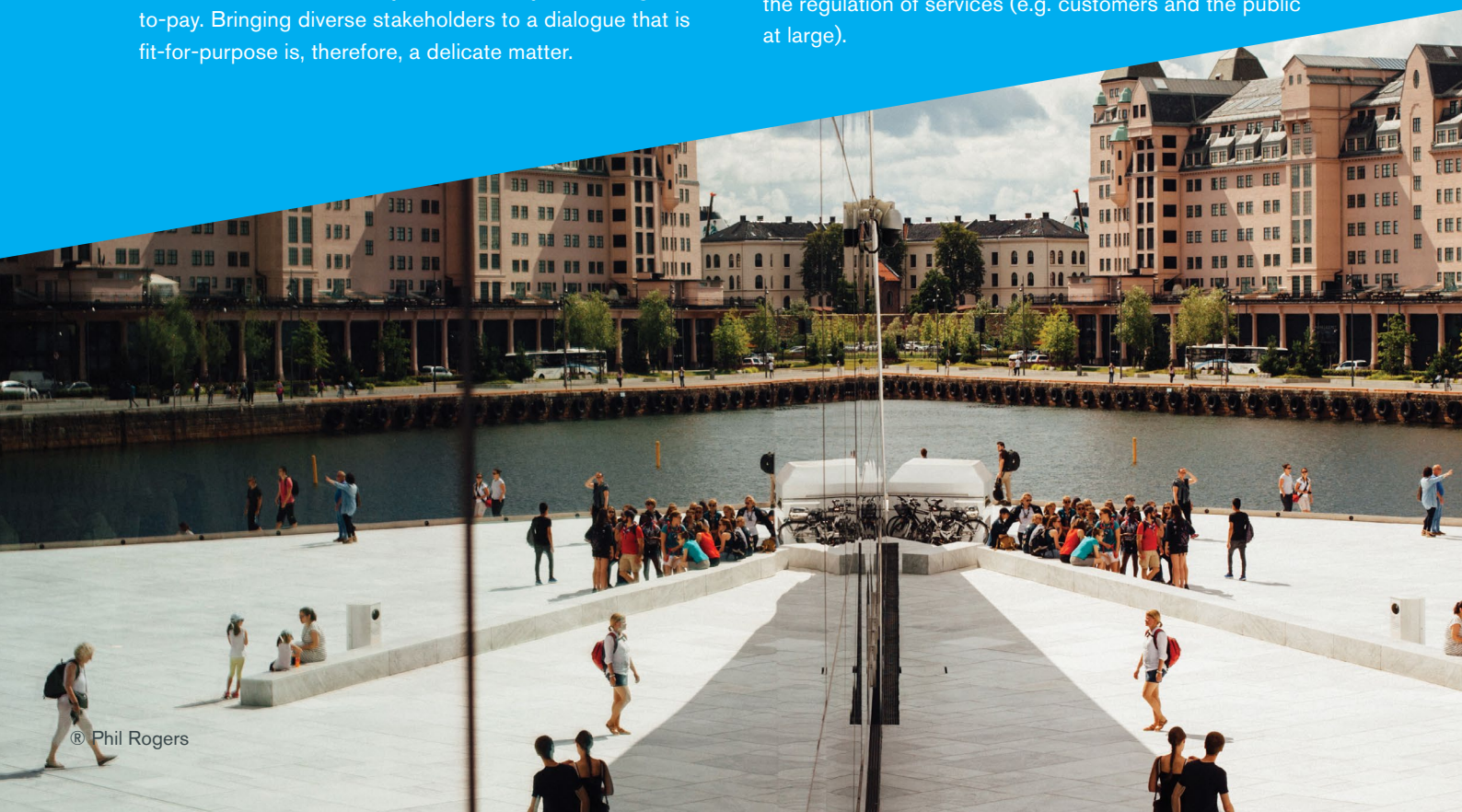
Our approach is to look into the benefits and risks associated with public participation. We focused on tariff-setting as an example within the much broader application potential of our framework. In this example, the process of deciding what is included in the water bill touches sensitive factors such as affordability, cost recovery and willingness-to-pay. Bringing diverse stakeholders to a dialogue that is fit-for-purpose is, therefore, a delicate matter.

We have developed a framework that meets three objectives of this project, as listed below. The framework is intended to serve as a baseline for practitioners in articulating risks and benefits associated with the use of public participation, as a guide for designing an adequate public participation programme and as a basis for an international dialogue to promote mutual learning.

This framework proposes a systematic way of thinking in designing a public participation programme in a structured three-stage approach: *integration, identification and implementation* (the “Three Is”). This approach is particularly useful at the initial stage of planning public participation when a broader perspective of the issue needs to be considered by relevant authorities.

The “Three Is” framework will be useful to all those concerned with the following:

- Drafting or proposing changes in the regulation of services (e.g. public utilities, private service providers, etc.).
- Advising or approving changes in the regulation of services (e.g. asset owners, independent regulators, ministries, politicians, and other government institutions).
- Others involved or interested in public participation in the regulation of services (e.g. customers and the public at large).





The Guidelines (this document) unpack the abstract notion of “public participation”, while explaining the potential benefits and risks of public participation and introducing the “Three Is” framework.

The Tools (a separate document) are an integral part of the Guidelines and are developed to help apply the “Three Is” in practice. Users are guided step-by-step to use worksheets to conduct self-assessment or group exercises.

Some reservations need to be stated to clarify what this project does not do:

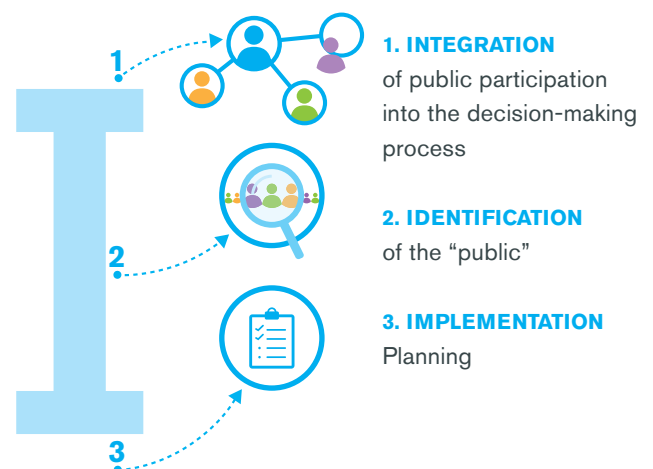
- It neither provides a prescription for the tariff structures, nor suggests a one-size-fits-all participation model. It only assists practitioners in applying a structured approach when assessing the usefulness of public participation in their locality and designing a participation programme.
- The “Three Is” framework does not extend to technical guidance on the management of participation activities or the facilitation methodologies. It only gives some preliminary considerations for choosing a specific participation technique.

- The focus is on the use of public participation in the decision-making process of regulating the provision of urban water and sanitation services. Guidelines do not enter into questions related to community-level water management.
- Regulation can vary widely between and within countries. This project does not take any position to promote any specific model of regulation.

The framework presented here was developed on the basis of a literature review and consultations with experts and practitioners with experience in public participation. Nevertheless, it has yet to be tested in the field. We therefore welcome your comments on concepts and your experiences in applying the framework in practice.



#### STAGES OF DESIGNING A PUBLIC PARTICIPATION PROGRAMME:



# Acknowledgements

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The materials also reflect the discussions of the 3rd International Water Regulators Forum held during the IWA World Water Congress 2016 in Brisbane. References to speeches and cases shared during the Forum are explicitly cited in the text.

We also thank participants of the open workshop on “Unpacking ‘Public Participation’ for Water Services Regulation” and the workshop on “Participatory processes for Water-Wise Communities: Lessons Learned from Around the World”, both held during the IWA Water and Development Congress 2017 in Buenos Aires. In these sessions, we could pilot test the conceptual framework introduced below.

The support of Mohamed Tawfik, an intern at IWA, was essential for the communication and dissemination related to this project.

This document was written by Mihar Hirano, under the guidance of Carolina Latorre. The findings, interpretations and conclusions expressed herein are those of the authors and do not necessarily reflect the views of the IWA.









*4 levels of action of the IWA Water Wise City Principles*

# Part 1 – Framework

## 1. Unpacking “public participation”

The role of water-wise communities <sup>1</sup> in achieving the United Nations Sustainable Development Goals (SDGs) can be supported and strengthened through participatory processes that enable informed dialogues. An adequate process can contribute to good decision-making and improve trust among citizens, ultimately enhancing the effectiveness of such decisions and the sustainability of the whole system.

In the case of urban water services, this is conditioned by the collective action of interdependent and diverse stakeholders—governments and public administration, regulatory authorities and service providers, together with current and potential users (IWA Lisbon Charter, 2014). In fact, interest in public participation is growing among water service providers and regulators globally. The IWA World Water Congress 2016 (Brisbane) convened, among other important speeches and meetings, the Utilities Leaders Forum and the Water Regulators Forum. In both, customer engagement was intensively discussed and noted in the final take-out.

Participatory activities are performed by service providers and regulators around the world. Their importance is widely recognised, as evidenced by the Organisation for Economic Co-operation and Development (OECD) survey on the governance of water regulators conducted in 2014. Out of 31 independent water regulators worldwide, 27 responded in the questionnaire that they conduct a public consultation on tariff-setting issues (OECD, 2015c: 57–59).

Interest is also growing for international peer-to-peer learning about issues in relation to public participation. A 2015 IWA survey showed that water regulators across the world see customer engagement as a theme for further international collaboration for knowledge and experience sharing. Among 115 responses, 41% considered it to be “extremely important” and 40% as “important”.

The term “public participation”, however, may mean different things to different audiences. There are some modalities of public participation, as explained in this introductory part of the Guidelines.

### International standards

Norms and policy goals have developed at the international level, which emphasise the adequate use of public participation to realise the global agenda on water. There are two international standards that are of particular relevance and importance: the SDGs and the human rights to safe drinking water and sanitation.<sup>2</sup>

• **THE SDGS.**<sup>3</sup> The 2030 Agenda for Sustainable Development, which includes the 17 SDGs, was adopted in 2015 as the United Nations General Assembly resolution 70/1 by consensus. Although formally non-binding, the plan of action carries weight as it reflects the commitments of the representatives of Member States, made on behalf of the people they serve.

Goal 6 on water and sanitation situates public participation as a “means of implementation”. Target 6.b states, “Support and strengthen the participation of local communities in improving water and sanitation management”. According to UN-Water, in this instance “participation” means a mechanism by which individuals and communities can meaningfully contribute to decisions and directions about water services and water resources.

Progress is monitored by using the global indicators. The indicator for target 6.b is set as the “proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management” (emphasis added). Accordingly, participatory practices in tariff-setting processes can be reflected in the measurement.

The global follow-up and review process takes place at the High-Level Political Forum under the auspices of the United Nations. Apart from the global monitoring, the follow-up and review may also take place at national or regional levels.

• **THE HUMAN RIGHTS TO SAFE DRINKING WATER AND SANITATION.**<sup>4</sup> Public participation is one of the cross-cutting principles that must be ensured in the realisation of all human rights, including the rights to water and sanitation (UN Special Rapporteur, 2014a). It is part of the obligations of states to utilise “all appropriate means” to progressively achieve the full realisation of the human rights to safe drinking water and sanitation.<sup>5</sup>

The human rights to safe drinking water and sanitation are components of the rights that are enshrined in treaties that are legally binding on contracting Member States. As recognised in the series of United Nations General Assembly resolutions, these rights are derived from the right to an adequate standard of living and are inextricably related to the right to the highest attainable standard of physical and mental health, as well as to the right to life and human dignity.

The definitions of the human rights to safe drinking water and sanitation are composed of several criteria. According to General Assembly resolution 70/169 of 2015, the human right to safe drinking water entitles everyone, without discrimination, to have access to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use, and the human right to sanitation entitles everyone, without discrimination, to have physical and affordable access to sanitation, in all spheres of life, that is safe, hygienic, secure, socially and culturally acceptable and that provides privacy and ensures dignity.

All actions having an impact on people's access to water services must provide those with meaningful opportunities for participation to ensure that the actions are compatible with human rights criteria and promote accessibility to the marginalised (Bos, 2016).

Many human rights instruments, which include water and sanitation-related human rights, also specifically enshrine the right to participation (see Appendix 1). Some of them concern particularly certain groups of people, which must also be included in public participation on an equal basis (women, children, persons with disabilities, and indigenous and tribal peoples). Such conventions, therefore, respond to particular challenges faced by those groups, and help the identification of international standards on public participation in addition to addressing their needs (UN Special Rapporteur, 2014a).

The achievement of the SDGs requires strengthening the means of implementation and revitalising the global partnership for sustainable development (SDG 17). Similarly, for the full realisation of the human rights to water and sanitation, international cooperation is essential (Article 2 and 11 of the 1966 International Covenant, see Appendix 1). Individual practices count, but sharing them with international peers can thus effectively contribute to achieving the global goals.<sup>6</sup>

## Public participation in the context of the water services regulation

Public participation is a practical concern at the operational level. There are different meanings of the term, which need to be distinguished. In relation to the regulation of urban water services, in particular tariff-setting, there are different “spaces” where participatory processes may take place:<sup>7</sup>

• **PARTICIPATION IN SOCIETAL SETTINGS.** Tariff revision can easily be controversial to users. They can raise voices outside formal forums and procedures to highlight their dissatisfactions—for example citizen-led workshops or conferences, the publication of opinions in public or social media, including the internet, or protests on streets and other public spaces.

• **PARTICIPATION IN A POLITICAL DECISION-MAKING FORUM.** Citizens may have a chance to be part of decision-making directly or through democratically elected representatives. This is the case for some jurisdictions where the revised tariff needs to be approved through a referendum, by a municipal council or by a governor.

• **PARTICIPATION IN ADMINISTRATIVE PROCEDURES.** This covers procedures and activities through which entities that draft, revise and approve the tariff consult and involve individuals, groups and organisations before formal decision-making.<sup>8</sup>

This Guidelines publication highlights the last space, although, importantly, these spaces are organically intertwined in practice.

## Different forms of public participation

Public participation can be classified by the degree of control given to those participating in the process. It is conventional to refer to the famous Arnstein's (1969) classification of "a ladder of citizen participation", which is a model that provides a useful starting point. Table 1 shows the classifications by Arnstein and other recent literature on water governance. The bottom row shows the situation of the non-existence of participation, while the top row shows that some decision-making power is, in one way or another, delegated to the public. The row in the middle shows a wide spectrum of the different influential power of participatory procedures.

Caution is required when consulting these classifications. Firstly, Arnstein's ladder model carries an assumption that the higher the "rung" or "level" a participation process is classified, the more citizens get empowered and produce better outcomes. However, in situations in which there is a good water service, and there is trust in the water service provider, consumers can be satisfied by receiving good information without the need for any form of direct control; it is important not to decry those "forms" of participation listed in the lower part (Rouse, 2013: 104). On the other

hand, the preparation of tariffs for urban water services is a highly technical exercise. Complete citizen-led control does not necessarily produce a better decision from an operational point of view (Muzzini, 2005). Different forms of participation can co-exist in a single participation programme. An appropriate form should be chosen to meet the given situation (Wilcox, 1994: 8).

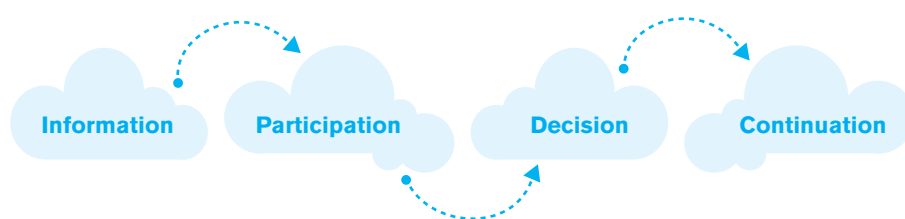
Also, two different nuances need to be distinguished when one refers to the degree of control. On the one hand, forms of participation may indicate the institutional relationship between decision-makers and participants that are determined by law, regulations or guidelines. Such formal arrangements may impose obligations on the decision-makers to take into account public inputs, respond to each comment, jointly draft or elaborate a proposal, jointly make a decision, or be subject to a veto. On the other hand, a similar spectrum of influential participation may exist in operation, not as a result of formal requirements, but as a result of incentives coming from elsewhere, such as a belief in the usefulness of a particular form in specific situations or social pressure. Policy-makers may be interested in the former, while operators would find value in the latter.

**TABLE 1. CATEGORIES OF THE FORMS OF PUBLIC PARTICIPATION**

| ARNSTEIN, 1969   | MUZZINI, 2005  | FRANCEYS & GERLACH, 2011  | UNDP-WGI, SIWI, WIN 2013   | OECD, 2015B   | WHO, 2017 (GLAAS)   |
|--|--|---|--|---|---|
| <ul style="list-style-type: none"> <li>▪ Citizen control</li> <li>▪ Delegated power</li> </ul>               | <ul style="list-style-type: none"> <li>▪ Empower</li> </ul>                    | <ul style="list-style-type: none"> <li>▪ Empower</li> </ul>                                       | <ul style="list-style-type: none"> <li>▪ Owner of initiative</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Co-decision and co-production</li> </ul>   | <ul style="list-style-type: none"> <li>▪ Joint decision making</li> </ul> |
| <ul style="list-style-type: none"> <li>▪ Partnership</li> <li>▪ Placation</li> <li>▪ Consultation</li> </ul> | <ul style="list-style-type: none"> <li>▪ Partner</li> <li>▪ Consult</li> </ul> | <ul style="list-style-type: none"> <li>▪ Partner</li> <li>▪ Involve</li> <li>▪ Consult</li> </ul> | <ul style="list-style-type: none"> <li>▪ Partnerships</li> <li>▪ Representation</li> <li>▪ Consultation</li> </ul> | <ul style="list-style-type: none"> <li>▪ Partnerships</li> <li>▪ Representation</li> <li>▪ Participation</li> <li>▪ Consultation</li> </ul> | <ul style="list-style-type: none"> <li>▪ Consultation</li> </ul>          |
| <ul style="list-style-type: none"> <li>▪ Informing</li> <li>▪ Therapy</li> <li>▪ Manipulation</li> </ul>     | <ul style="list-style-type: none"> <li>▪ Inform</li> </ul>                     | <ul style="list-style-type: none"> <li>▪ Inform</li> <li>▪ Influence</li> </ul>                   | <ul style="list-style-type: none"> <li>▪ Information and awareness</li> </ul>                                      | <ul style="list-style-type: none"> <li>▪ Communication</li> </ul>   | <ul style="list-style-type: none"> <li>▪ Information</li> </ul>           |

*\* Note that some literature classifies "engagement". As a result, the term "participation" may be used in the table in a narrower sense than our meaning.*

**FIGURE 1. COMPONENTS OF PUBLIC ENGAGEMENT IN THE DECISION-MAKING PROCESS**



## Public participation as a part of public engagement

By introducing an umbrella term of “engagement”, it is possible to capture the broader picture where an organisation ensures that potentially affected individuals and groups have the opportunity to take part in the decision-making processes (OECD, 2015a, 2015b; Sharp, 2017) (Figure 1).

▪ **INFORMATION PROVISION.** The provision of information to the public is founded on the principle of transparency but goes beyond transparency alone. It is a prerequisite for public participation because the public cannot give a meaningful opinion without data and without understanding the issues at stake. It is a one-way communicative act of authority to provide the public with information and to encourage people to join the participation activities. It includes the provision of data and other relevant information in an accessible format for all, public awareness campaigns and educational initiatives tailored to the stakeholders.

▪ **PARTICIPATION.** Public participation is the process by which public concerns, needs and values are incorporated into the decision-making of the tariff.<sup>9</sup> Participation takes place when there is an interaction between the bodies that draft tariffs and the public.

A public participation programme has an end-point—the decision of a new tariff structure. A series of participation activities are conducted in a coordinated and planned manner to receive relevant information effectively.

▪ **DECISION.** At this stage, the final and formal decision is made by the competent body to set or approve the proposed tariff. Opinions raised during the participation process need to be taken into account when making a decision. The principle of accountability requires that such a decision responds to the opinions raised in the participation phase.<sup>10</sup> Depending on the regulatory model, the above-mentioned participation in the political forum may be relevant at this point.

▪ **CONTINUATION.** Once the tariff is set, the whole process needs to be reviewed to improve the process for the next revision. The following stage would start by redefining the problem, then again planning and implementing public participation. It is a spiral process (Wilcox, 1994).

In addition, public engagement is about long-term ongoing relationships between the public and bodies involved in the delivery of urban water services. One-off processes are unlikely to elicit as much input as an ongoing managed process of engagement (Reed, 2008). Continuous engagement is also necessary for mobilising users in helping water policies to be implemented: for example, to save water, harvest rainwater or separate substances that are not suitable for drains (Sharp, 2017: 16–17). If public relations are dependent on an individual staff member's capacity or motivation, maintaining the trust of the public can be challenging in the case of staff rotation. Continuous engagement needs to be well structured in daily operations.

The focus on public participation in this Guidelines publication is thus just one dimension of the whole public engagement process.





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## NOTES

- <sup>1</sup> The IWA Principles for Water-Wise Cities state that the 4th Level of Action (Water-Wise Communities) is “where the transition starts; it is where each stakeholder realizes the role they have to play to make a difference” (IWA, 2016b).
- <sup>2</sup> The legal basis for public participation in relation to water resources can also be found at the international level. The Aarhus Convention on access to information, public participation in decision-making and access to justice in environmental matters, and regional conventions such as the Protocol on Water and Health, contain key provision on public participation in decision-making. The latter identifies public participation in decision-making concerning water as a principle, and provisions for public participation are required in target-setting and in the development of water-management plans, in which case due account of the outcome of the public participation shall be taken (Articles 5(i), 6(2), 6(5)(b)).
- <sup>3</sup> For details, see UN (2017).
- <sup>4</sup> For details, see Bos (2016).
- <sup>5</sup> See the text of the International Covenant on Economic, Social, and Cultural Rights in Appendix 1.
- <sup>6</sup> The IWA Governing Assembly resolution of 8 October 2016 “ENCOURAGES its members and all water professionals to contribute actively to the efforts of their respective governments and, where and when possible, to act themselves towards the achievement of the SDG Targets.” (IWA, 2016).
- <sup>7</sup> One may also consider other formal processes as participation, such as the submission of complaints to a provider, an appeal to the authority, or legal challenge in the court.
- <sup>8</sup> Distinction between political forum and administrative procedure may blur in reality. For instance, an “independent” regulator may also have a seat as an elected member in the board. A jurisdiction can also give a decision-making power to participants in a process such as a citizen jury.
- <sup>9</sup> Abundant definitions exist for public participation. A widely cited handbook on public participation defines it as “the process by which public concerns, needs, and values are incorporated into governmental and corporate decision-making” (Creighton, 2005: 7).
- <sup>10</sup> Participation in this context is understood as a mechanism to increase the responsiveness of a decision-making authority and implementation agencies to justify their acts (WGF & UNICEF, 2015: 13).

## 2. Relevance of public participation in the regulation of services

### The case of tariff-setting processes

Why is public participation relevant in the regulation of water services? Using the example of the tariff-setting process we find the answer in the nature of the decision itself.

The tariff <sup>11</sup> collects price for the water service directly from the users. It establishes a direct link between what users gain and the cost associated with providing such a service. It defines the relationship between users and a provider.

“We know what prices your customers pay, but what value do you deliver to your customers?”

*Ben-David, 2016: 6*

As eloquently put by the Chairman of the Essential Services Commission (Victoria, Australia) at the keynote for the 3rd International Water Regulators Forum, the reason for involving the public in the decision-making related to the tariff, as in any other decision-making process, is because this process involves value choices. Water tariff structures generally incorporate various policy considerations (OECD, 2010), relevant not only for water services system but also for broader water management (Table 2).

**TABLE 2. POLICY OBJECTIVES AND THEIR COMPONENTS POTENTIALLY REFLECTED IN TARIFFS**

| POLICY OBJECTIVES                   | AIM OF WATER TARIFF  |
|-------------------------------------|--|
| <b>COST RECOVERY</b>                | <ul style="list-style-type: none"> <li>▪ Ensure viability of water management systems</li> <li>▪ Maintain asset value over time</li> <li>▪ Guarantee remuneration of inputs</li> <li>▪ Sustainable investment</li> <li>▪ Cost efficiency: minimise lifecycle costs of service</li> <li>▪ Cost recovery should be for efficient costs only</li> </ul>                     |
| <b>ECONOMIC EFFICIENCY</b>          | <ul style="list-style-type: none"> <li>▪ Allocate water to the most beneficial uses</li> <li>▪ Avoid over-investment in facilities</li> <li>▪ Efficient use of existing facilities</li> <li>▪ Optimal risk allocation among stakeholders</li> </ul>  |
| <b>ENVIRONMENTAL SUSTAINABILITY</b> | <ul style="list-style-type: none"> <li>▪ Reduce pressure on natural resources, including minimising the alteration of natural flow patterns</li> <li>▪ Encourage water saving</li> <li>▪ Improve water quality (polluter-pays principle)</li> <li>▪ Promote water reuse</li> </ul>   |
| <b>SOCIAL CONCERNS</b>              | <ul style="list-style-type: none"> <li>▪ Share costs in a fair and equitable way among different groups of people and among users and authorities</li> <li>▪ Introduce affordability measures (either through tariff-setting or through additional measures) to secure accessibility</li> <li>▪ Ensure that water usage is allocated according to water needs</li> </ul> |

*Our elaboration based on Massarutto (2007), OECD (2010) and inputs from contributors*

An important feature of the water services tariff is that it is future oriented. The prospects of the trend of urbanisation or a decrease in the population, effects of climate change and climate variations in water availability and quality, preparedness for disasters such as flood or earthquake, all significantly affect the way water services should be managed, including but not limited to the amount of investment in infrastructure, the quality of supplied water and the degree of treatment. Given these uncertain contexts, resilience, in addition to sustainability, needs further attention.

There is no definitive answer to tariff structure. The balancing of all the policy considerations mentioned in Table 2 needs to take into account local conditions, such as the state of water resources in the region, financial state, patterns of domestic consumption, the history and culture that underly the social perception, population trends, conditions of water infrastructure and facilities, etc. It is hard to negate the need for expertise in balancing interlinked policy considerations. Hence, the technical input in designing tariff structures are essential. Nevertheless, tariff-setting is not purely a technical enterprise; it involves the value choice of the society. Expertise may be insufficient in many circumstances to justify the final decision (Franceys & Gerlach, 2011; UN Special Rapporteur, 2014b). Tariff structure reflects choices made about distributive justice (how much the relatively privileged should cover the cost for the less privileged), environmental justice (how much users should pay for the management of water resources) and inter-generational equity (how infrastructure should be built to serve the benefits of the future generations).

The social equity question requires a fair balancing of the amount of contribution for sustaining the system within a society as well as the risk and cost in the increasingly uncertain circumstances surrounding water services.

In areas where water service infrastructure is not yet fully installed, or services are not supplied constantly, expectations of the public are relatively uniform, namely to

attain universal, sustainable and safe services. But once high-level services are attained, the vision for the next stage may blur. Public participation is a tool to clarify the way forward for water services systems.

While the focus here is on public participation in tariff-setting, it should be noted that tariffs as such are not the only issue where public participation is relevant to decision-making in water management. Public participation is clearly relevant if new assets are going to change an area of publically accessible land, for example in the construction of a reservoir, but is also relevant when making major choices about the nature or extent of future services, for example the provision of recycled water or the use of private rain tanks on domestic properties for flood management (Sharp, 2017).

Different tariff-setting methodologies are used worldwide—cost plus, the rate of return, price or revenue cap, profit sharing and others. In many cases, the actual methods applied are a combination of several methodologies. Some of these methods aim only to recover costs without stimulation for optimisation; others require serious planning and efficiency gaining. The decision of how to set the tariff depends not only on the expertise of the tariff-setting institution, but also the capacity of the service providers, and the strategy for the development of the sector. See Appendix 2 for the more detailed arguments about the methodologies for tariff-setting.

Different regimes of tariff-setting require different planning processes. In some cases, there is no predetermined long-term planning, no specific standards for service quality (other than technical requirements for portable and/or wastewater quality) and the tariffs are reviewed annually or when needed on the basis of historical factors. In other cases, when longer planning is required, and there are service quality standards and goals, the tariff-setting mechanisms are more complex and take into account several future factors and considerations.

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## NOTES

<sup>11</sup> We incorporate connection fee and services charges. Debt, VAT and other taxes such as environmental tax could also be relevant in the tariff-setting process. Revenue through the collection of price for water service is usually a major source of financing in the water services sector. Other financial sources include subsidies from central or local governments, transfer of funds from international donors or local charities, or those that must be repaid or compensated such as loans, bonds or equity. The OECD categorises the sources of revenue into tariff, tax and transfer—the “Three Ts” (2010).



## Social equity in tariff

In England and Wales, the disconnection of water and sanitation services is prohibited by law even if a user does not pay their bill. This is one method to secure affordability of safe drinking water as required by human rights to water. On the other hand, debt from unpaid water bills could potentially mean less income for service providers to spend on improving facilities. The UK's Ofwat (Water Services Regulation Authority) estimate of the hypothetical associated costs with recovering and writing off this debt is the equivalent of adding £21 to every customer's bill in England and Wales.

*(From the discussion at the 3rd International Water Regulators Forum.)*

## A modern challenge of downsizing water infrastructure

Japan, owing to its ageing society and low birth-rate, is facing a decreasing population. Population outflow in regional parts is requiring waterworks bureaux, together with city authorities and other infrastructure operators, to reconsider and put forward new city planning visions. Designing a "compact city" can be an option, but this certainly involves various interests of those currently living in suburban areas.

## Defining affordability

In Romania, the national strategy provides the necessary investments for the next period, including the operation costs for these, to be performed within the limits of tariffs that will generate an average invoice up to 3% of a family income. Hence, the affordability depends both on tariff itself and consumption and population incomes.

*(Contribution from Teodor Popa; see also WAREG (2017) for regulatory practices in Europe.)*

## Payment for watershed ecosystem services in Santa Catarina State, Brazil

Preserving and restoring water quality is a major concern for cities around the world. In most cities, urban population growth, coupled with degradation of municipal source watersheds, has increased drinking water treatment costs.

The Camboriú watershed in Brazil is experiencing fine-scale land cover changes and high sediment loading. The main objective of the payment for watershed ecosystem services (PWS) program for its principal funder, the municipal water supply company EMASA, was to reduce concentrations of total suspended solids at the municipal drinking water intake and associated water treatment costs and water losses. The Nature Conservancy (TNC) found that reductions in sediment treatment cost and water losses offset 80% of the public water company's investment in the watershed conservation program.

Recognising the additional benefits provided by the program, the Balneario Camboriú municipality in Brazil conducted a review of a new water tariff structure that incorporated watershed conservation and would cover the program's full operational costs.

*(TNC, 2017)*



### 3. “You, as a public participation planner, ...”

Public participation can play an important role in balancing diverse interests. Nevertheless, there is no one ideal model of public participation. In practice, various methods have been developed in different countries and jurisdictions attending to local contexts. Participation mechanisms follow local legal requirements and are integrated into the regulatory structure. Methods of engagement can also vary depending on the social perception, state of infrastructure, conditions of water resources, etc. There are no common practices in the water industry—differences are observed in all aspects, usually based on historical factors.

In this Chapter, we introduce the framework that is intended to serve as a baseline for practitioners in articulating risks and benefits associated with the use of public participation in decision-making processes applied in the regulation of services. We use the tariff-setting process to illustrate this, as a guide for designing an adequate public participation programme and as a basis for an international dialogue to promote mutual learning.

“Imagine that you are working for a drinking water service provider. Your boss asks you to carry out public participation for an upcoming tariff revision. But no specific instructions are given to you.”

This is the fictitious situation that the Tools accompanying these Guidelines set out. Below, discussions are arranged to take the perspective of such a public participation planner of the bodies that draft, advise, revise or approve the tariff (hereafter, “sponsoring agency”). Hence, when reading and using the materials, we advise readers to put themselves in the position of a participation planner.

For a public participation planner, the primary and fundamentally important question is most probably “why conduct public participation?”. Yet, there is no one universal answer to it. Objectives need to be defined on the basis of the nature of aims of the decision-making process. For example, in the case of tariff-setting, taking into account relevant socio-economic contexts in each locality. Nevertheless, there are some general benefits for conducting participation. At the same time, there are also risks associated with conducting public participation. We propose in this chapter, after briefly introducing the benefits and risks, a framework for a planner to assess this fundamental question. After going through the three key

stages proposed, one should be able to answer whether public participation is necessary in a given context, and if so, how the programme of participatory activities could be designed.

#### Benefits and risks of public participation

Literature and comments from experts and practitioners agree that there are various benefits of public participation. These benefits are also linked to the functions of participation, which are multiple. We introduce here different angles to sort frequently indicated potential benefits to match the functions of participation (Table 3). These distinctions are theoretical, and in practice all are interlinked. They are not mutually exclusive but rather complementary.

Firstly, public participation can improve the outcome of the decision by ensuring that the decision is sound, normatively equitable and socially acceptable. The quality of decisions can be increased because public participation can supply more complete information relating to facts, values and public expectations. This, in turn, has implications for the durability of the decision and its implementation (Reed, 2008: 2420), or the effective application of service charges. The continuation of public engagement can enhance the process of implementation and produce positive effects in the long term.

Secondly, the different functions of public participation can explain the reason why public participation can enhance the quality outcome and effective implementation of the decision. One can uncover different logics that underpin participatory initiatives by examining each of the pragmatic, normative and sociological lenses: <sup>12</sup>

- **PRAGMATIC LENS.** Public participation can contribute in reaching a reasonable decision. It has practical benefits for sponsoring agencies; the public can inform the agencies what they want. In this way, public participation can be seen as a way of receiving information related to the needs and expectations of the customers for the benefit of the sponsoring agency in drafting and approving tariffs. An opinion raised by the public may add a missing consideration in the draft. The motivation of conducting public participation is to align services to the preferences of customers as it can produce a better outcome and effective implementation in a cost-efficient manner.

**TABLE 3. DIFFERENT BENEFITS OF PUBLIC PARTICIPATION APPLIED TO THE CASE OF TARIFF-SETTING**

|  | <b>OUTCOME</b><br><i>Quality of the tariff structure</i>   | <b>IMPLEMENTATION</b><br><i>Effectiveness of application</i>   |
|--|--|--|
| <b>PRAGMATIC LENS</b><br><i>Practical benefits</i>   | <ul style="list-style-type: none"> <li>▪ Develop the tariff on the basis of the precise data from the public to increase the adequacy and soundness</li> <li>▪ Get new or different insights about tariff structures or processes</li> <li>▪ Receive feedback on the drafted structure to test acceptability factor</li> </ul> | <ul style="list-style-type: none"> <li>▪ Reduce the cost to follow-up complaints and challenges by users</li> <li>▪ Point out previously unanticipated difficulties with a proposed tariff structure</li> <li>▪ Enhance cooperation of users (e.g. water saving, maintenance of infrastructure, separating substances that are not suitable for drains)</li> </ul> |
| <b>NORMATIVE LENS</b><br><i>Social justice</i>       | <ul style="list-style-type: none"> <li>▪ Introduce social security measures to safeguard every person's accessibility to water services</li> <li>▪ Reflect equity among different groups within the society</li> <li>▪ Prevent direct or indirect discrimination to vulnerable groups</li> </ul>                               | <ul style="list-style-type: none"> <li>▪ Avoid judicial challenges of the set tariff</li> <li>▪ Ensure that "no one is left behind" by prices which fit all types of groups affected by tariff revision</li> </ul>   |
| <b>SOCIOLOGICAL LENS</b><br><i>Public perception</i> | <ul style="list-style-type: none"> <li>▪ Better reflect the concerns and the expectations of users</li> <li>▪ Align better with the projection of the public for wider public policies, such as urban design or water resources management</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Gain users' buy-in</li> <li>▪ Increase willingness-to-pay</li> <li>▪ Trust by the public on the sponsor agency and water services operation as a whole</li> </ul>   |

*Our elaboration based on inputs from contributors.*

▪ **NORMATIVE LENS.** Public participation can ensure the production of a just decision. It is a means of addressing social justice and questions related to social equity. The focus is on explaining why a decision made through a specific participation process produces a more just and equitable one, and thus a better decision. The difficulty lies in the fact that values of societies change depending on the region, locality and time. Nevertheless, the minimum standard is crystallised as the concepts of human rights to water and sanitation. The principles and standards emanating from them are useful as the starting point.

▪ **SOCIOLOGICAL LENS.** Public participation can promote the acceptability of a decision. It is a way of dealing with the perception of the public over the decision, for example the new tariff, and the water services management system as a whole. One is probably wearing this lens when talking about public trust or social acceptance. The effect of public participation can be measured against the increased willingness-to-pay or the number of complaints raised by users. Participation activities can also influence the opinions of the public by explaining the circumstances and challenges of water services.



Participation activities are not risk-free. The risks derive from the integral nature of public participation within the decision-making process. In other words, an inadequately implemented participatory programme can produce negative repercussions on the consequences on the decision-making process. Taking the same three lenses defined above, negative consequences of public participation are listed in Table 4.

These risks can be reduced by adequately designing a public participation programme. The major task for a public participation planner is to enhance the benefits and mitigate risks by tailoring the participation programme to fit the specific needs.

**TABLE 4. DIFFERENT RISKS OF PUBLIC PARTICIPATION**

|  | POTENTIAL NEGATIVE CONSEQUENCES  |
|--|--|
| <b>PRAGMATIC LENS</b><br><i>Practical benefits</i>   | <ul style="list-style-type: none"> <li>▪ Little gain of information and changes in the behaviour of the users as opposed to the cost and time devoted to public participation</li> </ul>   |
| <b>NORMATIVE LENS</b><br><i>Social justice</i>       | <ul style="list-style-type: none"> <li>▪ Public participation can legitimise unequal power relationship in decision-making</li> </ul>  |
| <b>SOCIOLOGICAL LENS</b><br><i>Public perception</i> | <ul style="list-style-type: none"> <li>▪ The way public participation is conducted or the failure to meet the expectations of the public can diminish the trust from the public</li> </ul> |

*Our elaboration with inputs from contributors.*

## The “Three Is” framework for enhancing benefits and mitigating risks

Designing an adequate public participation programme is an act of art. There is neither a one-size-fits-all model, nor a simple method of transplanting a case that worked well in one context to another location. Still, as Creighton (2005: 17) states, “there is a systematic way of thinking through the issues that will help produce a successful plan that fits the unique requirements of a particular decision or issue”.

There are in fact some structured approaches to enhance the benefits and mitigate risks of public participation in the context of decisions taken while regulating water services. On the basis of Creighton’s approach and other participation frameworks (see, for example, Wilcox, 1994; Kuwako, 2016), we have developed the following baselines.

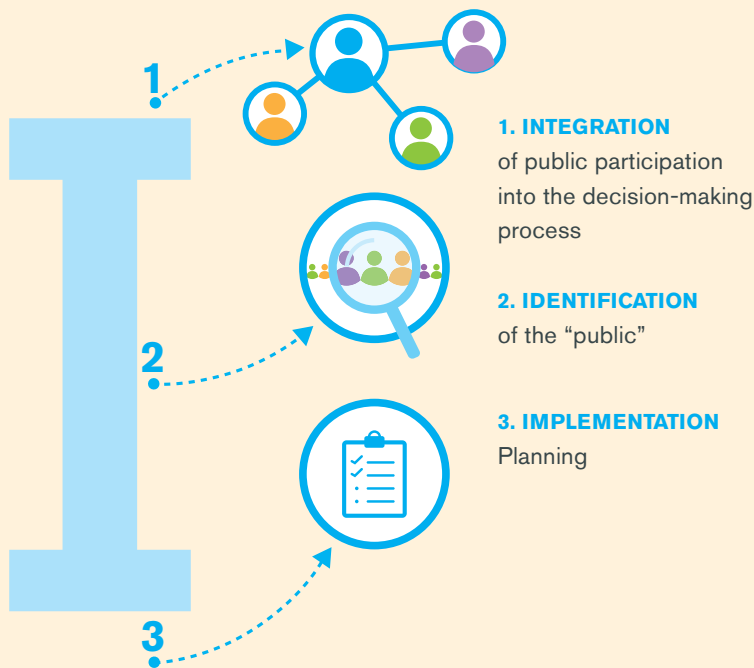
To design a public participation programme to contribute effectively in the decision-making process,

- public participation needs to be **INTEGRATED** into the process of decision-making;
- the “public” needs to be disaggregated on the basis of issues and each stakeholder groups must be **IDENTIFIED**;
- there needs to be a clear strategy for planning **IMPLEMENTATION**.

Each requires that a participation planner

- understands how the inputs from public participation will be reflected in decision-making;
- verifies stakeholders groups and their interests;
- chooses the most suitable technique of participation for each case, understanding the unique risks and benefits, and set the adequate timeline.

## THE “THREE IS” FRAMEWORK:



The first “I”, or stage, draws attention to the tariff-setting process, whereas the second “I” looks at the public, namely the current end users and those who could potentially become users. These two analyses that are conducted separately are then linked by the third “I” through the choice of participation techniques that fit best to the local context.

The succeeding chapters explain each “I” in turn. The order of the discussion here matches the steps of the exercise in the Tools.

## NOTES

<sup>12</sup> There is no consensual terminology for the classification in the literature. Examples of other classifications by some authors include those below:

Reed (2008: 2420) uses normative claim (focusing on benefits of democratic society, citizenship and equity) and pragmatic claim (focusing on the quality and durability of decisions)—corresponding to outcome-normative and implementation-pragmatic and sociological in our classification.

Sharp (2017: 165), although focusing on the rationale rather than functions, lists instrumental rationale (aiming to diffuse conflict, to gain legitimization for a sponsor's policy or to achieve a particular action wanted by the sponsor), substantive rationale (seeking to draw on the variety of other expertise to make better decisions or take better actions), normative rationale (believing in participation for its own sake as a desirable democratic end) and legalistic rationale (involving people because it is required by law)—corresponding to our sociological, pragmatic and normative functions, and international standards discussed above.











## Part 2 – Step-by-step Guide

# Stage A: Integration of public participation into the decision-making process

The question of whether public participation is necessary for the decision-making process in the regulation of services, and if so, how the inputs from the public can potentially contribute in making the regulatory decision, cannot be answered without understanding the nature of the decision in general and specific aims of the revision in each case.

### Step 1: Map your potential counterparts within and outside your institution

- List relevant bodies (departments/units or other bodies) within your institution as well as external institutions, which in the example of a tariff-setting process includes those that:
  - (a) have a responsibility in drafting, revising or approving tariffs, or can provide formal advice;
  - (b) are working in the area that could be affected by the newly set tariff;
  - (c) have competencies or knowledge that would be useful or needed when planning or implementing public participation.

A public participation planner is advised to assess the legal and regulatory settings and possible means of participation by inquiring how they were in the past and how they could be integrated from the present into the tariff-setting process. In doing so, attention is needed on the process of tariff-setting.

#### (a) Counterparts formally involved in the tariff-setting process

During the tariff-setting process, numerous decisions are made, although they may not be a “decision” in a formal sense. Even in the same institution, different departments and bodies are involved in preparing, developing, advising and approving drafts. The process of elaboration is where several considerations are discussed and options are selected. To have public opinion effectively contribute to this process, public inputs need to be supplied at the right time to the right bodies during the decision-making process.

▪ **TARIFF-DRAFTING ENTITIES.** Tariffs are often drafted and proposed by a service provider. Water services are usually provided by the public asset owner (state or local municipality), a public operator owned by the state or the local municipality (which may be different from the asset owner), a private operator (on the basis of a particular public–private partnership) and, rarely, by a private asset owner.

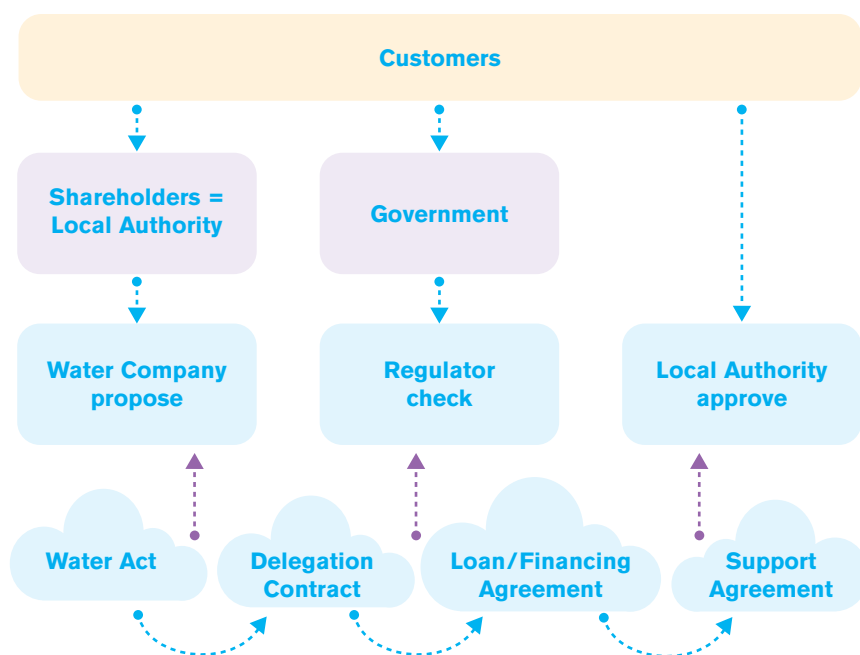
▪ **BODIES WITHIN A TARIFF-DRAFTING ENTITY.** Tariff-drafting involves many organisational departments, units or other bodies such as a board. Each body may have in mind different purposes for the new tariff. Once the new tariff is set, operations of the same or some other units would also be affected in various ways. There could be various stakes in conducting public participation. Some might prefer to avoid prolonging decision-making, while others might like the idea of gaining social support.

▪ **TARIFF-APPROVING ENTITIES.** As the water services sector is a natural monopoly, tariffs are not decided by a service provider, but usually by a public asset owner, an independent regulator, a municipal council or other public entity. There are several different tariff-setting authority models:

- local municipalities approve the tariffs based on legal or official regulatory requirements (usually set by ministry of finance), their own rules and/or contract obligations;
- a national regulator approves the tariffs, with or without licensing the utilities;
- a national regulator reviews the tariff-setting mechanism, but the final decision on the tariff is taken by the government body or by the local municipality.

These entities might set specific requirements or have some expectations for public participation; or, on the contrary, they might disregard the effort of conducting public participation. For practical reasons, it is important to consider at an early stage whether regulatory requirements for public participation, or the expectations on the part of the tariff-approving entity, are clearly communicated to the tariff-drafting entity. It is much more efficient if the tariff-approving entity could express disagreement with the

## TARIFF APPROVAL PROCESS:



Source: Contribution from Teodor Popa: Tariff-setting process in Romania

tariff-drafting entity's public participation plan before its implementation, rather than rejecting the approval of the tariff because of the inadequacy of the process at the last stage of decision-making.

### Tariff-setting process in Romania

There may be several entities with different responsibilities involved in the tariff-setting process. In Romania, the tariffs are proposed by operators, checked by the National Regulating Authority (ANRSC) and approved by the Intercommunity Development Association in the name of local councils, according to a process described in the figure above.

• **ADVISORY ENTITIES.** Some jurisdictions have bodies with authority to give formal advice or an opinion on the tariff during a tariff-setting process. This procedure may or may not oblige the decision-maker to reflect such input or provide justification when rejecting the advice, although such responsiveness may certainly increase the accountability of the decision-making body (OECD, 2015b: 38–39; UNDP-WGI, 2013: 35).

Examples are regulators, inquiry commissions, consumer representative bodies or customer organisations. These entities may have certain expectations for tariff-setting, and their formal advice might include considerations related to participation activities.

### Water Customer Forum in Scotland

The Customer Forum is an example of a body that has a unique institutional structure and function. It is established through a formal Co-operation Agreement between the Water Industry Commission for Scotland (an independent regulator), Citizens Advice Scotland (a registered charity organisation) and Scottish Water (water service provider), for the period of the consideration and processes surrounding the Strategic Review of Charges 2021–2027.

The Forum is established to act as the principal means through which customers' views are incorporated into the Strategic Review Process, but not as being a "representative body" of customer types.

The Forum members are selected because of their broad experience and expertise. The Forum will fulfil its role by devoting time and resources, along with Scottish Water, to establishing what are customers' and communities' needs, views, aspirations and priorities with regard to water services and charges. Informed by the insights they can gain into where customers stand on various issues, the Forum members will then seek to ensure that customers' interests are reflected in Scottish Waters' ambitions and plans. ([www.customerforum.org.uk/](http://www.customerforum.org.uk/))



**TABLE 5. EXAMPLES OF POTENTIAL COUNTERPARTS FOR THE CASE OF TARIFF-SETTING**

|                                       | (A) FORMALLY INVOLVED  | (B) POTENTIALLY AFFECTED BY NEW TARIFF   | (C) COMPETENCY/ KNOWLEDGE   |
|---------------------------------------|--|--|---|
| <b>INTERNAL BODIES</b>                | <ul style="list-style-type: none"> <li>▪ Final decision-maker (e.g. board, executive director)</li> <li>▪ Financial department</li> <li>▪ Operations unit</li> <li>▪ Investment planning</li> <li>▪ Business development</li> <li>▪ Legal department</li> <li>▪ Accounting unit</li> </ul> | <ul style="list-style-type: none"> <li>▪ Trade union</li> <li>▪ Construction and O&amp;M</li> <li>▪ R&amp;D</li> </ul>   | <ul style="list-style-type: none"> <li>▪ Public relations, customer service and communications dept.</li> <li>▪ Legal counsel</li> </ul>  |
| <b>EXTERNAL (PUBLIC) INSTITUTIONS</b> | <ul style="list-style-type: none"> <li>▪ Politicians</li> <li>▪ Ministry</li> <li>▪ Economic regulator</li> <li>▪ Asset owner</li> <li>▪ Water and wastewater service providers</li> <li>▪ Inquiry commission</li> <li>▪ Consumer representative body</li> </ul>                           | <ul style="list-style-type: none"> <li>▪ Contractor</li> <li>▪ Health regulator</li> <li>▪ Water quality inspector</li> <li>▪ Environmental agency</li> <li>▪ Local administration (e.g. land management)</li> <li>▪ Urban planning authorities</li> <li>▪ Social welfare office</li> <li>▪ Statistical offices</li> </ul> | <ul style="list-style-type: none"> <li>▪ Water associations</li> <li>▪ Service providers from neighbouring cities</li> <li>▪ Academia and other experts</li> <li>▪ Local community groups, non-governmental organisations, religious organisations</li> <li>▪ Facilitators and graphic artists</li> </ul> |

*Our elaboration with inputs from contributors.*

### (b) Those that are potentially affected by the new tariff

In addition to the internal bodies and external institutions that are formally involved in the tariff-setting process, there can be other bodies and institutions that have a stake in the tariff-setting process and outcome.

▪ **INTERNAL BODY.** The tariff may affect the overall fiscal conditions. If the tariff is set too low to meet the cost-recovery level, situations can arise where operational costs or investment need to be cut down. Some could be concerned about salary cuts or reductions in research and development budgets.

▪ **EXTERNAL INSTITUTIONS.** The tariff may have implications for investment in various water and wastewater facilities. This may affect the amount of water withdrawal, quality of water discharge, land use and urban management, and other public policies. Electricity or gas providers might also be interested in the level of tariff for water services.

### (c) Those with competency or knowledge required for planning and implementing participation

Skills and expertise of some bodies and institutions might be needed in designing an effective participation plan and its implementation. For instance, some might supply practical information related to public engagement, provide past experiences related to consumer engagement and participatory activities, and assist in implementing participation activities.

▪ **INTERNAL BODY.** Units that engage with consumers, as well as media relations, are essential points of consultation for a participation planner. Also, legal counselling to meet regulatory conditions will be needed.

▪ **EXTERNAL INSTITUTIONS.** Experiences of other institutions might provide useful information. Assistance from participation specialists could also be beneficial.

All the bodies and institutions identified above can be potential “counterparts” (Table 5) with whom a public participation planner may need to work on the planning and implementation of public participation activities.

## Step 2: Verify with the counterparts the purposes of the decision-making process

- Ask counterparts who are
  - (a) formally involved, views about the current problem that will be solved through the new tariff, and
  - (b) potentially affected, views about how their work will be affected by the new tariff.

To effectively engage with decision-makers so that they take into account the results of public participation, a public participation planner needs to ensure that they understand well how they perceive the issues related to tariff-setting.

It could be useful to talk with (a) formally involved counterparts to understand the primary interests. Refer to Table 2 for the major policy goals that are usually reflected in the tariff, including cost recovery, economic efficiency, social concerns and environmental sustainability. The counterparts may have requirements under regulations to consider specific aspects of these policy goals.

Also, understanding the interests of (b) potentially affected counterparts may give an overall idea of whether there is a generally shared understanding of the purpose of the upcoming tariff revision, or whether some actually have different opinions about it.

## Step 3: Understand what can hold you back from pursuing public participation

- List attitudes of individual staff, institutional culture or other constraints, which can restrain your work as a public participation planner.

Designing public participation needs to begin by understanding the relevant legislative and regulatory requirements. Apart from formally required processes, non-regulated participation can also take place if the regulatory environment allows it.

To provide some examples of formal settings, in some jurisdictions consumer engagement is left to service providers, which is then monitored and assessed by a regulatory body at the time of tariff proposal (e.g. England and Wales; Victoria, Australia). There are also jurisdictions

where a regulatory body conducts a public hearing during the tariff-approval procedure (e.g. Bulgaria). Several lines of communication channels can also be established. In Kenya, for instance, public opinions can be supplied through constant meetings at service provider level, at regular meetings at asset-owner level and at biannual meetings with the regulator. Independent advisory bodies may also exist, such as a consumer representative body or a forum (e.g. Scottish Customer Forum) covering the entire jurisdiction, or an inquiry commission established according to administrative procedural requirements at each service delivery area (e.g. Japan).

Depending on the regulatory model, procedures for public participation differ. For instance, public participation might be of less concern in a country where the institutional setting requires elected politicians to make a final decision on the tariff. In such a setting, political participation can supply a democratic basis for such decisions, which is not the case for the independent regulator model (Sanz et al., 2011).

A public participation planner may influence to change the existing institutional setting. However, assuming that the planner needs to act within the current regulatory framework, there can be many causes of reducing the effectiveness of participation activities, or even some hurdles for conducting any at all.

The effectiveness of administrative participation highly depends on the mindset of each institution, unit and person involved in the lengthy process of tariff-setting. The ideal situation is one in which the person in charge of the tariff-setting process sees the public participation programme as an integral part. However, if relevant parts of your organisation do not commit to the plan or do not understand their responsibilities to make the plan happen, or the legislative requirements of the tariff-setting process do not allow for such, implementation is weakened.

To increase the effectiveness of public participation, it is important to involve the decision-makers in planning public participation as early as possible. The involvement at an early stage may also help in assessing whether public participation is needed in the first place (and if not, why) and how it can be integrated into the process of tariff-setting.

**TABLE 6. EXAMPLES OF RESTRAINTS IN EFFECTIVELY INTEGRATING PUBLIC PARTICIPATION INTO THE TARIFF-SETTING PROCESS**

|                                  |  |
|----------------------------------|--|
| <b>RETICENCE OF STAFF</b>        | <ul style="list-style-type: none"> <li>▪ The culture to follow a precedent; past non-participatory decision-making process are followed</li> <li>▪ Trusts in their expertise; scepticism on the usefulness of the data and proposals from the public</li> <li>▪ Reluctance to take up additional works associated with public participation activities (e.g. preparation of materials, attendance at meetings)</li> <li>▪ Concerns over “waking up” the dormant negative opinions and generate public discontent</li> <li>▪ There is opposition within the institution to conducting public participation</li> </ul> |
| <b>DISTORTED PRAGMATISM</b>      | <ul style="list-style-type: none"> <li>▪ The decision-maker is already committed to a particular decision or outcome (public participation is a sham); public opinions are not taken into account in the drafting of the tariff</li> <li>▪ Forms and techniques of participation might be chosen for the benefit of authorities</li> </ul>   |
| <b>INSTITUTIONAL CONSTRAINTS</b> | <ul style="list-style-type: none"> <li>▪ Different understanding of the requirements or the usefulness of public participation among different bodies involved in the tariff-setting process</li> <li>▪ The relevant legislative or procedural requirements are not clear or do not allow for certain actions</li> <li>▪ Tight schedule, or scarce financial and human resources</li> </ul>  |

*Our elaboration based on Creighton (2005), Kuwako (2016) and inputs from contributors.*







## Stage B: Identification of the “public”

As explained above, there is no absolute formula that can objectively set a “good” decision; there is a need to turn to the public to provide opinions about what is “good” to them. The “public”, however, is never a homogeneous group. It consists of individuals and groups who have different interests in the way their society is administered. This stage is what is often termed in the literature as “stakeholder analysis”.<sup>13</sup>

### Steps 4 and 5: Identify relevant interests; and Describe the stakeholders

- List the interests, needs and concerns that may potentially exist among the public in relation to the tariff-setting. Take different “lenses” to identify them.
- List the identifiable groups corresponding to Step 4.

The analysis of existing issues and the identification of stakeholder groups are parallel processes (Creighton, 2005). Importantly, a group of stakeholders may not correspond to the scope of the issues in a society. Participants should not be “labelled” for their positions (Kuwako, 2016). Stances and nuances of their opinions may easily change during the course of open dialogues, learning and reflections. The focus should not be on the position they hold—“for”, “against” or “neutral”—but rather on understanding the interests underlying those positions, which can uncover hidden concerns or problems. A careful approach is needed to understand those concerns and to find ways of making progress. In this stakeholder analysis, one can take the lenses introduced earlier to identify issues and stakeholder groups from different angles.

• **PRAGMATIC LENS (PRACTICAL BENEFITS).** This perspective considers information that is needed from the standpoint of the tariff-drafting and tariff-approving entities, such as the current state of the willingness-to-pay of the public. This can go further to larger policy objectives, as discussed in Stage A, such as the vision for future water services. Through this lens, a planner can identify the aspects in the tariff-setting that people may contribute to supplement the knowledge of the drafting and approving bodies, and get back to the public with such questions.

• **NORMATIVE LENS—THE HUMAN RIGHTS FRAMEWORK (SOCIAL JUSTICE).** Human rights to safe drinking water and sanitation oblige countries and public authorities to implement public participation to ensure that tariff structure does not deprive people of the possibility of access to water and sanitation services, and that the costs do not compromise the realisation of other human rights and access to basic needs. To secure accessibility, it is a requirement that regard is given to underrepresented and marginalised groups so that they have the opportunity to participate meaningfully in decision-making (Bos, 2016: 29).

For instance, United Nations General Assembly resolution 70/169 (2015) calls upon Member States to consult and coordinate with local communities and other stakeholders, including civil society and the private sector, on adequate solutions to ensure sustainable access to safe drinking water and sanitation.<sup>14</sup>

Human rights to safe drinking water and sanitation require that water facilities and services must come at a price that is affordable to all people. Although this is a simple statement, its practical implications are complex. There is no yardstick for affordability, even though some development agencies apply a threshold in a range of 3–5% of household income. However, it requires caution as it ignores income inequalities and contextual differences in purchasing power. Where access levels are low in rapidly expanding communities, the connection costs can be a significant part of the total service cost. They will also be above average for populations in sparsely populated areas. Connection costs may represent a high one-off expenditure for households and one they cannot afford. Affordability also can relate to the method of payment. For those who are living in poverty, it is not conceivable to put money aside to pay monthly water bills. Their reality is to meet their basic needs on a daily basis, frequently paying in small amounts.

The concept of willingness-to-pay will have greater prominence in the affordability of sanitation services than for drinking water supply services, as sanitation is often not a priority expenditure compared with water, food and medicine. It is generally assumed that facility ownership is an incentive for households to invest to the maximum extent possible for its maintenance (Bos, 2016: 21–22, 26).

**TABLE 7. EXAMPLES OF GROUPS REQUIRING SPECIFIC CONSIDERATIONS**

|  |  |
|--|--|
| <b>Those in need of a higher-than-average share of water and sanitation services</b> | People with disabilities and sickness, specific work conditions  |
| <b>Those whose voice tends to be marginalised</b>                                    | Children and youth, people with disabilities, ethnic and racial minorities, indigenous peoples, women, informal settlers, poor populations |
| <b>Those who are often put in the periphery for services provision</b>               | Those who are currently not serviced. For example, services that are frequently designed by men but used by women                          |
| <b>Facilities that require specific considerations</b>                               | Hospitals, schools, shelter (in case of disaster)  |

Given these concerns related to pricing in water services, the literature, in general, identifies the groups listed in Table 7 as often requiring specific attention (Bos, 2016; UN Special Rapporteur, 2014b; OECD, 2015a: Principle 10 b).

• **SOCIOLOGICAL LENS (PUBLIC PERCEPTION).** The sociological lens focuses on the public's perception of the tariff-setting process and its trust on the water services system as a whole. Different groups in a society may carry different perceptions.

Tariff-setting might also be affected by different social issues. The present opinions might be affected by the previous controversy of the tariff revision, tariff-setting is tied-in to another major political issue or public opinion is shaped by a strong opinion leader.

## Step 6: Take note of any special circumstances that require additional action

- For each stakeholder, consider:
  - who may be left unreached;
  - who may have difficulties in participating;
  - who may be unwilling to participate.

Not all residents will participate. Some may deliberately choose not to participate, but there could be some causes of non-participation. It is important to consider specific circumstances that may hinder participation of some groups.

• **STAKEHOLDERS NOT REACHED.** Onus lies on the sponsoring agency to reach out to the stakeholders. Nevertheless, it might not be straightforward to identify all stakeholder groups. One of the values of planning in a

team is that the team will be able to identify a much more comprehensive and specific list of stakeholders that any one individual could. It is also important to ensure that participants are involved in the design of the planning. There are many ways to identify potential stakeholders:

- get people to self-identify;
- identify on the basis of staff knowledge;
- analyse previous decision-making documents;
- identify on the basis of past participation on similar issues;
- ask stakeholders who have already been identified.

In developing parts of the world, the large size of communities makes it much more difficult to establish coherent community groups; this is a problem that is compounded in peri-urban areas in which communities have grown rapidly and haphazardly, without the benefit of established community spirit and values (Rouse, 2013: 122). In such cases, there might be a need to provide assistance to develop the sense of affiliation to a community.<sup>15</sup>

• **INABILITY TO PARTICIPATE.** The former UN Special Rapporteur (Catarina de Albuquerque) explains that to ensure “active, free and meaningful” participation, the human rights framework requires that attention is given to the way participation occurs (UN Special Rapporteur, 2014a, 2014b):

- Involving people in setting out the terms of participation. The choice of mode of participation determines whether people will be willing and able to participate. The involvement of the people in designing participation activities can help to decide on venues, times and appropriate and comfortable methods of communication (e.g. face-to-face or online).



**TABLE 8. DIFFERENT LEVELS OF WILLINGNESS-TO-PARTICIPATE**

| TYPES OF PUBLIC     | CHARACTERISTICS   |
|---------------------|---|
| ACTIVE PARTICIPANTS | Those who will commit the time and energy   |
| COMMENTERS          | Those very interested in the issue, but do not devote much time or other resource           |
| OBSERVERS           | Those who read relevant documents, but do not raise voice unless they become very concerned |
| APATHETICS          | Those who choose not to participate   |

*Adapted from Creighton (2005).*

- Enabling people to access participatory activities. Barriers may relate to language, literacy, meeting times, venue, advance registration and physical access. Specific considerations might be required for people with disabilities, those who are illiterate or those without internet access.

Guaranteeing free expression and the safety of participants might also be important considerations. When marginalised groups are able to take part in meetings, they often exercise self-censorship, being intimidated either by the presence of others with “higher” status or formal procedure (UN Special Rapporteur, 2014b: 12).

The mode of participation can also provide biased views. In some cultures, male participants might be higher in number. Or, the daytime workshop might only attract housewives and retired persons. Each group may have different views on the current tariff and interests for future investments. For instance, having children in the meeting might be helpful in identifying considerations for future generations while reconciling inter-generational conflicts.

▪ **STAKEHOLDERS’ WILLINGNESS-TO-PARTICIPATE.** As Rouse (2013: 121) points out, once a good service level is achieved, most people do not take much interest until they receive a bill or something goes wrong. The situation changes when there are drought conditions and water usage is restricted, or when there is a pollution incident. However, by and large, “out of sight and out of mind” applies most of the time. On the other hand, the public expect to receive accurate and timely information to give reassurance on drinking water quality and on the protection of the environment. The public becomes very concerned if they suspect that something is being hidden, or if they feel that they are paying excess charges for their service.

There is a spectrum of activeness in participation among the public. Some are willing to provide their opinions, while others may be indifferent (Table 8).

The so-called “silent majority” may still have opinions. Keeping them “dormant” may result in a backlash at the final stage of tariff-setting or may hinder effective implementation (Kuwako, 2016).

## NOTES

<sup>13</sup> The scope of the term “stakeholder” is usually much larger than the focus of this Guidelines publication (see OECD, 2015b). Examples of broadly defined stakeholders include institutions whose operations will be affected by the new tariff, such as an asset owner, service provider, syndicates, associations; industrial users and industrial associations; media; academics and experts. This Guidelines publication focuses on the interests of household users. Some of the “internal” stakeholders within the tariff-setting process were discussed in Stage A.

<sup>14</sup> The UN General Assembly and the Human Rights Council called upon Member States to consult and coordinate with local communities and other stakeholders in 2013 and 2012, respectively (A/RES/68/157 and A/HRC/RES/21/2). The non-exhaustive list of actors in resolution 70/169 emphasises the importance of the need to consult with a variety of actors.

<sup>15</sup> The World Bank looked at principles and practices of how and when participation works, in this case specifically for development activities around the world. A distinction was made between “organic participation” (endogenous efforts by civic activists to bring about change) and “induced participation” (participation promoted through policy actions of the state and implemented by bureaucracies), emphasising the need of investment for the former mode (Mansuri & Rao, 2013).

## Tokyo Waterworks Water Safety Check Project—Tokyo Metropolitan Government

The project is an initiative to visit all 7.5 million household users in 4 years. There are two purposes of this project:

- firstly, that all customers understand the operations of the Bureau of Waterworks of the Tokyo Metropolitan Government and related bodies and project, and realise the high quality of supplied water;
- secondly, by visiting each household, the Bureau understands the detailed needs of the customers to be reflected in its operations.

Each visit to a household conducts a simple water leakage examination (checking the meter) and a simple water quality examination (visual, electrical conductivity and concentration of residual chlorine). Results are shown and explained to the customer, the questionnaire is collected and questions are answered.

*(Contribution of Kazuya Naito, TSS Tokyo Water Co., Ltd.; see the separate Case Study in Appendix 4 for details.)*

## Fairness is a baseline to gain social trust

In Phnom Penh city, some army installations, government offices and senior officials of the government and the army had not historically paid any water bills. Their unwillingness-to-pay continued after formal requests. In 1997, the Prime Minister publicly proclaimed that every person and institution had to pay their water bills, although the transition process was difficult. Ek Son Chan, who led the water supply authority at the time, took courageous steps to ensure that all its customers paid, including those who had privileges in the past.

*(Based on Biswas & Tortajada, 2010.)*



## Stage C: Implementation planning

The risk that arises from conducting public participation may originate in the mismatch between the attitudes of decision-makers (discussed in stage A) and the relevant interests of the public (discussed in stage B). A public participation planner can mitigate such risk and promote the benefits of public participation by fitting appropriate participation techniques at the right time into the decision-making process. The public will know a well-planned process. It is essential to inquire of oneself, “Can I explain to the public the procedure through which their inputs will be considered in the decision-making process?” (Kuwako, 2016).

### Step 7: Identify the key phases in the decision-making

- List the key phases in the tariff-setting process where public opinions should be considered.

Public opinion needs to be supplied to the tariff-drafting and -approving bodies at the right time: that is, neither too early nor too late. Those who are making a real decision might not be the people at the highest rank or the board of the institution. Some decisions are made before the final and formal one. To maximise the effects of public participation and to reduce the risk of seeing public inputs as “surprise” or with an “unexpected twist at the end”, it is important to identify phases within the decision-making process where public opinion should be heard.

▪ **DEFINING VISION AND SERVICE PLANS.** Tariff-setting needs to be guided by the long-term vision of the water services management. It may also relate to the planning of investment and operations of water services. Input in this phase may determine the very issue based on which tariff revision will be discussed.

▪ **CHOOSING FROM ALTERNATIVE PLANS.** There can be some proposals on different scenarios for future services management. For instance, different proposals could be shown by the sponsoring agency as to whether to provide a better service requiring a higher tariff, or to keep the current service level with the same tariff.

▪ **DRAFT AND REVISIONS.** Once the draft is prepared, the question will be more focused on the balance within the tariff structure.

▪ **FINAL DRAFT.** Public opinion may be considered at the time of approval. This is when the most people will get concerned about the issue, but a major change in direction may be difficult. At this stage, a tariff-approving entity may check if all the important considerations were included in the proposed structure.

### Step 8: Define objectives of public participation activities

- For each phase, define what you need to accomplish with the public by the end of each phase in the tariff-setting process.

“What do we need to accomplish with the public by the end of each stage in the decision-making process?” (Creighton, 2005).

This question needs to be posed for each phase in the tariff-setting process.

Objectives of public participation align the functions of public participation. On the basis of the lenses we identified above, some questions can be formulated, as shown in Table 9.

A trend can also be observed towards making the objectives of participation more visible (see, for example, Ben-David, 2016: 10).



**TABLE 9. QUESTIONS IN RELATION TO THE OBJECTIVES OF PUBLIC PARTICIPATION THROUGH DIFFERENT LENSES**

|  |   |
|--|---|
| <b>PRAGMATIC LENS</b><br><i>Practical benefits</i>   | Is there any need to receive information related to any type of public expectations?        |
| <b>NORMATIVE LENS</b><br><i>Social justice</i>       | Is there any concern that the tariff may undermine social equity and rights of some people? |
| <b>SOCIOLOGICAL LENS</b><br><i>Public perception</i> | Is there any concern owned by the some over the tariff-setting process or your institution? |

*Our elaboration based on inputs from contributors.*

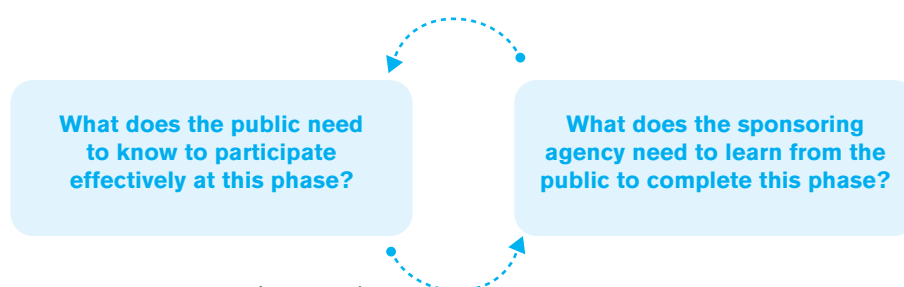
As pointed out earlier, information provision is a prerequisite for participation (see Figure 1). Unless public opinion is formed on the basis of sound knowledge, conflicting opinions will not be resolved. Public participation activities thus need to synergise with background analyses for tariff revision, including the current financial state, infrastructure conditions or prediction of future circumstances, as well as other technical studies such as urban plans, regional master plans, feasibility studies, etc. Consultation with counterpart units and institutions is needed in preparing the schedule so that study results can effectively inform communications to the public and therefore not only genuine but also informed public opinion can be received (Figure 2).

**FIGURE 2. SEQUENCE OF TECHNICAL STUDIES AND PUBLIC PARTICIPATION ACTIVITIES**



To determine what information to supply, it is necessary to define the type of information needed from the public. In practice, the process is a spiral (Figure 3).

**FIGURE 3. RELATIONSHIP BETWEEN INFORMATION PROVISION AND PARTICIPATION**



*Based on Creighton (2005: 63)*

## Step 9: Select appropriate participation techniques for each objective

- Brainstorm which participation techniques would best fit the objectives of public participation identified in Step 8.
- Come back to Step 3 and Step 6 to check the feasibility of the techniques.

The key here is to identify the technique that can link the considerations in the tariff-setting process and the value choices of the public, while paying attention to constraints and risks of public participation.

There is a whole range of participation techniques developed and used in different parts of the world (OECD, 2015b: Ch. 5; Rouse, 2013: Ch. 5). It is not our intention, however, to showcase sophisticated tools and explain methodologies. Rather, given the focus on the initial phase of designing a public participation programme, some basic techniques are presented below (Table 10).

The use of each technique should be synergised with the whole participation programme. Preparation for each participation activity and its follow-up are an essential component of the participation activity itself. Small ideas may produce a big change. For instance, in targeting the younger generation, the use of social media or other online methods could be useful. Different techniques could also be combined to produce synergetic effects.

Legitimately, you may reach the conclusion that there is no need for public participation at all given your local circumstances. Our suggestion, however, is to go through each "I" carefully before rushing to conclusions.

**TABLE 10. EXAMPLES OF PARTICIPATION TECHNIQUES**

| TECHNIQUES  | CHARACTERISTICS  | INFORMATION PROVISION   | PUBLIC INPUT  |
|---|--|---|---|
| <b>SURVEY</b>   | <ul style="list-style-type: none"> <li>▪ Easy to implement</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Weak</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Predetermined questions, large data</li> </ul>                                     |
| <b>PUBLIC COMMENT</b>   | <ul style="list-style-type: none"> <li>▪ Easy to implement</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Weak</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Qualitative data, but hard to follow-up</li> </ul>                                 |
| <b>PUBLIC HEARING</b>   | <ul style="list-style-type: none"> <li>▪ Transparent (inputs are heard by others)</li> </ul>                               | <ul style="list-style-type: none"> <li>▪ Possible to combine</li> </ul>                                   | <ul style="list-style-type: none"> <li>▪ Can be controlled by sponsoring agency</li> </ul>                                  |
| <b>OPEN HOUSE</b>   | <ul style="list-style-type: none"> <li>▪ Flexibility in visiting</li> <li>▪ Less visible by others</li> </ul>              | <ul style="list-style-type: none"> <li>▪ Can be tailored to the interest</li> </ul>                       | <ul style="list-style-type: none"> <li>▪ Individual level</li> </ul>  |
| <b>WORKSHOPS / FOCUS GROUPS</b>                               | <ul style="list-style-type: none"> <li>▪ Small number</li> <li>▪ Interactive</li> </ul>                                    | <ul style="list-style-type: none"> <li>▪ Can be tailored to the interest</li> </ul>                       | <ul style="list-style-type: none"> <li>▪ Opinions may change</li> </ul>   |
| <b>EXPERT COMMENT</b>   | <ul style="list-style-type: none"> <li>▪ Concrete opinions and advice can be received</li> <li>▪ Easy to manage</li> </ul> | <ul style="list-style-type: none"> <li>▪ Extensive provision to experts but weak to the public</li> </ul> | <ul style="list-style-type: none"> <li>▪ Not direct input from the public</li> </ul>  |
| <b>CONSULTATION WITH ADVISORY ENTITIES / COMMUNITY GROUPS</b> | <ul style="list-style-type: none"> <li>▪ (Semi) permanent</li> <li>▪ Represent interest</li> </ul>                         | <ul style="list-style-type: none"> <li>▪ Strong</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Carry weight, certain degree of expertise</li> <li>▪ Representativeness</li> </ul> |

## Public participation as a regulatory requirement in Victoria, Australia

The Essential Services Commission of Victoria, Australia, has departed from monitoring the engagement process. What are required in the tariff proposal are the outcomes that the service providers will be delivering to their customers. Such outcomes need to reflect the concerns, priorities and preferences of the customers, which are learned through consultation processes.

*(Ben-David, 2016).*

## Public participation as a regulatory requirement in England and Wales

The economic regulator in England and Wales, Ofwat, has moved to an “assurance framework” approach to reward water utility companies with a “lighter touch” economic regulation. This approach applies where companies can demonstrate they have followed rigorous processes to engage customers in developing business plans. If they can demonstrate that customers approve of their business plans, water companies receive a less intrusive, less arduous regulatory appraisal by Ofwat, at each of the 5-yearly price review processes.

*(Contribution from Duncan Thomas.)*

## Public participation as a regulatory requirement in Bulgaria

In Bulgaria, the water utility submits a 5-year business plan to the national regulator who approves it and the tariffs. The business plan needs the approval of all the local municipalities in the service area of the operator, and the state governor. The regulator conducts a public hearing, where any institution and customer can provide a statement.

*(Contribution of Ivaylo Kastchiev; see the separate Case Study in Appendix 3 for details.)*

## Experiencing the disruption of water—Matsue City (population approximately 200,000)

Matsue City Waterworks Bureau's emergency response drill goes one step further than conventional training. In one neighbourhood of the city, the bureau staff visited houses in the morning to shut off water with prior consent from residents. Meanwhile, a water truck arrived in the neighbourhood to provide water needed for their daily life. For some two and a half hours, residents voluntarily experienced the hardships of a hot summer day with a dry tap. Importantly, the drill was followed by a meeting with the neighbourhood's residents to exchange opinions about the exercise with the bureau staff.

There were two reasons for conducting this drill. Firstly, the simulation training had become formalistic and started to lose substance and impact. Training was conducted every year, but there were doubts about whether participants understood what it actually meant to have no access to drinking water and sanitation services.

Secondly, the exercise was conducted as part of a public communication strategy. The exercise was a good way to get stakeholder buy-in for the investment in ageing infrastructure.

*(<http://www.iwa-network.org/the-truth-of-inconvenience-why-disrupt-water-management-in-a-time-of-universal-water-provision/>)*





# References

- Alexander, I. & Irwin, T. (1996). *Price Caps, Rate-of-Return Regulation, and the Cost of Capital, Public Policy for the Private Sector*. The World Bank Group, Note No. 87.
- Armstrong, M. et al. (1994). *Regulatory Reform: Economic Analysis and British Experience*, p. 172. Cambridge, MA: MIT Press.
- Arnstein, S.R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners* 35 (4), 216–224. [lithgow-schmidt.dk/sherry-arnstein/ladder-of-citizen-participation.html](http://lithgow-schmidt.dk/sherry-arnstein/ladder-of-citizen-participation.html)
- Ben-David, R. (2016). *The Role of Customers in Victoria's New Water Pricing Framework*. [www.esc.vic.gov.au/publications/36054-the-role-of-customers-in-victorias-new-water-pricing-framework/](http://www.esc.vic.gov.au/publications/36054-the-role-of-customers-in-victorias-new-water-pricing-framework/)
- Biswas, A. & Tortajada, C. (2010). Water supply of Phnom Penh: an example of good governance. *Water Resources Development* 26 (2), 157–171.
- Bos, R. (2016). *Manual of the Human Rights to Safe Drinking Water and Sanitation for Practitioners*. London: IWA Publishing. DOI: 10.2166/9781780407449
- Creighton, J.L. (2005). *The Public Participation Handbook: Making Better Decisions Through Citizen Involvement*. San Francisco, CA: John Wiley.
- Franceys, R.W.A. & Gerlach, E. (2011). Consumer involvement in water services regulation. *Utilities Policy* 19 (2), 61–70.
- IWA (2014). *The Lisbon Charter*. [www.iwa-network.org/publications/the-lisbon-charter/](http://www.iwa-network.org/publications/the-lisbon-charter/)
- IWA (2016a). *Resolution on Achieving the Sustainable Development Goals*. <http://www.iwa-network.org/news/iwa-adopts-resolution-on-achieving-the-sustainable-development-goals/>.
- IWA (2016b). *The IWA Principles for Water Wise Cities*. [http://www.iwa-network.org/projects/water-wise-cities/#download\\_the\\_principles](http://www.iwa-network.org/projects/water-wise-cities/#download_the_principles)
- Kuwako, T. (2016). *Project Management of Social Consensus Building*. Corona Publishing. [In Japanese.]
- Mansuri, G. & Rao, V. (2013). *Localizing Development: Does Participation Work? Policy Research Report*. Washington, DC: World Bank. <http://hdl.handle.net/10986/11859>
- Massarutto, A. (2007). Water pricing and full cost recovery of water services: economic incentive or instrument of public finance? *Water Policy* 9, 591–613.
- Muzzini, E. (2005). *Consumer Participation in Infrastructure Regulation*. World Bank Working Paper, No. 66. Washington, DC: World Bank. [hdl.handle.net/10986/7383](http://hdl.handle.net/10986/7383)
- OECD (2010). *Pricing Water Resources and Water and Sanitation Services*. Paris: OECD Publishing. DOI: 10.1787/9789264083608-en or [www.keepeek.com/Digital-Asset-Management/oecd/environment/pricing-water-resources-and-water-and-sanitation-services\\_9789264083608-en](http://www.keepeek.com/Digital-Asset-Management/oecd/environment/pricing-water-resources-and-water-and-sanitation-services_9789264083608-en)
- OECD (2015a). *OECD Principles on Water Governance*. Paris: OECD Publishing. [www.oecd.org/governance/oecd-principles-on-water-governance.htm](http://www.oecd.org/governance/oecd-principles-on-water-governance.htm)

OECD (2015b). *Stakeholder Engagement for Inclusive Water Governance*. Paris: OECD Publishing. DOI: 10.1787/9789264231122-en or [www.keepeek.com/Digital-Asset-Management/oecd/governance/stakeholder-engagement-for-inclusive-water-governance\\_9789264231122-en#](http://www.keepeek.com/Digital-Asset-Management/oecd/governance/stakeholder-engagement-for-inclusive-water-governance_9789264231122-en#). WTfCrWjyhE

OECD (2015c). *The Governance of Water Regulators*. Paris: OECD Publishing. DOI: 10.1787/9789264231092-en or [www.keepeek.com/Digital-Asset-Management/oecd/governance/the-governance-of-water-regulators\\_9789264231092-en#](http://www.keepeek.com/Digital-Asset-Management/oecd/governance/the-governance-of-water-regulators_9789264231092-en#). WTfCz2jyhE

Reed, M.S. (2008). Stakeholder participation for environmental management: a literature review. *Biological Conservation* 141 (10), 2417–2431.

Rouse, M. (2013). *Institutional Governance and Regulation of Water Services*, 2nd edition. London: IWA Publishing.

Sanz, M.P., Schouten, M. & Hantke-Domas, M. (2011). Consumer-inclusive economic regulation: water pricing under different regulatory regimes. *Water Policy* 13 (4), 459–470. DOI: 10.2166/wp.2011.126.

Sharp, L. (2017). *Reconnecting People and Water: Public Engagement and Sustainable Urban Water Management*. London: Earthscan.

TNC (2017). *Assessing the Return on Investment in Watershed Conservation: Best Practices Approach and Case Study for the Rio Camboriú PWS Program*. <https://global.nature.org/content/how-to-assess-the-return-on-investment-in-watershed-conservation>

UN (2017). Sustainable Development Knowledge Platform, <https://sustainabledevelopment.un.org/sdg6>

UNDP Water Governance Initiative and UNICEF (2015). *Accountability in WASH: Explaining the Concept*.

UNDP Water Governance Initiative, SIWI and WIN (2013). *User's Guide on Assessing Water Governance*.

UN Special Rapporteur (de Albuquerque, C.) (2014a). *Report of the Special Rapporteur on the Human Rights to Safe Drinking Water and Sanitation*, A/69/213. [undocs.org/a/69/213](http://undocs.org/a/69/213)

UN Special Rapporteur (de Albuquerque, C.) (2014b). *Realizing the Human Rights to Water and Sanitation: A Handbook, Principles*. <http://www.ohchr.org/EN/Issues/WaterAndSanitation/SRWWater/Pages/Handbook.aspx>

WAREG (European Water Regulators) (2017). *Affordability in European Water Systems*. <http://www.wareg.org/>

Wilcox, D. (1994). *The Guide to Effective Participation (Partnership)*. <http://partnerships.org.uk/guide/index.htm>

WHO (2017) *UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS)*. Geneva: World Health Organization.

# Appendix 1: Legal basis for public participation under international human rights law

| INTERNATIONAL COVENANT ON ECONOMIC, SOCIAL AND CULTURAL RIGHTS             |  | 1966 |
|--|--|------|
| Article 2 (1)  | Each State Party to the present Covenant undertakes to take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures.   |      |
| Article 11 (1)   | The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions. The States Parties will take appropriate steps to ensure the realization of this right, recognizing to this effect the essential importance of international co-operation based on free consent.   |      |
| INTERNATIONAL COVENANT ON CIVIL AND POLITICAL RIGHTS                       |  | 1966 |
| Article 25 (a)   | Every citizen shall have the right and the opportunity [...]: To take part in the conduct of public affairs, directly or through freely chosen representatives   |      |
| CONVENTION ON THE ELIMINATION OF ALL FORMS OF DISCRIMINATION AGAINST WOMEN |  | 1979 |
| Article 7 (b)  | States Parties [...] shall ensure to women, on equal terms with men, the right: [...] To participate in the formulation of government policy and the implementation thereof and to hold public office and perform all public functions at all levels of government   |      |
| Article 14 (2)   | States Parties shall take all appropriate measures to eliminate discrimination against women in rural areas to ensure, on a basis of equality of men and women, that they participate in and benefit from rural development and, in particular, shall ensure to such women the right: (a) To participate in the elaboration and implementation of development planning at all levels   |      |
| CONVENTION ON THE RIGHTS OF THE CHILD                                      |  | 1989 |
| Article 12 (1)   | States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.  |      |
| CONVENTION ON THE RIGHTS OF PERSONS WITH DISABILITIES                      |  | 2006 |
| Article 3  | The principles of the present Convention shall be: [...] (c) Full and effective participation and inclusion in society.  |      |
| Article 29   | States Parties shall guarantee to persons with disabilities political rights and the opportunity to enjoy them on an equal basis with others, and shall undertake to: (a) Ensure that persons with disabilities can effectively and fully participate in political and public life on an equal basis with others, directly or through freely chosen representatives [...]  |      |
| INDIGENOUS AND TRIBAL PEOPLES CONVENTION (ILO NO. 169)                     |  | 1989 |
| Article 6  | In applying the provisions of this Convention, governments shall:<br>(a) consult the peoples concerned, through appropriate procedures and in particular through their representative institutions, whenever consideration is being given to legislative or administrative measures which may affect them directly;<br>(b) establish means by which these peoples can freely participate, to at least the same extent as other sectors of the population, at all levels of decision-making in elective institutions and administrative and other bodies responsible for policies and programmes which concern them |      |



## Appendix 2: **Tariff-setting methodologies**

The most commonly used methods worldwide to prevent monopolistic infrastructure companies from charging excessively high prices to customers are rate of return (ROR) and price-cap regulation (Alexander & Irwin, 1996). The main difference between the two regulatory approaches can be described with the following concept: “As a rough characterization, under rate-of-return regulation reviews are frequent, and the regulatory lag is endogenous because either side can request a review, whereas under price caps the lag is relatively long, and the date of the next review is fixed in advance. The difference is one of degree rather than kind.” (Armstrong et al., 1994).

Both approaches step more or less on the same building blocks—operational costs, depreciation, taxes, and weighted average cost of capital (rate base multiplied by the allowed rate of return). The differences are the following: under ROR regulation, costs are determined on the basis of past period, usually the past year, whereas under the price-cap, the costs are determined on the basis of future prognosis. The duration of the price control period is not fixed in ROR regulation, and next price review takes place whenever the company or regulator requests it. The regulatory period is predetermined in price-cap (usually up to 5 years), and subsequent price reviews are strictly regulated.

Originally, ROR regulation was established for the public to control the level of company profits, and thus this method does not encourage any efficiency. It ensures cost recovery and reduces the risk for the utility, but there is no stimulation to improve service quality and/or to reduce costs. Price-cap is considered an incentive regulation that stimulates companies to achieve costs optimisation. It requires long-term planning, and is usually related to increases in service quality. The risk for the utility is much higher, as the options for tariff review are limited.

To reduce the risk, a separate method, revenue cap, has been developed, which is similar to price-cap, but takes into account changes in consumption. Other variations of incentive regulation are earning or revenue sharing, allowing the utility to share with customers its realised earnings or revenues over a predefined threshold.

(Contribution from Mr Ivaylo Kastchiev.)

# Appendix 3: Case study from Bulgaria

## Case title

Water and sanitation services tariff-setting in Bulgaria

## Author/Organisation

Ivaylo Kastchiev, PhD, MBA, Energy and Water Regulatory Commission (EWRC)

## Overview of the public participation activity

Public hearings are held in all tariff-setting procedures, conducted by the Energy and Water Regulatory Commission (EWRC) in the energy sector (including electricity, central heating and natural gas) and the water and sanitation sector. The aim is to ensure that the procedures are held in an open and trustful way.

Public hearings are open, and anyone can be present. During the session, all participants can make a statement. It is recorded, and input later to the protocol of the meeting. There is a 14-day period in which anyone can present a written statement on the procedure. After the period, all statements (oral and written) are listed in the final decision, including reasons why statements are accepted or not.

## Background for tariff revision

Bulgaria has been a member of the European Union since 2007. According to the World Factbook, in 2016 the country had population of 7,145 million people, and a gross domestic product per head of US\$20 100. Water and sanitation services are provided by government-owned utilities (29 regional, state-owned, 21 local municipal, and one joint-stock company with private participation, working in the capital under a 25-year concession contract).

Water and Sanitation Services have been regulated at national level since 2005 with the acceptance of the Act on Regulation of WSS (ARWSS). Before that, water services utilities were regulated by their owners. Since 2005, the existing energy regulator has been reorganised to regulate water services as well.

ARWSS provides the basic water and sanitation services regulation principles: preparation of 5-year business plans by the utilities, 15 major key performance indicators (KPIs) for regulation of water and sanitation services quality, methods for tariff-setting, control by the commission and others. Detailed rules are described in ordinances for regulation of quality and prices of water and sanitation services. Before each regulatory period, the EWRC provides guidance on the application of laws and bylaws.

Currently Bulgaria is reforming its water services sector. All water services assets have to become public property. Utilities have to sign them off on their balance sheet, and provide them to the owners—state and/or local municipalities. In the case of regional operators, new bodies are formed—Water associations include the state governor and the mayors of all municipalities. Water associations choose water services utilities and sign a contract under the Water Act or under the Concession Act.

As part of the water reform, the EWRC has also changed its legislation and regulatory concept. New ordinances for regulation of water services quality and prices were approved by the Council of Ministries at the beginning of 2016, and are being applied in the regulatory period 2017–2021.

The regulator sets individual targets on KPIs for each utility, to be achieved at the end of the 5-year regulatory period. The utility prepares a business plan and suggests tariffs under price-cap methodology. Both the business plan and the tariff proposal are incorporated in one electronic model (tariffs result from the business plan), and are reviewed and approved in one procedure.

The water association is responsible for preparing regional master plans and feasibility studies, and for preparing long- and short-term investment programmes. The utility is obliged to prepare its 5-year business plan in accordance with these investment programmes. Thus, water associations need to coordinate and approve business plans to ensure that the investments in it are in accordance with their requirements.

When the business plan is approved by the asset owners, the utility submits it to the EWRC. The regulator is responsible for regulation of quality and prices of water and sanitation services at a national level. It gives individual targets for regulatory KPIs to the utilities, which need to prepare their business plans to achieve these targets. The regulator has the authority to approve the business plan or to reject it, and to require additional changes in it.

## Techniques of public participation activities

There are two stages of public participation.

When the utility prepares the business plan and tariff application, it is provided to the water association. Each municipality reviews the proposal, and the municipal council decides whether to authorise the mayor to vote “for” or “against” at the water association meeting. The proposal is reviewed in water association meetings, and municipalities that do not approve it provide their statements. To approve the business plan, the water association needs at least 75% of the votes.

When the business plan is approved by the water association, it is submitted to the regulator. The EWRC has the right to approve it or to provide instructions for its revision. There is strong communication between the regulator's office and the utility, including technical meetings. When the proposal is revised in compliance with the legislation and the guidance, the regulator starts the approval procedure. The commission approves the business plan and the tariff application in closed meeting, and then publishes a report and project of its decision on its website and announces an open meeting and a public hearing (both are held in one day).

In the open meeting, the utility provides its statement. After that, a public hearing is held, where anyone can provide statements. Usual stakeholders would be the Bulgarian Water Association, the Water Utilities Union, Water Syndicates, water associations and local municipalities, as well as different consumer and non-governmental organisations. They provide oral statements during the session, and can provide written statements in the 14-day period after the session. All of these are taken into account by the regulator in the final meeting, where the business plan and new tariffs are finally approved.

## Relevant materials

1. Energy Act sets organisational rules for the work of the regulator. Bulgarian version available at EWRC website: <http://www.dker.bg/docsbg.php?d=1>
2. Act on Regulation of Water and Sanitation Services sets the general rules for regulation of WSS. BG version available at EWRC website: <http://www.dker.bg/docsbg.php?d=1>
3. Water Act sets general rules of water resources usage, including organisational rules for the work of Water Associations, investment planning in WS assets and others. BG version available at EWRC website: <http://www.dker.bg/docsbg.php?d=1>
4. Ordinances on regulation of WSS quality and WSS prices set detailed rules of the regulatory process. BG versions available at EWRC website: <http://www.dker.bg/docsbg.php?d=4>
5. EWRC guidance on ARWSS and ordinance application for regulatory period 2017–2021, including the following:
  - Guidance on application of Ordinance for regulation of WSS quality;
  - Guidance on application of Ordinance for regulation of WSS prices;
  - Decision NV-1 on rate on return rates for regulatory purposes;
  - Unified standards for regulatory accountancy;
  - Decision PK-1 for utilities grouping and individual targets for KPIs.BG version available at EWRC website: <http://www.dker.bg/docsbg.php?d=8&subD=28>
6. Rules of procedure of EWRC. BG version available at EWRC website: <http://www.dker.bg/pagebg.php?P=370>
7. EWRC reports for water sector, including a 2009–2014 benchmarking report, social affordability report and others. BG versions available at EWRC website: <http://www.dker.bg/page3bg.php?P3=71&OID=73>



# Appendix 4: Case study from Tokyo, Japan

## Case title

Tokyo Waterworks Water Safety Check Project

## Author/Organisation

Kazuya Naito, TSS Tokyo Water Co., Ltd.

## Overview of the public participation activity

“Tokyo Water Safety Check project” is an innovative initiative to visit all 7.5 million household users in 4 years. There are two purposes of this project:

- firstly, that all customers understand the operations of the Bureau of Waterworks of the Tokyo Metropolitan Government and related bodies and project, and realise the high quality of supplied water;
- secondly, by visiting each household, the Bureau understands the detailed needs of the customers to be reflected in its operations.

This project has been implemented by TSS Tokyo Water Co., Ltd. and PUC Public Utility Services Center Co., Ltd., which are subsidiaries of the Bureau of Waterworks, Tokyo Metropolitan Government.

## Background for tariff revision

Tokyo, the capital metropolis of Japan, has achieved a universal access of water services with a high quality of potable water. Water is supplied from advanced water treatment plants. Water leakage is less than 3%. The major task of the Bureau is to ensure the resilience of the system. The replacement of old infrastructure and facilities with earthquake-proof ones is still in the middle of its implementation. Unless a major earthquake disrupts the operation, such works are unnoticed by the users.

The Tokyo Waterworks Water Safety Check Project is not directly linked to price revision. Nevertheless, it is expected to provide invaluable data in preparing the succeeding mid-term plan. Moreover, potentially, the data will be used for considerations of the next tariff revision.

## Public participation planning

The Bureau investigated water leakage, performed a water quality survey and examined the individual needs of each household as one of measures of improving its service to customers for 2000–2002. In this survey, the Bureau received 56,000 opinions and reflected on the next business plan and measures. The survey was executed by the customer services department, and the opinions obtained were shared by the entire bureau. The tariff was revised in 2005, on the basis of customer needs and the position statement at that time (an average 1.3% cut in charges for ordinary households).

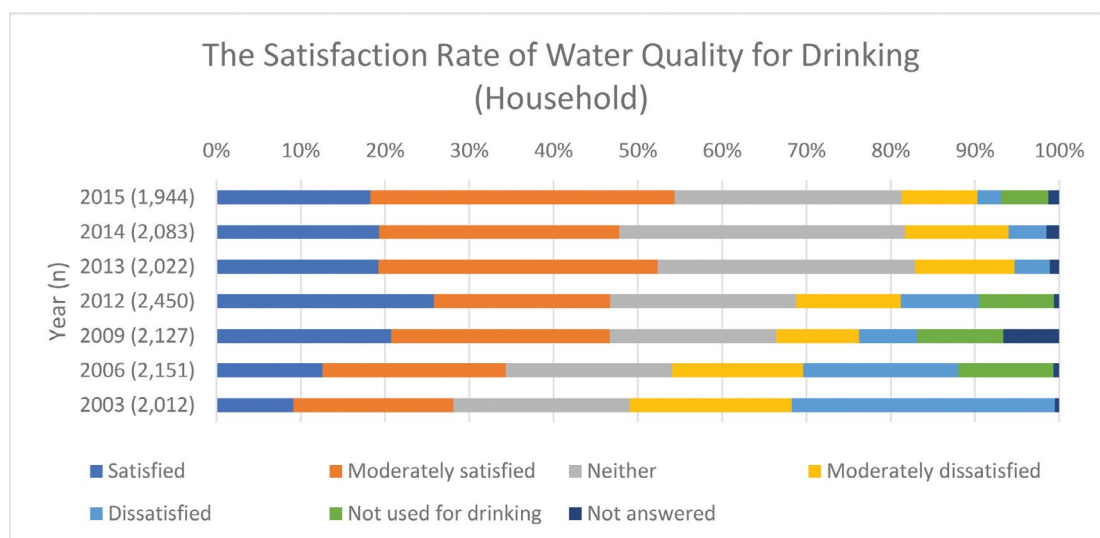
More than 10 years after that survey, the Bureau decided to implement this project from 2015 to 2019, which promoted good quality tap water and investigated changes in customers’ needs again. This survey was also highly appreciated by the Tokyo Metropolitan Assembly.

## Stakeholders

This project targeted all 7.5 million homes (household users).

On the part of the Bureau, the concern was the trend that fewer customers were drinking tap water. The general pattern showed that a smaller proportion of the younger generation drank tap water compared with the elderly. The trend was enhanced after the Fukushima Accident of March 2011. The release of radioactive material from the nuclear power plant generated a concern among the residents of Tokyo (the distance from Fukushima to Tokyo is some 200 kilometres).

The Bureau has introduced advanced water treatment at most of its water purification plants and provides high-quality tap water. It has implemented PR measures through various media and tasting contests between tap water and bottled water. Consequently, the number of customers drinking tap water directly has gradually increased.



## Techniques of public participation activities

Each visit to a household is conducted by two staff members (one conducts checks, the other uses a tablet to insert information). The visit consists of the following activities:

- explain the purpose of the visit;
- conduct a simple water leakage examination (checking the water meter and its flow indicator);
- conduct a simple water quality examination (visual, electrical conductivity, and concentration of residual chlorine);
- conduct an oral questionnaire and explain the work of the Bureau (brochure);
- hand in the results of the checks;
- collect the written questionnaire.

Before the visit, a notice and a questionnaire are distributed to each household. To make the visitors easily identifiable, every inspector wears a vest and official staff identification.

## Outcomes and lessons learned

We can explicitly obtain the potential needs, the intentions and the opinions of the silent majority by digging down into the results of the questionnaire conducted individually in 20. To realise measures and business plans from the customers' perspectives, the Bureau will further investigate the opinions received. Naturally, these opinions will be reflected in overall policy including tariff-setting.

## Relevant materials

Tokyo Tap Water Quality Inspection

<https://www.metro.tokyo.lg.jp/english/topics/2015/151125.html>

[https://www.metro.tokyo.lg.jp/english/topics/2015/151125\\_01.html](https://www.metro.tokyo.lg.jp/english/topics/2015/151125_01.html)







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