



Learning Alliance Briefing Note 15: Institutional mapping (draft)

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Introduction

This briefing note introduces the concept of institutional mapping and outlines its potential contribution to Integrated Urban Water Management (IUWM). It starts by defining institutions, before elaborating the term “institutional mapping” and outlining the methodology. Emerging lessons, the proposed way forward and further sources of information and guidance are provided.

Institutions and IUWM

Institutions are defined as systems of rules, either formal or informal, and those rules define the boundaries of any institution. For the purposes of water management, institutions are also likely to be organisations: the physical embodiment of an institution. Such organisations will have a recognised service or regulatory role in water management (such as a water supply company or a water board), or are able to clearly articulate their interest in water management (such as a water user association). These named entities are recognised to have authority, power and influence in relation to water management.

Who has the power to act, or the power to require their agreement before another can act, depends upon context. Hence, which institutions are involved will depend on which aspect of water management is being considered. Institutions, including their boundaries, are shaped by their historical, geographical and technical contexts. The boundaries for different forms of service delivery relating to water differ spatially as well. The SWITCH (which aims to realise IUWM) is seeking to deliver more integrated water management through a fragmented mosaic of institutions. Delivering integration of water management will therefore involve either designing new institutions to suit the physical boundaries of the systems to be managed, or improving the cooperation or co-ordination of existing institutions. Institutional mapping provides a starting point for either approach.

Why institutional mapping?

Institutional mapping is needed to give insight into institutional and governance structures for urban water management. While more integrated UWM may require new technologies (including planning

Governance shapes the way services are planned, managed and regulated within political social and economic systems. Integrated Urban Water Management is challenging because it requires an improvement in governance, involving traditionally separate sub-sectors or functions of government and civil society. Improving IUWM will require engagement with a complex array of administrative, political, institutional, social, economic challenges in cities.

and management tools and models), it can only be delivered through the relevant institutions who will almost certainly be required to make changes in the way they work, and how they perceive each other. Mapping the existing (formal and informal) power and influence exercised by the relevant institutions, particularly that pertaining to a new technical innovation being considered, is regarded as a key element of the SWITCH approach to facilitating change in the involved cities.

What is institutional mapping?

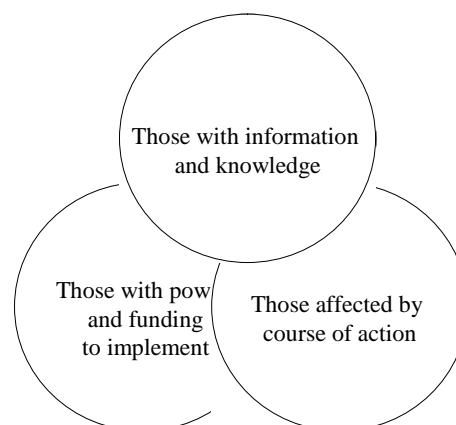
Institutional mapping links technologies and issues around IUWM with processes, structures and outcomes of decision-making known as governance. It identifies stakeholders with different kinds of power and also examines their source of funding.

A local institutional map identifies which institutions have the power to deliver, fund or otherwise influence the successful up-take of technical measures in order to deliver sustainable urban water management. It focuses on the key actors, their interactions, where power is located, who has the ability to influence decisions, and who makes decisions.

Intra-organisational rules partition what an organisation can do into three sets: what it must do, what it may do, and what it must not do. Institutional mapping focuses upon actions. However, intra-organisational rules (or the constitution) may define specifically what an organisation can do, and the procedures it should adopt, and/or the objectives it is to pursue.

From an institutional delivery perspective, there are three different groups of stakeholders (Figure 1).

Figure 1 Stakeholders in service delivery



Key issues to understand in institutional mapping

It is presumed that no individual organisation can deliver a service alone. Therefore, the effectiveness of any organisation lies in its ability both to influence others and to work effectively with others to address a shared problem or opportunity. The powers and funding to deliver integrated water management may be scattered between different institutions. It is therefore necessary to map out the functional and geographical boundaries and know where the powers and funding to deliver different courses of action reside in a specific city. City institutional maps will identify what institution has which duties and powers, and its funding to do what it has to do, or is empowered to do.

A key issue is the integration of land and water management and how this plays out in cities. Each organisation embodies a set of rules, governing what it does and exists in an environment of rules that determine its relationships with other organisations. This can vary substantially between countries. For example, England and Wales are highly centralised countries with only 420 units of local government, plus around 450 Water User Associations (WUAs), for a population of some 55 million. This compares to the more than 36,000 communes and around 1900 WUAs, plus regions and departments in France; or the 17 Regions, 52 Provinces, 8,101 municipalities, and 6,200 WUAs in Spain.

Although the focus of SWITCH is on cities, city level decision-making and operational decision-making at the sub-city level often is fundamentally influenced and affected by decision-making at regional, national and international levels. The analysis of institutional arrangements which leads to the construction of an institutional map therefore needs to consider each of these levels or layers; the institutional map is multi-layered.

What are the principles of mapping?

Balanced information: Information gathering should use existing studies and official documentation as well as a range of other primary and secondary sources, supplemented and verified by empirical evidence.

Cultural understanding and stakeholder participation: It is a time and labour intensive exercise, which requires proficiency in the local language and an awareness of local cultural and operating practices. A mapping study should involve key local stakeholders, such as those involved in multi-stakeholder bodies (like the local Learning Alliances in SWITCH).

Attention to Informal and Formal Rules: It is much easier to identify the formal systems of rules, expressed in laws and regulations, than the informal systems of rules: those that are expressions of social norms for example. Informal rules are neither noticed explicitly or open to question, but are more important than formal rules.

How can mapping contribute to IUWM?

Institutional Mapping can be a step in exploring space for institutional reform, and organisational change. It should provide insight into the relations between stakeholders including those formally and informally involved in service provision and the users of the services. An institutional map will provide clarity on the articulation of users' needs and on decision making processes, issues related to governance and the opportunities and constraints to achieving integrated urban water management.

By identifying where funding and powers reside, for each proposed intervention strategy and technological solution, institutional mapping can provide the necessary insights for developing realistic plans.

Methodology

Institutional mapping is fundamentally a process of analysis. The methodology for Institutional Mapping has been developed and described in '*Institutional arrangements and mapping for the governance of sustainable urban water management technologies; Mapping protocol*' by Colin Green of Middlesex University. In the form described it has been applied to Birmingham. Adaptations of this methodology are being and have been tested out in other SWITCH cities.

In brief, there are four groups of tools for institutional mapping:

- Mapping formal definitions of key terms, such as river, sewer etc (these are found in law and administration)
- Series of questions covering different possible relationships
- Diagrams showing relationships
- Diagrams showing technologies

Having identified the relationships between the organisations, and the organisations who are consequently players, the remaining questions are:

- What are the objectives or interests of those organisations?
- What rules govern their behaviour, including the procedures which they must adopt in making and implementing decisions?

In the following section, we will describe the objective and scope of the mapping exercise and common issues that arise.

The main elements of an institutional map

The elements of the protocol for institutional mapping are:

1. Specification of the institutional map creator(s) and who is/are institutional map user(s), and the technologies concerned.

2. Clear determination of the purpose of the institutional mapping, including what kind of behavioural changes are required.
3. Specification of the primary, secondary and further 'action spaces' likely to be relevant to the purpose determined and a preliminary identification of how they interact.
4. Know the main players at different levels.
5. Selection of sequencing in which institutional layer mapping is to be presented in the institutional map.
6. Decide whether the institutional mapping is likely to be different, and therefore presented differently, for each sustainable urban water management technology.
7. What are the 'rules of the game?' i.e. the legislative and regulatory environment including the international level; regulations, guidance, guidelines, codes, administrative procedures, financial arrangements and administrative procedures.
8. The informal 'rules of the game' – the underlying social norms and conditions
9. Compliance: how far do the formal rules operate in practice?
10. The internal rules of organisations.
11. Definitions to lend clarity and precision to the institutional analysis and mapping. A glossary of terms should be provided.
12. Include relevant data and information in the institutional mapping. (such as population size of city, country, Per capita water consumption, Trends, Agency or organisation ownership etc.)
13. Employ a range of methods of presentation and portrayal.

What are lessons to date from doing institutional mapping?

Experience there has revealed that while there are some tools and a general approach expressed as a protocol, there is no cook book which will guarantee an adequate institutional map. Some emerging lessons are:

- Institutional Mapping is a skilled exercise that requires insight into the local context.
- Policy and practice are constantly in a state of change so it is necessary to see what changes are being contemplated.
- Intra-organisational rules partition what an organisation can do into three sets: what it must do, what it may do, and what it must not do. However, that there are rules does not mean that they actually operate.
- Institutional mapping is dependent upon the availability of and access to documents.
- History is important. Prevailing concerns and technologies from the past are reflected in definitions of terms, in laws, regulations and institutions.

References and links

Green, C. Mapping the field: the landscapes of governance. 2007. SWITCH report [online] Available at www.switchurbanwater.eu

Green, C. 2007 Institutional arrangements and mapping for the governance of sustainable urban water management technologies: Mapping protocol and case study of Birmingham, England. SWITCH report [online] Available at www.switchurbanwater.eu

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