**City-level Strategic Planning for Urban Sanitation - Guidance Note**

*This guide is intended for use by World Bank task teams and their government counterparts, as well as other teams/organizations who are in the early stages of designing a new sanitation intervention or a new approach to providing sanitation services within a city. To learn more about the sanitation sector and the underlying principles of Citywide Inclusive Sanitation, we recommend this* [*short document*](http://pubdocs.worldbank.org/en/589771503512867370/Citywide-Inclusive-Sanitation.pdf) *that summarizes the shift in approach to urban sanitation, these* [*case study videos*](https://www.youtube.com/playlist?list=PLa16GBkPGYKv4n_a0BcKB_hUYMdiQVH55)*, and the World Bank’s Citywide Inclusive Sanitation website.*

There are many different recommended approaches to planning for urban sanitation. Some of these approaches are meant to be applied at different scales or in different specific contexts. The purpose of this guide is to summarize the overarching principles presented in the most widely used planning approaches, but it is not intended as a ‘step-by-step’ guide to urban sanitation planning. At the end of this guide, reference is made to some more [detailed resources](#_Recommended_Resources_on) that may be useful in applying the broader principles of strategic urban sanitation planning presented here.

**Citywide Inclusive Sanitation Principles:**

* ***Everybody benefits*** from adequate sanitation service delivery outcomes
* Human waste is ***safely managed along the whole sanitation service chain***
* A ***diversity of technical solutions*** is used*,* combining ***both on-site and sewered solutions***, in either ***centralized or decentralized systems***, with consideration of ***resource recovery and re-use***
* Cities demonstrate ***political will*** and technical and managerial ***leadership***, and to manage ***new and creative ways of funding*** sanitation
* ***Complementary urban services*** – water supply, drainage, graywater, solid waste, etc. – are incorporated into sanitation plans

Check out [these videos of good global experiences](https://www.youtube.com/playlist?list=PLa16GBkPGYKv4n_a0BcKB_hUYMdiQVH55)!

***World Bank Task Teams:*** *Throughout this document, we have highlighted the role Bank teams can play to support governments in undertaking a strategic urban sanitation planning process. The exact support needed will vary from project to project, but the goal is to ensure Bank teams stay engaged with the process throughout.*

## Strategic Planning Defined

To be **strategic**, a plan must be concerned not only with **what** is to be achieved but also with **how** it is to be achieved. A ‘Master Plan’ focuses on overall objectives; it provides direction and defines investment priorities, but often provides little guidance on how to move towards those objectives, is not participatory by nature, tends to be undertaken by consulting firms in isolation, and can take many months or years, making it overly expensive and often out-of-date by the time it’s concluded. Nevertheless, Master Plans are important and required by law in some countries – however they are best prepared once strategic objectives and indicators have first been established through a strategic planning approach. The strategic planning approach goes beyond traditional master planning, and focuses on legal, financial, technical and social aspects of implementing and sustaining interventions. As a result, it is better to adopt a ‘strategic planning approach’ that incorporates a series of steps leading to clearly defined intermediate objectives. This guide focuses on this type of strategic approach.

**Strategic Planning Principles1:**

* Respond to expectations for sanitation service improvement
* Plan for inclusive and equitable sanitation services
* Ensure services are affordable and financially viable
* Integrate with other municipal services
* Focus on behavior changes
* Engage with stakeholders

1IWA, 2014. *Sanitation 21: A Planning Framework for Improving City-wide Sanitation Services.*

To be effective, a strategic plan must pay particular attention to:

* ***Incentives –*** the motivation to make sure people do the ‘right thing’ (includes both positive and negative incentives)
* ***Demand –*** the willingness and ability of individuals/households to pay for services
* ***Allocation of responsibilities*** – the assignment of who should be responsible for the various actions proposed in the plan and how their efforts should be coordinated
* ***Sound finances*** – the proposal should ensure that the various stakeholders have the financial resources to assume the responsibilities allocated to them by the plan
* ***Monitoring*** progress and results of the planning and implementation process and ensuring there is a feedback mechanism to learn from these experiences

## Prepare to Plan

Prior to beginning the actual planning process, it is advisable to bring in the institutional, social, technical and financial aspects, including:

* Obtaining high-level political/institutional support (this may include finding ‘sanitation champions’ and reformers)
* Identifying partners to be involved in the planning process
* Developing consensus on the need to plan
* Establishing a core team to lead the process
* Devising a timeline to ensure that engagement immediately precedes other activities and can build on the momentum developed early in the process
* Allocating resources to the planning process and to the subsequent implementation of the plan

Partners in the planning process will vary based on local context and may include representatives from: the relevant utilities/service providers; the city council; other government departments; community-based organizations (CBOs); non-governmental organizations (NGOs); private sector firms (contractors, vacuum truck septage emptiers, manual sludge emptiers, etc.); households; landlords; research organizations/academia, among others. Although the full list of stakeholders may be quite long, a core team should be established, which will be a smaller group (i.e., a subset of representatives from the larger list, ensuring that there is a cross section of stakeholders in this core team) to be responsible for leading the process. We can refer to this group as *the* ***planning team***.

***Quick Actions***: Visit a nearby city/town to learn more about their approach to urban sanitation. What are they doing well? What areas do they see for improvement? What experiences can be taken to your own city/town?

The planning team should include individuals with expertise in urban sanitation, urban planning, social and cultural issues (especially as they relate to sanitation services), finance and regulation, institutional structuring (for both the public and private sector, as appropriate), and other context-specific sector experts. The team might also include other local stakeholders as is deemed appropriate.

## Core Steps for Strategic Planning

A strategy is a means of moving from an existing situation towards the attainment of an objective. To be strategic, a plan must make a realistic assessment of the current situation, identify overall objectives and set out a feasible set of actions to move from the existing situation to achieve the identified objectives.

#### **Assessment of the existing situation**

The questions to answer in this phase of the planning process include:

* *What is the existing urban sanitation situation and what problems are resulting from the existing situation?*
* *What opportunities and constraints does the existing situation present?*

**Treatment**

**End-use/ Disposal**

**Conveyance**

**Emptying**

**User Interface/**

**Containment**

*The Sanitation Service Chain*

***World Bank Task Teams:*** *At this stage, your role is to help ensure that the appropriate assessments are undertaken and to review the outputs, to ensure high quality assessments are conducted covering the full range of topics detailed below. Check out the World Bank’s Citywide Inclusive Sanitation website to learn more about recommended assessment tools.*

***Assessment of the*** ***existing situation*** must cover both existing sanitation infrastructure, sanitation service coverage, and institutional capacity to implement change, which will be dependent on the institutional framework, the regulatory environment and the financial systems, and the associated capacities. All assessments should consider the full sanitation service chain (shown above), from the user interface through to end use/disposal.

* ***Institutions –*** To assess the institutional framework, the following questions can be asked, about both public and private sector institutions:
  1. How are responsibilities – for policy-making, regulation, and service provision – officially defined? (i.e., ‘*Who is meant to do what?*’) Beyond sanitation services, we also need to consider complementary services, such as water supply, drainage and solid waste which all have an impact on sanitation.
  2. How are responsibilities handled in practice? (i.e., ‘*Who does what in practice?*’) Are service delivery responsibilities fragmented? What mechanisms are in place to incentivize the proper uptake of, and follow through on, institutional mandates?
  3. Are there gaps between what is meant to happen and what happens in practice? To what extent are these gaps due to a lack of capacity of existing staff or to a lack of appropriate institutional alignment or incentive frameworks? To what extent, are there unclear and/or overlapping service provision mandates? What types of accountability mechanisms exist?
  4. What resources are available to carry out essential tasks?[[1]](#footnote-1)
* ***Infrastructure/Service Provision –*** Early in the planning process, information on existing sanitation facilities and systems (both sewered and on-site) can be obtained from: secondary sources (e.g., government statistics, reports, etc.); observation in the field (e.g., transect walks, participatory mapping); informal discussions with sanitation users and service providers; more detailed studies (e.g., laboratory tests, household surveys, an SFD, etc.). Satellite images, Google maps and similar tools can provide useful spatial information during the early stages of planning. However, the planning process should include provision for supplementing the essentially qualitative information obtained during initial investigations with spatial and quantitative information in the form of maps and surveys. The latter will be particularly important when considering drainage needs, sewered sanitation options and the logistics of fecal sludge management[[2]](#footnote-2). The aim should be to produce accurate digitized maps showing natural features (e.g., hydrogeological and topographical conditions), types of urban development, growth trends, and existing infrastructure, alongside databases that link information on existing service provision and socioeconomic conditions to particular locations. This review should cover the following aspects:
  1. Evaluate not only the presence/absence of key infrastructure/service provision, but also the *quality of the infrastructure/service provision* and the different stakeholders’ views on its *acceptability*, including an assessment of the *strengths and weaknesses of existing technologies/services* – from the perspectives of the stakeholders. Planned/proposed infrastructure should also be reviewed.
     1. If one does not already exist, consider developing a Fecal Sludge Flow Diagram (or ‘SFD’) to better understand how waste is currently being handled in the city. Go to <http://sfd.susana.org/> to learn more.
  2. Assess the social norms for sanitation, including, but not limited to, open defecation behaviors, washers vs wipers[[3]](#footnote-3), etc.
  3. Consider access for traditionally excluded/marginalized groups (e.g., women, the elderly, the urban poor, illegal settlers, people with disabilities, etc.) and/or other groups without services. Understand their voices, roles and power in the sanitation space.
  4. Assess the current O&M of existing facilities – what challenges are being faced? Estimate the demand for future service provision, taking into account not only population changes but also tenancy status (e.g., what portion of housing is owned by landlords), changes to policy, legislation or regulation, etc.
* ***Financing –*** The aim at this stage is to understand how both capital expenditures (CAPEX) and operational expenditures (OPEX) are being funded. Perhaps most importantly this requires assessing current household expenditures on sanitation and estimated *household willingness and ability to pay[[4]](#footnote-4)* for improved service provision – while also recognizing that the CAPEX and the OPEX costs for the full sanitation service chain must be considered. It is also important to assess the market structure for sanitation and the rationale behind the existing structure. Other questions to ask include:
  1. How much are the different actors charging for sanitation service provision across the sanitation service chain? Are these costs efficient? Or could efficiency gains be extracted and, if so, from where? What are the bottlenecks to selling treatment end products (water, sludge, etc.)?
  2. What types of financial services (e.g., microfinance services, other lending services, subsidies) are available to households/private sector firms regarding sanitation? What are current bottlenecks preventing households/private sector firms from accessing repayable financing?
  3. How do service providers finance their existing costs and are the funds available to them sufficient to ensure their effective operation?
  4. What are the implications of the various sanitation options being considered for inclusion in the strategic plan regarding their corresponding recurrent costs? In the event that an option being considered under the strategic plan results in a significant increase in recurrent costs, are there realistic possibilities for covering those costs?
* ***Regulation –*** Information is needed on the existing regulatory framework for the full sanitation service chain – including norms for the construction of household facilities and regulations for emptying practices (particularly with regard to private sector emptiers), through regulations for getting households to connect to existing sewers, to standards for sludge and wastewater treatment and end use. Assessments should explore environmental, economic, construction and public health regulations/bylaws/standards/norms, as appropriate. It may also be important to explore land tenure issues, particularly for illegal/informal settlements, which often exist outside of the regulated sector. Information will be required not only regarding the regulations and related instruments themselves but also with regard to (a) the systems that exist for applying/enforcing them, (b) the extent to which existing regulations are enforced and (c) barriers to enforcement.
* ***Constraints –*** When considering how to achieve the strategic planning objectives, it is important to take account of constraints and/or anticipated challenges. Once these are identified, the strategic plan should include guidance on how they can be overcome. Examples of constraints include, but are not limited to:
  1. Quantity of water supply, which directly affects the type of sanitation solutions that are technically feasible (e.g., sewers require certain minimal levels of water supply, septic tank leach fields (or drain fields) require a certain infiltration capacity of the surrounding soil, and container-based sanitation require separate provision of graywater management)
  2. Population density, as many technologies are only economically feasible under certain population density conditions
  3. Interface with other urban services, such as graywater, stormwater, solid waste and land use
  4. Insufficient staff capacity with the requisite technical skills for operating sophisticated conveyance or treatment technologies
  5. Intermittent/unreliable electricity supply
  6. Road layout and widths, as narrow roads may limit the conveyance options available
  7. Lack of user knowledge of/interest in upgrading to ‘improved’ or ‘safely managed’ sanitation options
  8. The mindsets of decision makers and other stakeholders being fixed on a particular technical solution rather than on alternatives to service provision

A few words of caution on ***assumptions.***

* People know about the technologies and approaches that they have seen – there may be others of which they have no knowledge. It is important to explore a broad range of technical solutions and to not prematurely focus on a specific option
* People are most often familiar with their own organizations, which may result in them ignoring the roles of, and knowledge in, other relevant institutions.
* Professionals often focus on technical factors (i.e., which technology provides the best results under ideal conditions) but ignore contextual factors (e.g., power supply, technical expertise to run systems, household ability to pay for services, desired goals/functions of systems), which will ultimately affect the performance of any chosen technology.

To ensure that the assumptions underlying the strategic plan are justified, you should: (a) consult as widely as possible, ensuring that the core planning group includes representatives from different backgrounds and disciplines; and (b) where possible, visit towns/cities that have already implemented successful strategic sanitation plans and/or established sustainable sanitation service provision.

#### **Goals for the city’s urban sanitation**

The question to answer in this phase is the following: ‘*What is our objective or objectives?*’

***World Bank Task Teams:*** *Your role at this stage is to ensure the goals are in alignment with the above principles as well as with other World Bank mandates[[5]](#footnote-5). Additionally, the goals should be realistic given current realities, local constraints and the proposed timeframe, while considering the corresponding desired future scenario/s. To ensure alignment with other sectors, task teams should also reach out to colleagues in other GPs, particularly in GSURR and the Environment GP.*

The timeframe for achieving the identified objectives/goals is typically 5-10 years. Longer term goals may also be considered – however, if the goals are too ambitious, or too far in the future, then they are less likely to be achieved. Regardless of the chosen timeline, the goals should be revisited regularly throughout the planning and implementation process and revised as needed.

An overarching objective[[6]](#footnote-6) should be to ensure citywide inclusive sanitation service provision that:

* ***Provides access to everyone***, including the poor, those with disabilities, and other marginalized groups
* **Meets user aspirations** (including privacy) and is convenient to use
* ***Protects the health of users*** and the wider public across *the full sanitation service chain*
* ***Protects the environment*** across *the full sanitation service chain*
* ***Considers resources recovery and reuse***, as appropriate
* **Considers all sanitation needs** (domestic, commercial, industrial)
* Relies on a range of ***appropriate technologies****[[7]](#footnote-7)*
* Is ***integrated with/takes into consideration other urban service provision*** (such as water supply, drainage, solid waste, land-use planning) and urban governance (with clear roles and responsibilities, accountability and transparency)

***Quick Actions***: Is there an existing Master Plan? If so, this would be a great time to revisit it. Master Plans lay out a goal (or set of goals) for the city. These goals, if aligned with the above principles, can serve as the goals for the strategic planning process. If there is an existing Master Plan, an assessment should be undertaken regarding which aspects of the plan have already been implemented and how successful these have been, and which aspects have not been undertaken and what were/are the barriers for implementing them, so that such barriers are identified and allowed for in the current strategic planning process.

#### **Steps to achieve the objective**

The question to answer in this phase is: ‘*What steps do we need to take to move from the existing situation towards our desired objective/s?*’

***World Bank Task Teams:*** *Your role at this stage is to review the proposed steps/plan and to help ensure the full range of activities needed to achieve Citywide Inclusive Sanitation are captured in the plan. The plan should cover the institutional, financial, technical, regulatory and social aspects of sanitation.*

Each step should be designed to achieve a defined intermediate objective. Intermediate objectives may be linked to the institutional, technical, financial, legal and/or social aspects of sanitation service provision. Given the varied nature of solutions, and in order to be relevant to the local context, this approach requires stimulating/encouraging city leaders, technicians and other stakeholders to be focused on *solving complex problems* rather than *delivering fixed solutions*.

When exploring different sanitation solutions, decision makers should consider the full range of sanitation options, their strengths and weaknesses, and the factors that determine when and where they can be used. The public health and environmental risks associated with each option, both under ideal conditions and under the conditions that are likely to exist in reality, should also be explored. When considering options, planners should recognize that households in urban areas have usually invested time and money to procure their own sanitation facilities. These facilities should be carefully assessed so that their strengths and weaknesses can be identified. Wherever possible, the aim should be to build on, rather than replace, existing facilities and services. The management requirements of each option also need to be considered.

In order to achieve the SDG targets for urban sanitation, there is much to be done. Since we cannot attain the targets overnight, an approach that utilizes ‘*progressive realization*’ is needed. This incremental approach also helps build capacity and confidence in new and/or weak institutions. One way to approach such progressive realization is through the use of ***learning/demonstration projects***, which are further described below.

The early steps taken in the strategic sanitation planning process must be clearly defined. In contrast, later steps in the planning and demonstration process should initially be provisional and may need to be adapted in the light of findings from early implementation experiences. A feedback loop should be created in which information from physical and social surveys and from the implementation of demonstration interventions is used to inform subsequent phases of the planning and implementation process. With this in mind, there is a strong case for including project implementation in the planning process through initiatives designed to test ideas, illustrate options and develop the knowledge and skills needed to subsequently implement more ambitious components of the strategic plan.

***Quick Actions***: Begin with ***no-regret interventions*** or “quick wins.” These “low-hanging fruits” are the initial interventions undertaken for improving sanitation in the city. Examples might include: rehabilitating an existing decentralized wastewater treatment plant, building communal sanitation services for dense housing blocks, or scaling up a successful campaign for ending open defecation across the city. The specific interventions will vary by location and context.

In addition to providing improved sanitation to an area within the city, these ***demonstration projects*** can provide: (1) information on performance that can inform future planning decisions; (2) CAPEX and OPEX cost information that can refine the costs used in the [Citywide Inclusive Sanitation Planning Costing & Planning Tool](http://www.cwiscostingtool.com); (3) concrete examples of program benefits (to be used in leveraging support for planned future interventions); (4) information to inform the development of country-specific guidance materials; and (5) proof of concept which in turn can boost the confidence of the different stakeholders in moving the sanitation planning and implementation processes forward.

## Recommended Resources on Strategic Planning

The following guides provide more detailed information on strategic sanitation planning:

* [*CLUES*](http://www.eawag.ch/en/department/sandec/projects/sesp/clues/) (Eawag-Sandec, UN-HABITAT and WSSCC) – a neighborhood level planning approach, which provides detailed step-by-step recommendations for each of its 7 planning steps.
* [*Sanitation 21*](http://www.iwa-network.org/filemanager-uploads/IWA-Sanitation-21_22_09_14-LR.pdf)(IWA, GIZ, Eawag) *–* a municipal-level planning guide, which also includes neighborhood and household considerations, and which presents principles of good planning with example key activities to support those principles in practice.
* [*Sanitation Safety Planning*](http://www.who.int/water_sanitation_health/publications/ssp-manual/en/)(WHO) *–* city-level planning based on a risk-based approach that helps decision makers identify where the greatest public health risks are along the service chain and uses that information to prioritize investments. (available in English, French, Portuguese, Russian and Spanish)
* [*Urban Sanitation: A Guide to Strategic Planning*](https://www.amazon.com/Urban-Sanitation-Guide-Strategic-Planning/dp/1853395587)(Kevin Tayler, Jonathan Parkinson, Jeremy Colin) *–* a municipal, state/provincial and/or national level planning approach for urban sanitation (including solid and liquid waste management, drainage, etc.). It also includes a great chapter on holding participatory workshops.
* [*City Wide Approach for Sanitation*](http://www.susana.org/en/resources/library/details/2285)(USAID, SUWASA) – a step-by-step guide to improving municipal management of urban sanitation. Focuses on nine key steps beginning with accessing existing sanitation services through mobilizing investment for sanitation infrastructure.

## Recommended Resources on Strategic Planning

Additional resources on Citywide Inclusive Sanitation and Planning:

* *Generic TOR for the ‘Preparation of a Participatory Integrated Sanitation and Drainage Improvement Strategy and Master Plan for a City’* (World Bank)
* *CWIS slide decks on strategic sanitation planning* (World Bank)
* The World Bank’s Citywide Inclusive Sanitation website (*forthcoming*)
* A [Call to Action on Citywide Inclusive Sanitation](http://pubdocs.worldbank.org/en/589771503512867370/Citywide-Inclusive-Sanitation.pdf), developed in collaboration with a number of key sector partners
* A series of [videos on Good Practices in Citywide Inclusive Sanitation](https://www.youtube.com/playlist?list=PLa16GBkPGYKv4n_a0BcKB_hUYMdiQVH55), highlighting different experiences from across the globe. Also available with subtitles in French and Spanish.

1. A plan will only be effective if the resources required to implement it exist. In the event that there are resource constraints, the plan must include realistic provisions for addressing those constraints. Training and capacity-building are often necessary aspects of institutional strengthening but will rarely be sufficient to bring about lasting institutional change unless accompanied by action to improve institutional systems. [↑](#footnote-ref-1)
2. If an investment in fecal sludge management will be considered, the generic FSM Terms of Reference (TOR) provide guidance on its development. Download a sample Terms of Reference here: bit.ly/FSMTOR1 [↑](#footnote-ref-2)
3. ‘Washers’ refers to people that use water for anal cleansing and ‘wipers’ are those that wipe using paper or other materials. [↑](#footnote-ref-3)
4. In many cases, it may make the most sense to assess willingness and ability to pay based on what households are currently paying for different services. If there is a desire to do a more detailed assessment, it is important that the analysis is done with sufficient rigor to justify the added expense to the planning process. Here are two additional resources that may be useful: (1) Sotomayor, Maria Angelica, 2003. Economic Analysis of Urban Upgrading Projects. En breve; no: 30. Washington, DC: World Bank. (2) Pattanayak, Subhrendu K.; van den Berg, Caroline; Yang, Jui-Chen; Van Houtven, George. 2006. The use of willingness to pay experiments : estimating demand for piped water connections in Sri Lanka (English). Policy, Research working paper ; no. WPS 3818. Washington, DC: World Bank.  [↑](#footnote-ref-4)
5. The World Bank’s overarching goals are to reduce extreme poverty and boost shared prosperity. World Bank supported projects often focus on identifying and correcting gender gaps to promote gender equality, improving citizen engagement, and addressing climate change through reduction of greenhouse gas emissions. [↑](#footnote-ref-5)
6. These overarching objectives are in line with the [Sustainable Development Goal 6](https://sustainabledevelopment.un.org/sdg6) that emphasizes access to adequate and equitable sanitation and hygiene for all, an end to open defecation, improving water quality, implementing integrated water resources management, and protecting and restoring ecosystems. [↑](#footnote-ref-6)
7. For technologies to be appropriate, they must address the issues in that location, help work towards the broader goals/objectives, be in line with social norms, take account of local environmental conditions, and be based on sound financing for both CAPEX and OPEX. [↑](#footnote-ref-7)