Water Resource Quality (WRQ)

Geogenic Contamination Handbook

Addressing arsenic and fluoride in drinking water

WHO Collaborating Center for Sanitation and Water in Developing Countries

eawag aquatic research

5 Institutional settings and enabling environments

Christoph Lüthi and Hong Yang

This chapter deals with the role of the institutional framework and stakeholder engagement to ensure the success of projects. Evidence from several decades of experience with water supply and water resources management shows that two of the most important reasons for project failure are the lack of coordination and of proper stakeholder involvement in the planning, supply and management of water resources. A sound institutional framework depends upon knowledge availability, sound political decision-making and legal and regulatory frameworks. This chapter will therefore provide:

- an overview of why working towards enabling environments is important;
- an outline of how to conduct a stakeholder assessment;
- guidance on how to initiate and sustain community engagement; and
- an explanation of how to work towards inclusive institutional environments that guarantee sustainable water resources management and equitable service delivery.

5.1 Fostering an enabling environment

«The enabling environment is the term used to describe the broader system within which individuals and organizations function and one that facilitates or hampers their existence and performance. This level of capacity is not easy to grasp tangibly, but is central to the understanding of capacity issues. They determine the 'rules of the game' for interaction between and among organizations. Capacities at the level of the enabling environment include policies, legislation, power relations and social norms, all of which govern the mandates, priorities, modes of operation and civic engagement across different parts of society.» (UNDP, 2008)

An enabling environment creates an atmosphere that allows a flourishing and sustainable water sector where people have dependable and adequate services. Without an enabling environment, managers in a water sector struggle on a day-to-day basis just to provide intermittent services that barely, if at all, meet minimal quality standards. People lack access to water, the economy is held back and the environment suffers. The following key features are prerequisites of a sound institutional framework or "enabling environment" (Fig. 5.1):

Political will and government support: Elected and accountable local govern-ments and authorities that demonstrate political will are a precondition for successful service delivery. Strengthening governance and improving civic participation are key prerequisites of the effective development of civic infrastructure (the "demand side" of governance).

→ *Build rapport with decision-makers and encourage them to be accountable and to act in a transparent fashion.*

Institutional arrangements: In many countries, there is no clear distinction between regulation and service provision. A sustainable and equitable service delivery can only be guaranteed by a sound institutional set-up. This requires a clear distinction between: (i) independent institutions responsible for performing monitoring and evaluation (usually at the district or provincial level) and (ii) service provision at the local level (including operation and maintenance).

→ *Define the interface between local community involvement, user groups, non-governmental organisations and the local authority or utility.*

Legal framework: The technical norms and standards that influence the types and levels of service which are put in place are important. Problems that need to be overcome here are regulatory inconsistencies, lack of regulations and unrealistic standards. A further issue in many countries is poor enforcement of existing regulations.

→ *Make sure your project is in line with national and municipal policies and by-laws.*

Knowledge and Skills: The capacity to provide services effectively and efficiently is the backbone of sustainable service provision. The skills base available in each context will define how well policies and strategies can be implemented. This will include both public (local authority) staff, but also private-sector and NGO stakeholders, who also have their roles to play.

→ *Identify capacity gaps, particularly at municipal and community levels, then fill the gaps with tailored training courses, on-the-job training, exposure visits, etc.*
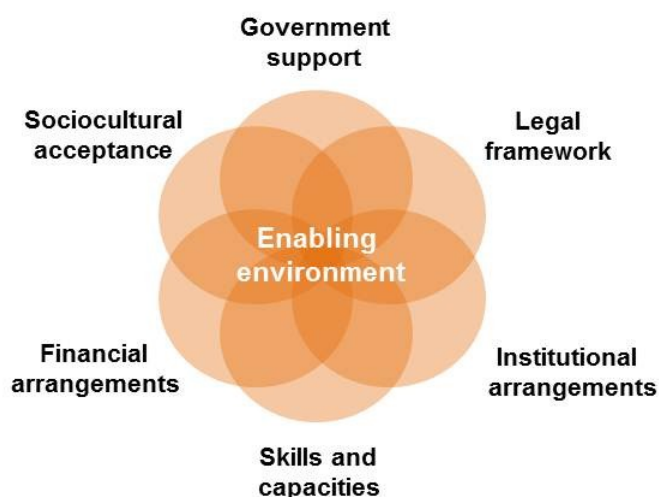

Fig. 5.1 *Depiction of the six elements of an enabling environment (Source: Lüthi et al, 2011)*

Financial arrangements: An enabling financial environment ensures that an intervention is economically sustainable in the long run by introducing user fees and, where appropriate, targeted subsidies.

→ *Financial contributions and investments are required from users, from government*

agencies and from the private sector. Here the key is to increase the capacity and willingness of beneficiaries to generate funds.

Sociocultural factors: Awareness of and respect for the local sociocultural landscape, especially in traditional rural contexts, is crucial. Neglect of sociocultural factors and failure to ensure that solutions are socioculturally embedded are two of the most common reasons for past failures.

→ *Identify behaviours and prevailing sociocultural norms through surveys or market research (see Chapter 8 on behaviour change).*

A more in-depth discussion on working towards enabling environments can be found on pages 49–65 of the CLUES guidelines (www.sandec.ch/clues).

5.2 Carrying out stakeholder assessments

A stakeholder assessment forms the basis for understanding the institutional and organisational setting. With this knowledge, an enabling environment can be fostered. The aim of a stakeholder assessment is to understand the opinions and attitudes of different stakeholders about something (an action, a project). Such information is important to highlight public concerns and values, which should be incorporated when later trying to find an acceptable and sustainable solution to the problem. As a first step, possible stakeholders need to be identified. These may belong to one or more groups:

- Key stakeholders have significant influence upon or importance within an action, e.g. government agencies and officials, donors, policy makers or some influential NGOs.
- Primary stakeholders are those ultimately affected, either positively or negatively, by an action, e.g. households and end users.
- Risky stakeholders are persons or organisations who have low importance or interest, but who can indirectly influence an action or who are indirectly affected by an action, e.g. researchers.
- Low-priority stakeholders have low importance, interest or influence, but could become primary stakeholders if their interest was awakened.

Stakeholders' interests in and influence on a project may be visualised in a diagram to demonstrate differences in opinion and influence. Many techniques for stakeholder mapping exist. Here we present a simple Influence-Importance matrix (Fig. 5.2), in which stakeholders are mapped according to their importance or interest and influence over a decision. Conducting stakeholder assessments requires trained experts and moderators – make sure you have the necessary expertise. More details are available in the SSWM Toolbox.
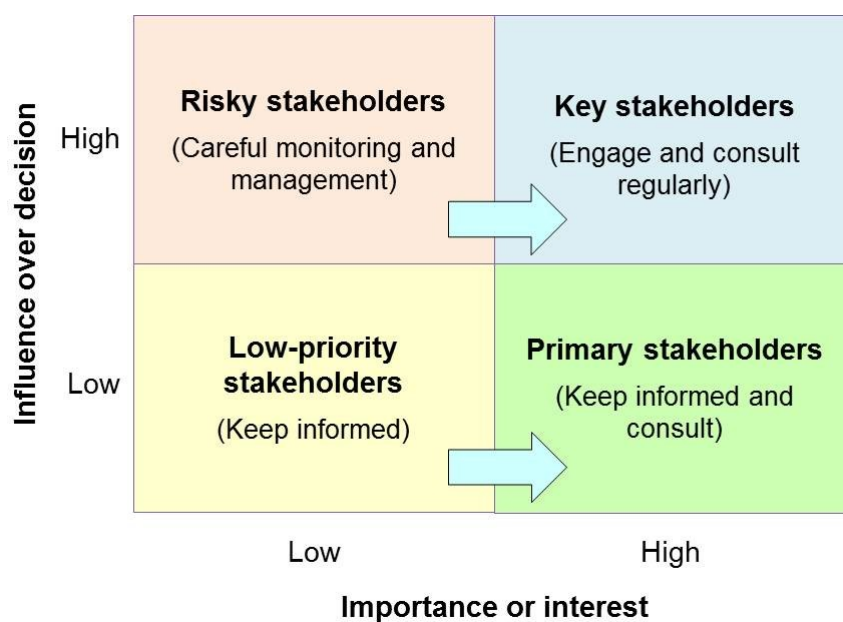
Fig. 5.2 *Stakeholder matrix, in which different groups or individuals are mapped according to their importance and influence. The blue arrows indicate the desired changes in stakeholder status.*

Advanced tools for stakeholder assessment

Willingness-to-Pay Analysis (WTP)

Finding out how much end-users are willing to pay for a water service is critical for setting water tariffs and determining how high demand for the service is. Many different methods for carrying out willingness-to-pay evaluations exist, and if done correctly, very useful information can be gained. WTP is a complex analysis and may not be appropriate in institutionally weak settings. It requires:

- A large investment in time and effort
- People with expertise in economics
- Well-trained interviewers who can avoid initiating bias amongst those surveyed

It is debatable whether people should be asked how much they are willing to spend for a product or service that they do not yet know. A detailed description on how to conduct WTP surveys for water services can be found in Wedgwood and Samson (2003).

Multi-Criteria Decision Analysis (MCDA)

MCDA is a technique for comparing different options (e.g. products or services) and eliciting stakeholder preferences. It identifies the measures and options that have the broadest acceptance and which defuse conflict among stakeholders. The technique can be used to identify a single most preferred option, to rank options or to distinguish

acceptable from unacceptable possibilities. It is a complex exercise that needs accurate input data and may be difficult to complete successfully in institutionally weak environments. A "light" version can be a very useful exercise in decision-making workshops to initiate discussion between stakeholder groups and to elicit their preferences, as has been shown by Osterwalder et al. (2014).

The individual steps of an MCDA, using fluoride mitigation options as an example, are outlined in Chapter 9.3.

5.3 Ensuring effective participation

It is widely acknowledged that stakeholder participation is a linchpin for the catalysis of change and makes people active participants in their own development. Community participation primarily seeks to achieve sustainable services for the poor and transparency and accountability throughout the process. Good partnerships and participatory programmes begin when actors come together to achieve a common goal based on agreed priorities. The following arguments are advanced when making the case for community participation:

- **Ownership:** By giving affected communities a real say in decision-making through active consultation, communities gain ownership of the development process.
- **Greater efficiency and effectiveness:** Both national governments and development agencies see community contributions as a means to achieve project goals (e.g. mobilising funds or contribution of "sweat equity")
- **Better design:** Participation during the planning stage will lead to a more appropriate design and technology – especially at the user interface.
- **Social change and empowerment:** Involving beneficiary communities in mobilisation, planning and project design creates a sense of ownership over the outcomes, and thus social capital is gained. This can lead to new forms of social partnership and "empowered communities" (Lüthi and Kraemer, 2012).

Engaging proactively with communities has the potential to help foster social capital formation in communities. Non-tangible community assets such as trust, networks and behaviour change are an important asset for poor communities that lead to greater empowerment. Communicative planning tools that enable "real" community participation include community surveys, focus group discussions, community meetings and participatory mapping exercises. These tools and participatory approaches assist in forming community-based organisations or user groups that ensure sustained use and correct water treatment procedures over time. A detailed overview of useful communicative planning tools is provided in the following file links from the CLUES Toolbox:

T2_Interview-Methods
T3_Participatory-Assessment-Methods
T4_Organising-Meetings,_Events_and_Workshops

Community engagement approaches may work better in some places than in others. Past experience shows that community involvement does not necessarily lead to sustainable services and can go wrong. The three most common problems are:

1 Elite capture and social control resulting from power inequalities between different community segments;
2 Financial mismanagement by community groups, which leads to mistrust and internal conflict; and
3 Top-down mode of project delivery by local authorities, resulting from inexperience in the design and delivery of community engagement strategies.

It is therefore becoming widely recognised that sustainability of services can only be achieved through ongoing financial and technical support to communities by external bodies – usually by local authorities or NGOs (WSUP, 2013).

If done correctly, investing in the "social capital" of communities can lead to empowerment and strengthening of capacity at community levels. But this is not free of charge. Any project that aims to achieve sustainable community engagement should devote roughly 15% to 20% of the overall planning and implementation costs to ensure effective community participation (Lüthi and Kraemer, 2012).

5.4 Fostering inclusive institutional environments

Working towards inclusive institutional environments is very context-specific, so that any solution will need to be adapted to the local context. This means investigating different options for long-term service sustainability involving community-managed, utility-managed or co-managed operations. The following points should be kept in mind when initiating a project for mitigating geogenic contamination:

- Community-based approaches that are well connected to external service providers can help foster social capital formation in communities. Recent sector experience shows that non-tangible social capital (e.g. trust or social networks) is an important asset in poor communities.
- Provide continuous communication with the communities, involving various media. For example, conducting study tours, targeted communication campaigns or focus group workshops will help build momentum and ensure the smooth planning and implementation of a project. By giving a voice to citizens and local organisations, social accountability mechanisms are introduced and the accountability of local authorities strengthened.

- Aim for co-management partnerships that provide a clear division of responsibilities between (i) day-to-day operation, maintenance and minor repairs which can easily be managed and carried out by a community-based organisation and (ii) more sophisticated maintenance and major repairs/spare parts which must be provided by professional service providers or operators.

- Ensure that non-technical support is also part of the package. This entails two main items: (i) support to professionalise community-based organisations and (ii) addressing behavioural change issues that are closely linked to the correct and sustained use of novel technology and water treatment procedures. A successful framework for implementing behaviour change is presented in Chapter 8.

References and further reading

Lüthi C., Kraemer S. (2012) User perceptions of participatory planning in urban environmental sanitation. J. Water Sanit. Hyg. Dev. 2, 157–167.

Lüthi C., Morel A., Tilley E., Ulrich L. (2011) Complete Guidelines for Decision-Makers with 30 Tools. In: Community-Led Urban Environmental Sanitation. Eawag, Dübendorf, Switzerland. www.sandec.ch/clues

Osterwalder L., Johnson C.A., Yang H., Johnston R.B. (2014) Multi-criteria assessment of community-based fluoride-removal technologies for rural Ethiopia. Sci. Total Environ. 448–449, 532–538.

UNDP, United Nations Development Programme (2008) Capacity development practice note. UNDP, New York. www.undp.org/content/undp/en/home/librarypage/capacity-building/capacity-development-practice-note/

Wedgwood A., Samson K. (2003) Willingness to pay surveys - a streamlined approach: Guidance notes for small town water services. UK: Water, Engineering and Development Centre, Leicestershire, UK. https://wedc-knowledge.lboro.ac.uk/details.html?id=18553

WSUP, Water and Sanitation for the Urban Poor (2013) Getting communities engaged in water and sanitation projects: Participatory design and consumer feedback. WSUP Topic Brief 07. www.wsup.com/sharing/TopicBrief7.htm

Links with further information

Community-Led Urban Environmental Sanitation Planning published by Eawag in partnership with UN-HABITAT and WSSCC: www.sandec.ch/clues

The Sustainable Sanitation and Water Management Toolbox: www.sswm.info