

Strategic Planning for Integrated Urban Water Management

The following briefing note is based on the recognition that Integrated Urban Water Management (IUWM) has to go hand in hand with a strategic planning process. It is aimed mainly at decision makers on integrated and sustainable urban water management, local government including urban planners, water utilities, and major international agencies working in developing countries.

4. An integrated approach reveals better opportunities for innovation in urban water management than separate sub-system strategies
5. Waterscapes in cities can be used to improve social and economic conditions
6. The strategic analysis should identify the priorities of the whole city rather than personal interests

Headlines

1. The strategic planning process, tailored to local conditions, is a powerful tool for improving water management
2. Long term strategic planning gives direction to medium and short term plans, improves their rationality and therefore may also contribute to meeting short terms needs
3. Planning a water system at the scale of a city is an enhancement to planning at the scale of a utility or river basin

Introduction to strategic planning

SWITCH promotes a strategic planning process for Integrated Urban Water Management. This means the development and implementation of a flexible strategy that simultaneously considers all areas of the urban water cycle as well as other urban management sectors (e.g. energy, urban planning) in a holistic way. It is a long-term framework to optimize the entire urban water system and identify viable solutions for an uncertain future.

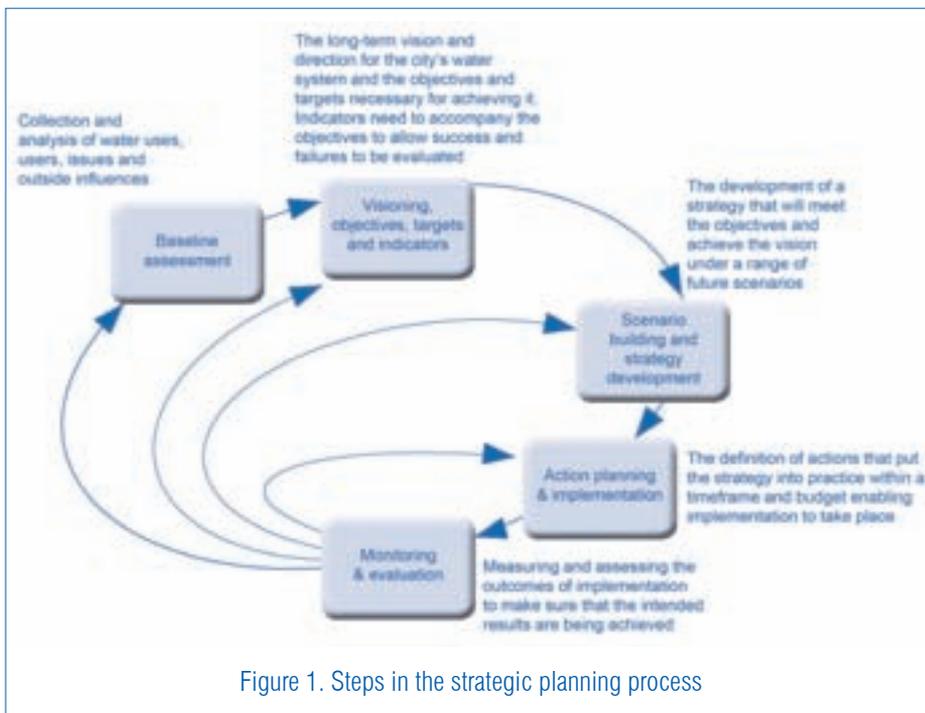


Figure 1. Steps in the strategic planning process

If the strategy is developed by all stakeholders and approved by the city council, it becomes a powerful tool for improving water management. Not only does it provide the framework for IUWM itself, it also gives direction to urban planning as a whole by influencing the priorities and plans of other departments – as well as allowing other priorities and plans to influence water management.

In SWITCH, local stakeholders are brought together in city-based Learning Alliances (LAs). These are multistakeholder platforms that emphasize



demand-led research, 'experiment' with innovation to make it match local circumstances, and share the insights gained at local, national and international levels.

Key elements of the strategic planning process in SWITCH are:

- Setting tangible objectives to transfer the vision into a sustainable urban water system
- Possible future scenario development by LAs
- Strategy development by LAs to enable the vision to be achieved under different scenarios.

Short term needs and strategic planning

Many local governments are hesitant to take a long-term strategic vision. A planning horizon of 20 years is often considered to be too long, especially in cities in the developing world. Poor implementation of existing plans has sometimes created a cynical view of planning in general. This leads to questioning whether strategic planning is actually only realistic where current urban water systems are up and running. There is also the need to effectively bring together short and long term agendas. This can be achieved by ensuring that long term strategic plans give direction to medium and short term plans, improve their rationality and therefore contribute to meeting short terms needs.

Scale of planning: utilities, cities and river basins

Integrated Water Resources Management (IWRM) established the river basin as the preferred planning unit for water, leading to questions over whether 'urban water management' is actually a separate field and whether it is possible to achieve sustainability by the application of IWRM at the river basin scale. At the same time, water and wastewater service utilities are increasingly concerned about their 'environmental and social performance', in addition to their 'financial performance' (known as the Triple Bottom Line -TBL). Questions to consider are whether the use of performance indicators of a utilities' TBL is sufficient to achieve a sustainable urban water system. Also, what are the advantages of taking the city-level as the major scale for planning, rather than the utility or river-basin scale? Planning at city level allows closer coordination with urban planners, and allows for short cycles of reuse.

Strategic planning and integrated analysis and management of the urban water system

Strategic planning is generally carried out by a single agency (e.g. water or energy utility, town planner) to address issues within their area of control. Other potential stakeholders are consulted but not fully included in the development of options and solutions.



Birmingham waterways UK

The value of an integrated approach to urban water management is demonstrated in New South Wales, where a number of towns have developed new water plans. Researchers have investigated the potential for innovations through coordinated planning and compared these to the factual options that resulted from developing the plans in isolation. An analysis of the entire urban water system identified opportunities that are not apparent when separate strategies were developed for sub-systems. In one town, this integrated urban planning exercise identified potential cost savings of up to 50% of the capital costs of the system upgrades identified through separate water and sewerage strategy studies (Anderson and Iyaduri, 2003).



Water feature in Belo Horizonte

Synergies between water, environment, economy and society

Water in the city is more than just drinking water, drainage and wastewater treatment; urban waterscapes can also be used to create an attractive environment which is known to impact on levels of social well-being and health. Regeneration of deprived urban areas therefore should include environmental enhancement (Howes, 2008). Also smart growth produces a high-quality water environment which attracts high value companies. The increased costs for these improvements can be financed from the increased gains by project developers.

Ecological status according to EU Water Framework Directive	Outcome
Bad	Developers turn their backs on the river and it has no recreational appeal
Poor	A less intimidating environment encourages access and a presumption against depositing litter and waste
Moderate	Developers are prepared to face the river rather than back on to it
Good	Developers are prepared to make water a major feature of the development, with waterside restaurants, bars and cafés.
High	Wildlife returns, waterside recreational activities increase. A waterside location becomes a selling point for properties.

Source: Howes, 2008

Methods for strategic planning

There are various methods for strategic planning such as the 'City Development Strategies' which are all based on stakeholder participation, and include steps like: visioning, SWOT-analysis, scenario planning, implementation planning, implementation and monitoring. New elements in the SWITCH approach are:

- a combination of Integrated UWM and strategic planning
- the central role of the Learning Alliance
- the concept of developing and upscaling scientific innovations for extensive application in the real world.

Success factors for strategic planning

- The political will of mayors and local authorities
- The plan is embedded in the existing institutional environment
- The thematic focus of the plan
- The quality and level of participation of the strategic planning process
- The technical capacity of those involved (Steinberg, 2005)

The strategic analysis should identify the priorities of the whole city. The 'top-down' approach, is aimed at the strategic demand of the city as a whole entity and the 'bottom-up' approach, represents the articulation of the citizens' demands.

Conclusions / Recommendations

- Integrated management of the urban water system is encouraged when a city-based Learning Alliance goes through a process of strategic planning.
- Strategic and integrated planning at the city level allows identification of new options for more sustainable water management, which may reconcile short term needs with long term visions.
- Successful strategic plans build on the most recent technical and socio-economic innovations, are the result of a participatory process and are driven by strong leadership.

Key references

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Household water sources in Accra, Ghana

The SWITCH project aims to achieve more sustainable urban water management in the “City of the Future”. A consortium of 33 partner organizations from 15 countries are working together on innovative scientific, technological and socio-economic solutions, which can then be more speedily replicated around the world.

For more information visit:

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